



# Definitive Interconnection System Impact Study for Generation Interconnection Requests

(DISIS-2013-002-1)

July 2014

**Generator Interconnection**

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## Revision History

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Date	Author	Change Description
01/31/2014	SPP	Report Issued (DISIS-2013-002)
07/31/2014	SPP	Account for Withdrawn Projects, Report Re-Posted (DISIS-2013-002-1)

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## Executive Summary

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Pursuant to the Generator Interconnection Procedures (GIP) of the Southwest Power Pool (SPP) Open Access Transmission Tariff (OATT), SPP has conducted this Definitive Interconnection System Impact Study (DISIS). The Interconnection Customers' requests have been clustered together for the following System Impact Cluster Study window which closed September 30, 2013. The customers will be referred to in this study as the DISIS-2013-002 Interconnection Customers. This System Impact Study analyzes the interconnecting of multiple generation interconnection requests associated with new generation totaling approximately 2,244.6 MW of new generation which would be located within the transmission systems of Grand River Dam Authority (GRDA), Lincoln Electric System (LES), Midwest Energy (MIDW), Nebraska Public Power District (NPPD), Oklahoma Gas and Electric (OKGE), Southwestern Public Service (SPS), and Sunflower Electric Power Corporation/Mid-Kansas Electric Power LLC (SUNC)/(MKEC). The various generation interconnection requests have differing proposed in-service dates<sup>1</sup>. The generation interconnection requests included in this System Impact Cluster Study are listed in Appendix A by their queue number, amount, requested interconnection service, area, requested interconnection point, proposed interconnection point, and the requested in-service date.

Power flow analysis has indicated that for the power flow cases studied, 2,244.6 MW of nameplate generation may be interconnected with transmission system reinforcements within the SPP transmission system. Dynamic stability and power factor analysis has determined the need for reactive compensation in accordance with FERC Order #661A for wind farm interconnection requests and those requirements are listed for each interconnection request within the contents of this report. Dynamic stability analysis has determined that the transmission system will remain stable with the assigned Network Upgrades and necessary reactive compensation requirements. Certain measures for mitigation of the Gentleman Stability interface have yet to be determined as of the posting of this DISIS. These measures will be further analyzed in the Facility Study phase.

In no way does this study guarantee operation for all periods of time. This interconnection study identifies and assigns transmission reinforcements for Energy Resource (ER) interconnection injection constraints (defined as a 20% distribution factor impact) and Network Resource (NR) constraints, if requested by the Customer. This interconnection study does not assign transmission reinforcements for all potential transmission constraints. 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, also known as curtailment, under certain system conditions to allow system operators to maintain the reliability of the transmission network.

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<sup>1</sup> The generation interconnection requests in-service dates will need to be deferred based on the required lead time for the Network Upgrades necessary. The Interconnection Customers that proceed to the Facility Study will be provided a new in-service date based on the Facility Study's time for completion of the Network Upgrades necessary.

The total estimated minimum cost for interconnecting the DISIS-2013-002 Interconnection Customers is estimated at \$83,162,424 not including the additional costs associated with mitigating the stability flowgate limit of Gerald Gentleman Station, which are yet to be determined. These costs are shown in Appendix E and F. Interconnection Service to DISIS-2013-002 Interconnection Customers is also contingent upon higher queued customers paying for certain required network upgrades. **The in-service date for the DISIS customers will be deferred until the construction of these network upgrades can be completed.**

These costs do not include the Interconnection Customer Interconnection Facilities as defined by the SPP Open Access Transmission Tariff (OATT). This cost does not include additional network constraints in the SPP transmission system identified and shown in Appendix H.

Network constraints listed in Appendix H are in the local area of the new generation when this generation is injected throughout the SPP footprint for Energy Resource Interconnection Service (ERIS) requests. Certain Interconnection Requests were also studied for Network Resource Interconnection Service (NRIS). Those constraints are also listed in Appendix H. Additional network constraints will have to be verified with a Transmission Service Request (TSR) and associated studies. With a defined source and sink in a TSR, this list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements.

The required interconnection costs listed in Appendix E and F do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request through SPP's Open Access Same Time Information System (OASIS) as required by Attachment Z1 of the SPP OATT.

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## Table of Contents

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<b>Introduction .....</b>	<b>1</b>
<b>Model Development.....</b>	<b>2</b>
<b>Identification of Network Constraints.....</b>	<b>6</b>
<b>Determination of Cost Allocated Network Upgrades .....</b>	<b>6</b>
<b>Required Interconnection Facilities .....</b>	<b>7</b>
<b>Power Flow Analysis.....</b>	<b>8</b>
<b>Stability Analysis .....</b>	<b>11</b>
<b>Conclusion.....</b>	<b>13</b>
<b>Appendices.....</b>	<b>14</b>
A: Generation Interconnection Requests Considered for Impact Study .....	A0
B: Prior Queued Interconnection Requests .....	B0
C: Study Groupings .....	C0
D: Proposed Point of Interconnection One Line Diagrams .....	D0
E: Cost Allocation per Interconnection Request (Including Prior Queued Upgrades) .....	E0
F: Cost Allocation per Proposed Study Network Upgrade .....	F0
G: Power Flow Analysis (Constraints Used For Mitigation) .....	G0
H: Power Flow Analysis (Other Constraints Not Requiring Mitigation) .....	H0
I: Power Flow Analysis (Constraints from Category C Contingencies) .....	I0

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## Introduction

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Pursuant to the Southwest Power Pool (SPP) Open Access Transmission Tariff (OATT), SPP has conducted this Definitive Interconnection System Impact Study (DISIS) for certain generation interconnection requests in the SPP Generation Interconnection Queue. These interconnection requests have been clustered together for the following System Impact Study window which closed September 30, 2013. The customers will be referred to in this study as the DISIS-2013-002 Interconnection Customers. This DISIS analyzes the interconnecting of multiple generation interconnection requests associated with new generation totaling 2,244.6 MW which would be located within the transmission systems of Grand River Dam Authority (GRDA), Lincoln Electric System (LES), Midwest Energy (MIDW), Nebraska Public Power District (NPPD), Oklahoma Gas and Electric (OKGE), Southwestern Public Service (SPS), and Sunflower Electric Power Corporation/Mid-Kansas Electric Power LLC (SUNC)/(MKEC). The various generation interconnection requests have differing proposed in-service dates<sup>2</sup>. The generation interconnection requests included in this System Impact Study are listed in Appendix A by their queue number, amount, requested interconnection service, area, requested interconnection point, proposed interconnection point, and the requested in-service date.

The primary objective of this DISIS is to identify the system constraints associated with connecting the generation to the area transmission system. The Impact Study and other subsequent Interconnection Studies are designed to identify required interconnection facilities, Network Upgrades and other Direct Assignment Facilities needed to accept power into the grid at each specific interconnection receipt point.

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<sup>2</sup> The generation interconnection requests in-service dates will need to be deferred based on the required lead time for the Network Upgrades necessary. The Interconnection Customers that proceed to the Facility Study will be provided a new in-service date based on the completion of the Facility Study.

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## Model Development

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### Interconnection Requests Included in the Cluster

SPP included all interconnection requests that submitted a Definitive Interconnection System Impact Study Agreement no later than September 30, 2013 and were subsequently accepted by Southwest Power Pool under the terms of the Generator Interconnection Procedures (GIP). The interconnection requests that are included in this study are listed in Appendix A.

### Affected System Interconnection Request

Also included in this Definitive Interconnection System Impact Study are two Affected System Studies. The Affected System Study Requests have been given the designations: ASGI-2013-004, a 28MW/36MW combustion gas turbine interconnecting to the Garden City, Kansas, municipal 34.5kV distribution system (with a point of interconnection on Sunflower Electric Power Corporation at Morris 115kV) and ASGI-2013-005, a 1.8MW increase of the previously studied ASGI-2012-002 request on the Farmers Electric Cooperative of New Mexico transmission system at Clovis 115kV (on the Southwestern Public Service system).

### Previously Queued Interconnection Requests

The previous queued requests included in this study are listed in Appendix B. In addition to the Base Case Upgrades, the previous queued requests and associated upgrades were assumed to be in-service and added to the Base Case models. These projects were dispatched as Energy Resources with equal distribution across the SPP footprint. Prior queued projects that requested Network Resource Interconnection Service (NRIS) were dispatched in an additional analysis into the balancing authority of the interconnecting transmission owner.

## Development of Base Cases

### Power Flow

The 2013 series Transmission Service Request (TSR) Models including the 2014 (spring, summer and winter peak seasons), the 2019 (summer and winter peak seasons), and the 2024 (summer peak season) scenario 0 cases were used for this study. After the cases were developed, each of the control areas' resources were then re-dispatched to account for the new generation requests using current dispatch orders.

### Dynamic Stability

The 2013 series SPP Model Development Working Group (MDWG) Models 2014 winter, 2015 summer, and 2024 summer peak cases were used as starting points for this study.

### Base Case Upgrades

The following facilities are part of the SPP Transmission Expansion Plan, the Balanced Portfolio or recently approved Priority Projects. These facilities have an approved Notification to Construct (NTC) or are in construction stages and were assumed to be in-service at the time of dispatch and added to the base case models. The DISIS-2013-002 Interconnection Customers have not been assigned costs for the below listed projects. The DISIS-2013-002 Interconnection Customers Generation Facilities in service dates may need to be delayed until the completion of the following

upgrades. If for some reason, construction on these projects is discontinued, additional restudies will be needed to determine the interconnection needs of the DISIS Interconnection Customers.

- **Balanced Portfolio Projects<sup>3</sup>:**
  - Woodward – Border – TUCO 345kV project, scheduled for 9/30/2014 in-service
    - Woodward 345/138kV circuit #2 autotransformer, placed in-service in 2014
    - TUCO 345/138kV circuit #2 autotransformer, placed in-service in 2014
    - Reactors at Woodward and Border, placed in-service in 2014
  - Iatan – Nashua 345kV, scheduled for 6/1/2015 in-service
    - Nashua 345/161kV autotransformer
- **Priority Projects<sup>4</sup>:**
  - Hitchland – Woodward double circuit 345kV, , placed in-service in 2014
    - Hitchland 345/230kV circuit #2 autotransformer, placed in-service in 2014
  - Woodward – Thistle double circuit 345kV, scheduled for 12/31/2014 in-service
  - Spearville – Ironwood – Clark County double circuit 345kV, scheduled for 12/31/2014 in-service
  - Clark County – Thistle double circuit 345kV, scheduled for 12/31/2014 in-service
  - Thistle – Wichita double circuit 345kV, placed in-service in 2014
  - Thistle 345/138kV autotransformer, placed in-service in 2014
  - Thistle – Flat Ridge 138kV, placed in-service in 2014
- St. John – Barber 115kV rebuild, placed in-service in 2014
- Northwest 345/138/13.8kV circuit #3 autotransformer, scheduled for 6/1/2015 in-service<sup>6</sup>
- Ogallala 230/115/13kV Transformer circuit #1 replacement, placed in-service in 2014<sup>7</sup>
- Hoskins – Neligh East Projects, scheduled for 6/1/2016 in-service<sup>8</sup>
  - Neligh East 345/115kV substation and transformer
  - Neligh East Area 115kV upgrades to support new station
  - Hoskins – Neligh East 345kV circuit #1
- Maxwell – North Platte 115kV terminal equipment upgrade, placed in-service in 2014<sup>9</sup>
- Yoakum 230/115kV autotransformer CKT 1 and 2 replacements, scheduled for 6/1/2019 in-service
- Lubbock South 230/115kV Autotransformer circuit #2 addition, scheduled for 12/31/2014
- Dobson – Gano 115kV replace terminal equipment, placed in-service in 2014
- Garden City – Kansas Ave Water Treatment Plant 115kV replace terminal equipment, placed in-service in 2014
- Mustang – Yoakum 230kV circuit #1 replace line traps, placed in-service in 2014

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<sup>3</sup> Notification to Construct (NTC) issued June 2009

<sup>4</sup> Notification to Construct (NTC) issued June 2010

<sup>6</sup> SPP Transmission Service Project identified in SPP 2009-AG2-AFS6. Per SPP NTC 20137 & 200194

<sup>7</sup> Notification to Construct (NTC) SPP-2009-AGP1-AFS-5 Per SPP-NTC-20117

<sup>8</sup> SPP Regional Reliability 2012 ITP 10 Project Per SPP-NTC-200220

<sup>9</sup> SPP Regional Reliability 2014 ITPNT Per SPP-NTC-200253



## Contingent Upgrades

The following facilities do not yet have approval. These facilities have been assigned to higher queued interconnection customers. These facilities have been included in the models for the DISIS-2013-002 study and are assumed to be in service. This list may not be all inclusive. The DISIS-2013-002 Interconnection Customers, at this time, do not have responsibility for these facilities but may later be assigned the cost of these facilities if higher queued customers terminate their Generation Interconnection Agreement or withdraw from the interconnection queue. The DISIS-2013-002 Interconnection Customer Generation Facilities in-service dates may need to be delayed until the completion of the following upgrades.

- Upgrades assigned to DISIS-2009-001 Interconnection Customers:
  - Lancer Project
    - Spearville – Lancer 345kV addition
    - Lancer 345/115kV transformer circuit #1 addition
    - Lancer – North Ft. Dodge 115kV addition
    - Ft Dodge – North Ft. Dodge circuit #2 addition
    - Move Fort Dodge terminal of Shooting Star 115kV at North Ft Dodge
  - Fort Randall – Meadow Grove – Kelly 230kV circuit #1 rerate (320MVA)
- Upgrades assigned to DISIS-2010-001 Interconnection Customers:
  - Beaver County 345kV Expansion (Tap & Tie Hitchland – Woodward circuit #2 into Beaver County 345kV)
  - Switch 2749 – Wildorado 69kV circuit # 1 rebuild
- Upgrades assigned to DISIS-2010-002 Interconnection Customers:
  - Twin Church – Dixon County 230kV circuit #1 rerate (320MVA)
  - Buckner – Spearville 345kV terminal equipment
- Upgrades assigned to DISIS-2011-001 Interconnection Customers:
  - Hoskins – Dixon County – Twin Church 230kV circuit #1 conductor clearance increase
  - (NRIS only) Wolfforth Interchange 230/115/13.2kV transformer circuit #1
  - (NRIS only) New Deal – TUCO 345kV/115kV Project
  - (NRIS only) Woodward – FPL Switch – Mooreland 138kV circuit #1 rebuild
  - (NRIS Only) Glass Mountain – Mooreland 138 kV rebuild
- Upgrades assigned to DISIS-2011-002 interconnection Customers:
  - Power System Stabilizers - Install Power System Stabilizers @ Tolk (Units: 1,2) and Jones (Units: 1,2,3,4)
  - Jones – Lubbock South 230kV circuit #2 replace line traps
  - West Brock – SUB 967 – SUB 968 – SUB 969 – SUB 974 69kV circuit #1 replace terminal equipment
  - (NRIS only) Hydro Carbon Tap - Sub974 69kV circuit #1 rewire CT
  - (NRIS only) Nebraska City U Syracuse – SUB 970 circuit #1 replace terminal equipment
- Upgrades assigned to DISIS-2012-001 interconnection Customers:
  - GEN-2011-017 Tap +100 Mvar Static Var Compensator (SVC) and 100 Mvar Capacitor Bank(s)

- Upgrades assigned to DISIS-2012-002 interconnection Customers:
  - Amoco Wasson – Oxy Tap 230kV circuit #1 replace line traps
  - Associated Electric Cooperative Inc (AECI) Fairfax 138/69kV transformer replacement
  - Lake Creek – Lone Wolf 69kV circuit #1 reset CT
  - Remington – Fairfax 138kV circuit #1 conductor clearance increase
  - Thistle +100 Mvar Static Var Compensator (SVC) and 100 Mvar Capacitor Bank(s)
  
- Upgrades assigned to DISIS-2013-001 interconnection Customers:
  - Deaf Smith – Plant X 230kV circuit #1 line trap replacements
  - 60 Mvar Capacitor Bank(s) at Oklaunion
  - Meadow Grove, North Petersburg, and South Norfolk 345/230/115kV Projects
    - Meadow Grove 115kV substation bay and 230/115kV transformer circuit #1
    - Meadow Grove – North Petersburg 115kV circuit #1
    - Meadow Grove – South Norfolk 230kV circuit #1
    - South Norfolk 345/230kV substation and 345/230kV transformer circuit #1
  - Tolk – Plant X 230kV circuit #3 addition
  - Thistle +100 Mvar Static Var Compensator (SVC) and 75 Mvar Capacitor Bank(s)
  - Vinita – Vinita Junction 69kV rebuild
  - Vinita Junction 138/69/13.2kV transformer circuit #1 replacement
  - (NRIS only) Plant X 230/115/13kV transformer circuit #2 addition

### Potential Upgrades Not in the Base Case

Any potential upgrades that do not have a Notification to Construct (NTC) and not explicitly listed within this report have not been included in the base case. These upgrades include any identified in the SPP Extra-High Voltage (EHV) overlay plan, or any other SPP planning study other than the upgrades listed above in the previous section.

### Regional Groupings

The interconnection requests listed in Appendix A were grouped together into twelve active regional groups based on geographical and electrical impacts. These groupings are shown in Appendix C.

To determine interconnection impacts, fifteen different generation dispatch scenarios of the spring base case models were developed to accommodate the regional groupings.

### Power Flow

For Energy Resource Interconnection Service (ERIS), the wind generating plants were modeled at 100% nameplate of maximum generation. The other wind generating plants in the area were modeled at 80% nameplate while the wind generating plants in the remote areas were modeled at 20% nameplate of maximum generation. These projects were dispatched as Energy Resources with a load factor by area distribution across the SPP footprint. All wind generators that requested Network Resource Interconnection Service (NRIS) were dispatched in an additional analysis into the balancing authority of the interconnecting transmission owner at 100% nameplate. This method allowed for the identification of network constraints that were common to the regional groupings that could then in turn have the mitigating upgrade cost allocated throughout the entire cluster.

Other sensitivity analyses are also performed with all interconnection requests in each group being dispatched at 100% nameplate.

Peaking units were not dispatched in the 2014 spring model. To study peaking units' impacts, the 2014 summer and winter and 2019 summer and winter, and 2024 summer seasonal models were chosen and peaking units were modeled at 100% of the nameplate rating and wind generating facilities were modeled at 10% of the nameplate rating. Each interconnection request was also modeled separately at 100% nameplate for certain analyses.

### **Dynamic Stability**

For each group, all interconnection requests were studied at 100% nameplate output while the other groups were dispatched at 20% output for wind requests and 100% output for thermal requests.

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## **Identification of Network Constraints**

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The initial set of network constraints were found by using PSS®MUST First Contingency Incremental Transfer Capability (FCITC) analysis on the entire cluster grouping dispatched at the various levels mentioned above. These constraints were then screened to determine which of the generation interconnection requests had at least a 20% Distribution Factor (DF) upon the constraint. Constraints that measured at least a 20% DF from at least one interconnection request were considered for transmission reinforcement. In addition, stability issues are also considered for transmission reinforcement. Interconnection Requests that have requested Network Resource Interconnection Service (NRIS) were also studied in the NRIS analysis to determine if any constraint had at least a 3% DF. If so, these constraints were also considered for mitigation.

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## **Determination of Cost Allocated Network Upgrades**

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Cost Allocated Network Upgrades of wind generation interconnection requests were determined using the 2014 spring model. Cost Allocated Network Upgrades of peaking units was determined using the 2019 summer peak model. A PSS®MUST sensitivity analysis was performed to determine the Distribution Factors (DF), a distribution factor with no contingency that each generation interconnection request had on each new upgrade. The impact each generation interconnection request had on each upgrade project was weighted by the size of each request. Finally the costs due by each request for a particular project were then determined by allocating the portion of each request's impact over the impact of all affecting requests.

For example, assume that there are three Generation Interconnection requests, X, Y, and Z that are responsible for the costs of Upgrade Project '1'. Given that their respective PTDF for the project have been determined, the cost allocation for Generation Interconnection request 'X' for Upgrade Project 1 is found by the following set of steps and formulas:

- Determine an Impact Factor on a given project for all responsible GI requests:

$$\text{Request X Impact Factor on Upgrade Project 1} = \text{PTDF}(X) * \text{MW}(X) = X1$$

$$\text{Request Y Impact Factor on Upgrade Project 1} = \text{PTDF}(Y) * \text{MW}(Y) = Y1$$

$$\text{Request Z Impact Factor on Upgrade Project 1} = \text{PTDF}(Z) * \text{MW}(Z) = Z1$$

- Determine each request's Allocation of Cost for that particular project:

$$\text{Request X's Project 1 Cost Allocation (\$)} = \frac{\text{Network Upgrade Project 1 Cost(\$)} * X1}{X1 + Y1 + Z1}$$

- Repeat previous for each responsible GI request for each Project

The cost allocation of each needed Network Upgrade is determined by the size of each request and its impact on the given project. This allows for the most efficient and reasonable mechanism for sharing the costs of upgrades.

### **Credits for Amounts Advanced for Network Upgrades**

Interconnection Customer shall be entitled to credits in accordance with Attachment Z2 of the SPP Tariff for any Network Upgrades including any tax gross-up or any other tax-related payments associated with the Network Upgrades, and not refunded to the Interconnection Customer.

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## **Required Interconnection Facilities**

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The requirement to interconnect the 2,244.6 MW of generation into the existing and proposed transmission systems in the affected areas of the SPP transmission footprint consist of the necessary cost allocated shared facilities listed in Appendix F by upgrade. The interconnection requirements for the cluster total an estimated \$83,162,424 plus the costs associated with mitigating the stability flowgate limit of Gerald Gentleman Station which are yet to be determined. Interconnection Facilities specific to each generation interconnection request are listed in Appendix E. A preliminary one-line drawing for each generation interconnection request are listed in Appendix D.

A list of constraints that were identified and used for mitigation are listed in Appendix G. Listed within Appendix G are the ERIS constraints with greater than or equal to a 20% DF, as well as, the NRIS constraints that have a DF of 3% or greater. Other Network Constraints which are not requiring mitigation are shown in Appendix H. With a defined source and sink in a TSR, this list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements. Additional constraints identified by multi-element contingencies are listed in Appendix I.

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# Power Flow Analysis

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## Power Flow Analysis Methodology

The ACCC function of PSS®E was used to simulate single element and special (i.e., breaker-to-breaker, multi-element, etc) contingencies in portions or all of the modeled control areas of SPP, as well as, other control areas external to SPP and the resulting scenarios analyzed. Single element and multi-element contingencies were evaluated.

## Power Flow Analysis

A power flow analysis was conducted for each Interconnection Customer's facility using modified versions of the 2014 spring peak, 2014 summer and winter peak, and the 2019 summer and winter peak, 2024 summer peak models. The output of the Interconnection Customer's facility was offset in each model by a reduction in output of existing online SPP generation. This method allows the request to be studied as an Energy Resource Interconnection Service request (ERIS). Certain requests that are pursuing Network Resource Interconnection Service (NRIS) had an additional analysis conducted for displacing resources in the interconnecting Transmission Owner's balancing authority.

This analysis was conducted assuming that previous queued requests in the immediate area of these interconnect requests were in-service. The analysis of each Customer's project indicates that criteria violations will occur on the AECl, GRDA, NPPD, OKGE, SUNC/MKEC, WERE, and WAPA transmission systems under system intact and contingency conditions in the peak seasons.

### Cluster Group 1 (Woodward Area)

In addition to the 5,195.1 MW of previously queued generation in the area, 123.6 MW of new interconnection service was studied. No ERIS constraints that require reinforcement were found in this area. GEN-2013-034 has dropped its request for NRIS and no NRIS upgrades are required.

### Cluster Group 2 (Hitchland Area)

In addition to the 2,961.2 MW of previously queued generation in the area, 300.0 MW of new interconnection service was studied. No ERIS constraints that require reinforcement were found in this area.

### Cluster Group 3 (Spearville Area)

In addition to the 4,489.4 MW of previously queued generation in the area, 0.0 MW of new interconnection service was studied. No new constraints were found in this area.

### Cluster Group 4/11 (NW Kansas Group)

In addition to the 1,988.1 MW of previously queued generation in the area, 57.6 MW of new interconnection service was studied. Constraints observed in the analysis were determined to be due to terminal equipment limitations which the Transmission Owner has since replaced.

### Cluster Group 5 (Amarillo Area)

In addition to the 944.1 MW of previously queued generation in the area, 370.0 MW of new interconnection service was studied. Eris constraints were identified on the Bushland – Potter 230kV line, Bushland 230/115/13kV Transformer and Bushland Interchange – Hillside – Coulter Interchange 115kV circuit #1. A new 230kV transmission line from Bushland to a new substation (Bushland South) on Potter County – Plant X 230kV transmission line and replacing terminal equipment on the Bushland – Potter 230kV line will relieve these constraints.

ERIS Constraints			
MONITORED ELEMENT	RATE B (MVA)	TC%LOADING (% MVA)	CONTINGENCY
BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1	160	139.3433	BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1
BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1	351	109.4112	SYSTEM INTACT
BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1	168	139.2493	BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1
COULTER INTERCHANGE - HILLSIDE 115KV CKT 1	176	115.0009	BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1

NRIS Constraints			
MONITORED ELEMENT	RATE B (MVA)	TC%LOADING (% MVA)	CONTINGENCY
COULTER INTERCHANGE - HILLSIDE 115KV CKT 1	176	142.8307	BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1
BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1	168	162.822	BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1
BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1	160	165.8101	BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1

### Cluster Group 6 (South Texas Panhandle/New Mexico)

In addition to the 3,681.85 MW of previously queued generation in the area, 26.8 MW of new interconnection service was studied. No new constraints were found in this area.

### Cluster Group 7 (Southwestern Oklahoma)

In addition to the 1,900.0 MW of previously queued generation in the area, 0.0 MW of new interconnection service was studied. No new constraints were found in this area.

### Cluster Group 8 (South Central Kansas/North Oklahoma)

In addition to the 3,004.6 MW of previously queued generation in the area, 859.5 MW of new interconnection service was studied. 559.0 MW (GEN-2013-028) of this amount has requested interconnection service given retirement of an existing 490.0 MW of generation located nearby, effectively making the net increase in generation and change in location the subject of study for this request. Eris constraint on Viola – Wichita 345kV circuit #1 is identified for the loss of Hunter – Woodring 345kV circuit #1. Upgrading terminal equipment on Viola – Wichita 345kV circuit #1 will mitigate the overload.

ERIS Constraints			
MONITORED ELEMENT	RATE B (MVA)	TC%LOADING (% MVA)	CONTINGENCY
VIOLA 7 345.00 - WICHITA 345KV CKT 1	1035	101.3548	HUNTERS7 345.00 - WOODRING 345KV CKT 1

### Cluster Group 9/10 (Nebraska)

In addition to the 2,006.9 MW of previously queued generation in the area, 507.1 MW of new interconnection service was studied. ERIS constraints on the Ogallala 230/115/13kV transformer, GGS flowgate, and overloads in the Battle Creek area are identified. ERIS mitigations at this time will include the need for Ogallala 230/115/13kV transformer replacement per SPP-NTC-20117, the Neligh – Hoskins 345kV Project per SPP-NTC-200220. The transmission owner will further review the GGS flowgate violation during the Facility Study (currently in progress). In addition to the ERIS mitigations, for Interconnection Requests with NRIS, a number of additional upgrades were identified in Appendices E and F for mitigation of overloads.

ERIS Constraints			
MONITORED ELEMENT	RATE B (MVA)	TC%LOADING (% MVA)	CONTINGENCY
BATTLE CREEK - COUNTY LINE 115KV CKT 1	120	122.6091	BLOOMFIELD - GAVINS POINT 115KV CKT 1
BATTLE CREEK - NORTH NORFOLK 115KV CKT 1	120	117.0857	BLOOMFIELD - GAVINS POINT 115KV CKT 1
GGG FLOWGATE	1635	100.1063	BASE CASE
OGALLALA (OGALLALA T1) 230/115/13.8KV TRANSFORMER CKT 1	187	103.8513	GERALD GENTLEMAN STATION - OGALLALA 230KV CKT 1

NRIS Constraints			
MONITORED ELEMENT	RATE B (MVA)	TC%LOADING (% MVA)	CONTINGENCY
MAXWELL - NORTH PLATTE 115KV CKT 1	160	114.5944	CROOKED CREEK - NORTH PLATTE 230KV CKT 1
OGALLALA (OGALLALA T1) 230/115/13.8KV TRANSFORMER CKT 1	187	103.8513	GERALD GENTLEMAN STATION - OGALLALA 230KV CKT 1

### Cluster Group 12 (Northwest Arkansas)

In addition to the 30.0 MW of previously queued generation in the area, 0.0 MW of new interconnection service was studied. No new constraints were found in this area.

### Cluster Group 13 (Northwest Missouri)

In addition to the 375.8 MW of previously queued generation in the area, 0.0 MW of new interconnection service was studied. No new constraints were found in this area.

### Cluster Group 14 (South Central Oklahoma)

In addition to the 362.5 MW of previously queued generation in the area, 0.0 MW of new interconnection service was studied. No new constraints were found in this area.

## 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, also known as curtailment, under certain system conditions to allow system operators to maintain the reliability of the transmission network.

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## Stability Analysis

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A stability analysis was conducted for each Interconnection Customer using modified versions of the 2013 series SPP Model Development Working Group (MDWG) Models 2014 winter, 2015 summer, and 2024 summer peak dynamic cases. The stability analysis was conducted with all upgrades in service that were identified in the power flow analysis. For each group, the interconnection requests were studied at 100% nameplate output while the other groups were dispatched at 20% output for wind requests and 100% output for fossil requests. The output of the Interconnection Customer's facility was offset in each model by a reduction in output of existing online SPP generation. Complete stability study reports for each affected group are included within the Appendices.

### **Cluster Group 1 (Woodward Area)**

The Group 1 stability analysis for this restudy was performed by SPP Staff. The analysis was performed to evaluate the impacts of the removal of the previously assigned Tatonga – Mathewson – Cimarron 345kV line and the Beaver – Buckner 345kV line. Stability analysis has determined that when all previously assigned and currently assigned network upgrades are placed in-service the transmission system will remain stable and low voltage ride through requirements are satisfied for the contingencies studied.

Power Factor analysis was not performed again for this restudy. With the power factor requirements and all network upgrades in service, all interconnection request in Group 1 will meet FERC Order #661A low voltage ride through (LVRT) requirements.

### **Cluster Group 2 (Hitchland Area)**

The Group 2 stability analysis for this restudy was performed by SPP Staff. The analysis was performed to evaluate the impacts of the removal of the previously assigned Tatonga – Mathewson – Cimarron 345kV line and the Beaver – Buckner 345kV line. Stability analysis has determined that when all previously assigned and currently assigned network upgrades are placed in-service the transmission system will remain stable and low voltage ride through requirements are satisfied for the contingencies studied.

Power Factor analysis was not performed again for this restudy. With the power factor requirements and all network upgrades in service, all interconnection request in Group 2 will meet FERC Order #661A low voltage ride through (LVRT) requirements.

### **Cluster Group 3 (Spearville Area)**

There was no stability analysis conducted in the Spearville area due to no requests in the area.

### **Cluster Group 4/11 (Northwest Kansas Area)**

The Group 4 stability analysis was not performed again for this restudy. The original analysis in DISIS-2013-002 is still valid.



**Cluster Group 5 (Amarillo Area)**

The Group 5 stability analysis was not performed again for this restudy. The original analysis in DISIS-2013-002 is still valid.

**Cluster Group 6 (South Texas Panhandle/New Mexico)**

The Group 6 stability analysis was not performed again for this restudy. The original analysis in DISIS-2013-002 is still valid.

**Cluster Group 7 (Southwest Oklahoma Area)**

There was no stability analysis conducted in the southwest Oklahoma area due to no requests in the area.

**Cluster Group 8 (South Central Kansas/North Oklahoma)**

The Group 8 stability analysis was not performed again for this restudy. The original analysis in DISIS-2013-002 is still valid.

**Cluster Group 9/10 (Nebraska)**

The Group 9/10 stability analysis was not performed again for this restudy. The original analysis in DISIS-2013-002 is still valid.

**Cluster Group 12 (Northwest Arkansas Area)**

The Group 12 stability analysis was not performed again for this restudy. The original analysis in DISIS-2013-002 is still valid.

**Cluster Group 13 (Northwest Missouri Area)**

There was no stability analysis conducted in the Northwest Missouri area due to no requests in the area.

**Cluster Group 14 (South Central Oklahoma)**

There was no stability analysis conducted in the South Central Oklahoma area due to no requests in the area.

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## Conclusion

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The minimum cost of interconnecting 2,244.6 MW of new interconnection requests included in this Definitive Interconnection System Impact Study is estimated at \$83,162,424 not including the additional costs associated with mitigating the stability flowgate limit of Gerald Gentleman Station, which are yet to be determined. for the Allocated Network Upgrades and Transmission Owner Interconnection Facilities are listed in Appendix E and F. These costs do not include the cost of upgrades of other transmission facilities listed in Appendix H which are Network Constraints.

These interconnection costs do not include any cost of Network Upgrades determined to be required by short circuit analysis. These studies will be performed if the Interconnection Customer executes the appropriate Interconnection Facilities Study Agreement and provides the required data along with demonstration of Site Control and the appropriate deposit. At the time of the Interconnection Facilities Study, a better determination of the interconnection facilities may be available.

The required interconnection costs listed in Appendices E, and F, and other upgrades associated with Network Constraints do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request (TSR) through SPP's Open Access Same Time Information System (OASIS) as required by Attachment Z1 of the SPP Open Access Transmission Tariff (OATT).

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# Appendices

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**A: Generation Interconnection Requests Considered for Impact Study**

See next page.

## **A: Generation Interconnection Requests Considered for Impact Study**

Request	Amount	Service	Area	Requested Point of Interconnection	Proposed Point of Interconnection	Requested In-Service Date	In Service Date Delayed Until no earlier than*
ASGI-2013-004	29.60	ER	SUNCMKEC	Morris 115kV	Morris 115kV		
ASGI-2013-005	1.80	ER	SPS	FE Clovis 115kV	FE Clovis 115kV		
GEN-2013-019	73.60	ER/NR	LES	Tap Sheldon - Folsom & Pleasant Hill (GEN-2013-002 Tap) 115kV CKT 2	Tap Sheldon - Folsom & Pleasant Hill (GEN-2013-002 Tap) 115kV CKT 2	6/30/2014	TBD
GEN-2013-021	229.50	ER/NR	NPPD	Ogallala 230kV	Ogallala 230kV	12/1/2016	TBD
GEN-2013-022	25.00	ER/NR	SPS	Norton 115kV	Norton 115kV	5/1/2015	TBD
GEN-2013-025	50.00	ER	OKGE	Tap Cimarron - Woodring (Mathewson) 345kV	Tap Cimarron - Woodring (Mathewson) 345kV	9/30/2015	TBD
GEN-2013-028	559.50	ER	GRDA	Tap N Tulsa - GRDA 1 345kV	Tap N Tulsa - GRDA 1 345kV	4/16/2016	TBD
GEN-2013-029	300.00	ER	OKGE	Renfrow 345kV	Renfrow 345kV	12/15/2015	TBD
GEN-2013-030	300.00	ER	OKGE	Tap Hitchland - Woodward Dbl Ckt (Beaver County) 345kV	Tap Hitchland - Woodward Dbl Ckt (Beaver County) 345kV	12/15/2015	TBD
GEN-2013-031	370.00	ER	SPS	Bushland 230kV	Bushland 230kV	6/1/2016	TBD
GEN-2013-032	204.00	ER	NPPD	Neligh 115kV	Neligh 115kV	12/31/2016	TBD
GEN-2013-033	28.00	ER/NR	MIDW	Goodman Energy Center 115kV	Goodman Energy Center 115kV	12/31/2015	TBD
GEN-2013-034	73.60	ER	OKGE	Tap Hitchland - Woodward Dbl Ckt (GEN-2013-034 Tap) 345kV	Tap Hitchland - Woodward Dbl Ckt (GEN-2013-034 Tap) 345kV	12/31/2014	TBD
<b>Total: 2,244.60</b>							

\*Requests that are dependent upon Priority Projects or Balanced Portfolio may be delayed until 12/31/2014. Other requests in-service date to be determined after Facility Study.

## **B: Prior Queued Interconnection Requests**

See next page.

## **B: Prior Queued Interconnection Requests**

Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
ASGI-2010-006	150.00	AECI	Tap Fairfax (AECI) - Shilder (AEPW) 138kV	AECI queue Affected Study
ASGI-2010-010	42.20	SPS	Lovington 115kV	Lea County Affected Study
ASGI-2010-020	30.00	SPS	Tap LE-Tatum - LE-Crossroads 69kV	Lea County Affected Study
ASGI-2010-021	15.00	SPS	Tap LE-Saunders Tap - LE-Anderson 69kV	Lea County Affected Study
ASGI-2011-001	28.80	SPS	Lovington 115kV	On-Line
ASGI-2011-002	20.00	SPS	Herring 115kV	On-Line
ASGI-2011-003	10.00	SPS	Hendricks 115kV	On-Line
ASGI-2011-004	20.00	SPS	Pleasant Hill 69kV	Under Study (DISIS-2011-002)
ASGI-2012-002	18.15	SPS	FE-Clovis Interchange 115kV	Under Study (DISIS-2012-002)
ASGI-2012-006	22.50	SUNCMKEC	Tap Hugoton - Rolla 69kV	Under Study (DISIS-2012-001)
ASGI-2013-001	11.50	SPS	PanTex South 115kV	Under Study (DISIS-2013-001)
ASGI-2013-002	18.40	SPS	FE Tucumcari 115kV	Under Study (DISIS-2013-001)
ASGI-2013-003	18.40	SPS	FE Clovis 115kV	Under Study (DISIS-2013-001)
ASGI-2013-006	2.00	SPS	SP-Erskine 115kV	
ASGI-2013-007	90.00	AECI	Tap Hickory Creek - Locust Creek 161kV	AECI System Impact Study
GEN-2001-014	96.00	WFEC	Ft Supply 138kV	On-Line
GEN-2001-026	74.00	WFEC	Washita 138kV	On-Line
GEN-2001-033	180.00	SPS	San Juan Tap 230kV	On-Line at 120MW
GEN-2001-036	80.00	SPS	Norton 115kV	On-Line
GEN-2001-037	100.00	OKGE	FPL Moreland Tap 138kV	On-Line
GEN-2001-039A	105.00	SUNCMKEC	Tap Greensburg - Ft Dodge (Shooting Star Tap) 115kV	On-Line
GEN-2001-039M	100.00	SUNCMKEC	Central Plains Tap 115kV	On-Line
GEN-2002-004	200.00	WERE	Latham 345kV	On-Line at 150MW
GEN-2002-005	120.00	WFEC	Red Hills Tap 138kV	On-Line
GEN-2002-008	240.00	SPS	Hitchland 345kV	On-Line at 120MW
GEN-2002-009	80.00	SPS	Hansford 115kV	On-Line
GEN-2002-022	240.00	SPS	Bushland 230kV	On-Line
GEN-2002-023N	0.80	NPPD	Harmony 115kV	On-Line
GEN-2002-025A	150.00	SUNCMKEC	Spearville 230kV	On-Line
GEN-2003-004	100.00	WFEC	Washita 138kV	On-Line
GEN-2003-005	100.00	WFEC	Anadarko - Paradise (Blue Canyon) 138kV	On-Line
GEN-2003-006A	200.00	SUNCMKEC	Elm Creek 230kV	On-Line
GEN-2003-019	250.00	MIDW	Smoky Hills Tap 230kV	On-Line
GEN-2003-020	160.00	SPS	Martin 115kV	On-Line
GEN-2003-021N	75.00	NPPD	Ainsworth Wind Tap 115kV	On-Line
GEN-2003-022	120.00	AEPW	Washita 138kV	On-Line
GEN-2004-014	154.50	SUNCMKEC	Spearville 230kV	On-Line at 100MW
GEN-2004-020	27.00	AEPW	Washita 34.5kV	On-Line
GEN-2004-023	20.60	WFEC	Washita 138kV	On-Line
GEN-2004-023N	75.00	NPPD	Columbus Co 115kV	On-Line
GEN-2005-003	30.60	WFEC	Washita 138kV	On-Line
GEN-2005-008	120.00	OKGE	Woodward 138kV	On-Line
GEN-2005-012	250.00	SUNCMKEC	Ironwood 345kV	On-Line at 160MW
GEN-2005-013	201.00	WERE	Tap Latham - Neosho (Caney River) 345kV	On-Line
GEN-2006-002	101.00	AEPW	Sweetwater 230kV	On-Line
GEN-2006-006	205.50	SUNCMKEC	Spearville 345kV	On Suspension
GEN-2006-018	170.00	SPS	TUCO Interchange 230kV	On-Line

Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
GEN-2006-020N	42.00	NPPD	Bloomfield 115kV	On-Line
GEN-2006-020S	18.90	SPS	DWS Frisco 115kV	On-Line
GEN-2006-021	101.00	SUNCMKEC	Flat Ridge Tap 138kV	On-Line
GEN-2006-024S	19.80	WFEC	Buffalo Bear Tap 69kV	On-Line
GEN-2006-026	604.00	SPS	Hobbs 230kV & Hobbs 115kV	On-Line
GEN-2006-031	75.00	MIDW	Knoll 115kV	On-Line
GEN-2006-035	225.00	AEPW	Sweetwater 230kV	On-Line at 132MW
GEN-2006-037N1	75.00	NPPD	Broken Bow 115kV	On Schedule for 2014
GEN-2006-038N005	80.00	NPPD	Broken Bow 115kV	On-Line
GEN-2006-038N019	80.00	NPPD	Petersburg North 115kV	On-Line
GEN-2006-040	108.00	SUNCMKEC	Mingo 115kV	On Suspension
GEN-2006-043	99.00	AEPW	Sweetwater 230kV	On-Line
GEN-2006-044	370.00	SPS	Hitchland 345kV	On-Line at 120MW
GEN-2006-044N	40.50	NPPD	North Petersburg 115kV	On-Line
GEN-2006-046	131.00	OKGE	Dewey 138kV	On-Line
GEN-2007-011	135.00	SUNCMKEC	Syracuse 115kV	On Suspension
GEN-2007-011N08	81.00	NPPD	Bloomfield 115kV	On-Line
GEN-2007-021	201.00	OKGE	Tatonga 345kV	On Schedule for 2014
GEN-2007-025	300.00	WERE	Viola 345kV	On-Line
GEN-2007-032	150.00	WFEC	Tap Clinton Junction - Clinton 138kV	On Suspension
GEN-2007-038	200.00	SUNCMKEC	Spearville 345kV	On Schedule for 2015
GEN-2007-040	200.00	SUNCMKEC	Buckner 345kV	On-Line at 132MW
GEN-2007-043	200.00	OKGE	Minco 345kV	On-Line
GEN-2007-044	300.00	OKGE	Tatonga 345kV	On Schedule for 2014
GEN-2007-046	199.50	SPS	Hitchland 115kV	On Schedule for 2015
GEN-2007-050	170.00	OKGE	Woodward EHV 138kV	On-Line at 150MW
GEN-2007-052	150.00	WFEC	Anadarko 138kV	On-Line
GEN-2007-062	765.00	OKGE	Woodward EHV 345kV	On Schedule for 2014
GEN-2008-003	101.00	OKGE	Woodward EHV 138kV	On-Line
GEN-2008-013	300.00	OKGE	Tap Wichita - Woodring (Hunter) 345kV	On-Line at 235MW
GEN-2008-017	300.00	SUNCMKEC	Setab 345kV	On Schedule for 2015
GEN-2008-018	250.00	SPS	Finney 345kV	On-Line
GEN-2008-021	42.00	WERE	Wolf Creek 345kV	On-Line
GEN-2008-022	300.00	SPS	Tap Eddy Co - Tolk (Crossroads) 345kV	On Schedule for 2015
GEN-2008-023	150.00	AEPW	Hobart Junction 138kV	On-Line
GEN-2008-037	101.00	WFEC	Tap Washita - Blue Canyon Wind 138kV	On-Line
GEN-2008-044	197.80	OKGE	Tatonga 345kV	On-Line
GEN-2008-047	300.00	OKGE	Tap Hitchland - Woodward Dbl Ckt (Beaver County) 345kV	On Schedule for 2014
GEN-2008-051	322.00	SPS	Potter County 345kV	On-Line at 161MW
GEN-2008-079	99.20	SUNCMKEC	Tap Cudahy - Ft Dodge 115kV	On-Line
GEN-2008-086N02	200.00	NPPD	Tap Ft Randle - Columbus (Meadow Grove) 230kV	On Schedule for 2014
GEN-2008-088	50.60	SPS	Vega 69kV	On Suspension
GEN-2008-092	201.00	MIDW	Post Rock 230kV	On Schedule for 2014
GEN-2008-098	100.80	WERE	Tap Lacygne - Wolf Creek (Anderson County) 345kV	On Schedule for 2015
GEN-2008-119O	60.00	OPPD	S1399 161kV	On-Line
GEN-2008-123N	89.70	NPPD	Tap Guide Rock - Pauline (Rosemont) 115kV	On Schedule for 2014
GEN-2008-124	200.10	SUNCMKEC	Ironwood 345kV	On Schedule for 2016
GEN-2008-129	80.00	MIPU	Pleasant Hill 161kV	On-Line
GEN-2009-008	199.50	MIDW	South Hays 230kV	On Suspension



Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
GEN-2009-020	48.60	MIDW	Tap Nekoma - Bazine (Walnut Creek) 69kV	On Schedule for 2015
GEN-2009-025	60.00	OKGE	Nardins 69kV	On-Line
GEN-2009-040	73.80	WERE	Marshall 115kV	On Schedule for 2015
GEN-2010-001	300.00	OKGE	Tap Hitchland - Woodward Dbl Ckt (Beaver County) 345kV	On Schedule for 2015
GEN-2010-003	100.80	WERE	Tap Lacygne - Wolf Creek (Anderson County) 345kV	On Schedule for 2015
GEN-2010-005	300.00	WERE	Viola 345kV	On-Line at 170MW
GEN-2010-006	205.00	SPS	Jones 230kV	On-Line
GEN-2010-009	165.60	SUNCMKEC	Buckner 345kV	On-Line
GEN-2010-011	29.70	OKGE	Tatonga 345kV	On-Line
GEN-2010-014	358.80	SPS	Hitchland 345kV	On Schedule for 2016
GEN-2010-015	200.10	SUNCMKEC	Spearville 345kV	On Schedule for 2015
GEN-2010-036	4.60	WERE	6th Street 115kV	On-Line
GEN-2010-040	300.00	OKGE	Cimarron 345kV	On-Line
GEN-2010-041	10.50	OPPD	S 1399 161kV	On Schedule for 2015
GEN-2010-045	197.80	SUNCMKEC	Buckner 345kV	On Schedule for 2017
GEN-2010-046	56.00	SPS	TUCO Interchange 230kV	On Schedule for 2016
GEN-2010-048	70.00	MIDW	Tap Beach Station - Redline 115kV	IA Pending
GEN-2010-051	200.00	NPPD	Tap Twin Church - Hoskins 230kV	On Schedule for 2014
GEN-2010-055	4.50	AEPW	Wekiwa 138kV	On-Line
GEN-2010-056	151.20	MIPU	Tap Saint Joseph - Cooper 345kV	On Schedule for 2015
GEN-2010-057	201.00	MIDW	Rice County 230kV	On-Line
GEN-2011-007	250.10	OKGE	Tap Cimarron - Woodring (Mathewson) 345kV	On Suspension
GEN-2011-008	600.00	SUNCMKEC	Clark County 345kV	On Schedule for 2019
GEN-2011-010	100.80	OKGE	Minco 345kV	On-Line
GEN-2011-011	50.00	KACP	Iatan 345kV	On-Line
GEN-2011-014	201.00	OKGE	Tap Hitchland - Woodward Dbl Ckt (Beaver County) 345kV	IA Pending
GEN-2011-016	200.10	SUNCMKEC	Spearville 345kV	IA Pending
GEN-2011-017	299.00	SUNCMKEC	Tap Spearville - PostRock (GEN-2011-017T) 345kV	On Schedule for 2018
GEN-2011-018	73.60	NPPD	Steele City 115kV	On-Line
GEN-2011-019	299.00	OKGE	Woodward 345kV	On Schedule for 2017
GEN-2011-020	299.00	OKGE	Woodward 345kV	On Schedule for 2017
GEN-2011-022	299.00	SPS	Hitchland 345kV	On Schedule for 2017
GEN-2011-025	82.30	SPS	Tap Floyd County - Crosby County 115kV	On Schedule for 2015
GEN-2011-027	120.00	NPPD	Tap Twin Church - Hoskins 230kV (GEN-2010-51 Tap)	On Schedule for 2015
GEN-2011-037	7.00	WFEC	Blue Canyon 5 138kV	On-Line
GEN-2011-040	111.00	OKGE	Tap Ratliff - Pooleville 138kV	On Schedule for 2014
GEN-2011-045	205.00	SPS	Jones 230kV	On-Line
GEN-2011-046	27.00	SPS	Lopez 115kV	On-Line
GEN-2011-048	175.00	SPS	Mustang 230kV	On-Line
GEN-2011-049	250.00	OKGE	Border 345kV	On Suspension
GEN-2011-050	109.80	AEPW	Rush Springs Natural Gas Tap 138kV	On Suspension
GEN-2011-051	104.40	OKGE	Tap Woodward - Tatonga 345kV	On Suspension
GEN-2011-054	300.00	OKGE	Cimarron 345kV	On Schedule for 2014
GEN-2011-055	52.80	OPPD	South Sterling 69kV	IA Pending
GEN-2011-056	3.60	NPPD	Jeffrey 115kV	On-Line
GEN-2011-056A	3.60	NPPD	John 1 115kV	On-Line
GEN-2011-056B	4.50	NPPD	John 2 115kV	On-Line
GEN-2011-057	150.40	WERE	Creswell 138kV	On Schedule for 2014

Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
GEN-2012-001	61.20	SPS	Tap Grassland - Borden County 230kV	On-Line
GEN-2012-004	41.40	OKGE	Tap Ratliff - Pooleville (Carter County) 138kV	On Schedule for 2014
GEN-2012-005	81.00	NPPD	Tap Fort Randall - Columbus (North of Meadow Grove) 230kV	Facility Study
GEN-2012-007	120.00	SUNCMKEC	Rubart 115kV	On Schedule for 2014
GEN-2012-009	15.00	SPS	Mustang 230kV	IA Pending
GEN-2012-010	15.00	SPS	Mustang 230kV	IA Pending
GEN-2012-011	200.00	SUNCMKEC	Tap Spearville - Post Rock 345kV (North of GEN-2011-017 Tap)	Facility Study
GEN-2012-020	478.00	SPS	TUCO 230kV	IA Pending
GEN-2012-021	4.80	LES	Terry Bundy Generating Station 115kV	On-Line
GEN-2012-023	115.00	WERE	Viola 345kV	IA Pending
GEN-2012-024	180.00	SUNCMKEC	Clark County 345kV	Facility Study
GEN-2012-026	100.00	MIDW	Colby 115kV	IA Pending
GEN-2012-027	136.00	AEPW	Shidler 138kV	On Schedule for 2015
GEN-2012-028	74.80	WFEC	Gotebo 69kV	On Schedule for 2015
GEN-2012-031	200.00	OKGE	Cimarron 345kV (GEN-2010-040 Sub)	IA Pending
GEN-2012-032	300.00	OKGE	Tap Rose Hill - Sooner (Ranch) 345kV	On Schedule for 2015
GEN-2012-033	98.80	OKGE	Tap and Tie South 4th - Bunch Creek & Enid Tap - Fairmont (GEN-2012-033T) 138kV	On Schedule for 2015
GEN-2012-034	7.00	SPS	Mustang 230kV	IA Pending
GEN-2012-035	7.00	SPS	Mustang 230kV	IA Pending
GEN-2012-036	7.00	SPS	Mustang 230kV	IA Pending
GEN-2012-037	203.00	SPS	TUCO 345kV	On Schedule for 2015
GEN-2012-040	76.50	WFEC	Chilocco 138kV	On Suspension
GEN-2012-041	121.50	OKGE	Tap Rose Hill - Sooner 345kV	On Schedule for 2015
GEN-2013-002	50.60	LES	Tap Sheldon - Folsom & Pleasant Hill 115kV CKT 2	Facility Study
GEN-2013-004	6.00	NPPD	Tap Fort Randall - Columbus (Meadow Grove) 230kV	Facility Study
GEN-2013-005	73.50	NPPD	Meadow Grove (GEN-2008-086N2 Sub) 230kV	Facility Study
GEN-2013-006	50.60	NPPD	Tap Fort Randall - Columbus (Meadow Grove) 230kV	Facility Study
GEN-2013-007	100.30	OKGE	Tap Prices Falls - Carter 138kV	Facility Study
GEN-2013-008	1.20	NPPD	Steele City 115kV	On Schedule
GEN-2013-009	100.30	AEPW	Tap Alluwe Tap - Vinita Junction 138kV	Facility Study
GEN-2013-010	99.00	SUNCMKEC	Tap Spearville - Post Rock 345kV (GEN-2012-011 Tap)	Facility Study
GEN-2013-011	30.00	AEPW	Turk 138kV	Facility Study
GEN-2013-012	147.00	OKGE	Redbud 345kV	Facility Study
GEN-2013-013	248.40	SPS	Tap Eddy County - Tolk 345kV	Facility Study
GEN-2013-014	25.50	NPPD	Tap Guide Rock - Pauline (GEN-2008-123N Tap) 115kV	IA Pending
GEN-2013-015	125.80	NPPD	Tap Pauline - Hildreth 115kV	IA Pending
GEN-2013-016	203.00	SPS	TUCO 345kV	Facility Study
Gray County Wind (Montezuma)	110.00	SUNCMKEC	Gray County Tap 115kV	On-Line
Llano Estacado (White Deer)	80.00	SPS	Llano Wind 115kV	On-Line
NPPD Distributed (Broken Bow)	8.30	NPPD	Broken Bow 115kV	On-Line
NPPD Distributed (Burt County Wind)	12.00	NPPD	Tekamah & Oakland 115kV	On-Line
NPPD Distributed (Burwell)	3.00	NPPD	Ord 115kV	On-Line
NPPD Distributed (Columbus Hydro)	45.00	NPPD	Columbus 115kV	On-Line
NPPD Distributed (Ord)	11.90	NPPD	Ord 115kV	On-Line
NPPD Distributed (Stuart)	2.10	NPPD	Ainsworth 115kV	On-Line
SPS Distributed (Dumas 19th St)	20.00	SPS	Dumas 19th Street 115kV	On-Line
SPS Distributed (Etter)	20.00	SPS	Etter 115kV	On-Line
SPS Distributed (Hopi)	10.00	SPS	Hopi 115kV	On-Line

Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
SPS Distributed (Jal)	10.00	SPS	S Jal 115kV	On-Line
SPS Distributed (Lea Road)	10.00	SPS	Lea Road 115kV	On-Line
SPS Distributed (Monument)	10.00	SPS	Monument 115kV	On-Line
SPS Distributed (Moore E)	25.00	SPS	Moore East 115kV	On-Line
SPS Distributed (Ocotillo)	10.00	SPS	S_Jal 115kV	On-Line
SPS Distributed (Sherman)	20.00	SPS	Sherman 115kV	On-Line
SPS Distributed (Spearman)	10.00	SPS	Spearman 69kV	On-Line
SPS Distributed (TC-Texas County)	20.00	SPS	Texas County 115kV	On-Line
<b>Total:</b>	<b>25,145.9</b>			

## **C: Study Groupings**

See next page

## C. Study Groups

<b>GROUP 1: WOODWARD AREA</b>			
<b>Request</b>	<b>Capacity</b>	<b>Area</b>	<b>Proposed Point of Interconnection</b>
GEN-2001-014	96.00	WFEC	Ft Supply 138kV
GEN-2001-037	100.00	OKGE	FPL Moreland Tap 138kV
GEN-2005-008	120.00	OKGE	Woodward 138kV
GEN-2006-024S	19.80	WFEC	Buffalo Bear Tap 69kV
GEN-2006-046	131.00	OKGE	Dewey 138kV
GEN-2007-021	201.00	OKGE	Tatonga 345kV
GEN-2007-043	200.00	OKGE	Minco 345kV
GEN-2007-044	300.00	OKGE	Tatonga 345kV
GEN-2007-050	170.00	OKGE	Woodward EHV 138kV
GEN-2007-062	765.00	OKGE	Woodward EHV 345kV
GEN-2008-003	101.00	OKGE	Woodward EHV 138kV
GEN-2008-044	197.80	OKGE	Tatonga 345kV
GEN-2010-011	29.70	OKGE	Tatonga 345kV
GEN-2010-040	300.00	OKGE	Cimarron 345kV
GEN-2011-007	250.10	OKGE	Tap Cimarron - Woodring (Mathewson) 345kV
GEN-2011-010	100.80	OKGE	Minco 345kV
GEN-2011-019	299.00	OKGE	Woodward 345kV
GEN-2011-020	299.00	OKGE	Woodward 345kV
GEN-2011-051	104.40	OKGE	Tap Woodward - Tatonga 345kV
GEN-2011-054	300.00	OKGE	Cimarron 345kV
GEN-2012-031	200.00	OKGE	Cimarron 345kV (GEN-2010-040 Sub)
<b>PRIOR QUEUED SUBTOTAL</b>	<b>4,284.60</b>		
GEN-2013-025	50.00	OKGE	Tap Cimarron - Woodring (Mathewson) 345kV
GEN-2013-034	73.60	OKGE	Tap Hitchland - Woodward Dbl Ckt (GEN-2013-034 Tap) 345kV
<b>CURRENT CLUSTER SUBTOTAL</b>	<b>123.60</b>		
<b>AREA TOTAL</b>	<b>4,408.20</b>		

<b>GROUP 2: HITCHLAND AREA</b>			
<b>Request</b>	<b>Capacity</b>	<b>Area</b>	<b>Proposed Point of Interconnection</b>
ASGI-2011-002	20.00	SPS	Herring 115kV
GEN-2002-008	240.00	SPS	Hitchland 345kV
GEN-2002-009	80.00	SPS	Hansford 115kV
GEN-2003-020	160.00	SPS	Martin 115kV
GEN-2006-020S	18.90	SPS	DWS Frisco 115kV
GEN-2006-044	370.00	SPS	Hitchland 345kV
GEN-2007-046	199.50	SPS	Hitchland 115kV
GEN-2008-047	300.00	OKGE	Tap Hitchland - Woodward Dbl Ckt (Beaver County) 345kV
GEN-2010-001	300.00	OKGE	Tap Hitchland - Woodward Dbl Ckt (Beaver County) 345kV
GEN-2010-014	358.80	SPS	Hitchland 345kV
GEN-2011-014	201.00	OKGE	Tap Hitchland - Woodward Dbl Ckt (Beaver County) 345kV
GEN-2011-022	299.00	SPS	Hitchland 345kV
SPS Distributed (Dumas 19th St)	20.00	SPS	Dumas 19th Street 115kV
SPS Distributed (Etter)	20.00	SPS	Etter 115kV
SPS Distributed (Moore E)	25.00	SPS	Moore East 115kV
SPS Distributed (Sherman)	20.00	SPS	Sherman 115kV
SPS Distributed (Spearman)	10.00	SPS	Spearman 69kV
SPS Distributed (TC-Texas County)	20.00	SPS	Texas County 115kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>2,662.20</b>		
GEN-2013-030	300.00	OKGE	Tap Hitchland - Woodward Dbl Ckt (Beaver County) 345kV
<b>CURRENT CLUSTER SUBTOTAL</b>	<b>300.00</b>		
<b>AREA TOTAL</b>	<b>2,962.20</b>		

<b>GROUP 3: SPEARVILLE AREA</b>			
<b>Request</b>	<b>Capacity</b>	<b>Area</b>	<b>Proposed Point of Interconnection</b>
ASGI-2012-006	22.50	SUNCMKEC	Tap Hugoton - Rolla 69kV
GEN-2001-039A	105.00	SUNCMKEC	Tap Greensburg - Ft Dodge (Shooting Star Tap) 115kV
GEN-2002-025A	150.00	SUNCMKEC	Spearville 230kV
GEN-2004-014	154.50	SUNCMKEC	Spearville 230kV
GEN-2005-012	250.00	SUNCMKEC	Ironwood 345kV
GEN-2006-006	205.50	SUNCMKEC	Spearville 345kV
GEN-2006-021	101.00	SUNCMKEC	Flat Ridge Tap 138kV
GEN-2007-038	200.00	SUNCMKEC	Spearville 345kV
GEN-2007-040	200.00	SUNCMKEC	Buckner 345kV
GEN-2008-018	250.00	SPS	Finney 345kV
GEN-2008-079	99.20	SUNCMKEC	Tap Cudahy - Ft Dodge 115kV
GEN-2008-124	200.10	SUNCMKEC	Ironwood 345kV
GEN-2010-009	165.60	SUNCMKEC	Buckner 345kV
GEN-2010-015	200.10	SUNCMKEC	Spearville 345kV
GEN-2010-045	197.80	SUNCMKEC	Buckner 345kV
GEN-2011-008	600.00	SUNCMKEC	Clark County 345kV
GEN-2011-016	200.10	SUNCMKEC	Spearville 345kV
GEN-2011-017	299.00	SUNCMKEC	Tap Spearville - PostRock (GEN-2011-017T) 345kV
GEN-2012-007	120.00	SUNCMKEC	Rubart 115kV
GEN-2012-011	200.00	SUNCMKEC	Tap Spearville - Post Rock 345kV (North of GEN-2011-017 Tap)
GEN-2012-024	180.00	SUNCMKEC	Clark County 345kV
GEN-2013-010	99.00	SUNCMKEC	Tap Spearville - Post Rock 345kV (GEN-2012-011 Tap)
Gray County Wind (Montezuma)	110.00	SUNCMKEC	Gray County Tap 115kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>4,309.40</b>		
<b>AREA TOTAL</b>	<b>4,309.40</b>		

<b>GROUP 4/11: NW KANSAS AREA</b>			
<b>Request</b>	<b>Capacity</b>	<b>Area</b>	<b>Proposed Point of Interconnection</b>
GEN-2001-039M	100.00	SUNCMKEC	Central Plains Tap 115kV
GEN-2003-006A	200.00	SUNCMKEC	Elm Creek 230kV
GEN-2003-019	250.00	MIDW	Smoky Hills Tap 230kV
GEN-2006-031	75.00	MIDW	Knoll 115kV
GEN-2006-040	108.00	SUNCMKEC	Mingo 115kV
GEN-2007-011	135.00	SUNCMKEC	Syracuse 115kV
GEN-2008-017	300.00	SUNCMKEC	Setab 345kV
GEN-2008-092	201.00	MIDW	Post Rock 230kV
GEN-2009-008	199.50	MIDW	South Hays 230kV
GEN-2009-020	48.60	MIDW	Tap Nekoma - Bazine (Walnut Creek) 69kV
GEN-2010-048	70.00	MIDW	Tap Beach Station - Redline 115kV
GEN-2010-057	201.00	MIDW	Rice County 230kV
GEN-2012-026	100.00	MIDW	Colby 115kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>1,988.10</b>		
ASGI-2013-004	29.60	SUNCMKEC	Morris 115kV
GEN-2013-033	28.00	MIDW	Goodman Energy Center 115kV
<b>CURRENT CLUSTER SUBTOTAL</b>	<b>57.60</b>		
<b>AREA TOTAL</b>	<b>2,045.70</b>		

<b>GROUP 5: AMARILLO AREA</b>			
<b>Request</b>	<b>Capacity</b>	<b>Area</b>	<b>Proposed Point of Interconnection</b>
ASGI-2013-001	11.50	SPS	PanTex South 115kV
GEN-2002-022	240.00	SPS	Bushland 230kV
GEN-2008-051	322.00	SPS	Potter County 345kV
GEN-2008-088	50.60	SPS	Vega 69kV
Llano Estacado (White Deer)	80.00	SPS	Llano Wind 115kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>704.10</b>		
GEN-2013-031	370.00	SPS	Bushland 230kV
<b>CURRENT CLUSTER SUBTOTAL</b>	<b>370.00</b>		
<b>AREA TOTAL</b>	<b>1,074.10</b>		



<b>GROUP 6: S-TX PANHANDLE/W-TX AREA</b>			
<b>Request</b>	<b>Capacity</b>	<b>Area</b>	<b>Proposed Point of Interconnection</b>
ASGI-2010-010	42.20	SPS	Lovington 115kV
ASGI-2010-020	30.00	SPS	Tap LE-Tatum - LE-Crossroads 69kV
ASGI-2010-021	15.00	SPS	Tap LE-Saunders Tap - LE-Anderson 69kV
ASGI-2011-001	28.80	SPS	Lovington 115kV
ASGI-2011-003	10.00	SPS	Hendricks 115kV
ASGI-2011-004	20.00	SPS	Pleasant Hill 69kV
ASGI-2012-002	18.15	SPS	FE-Clovis Interchange 115kV
ASGI-2013-002	18.40	SPS	FE Tucumcari 115kV
ASGI-2013-003	18.40	SPS	FE Clovis 115kV
ASGI-2013-006	2.00	SPS	SP-Erskine 115kV
GEN-2001-033	180.00	SPS	San Juan Tap 230kV
GEN-2001-036	80.00	SPS	Norton 115kV
GEN-2006-018	170.00	SPS	TUCO Interchange 230kV
GEN-2006-026	604.00	SPS	Hobbs 230kV & Hobbs 115kV
GEN-2008-022	300.00	SPS	Tap Eddy Co - Tolk (Crossroads) 345kV
GEN-2010-006	205.00	SPS	Jones 230kV
GEN-2010-046	56.00	SPS	TUCO Interchange 230kV
GEN-2011-025	82.30	SPS	Tap Floyd County - Crosby County 115kV
GEN-2011-045	205.00	SPS	Jones 230kV
GEN-2011-046	27.00	SPS	Lopez 115kV
GEN-2011-048	175.00	SPS	Mustang 230kV
GEN-2012-001	61.20	SPS	Tap Grassland - Borden County 230kV
GEN-2012-009	15.00	SPS	Mustang 230kV
GEN-2012-010	15.00	SPS	Mustang 230kV
GEN-2012-020	478.00	SPS	TUCO 230kV
GEN-2012-034	7.00	SPS	Mustang 230kV
GEN-2012-035	7.00	SPS	Mustang 230kV
GEN-2012-036	7.00	SPS	Mustang 230kV
GEN-2012-037	203.00	SPS	TUCO 345kV
GEN-2013-013	248.40	SPS	Tap Eddy County - Tolk 345kV
GEN-2013-016	203.00	SPS	TUCO 345kV
SPS Distributed (Hopi)	10.00	SPS	Hopi 115kV
SPS Distributed (Jal)	10.00	SPS	S_Jal 115kV
SPS Distributed (Lea Road)	10.00	SPS	Lea Road 115kV
SPS Distributed (Monument)	10.00	SPS	Monument 115kV
SPS Distributed (Ocotillo)	10.00	SPS	S_Jal 115kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>3,581.85</b>		
ASGI-2013-005	1.80	SPS	FE Clovis 115kV
GEN-2013-022	25.00	SPS	Norton 115kV
<b>CURRENT CLUSTER SUBTOTAL</b>	<b>26.80</b>		
<b>AREA TOTAL</b>	<b>3,608.65</b>		

**GROUP 7: SW-OKLAHOMA AREA**

Request	Capacity	Area	Proposed Point of Interconnection
GEN-2001-026	74.00	WFEC	Washita 138kV
GEN-2002-005	120.00	WFEC	Red Hills Tap 138kV
GEN-2003-004	100.00	WFEC	Washita 138kV
GEN-2003-005	100.00	WFEC	Anadarko - Paradise (Blue Canyon) 138kV
GEN-2003-022	120.00	AEPW	Washita 138kV
GEN-2004-020	27.00	AEPW	Washita 34.5kV
GEN-2004-023	20.60	WFEC	Washita 138kV
GEN-2005-003	30.60	WFEC	Washita 138kV
GEN-2006-002	101.00	AEPW	Sweetwater 230kV
GEN-2006-035	225.00	AEPW	Sweetwater 230kV
GEN-2006-043	99.00	AEPW	Sweetwater 230kV
GEN-2007-032	150.00	WFEC	Tap Clinton Junction - Clinton 138kV
GEN-2007-052	150.00	WFEC	Anadarko 138kV
GEN-2008-023	150.00	AEPW	Hobart Junction 138kV
GEN-2008-037	101.00	WFEC	Tap Washita - Blue Canyon Wind 138kV
GEN-2011-037	7.00	WFEC	Blue Canyon 5 138kV
GEN-2011-049	250.00	OKGE	Border 345kV
GEN-2012-028	74.80	WFEC	Gotebo 69kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>1,900.00</b>		
<b>AREA TOTAL</b>	<b>1,900.00</b>		

**GROUP 8: N-OK/S-KS AREA**

Request	Capacity	Area	Proposed Point of Interconnection
ASGI-2010-006	150.00	AECI	Tap Fairfax (AECI) - Shilder (AEPW) 138kV
GEN-2002-004	200.00	WERE	Latham 345kV
GEN-2005-013	201.00	WERE	Tap Latham - Neosho (Caney River) 345kV
GEN-2007-025	300.00	WERE	Viola 345kV
GEN-2008-013	300.00	OKGE	Tap Wichita - Woodring (Hunter) 345kV
GEN-2008-021	42.00	WERE	Wolf Creek 345kV
GEN-2008-098	100.80	WERE	Tap Lacygne - Wolf Creek (Anderson County) 345kV
GEN-2009-025	60.00	OKGE	Nardins 69kV
GEN-2010-003	100.80	WERE	Tap Lacygne - Wolf Creek (Anderson County) 345kV
GEN-2010-005	300.00	WERE	Viola 345kV
GEN-2010-055	4.50	AEPW	Wekiwa 138kV
GEN-2011-057	150.40	WERE	Creswell 138kV
GEN-2012-023	115.00	WERE	Viola 345kV
GEN-2012-027	136.00	AEPW	Shidler 138kV
GEN-2012-032	300.00	OKGE	Tap Rose Hill - Sooner (Ranch) 345kV
GEN-2012-033	98.80	OKGE	Tap and Tie South 4th - Bunch Creek & Enid Tap - Fairmont (GEN-2012-033T) 138kV
GEN-2012-040	76.50	WFEC	Chilocco 138kV
GEN-2012-041	121.50	OKGE	Tap Rose Hill - Sooner 345kV
GEN-2013-009	100.30	AEPW	Tap Alluwe Tap - Vinita Junction 138kV
GEN-2013-012	147.00	OKGE	Redbud 345kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>3,004.60</b>		
GEN-2013-028	559.50	GRDA	Tap N Tulsa - GRDA 1 345kV
GEN-2013-029	300.00	OKGE	Renfrow 345kV
<b>CURRENT CLUSTER SUBTOTAL</b>	<b>859.50</b>		
<b>AREA TOTAL</b>	<b>3,864.10</b>		

<b>GROUP 9/10: NEBRASKA AREA</b>			
<b>Request</b>	<b>Capacity</b>	<b>Area</b>	<b>Proposed Point of Interconnection</b>
GEN-2002-023N	0.80	NPPD	Harmony 115kV
GEN-2003-021N	75.00	NPPD	Ainsworth Wind Tap 115kV
GEN-2004-023N	75.00	NPPD	Columbus Co 115kV
GEN-2006-020N	42.00	NPPD	Bloomfield 115kV
GEN-2006-037N1	75.00	NPPD	Broken Bow 115kV
GEN-2006-038N005	80.00	NPPD	Broken Bow 115kV
GEN-2006-038N019	80.00	NPPD	Petersburg North 115kV
GEN-2006-044N	40.50	NPPD	North Petersburg 115kV
GEN-2007-011N08	81.00	NPPD	Bloomfield 115kV
GEN-2008-086N02	200.00	NPPD	Tap Ft Randle - Columbus (Meadow Grove) 230kV
GEN-2008-1190	60.00	OPPD	S1399 161kV
GEN-2008-123N	89.70	NPPD	Tap Guide Rock - Pauline (Rosemont) 115kV
GEN-2009-040	73.80	WERE	Marshall 115kV
GEN-2010-041	10.50	OPPD	S 1399 161kV
GEN-2010-051	200.00	NPPD	Tap Twin Church - Hoskins 230kV
GEN-2011-018	73.60	NPPD	Steele City 115kV
GEN-2011-027	120.00	NPPD	Tap Twin Church - Hoskins 230kV (GEN-2010-51 Tap)
GEN-2011-055	52.80	OPPD	South Sterling 69kV
GEN-2011-056	3.60	NPPD	Jeffrey 115kV
GEN-2011-056A	3.60	NPPD	John 1 115kV
GEN-2011-056B	4.50	NPPD	John 2 115kV
GEN-2012-005	81.00	NPPD	Tap Fort Randall - Columbus (North of Meadow Grove) 230kV
GEN-2012-021	4.80	LES	Terry Bundy Generating Station 115kV
GEN-2013-002	50.60	LES	Tap Sheldon - Folsom & Pleasant Hill 115kV CKT 2
GEN-2013-004	6.00	NPPD	Tap Fort Randall - Columbus (Meadow Grove) 230kV
GEN-2013-005	73.50	NPPD	Meadow Grove (GEN-2008-086N2 Sub) 230kV
GEN-2013-006	50.60	NPPD	Tap Fort Randall - Columbus (Meadow Grove) 230kV
GEN-2013-008	1.20	NPPD	Steele City 115kV
GEN-2013-014	25.50	NPPD	Tap Guide Rock - Pauline (GEN-2008-123N Tap) 115kV
GEN-2013-015	125.80	NPPD	Tap Pauline - Hildreth 115kV
NPPD Distributed (Broken Bow)	8.30	NPPD	Broken Bow 115kV
NPPD Distributed (Burt County Wind)	12.00	NPPD	Tekamah & Oakland 115kV
NPPD Distributed (Burwell)	3.00	NPPD	Ord 115kV
NPPD Distributed (Columbus Hydro)	45.00	NPPD	Columbus 115kV
NPPD Distributed (Ord)	11.90	NPPD	Ord 115kV
NPPD Distributed (Stuart)	2.10	NPPD	Ainsworth 115kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>1,942.70</b>		
GEN-2013-019	73.60	LES	Tap Sheldon - Folsom & Pleasant Hill (GEN-2013-002 Tap) 115kV CKT 2
GEN-2013-021	229.50	NPPD	Ogallala 230kV
GEN-2013-032	204.00	NPPD	Neligh 115kV
<b>CURRENT CLUSTER SUBTOTAL</b>	<b>507.10</b>		
<b>AREA TOTAL</b>	<b>2,449.80</b>		

**GROUP 12: NW-AR AREA**

Request	Capacity	Area	Proposed Point of Interconnection
GEN-2013-011	30.00	AEPW	Turk 138kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>30.00</b>		
<b>AREA TOTAL</b>	<b>30.00</b>		

**GROUP 13: NW MISSOURI AREA**

Request	Capacity	Area	Proposed Point of Interconnection
ASGI-2013-007	90.00	AECI	Tap Hickory Creek - Locust Creek 161kV
GEN-2008-129	80.00	MIPU	Pleasant Hill 161kV
GEN-2010-036	4.60	WERE	6th Street 115kV
GEN-2010-056	151.20	MIPU	Tap Saint Joseph - Cooper 345kV
GEN-2011-011	50.00	KACP	Iatan 345kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>375.80</b>		
<b>AREA TOTAL</b>	<b>375.80</b>		

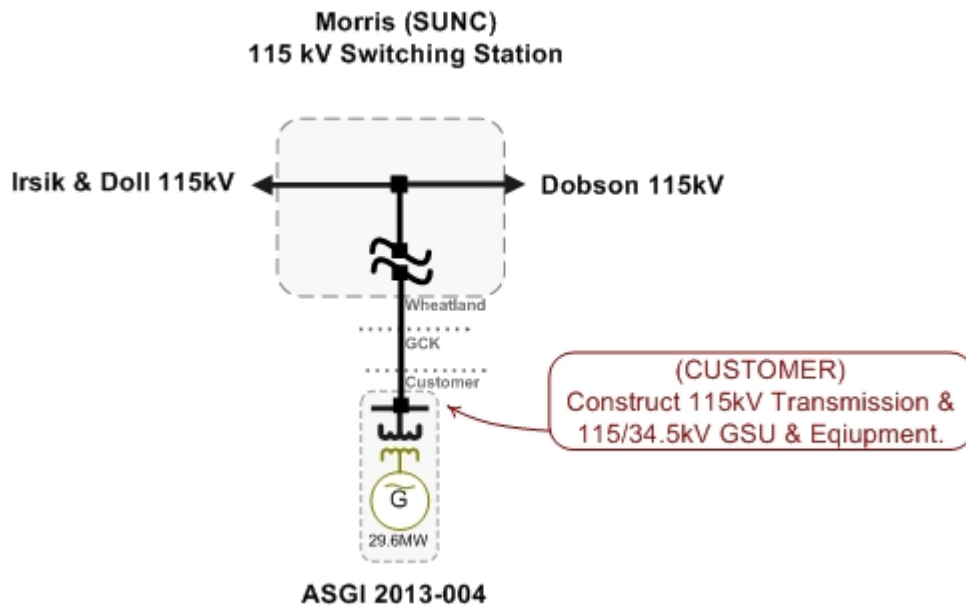
**GROUP 14: S-OKLAHOMA AREA**

Request	Capacity	Area	Proposed Point of Interconnection
GEN-2011-040	111.00	OKGE	Tap Ratliff - Pooleville 138kV
GEN-2011-050	109.80	AEPW	Rush Springs Natural Gas Tap 138kV
GEN-2012-004	41.40	OKGE	Tap Ratliff - Pooleville (Carter County) 138kV
GEN-2013-007	100.30	OKGE	Tap Prices Falls - Carter 138kV
<b>PRIOR QUEUED SUBTOTAL</b>	<b>362.50</b>		
<b>AREA TOTAL</b>	<b>362.50</b>		

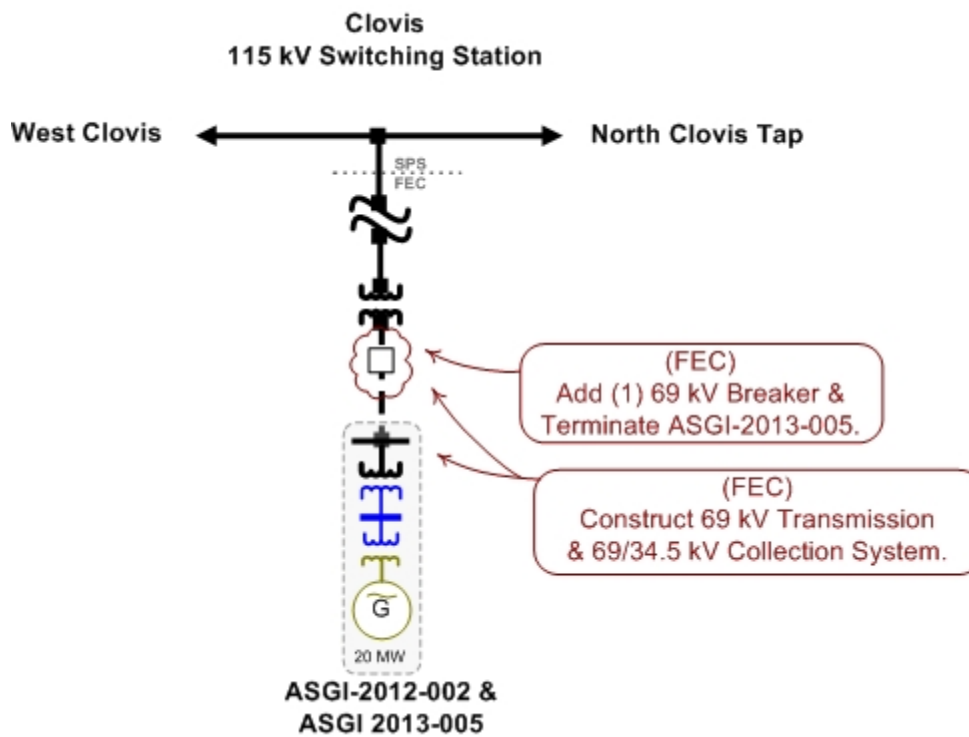
<b>CLUSTER TOTAL (CURRENT STUDY)</b>	<b>2,244.6</b>	<b>MW</b>
<b>PQ TOTAL (PRIOR QUEUED)</b>	<b>25,145.9</b>	<b>MW</b>
<b>CLUSTER TOTAL (INCLUDING PRIOR QUEUED)</b>	<b>27,390.5</b>	<b>MW</b>

### D: Proposed Point of Interconnection One Line Diagrams

#### ASGI-2013-004



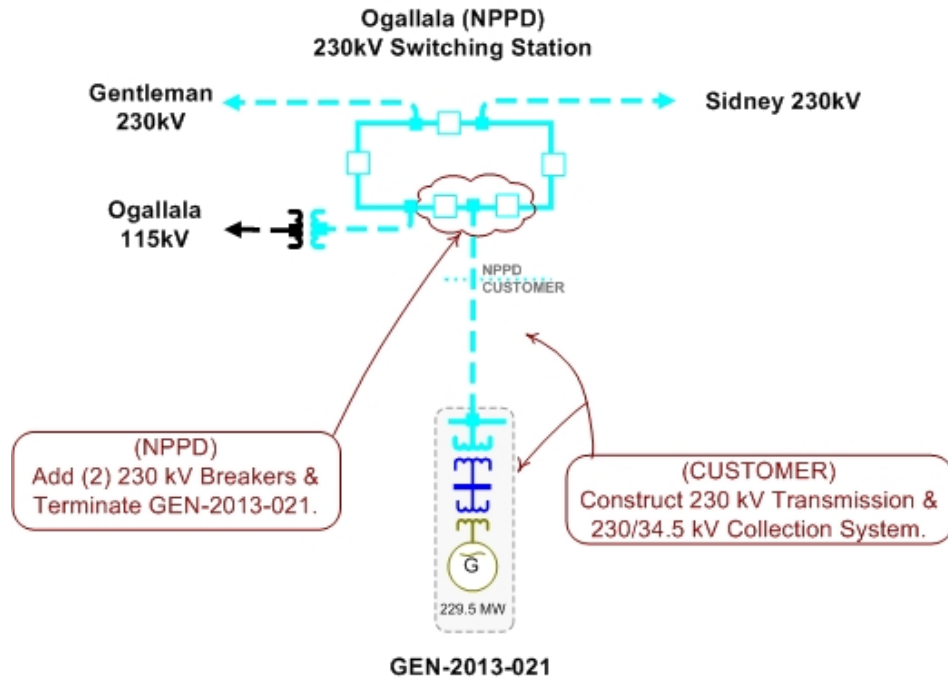
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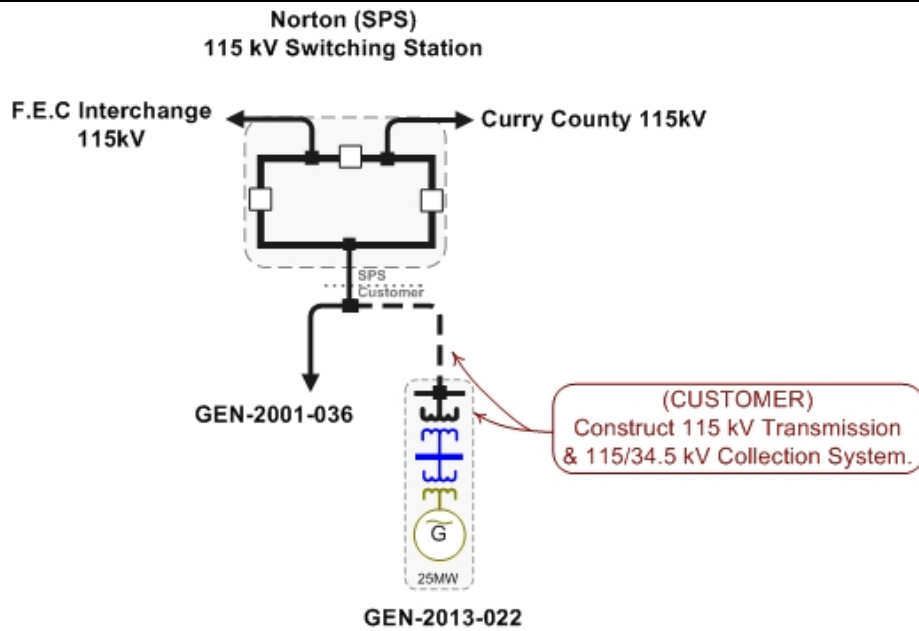
**GEN-2013-019**

\*\*\*Refer to Facility Study for GEN-2013-019\*\*\*

**GEN-2013-021**



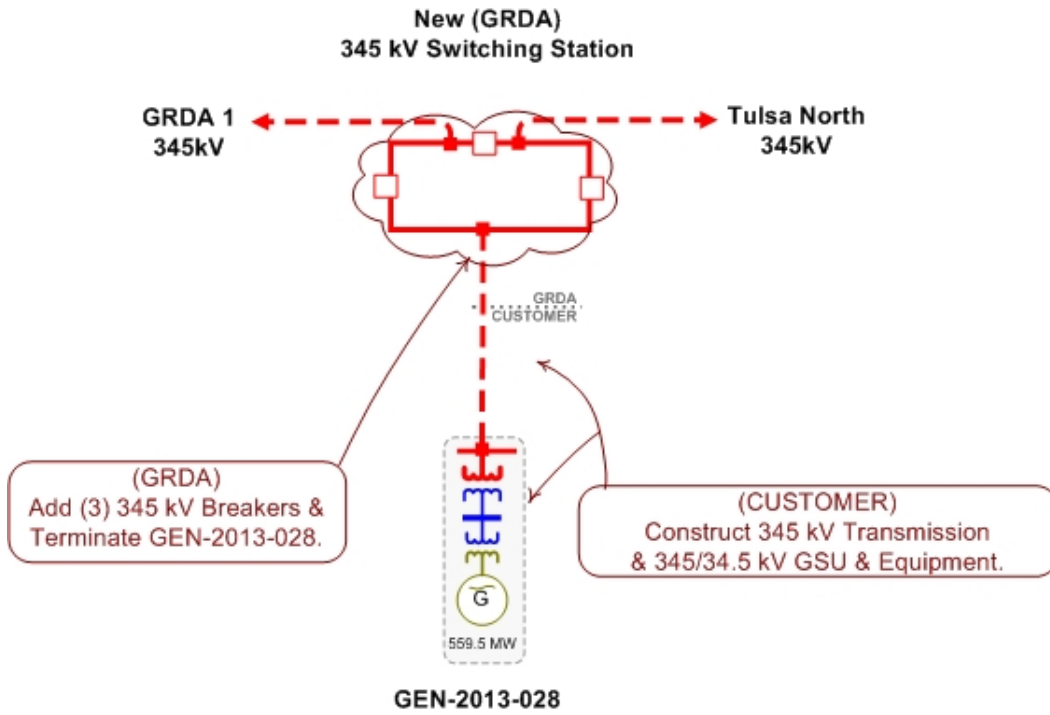
**GEN-2013-022**



**GEN-2013-025**

\*\*\*Refer to Facility Study for GEN-2013-025\*\*\*

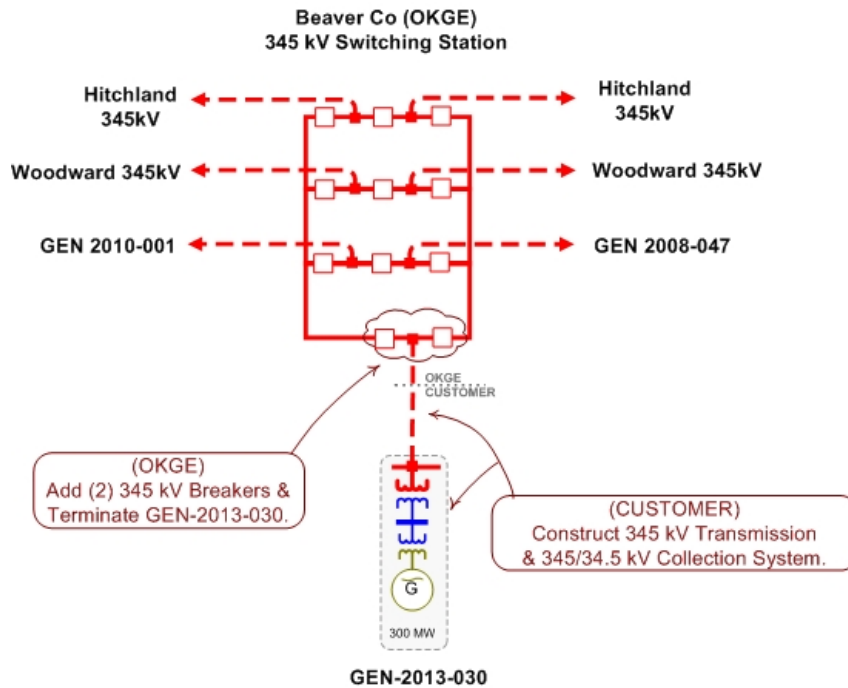
**GEN-2013-028**



**GEN-2013-029**

\*\*\*Refer to Facility Study for GEN-2013-029\*\*\*

**GEN-2013-030**



**GEN-2013-031**

**\*\*\*Refer to Facility Study for GEN-2013-031\*\*\***

**GEN-2013-032**

**\*\*\*Refer to Facility Study for GEN-2013-032\*\*\***

**GEN-2013-033**

**\*\*\*Refer to Facility Study for GEN-2013-033\*\*\***

**GEN-2013-034**

**\*\*\*Refer to Facility Study for GEN-2013-034\*\*\***



## **E: Cost Allocation per Interconnection Request (Including Prior Queued Upgrades)**

Important Note:

**\*\*WITHDRAWAL OF HIGHER QUEUED PROJECTS WILL CAUSE A RESTUDY  
AND MAY RESULT IN HIGHER INTERCONNECTION COSTS\*\***

This section shows each Generation Interconnection Request Customer, their current study impacted Network Upgrades, and the previously allocated upgrades upon which they rely to accommodate their interconnection to the transmission system.

The costs associated with the current study Network Upgrades are allocated to the Customers shown in this report.

In addition should a higher queued request, defined as one this study includes as a prior queued request, withdraw, the Network Upgrades assigned to the withdrawn request may be reallocated to the remaining requests that have an impact on the Network Upgrade under a restudy. Also, should a Interconnection Request choose to go into service prior to the operation date of any necessary Network Upgrades, the costs associated with those upgrades may be reallocated to the impacted Interconnection Request. The actual costs allocated to each Generation Interconnection Request Customer will be determined at the time of a restudy.

The required interconnection costs listed do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request through SPP's Open Access Same Time Information System (OASIS) as required by Attachment Z1 of the SPP OATT. In addition, costs associated with a short circuit analysis will be allocated should the Interconnection Request Customer choose to execute a Facility Study Agreement.

There may be additional costs allocated to each Customer. See Appendix F for more details.

# Appendix E. Cost Allocation Per Request

(Including Previously Allocated Network Upgrades\*)

Interconnection Request and Upgrades	Upgrade Type	Allocated Cost	Upgrade Cost
<b>ASGI-2013-004</b>			
ASGI-2013-004 Interconnection Costs See One-line diagram	Current Study	\$697,212.00	\$697,212.00
Dobson - Gano 115kV CKT 1 Replace Terminal Equipment	In-Service		\$82,481.09
Garden City - Kansas Ave Water Treatment Plant 115KV CKT 1 Replace Terminal Equipment	In-Service		\$112,772.18
Power System Stabilizers (PSS) Install Power System Stabilizers @ Tolk(Units: 1,2) and Jones (Units: 1,2,3,4)	In-Service		\$300,000.00
Buckner - Spearville 345V CKT 1 Replace Terminal equipment	Previously Allocated		\$771,000.00
Clark - Thistle 345KV Dbl CKT Priority Project: Spearville - Clark - Thistle Dbl 345kV CKT (Total Project E&C Cost Shown.)	Previously Allocated		\$426,504,292.00
Spearville - Clark 345KV Dbl CKT Priority Project: Spearville - Clark - Thistle Dbl 345kV CKT (Total Project E&C Cost Shown.)	Previously Allocated		\$426,504,292.00
	<b>Current Study Total</b>	<b>\$697,212.00</b>	
<b>ASGI-2013-005</b>			
ASGI-2013-005 Interconnection Costs See One-line diagram	Current Study	\$0.00	\$0.00
Border - Woodward 345KV CKT 1 Balanced Portfolio: Tuco - Woodward 345kV CKT 1 (Total Project E&C Cost Shown)	In-Service		\$249,247,072.00
Power System Stabilizers (PSS) Install Power System Stabilizers @ Tolk(Units: 1,2) and Jones (Units: 1,2,3,4)	In-Service		\$300,000.00
TUCO Interchange 345/230/13.2KV Autotransformer CKT 2 Balanced Portfolio: TUCO 345/230 kV Transformer CKT 2 (Total Project E&C Cost Shown)	In-Service		\$14,900,907.00
Border - Tuco Interchange 345KV CKT 1 Balanced Portfolio: Tuco - Woodward 345kV CKT 1 (Total Project E&C Cost Shown)	Previously Allocated		\$249,247,072.00
Deaf Smith - Plant X 230kV CKT 1 Replace line traps at both ends	Previously Allocated		\$1,000,000.00

\* Withdrawal of higher queued projects will cause a restudy and may result in higher costs

Interconnection Request and Upgrades	Upgrade Type	Allocated Cost	Upgrade Cost
Tolk - Plant X 230kV CKT 3 Build a 3rd circuit between Tolk - Plant X 230kV	Previously Allocated		\$20,000,000.00
	<b>Current Study Total</b>	\$0.00	
<b>GEN-2013-019</b>			
GEN-2013-019 Interconnection Costs See One-line diagram	Current Study	\$0.00	\$0.00
Hydrocarbon Tap - Sub 970 69 kV CKT 1 Mitigated by replacing terminal equipment at Hydrocarbon Tap	Previously Allocated		\$0.00
Hydrocarbon Tap - Sub 974 69kV CKT 1 NRIS only required upgrade: Rewire CT on Sub 974	Previously Allocated		\$10,000.00
Nebraska City U Syracuse - SUB 970 CKT 1 NRIS only required upgrade: Replace Terminal Equipment	Previously Allocated		\$16,000.00
SUB 967 - SUB 968 - SUB 969 - SUB 974 69kV CKT 1 Replace terminal equipment at SUB 969	Previously Allocated		\$16,000.00
	<b>Current Study Total</b>	\$0.00	
<b>GEN-2013-021</b>			
GEN-2013-021 Interconnection Costs See One-line diagram	Current Study	\$7,000,000.00	\$7,000,000.00
Gerald Gentleman Station Flowgate Stability Limit Mitigation Mitigation for GGS Flowgate Stability Limit. TBD in the Facilities Study with NPPD.	Current Study		TBD in NPPD Facility Study
Maxwell - North Platte 115kV Regional Reliability 2014 ITP Near Turn. Replace Terminal equipment.	In-Service		\$30,000.00
Ogallala 230/115/13.8kV Transformer CKT 1 Per SPP-2009-AGP1-AFS-5. Replace Ogallala 230/115/13.8kV transformer	In-Service		\$5,645,881.00
Cherry County - Holt County 345kV CKT 1 Build approximately 146 Miles of 345kV from Cherry County to Holt County. (Total Project E&C Cost Shown).	Previously Allocated		\$313,376,623.00
Gentleman - Cherry County 345kV CKT 1 Build approximately 76 Miles of 345kV from Gentleman to Cherry County. (Total Project E&C Cost Shown).	Previously Allocated		\$313,376,623.00
	<b>Current Study Total</b>	\$7,000,000.00*	*Does not include cost to mitigate GGS Stability Flowgate Limit
<b>GEN-2013-022</b>			
GEN-2013-022 Interconnection Costs See One-line diagram	Current Study	\$0.00	\$0.00

\* Withdrawal of higher queued projects will cause a restudy and may result in higher costs

Interconnection Request and Upgrades	Upgrade Type	Allocated Cost	Upgrade Cost
Power System Stabilizers (PSS) Install Power System Stabilizers @ Tolk(Units: 1,2) and Jones (Units: 1,2,3,4)	In-Service		\$300,000.00
TUCO Interchange 345/230/13.2KV Autotransformer CKT 2 Balanced Portfolio: TUCO 345/230 kV Transformer CKT 2 (Total Project E&C Cost Shown)	In-Service		\$14,900,907.00
Deaf Smith - Plant X 230kV CKT 1 Replace line traps at both ends	Previously Allocated		\$1,000,000.00
Tolk - Plant X 230kV CKT 3 Build a 3rd circuit between Tolk - Plant X 230kV	Previously Allocated		\$20,000,000.00
	<b>Current Study Total</b>	\$0.00	

### GEN-2013-025

GEN-2013-025 Interconnection Costs See One-line diagram	Current Study	\$0.00	\$0.00
Border - Woodward 345KV CKT 1 Balanced Portfolio: Tuco - Woodward 345kV CKT 1 (Total Project E&C Cost Shown)	In-Service		\$249,247,072.00
TUCO Interchange 345/230/13.2KV Autotransformer CKT 2 Balanced Portfolio: TUCO 345/230 kV Transformer CKT 2 (Total Project E&C Cost Shown)	In-Service		\$14,900,907.00
Border - Tuco Interchange 345KV CKT 1 Balanced Portfolio: Tuco - Woodward 345kV CKT 1 (Total Project E&C Cost Shown)	Previously Allocated		\$249,247,072.00
	<b>Current Study Total</b>	\$0.00	

### GEN-2013-028

GEN-2013-028 Interconnection Costs See One-line diagram	Current Study	\$10,000,000.00	\$10,000,000.00
Vinita - Vinita Junction 69kV CKT 1 Rebuild approximately 3 miles of 69kV	Previously Allocated		\$1,038,535.00
Vinita Junction 138/69/13.2kV Transformer CKT 1 Replace existing Vinita Junction transformer	Previously Allocated		\$3,939,904.00
	<b>Current Study Total</b>	\$10,000,000.00	

### GEN-2013-029

GEN-2013-029 Interconnection Costs See One-line diagram	Current Study	\$2,688,935.00	\$2,688,935.00
Viola - Wichita 345kV CKT 1 Replace Terminal Equipment	Current Study	\$100,000.00	\$100,000.00

\* Withdrawal of higher queued projects will cause a restudy and may result in higher costs

Interconnection Request and Upgrades	Upgrade Type	Allocated Cost	Upgrade Cost
<b>Current Study Total</b>		\$2,788,935.00	
<b>GEN-2013-030</b>			
GEN-2013-030 Interconnection Costs See One-line diagram	Current Study	\$7,000,000.00	\$7,000,000.00
Hitchland 345/230kV Autotransformer CKT 2 Priority Project: Hitchland 345/230kV Autotransformer CKT 2 (Total Project E&C Cost Shown).	In-Service		\$8,883,760.00
Beaver County - Woodward 345kV Dbl CKT Priority Project: Hitchland - Woodward Dbl 345kV CKT (Total Project E&C Cost Shown)	Previously Allocated		\$226,040,727.00
Border - Tuco Interchange 345KV CKT 1 Balanced Portfolio: Tuco - Woodward 345kV CKT 1 (Total Project E&C Cost Shown)	Previously Allocated		\$249,247,072.00
Clark - Thistle 345KV Dbl CKT Priority Project: Spearville - Clark - Thistle Dbl 345kV CKT (Total Project E&C Cost Shown.)	Previously Allocated		\$426,504,292.00
Spearville - Clark 345KV Dbl CKT Priority Project: Spearville - Clark - Thistle Dbl 345kV CKT (Total Project E&C Cost Shown.)	Previously Allocated		\$426,504,292.00
Thistle - Woodward 345KV Dbl CKT Priority Project: Thistle - Woodward Dbl 345kV CKT (Total Project E&C Cost Shown)	Previously Allocated		\$207,782,000.00
Woodward XFMR 345/138/13.8kV CKT 2 Balanced Portfolio: Woodward 345/138kV Transformer CKT 2 & 50 MVAR Reactor (Total Project E&C Cost Shown).	Previously Allocated		\$249,247,072.00
<b>Current Study Total</b>		\$7,000,000.00	
<b>GEN-2013-031</b>			
Bushland - Potter 230kV CKT 1 Replace terminal equipment	Current Study	\$400,000.00	\$400,000.00
Bushland - Tumbleweed 230kV CKT 1 Build 15 miles of 345kV operating at 230kV from Bushland to New Bushland South Substation. Also includes terminal equipment at each end. Includes substation work.	Current Study	\$33,938,902.00	\$33,938,902.00
GEN-2013-031 Interconnection Costs See One-line diagram	Current Study	\$337,375.00	\$337,375.00
Border - Woodward 345KV CKT 1 Balanced Portfolio: Tuco - Woodward 345kV CKT 1 (Total Project E&C Cost Shown)	In-Service		\$249,247,072.00
Power System Stabilizers (PSS) Install Power System Stabilizers @ Tolk(Units: 1,2) and Jones (Units: 1,2,3,4)	In-Service		\$300,000.00
TUCO Interchange 345/230/13.2KV Autotransformer CKT 2 Balanced Portfolio: TUCO 345/230 kV Transformer CKT 2 (Total Project E&C Cost Shown)	In-Service		\$14,900,907.00

\* Withdrawal of higher queued projects will cause a restudy and may result in higher costs

<b>Interconnection Request and Upgrades</b>	<b>Upgrade Type</b>	<b>Allocated Cost</b>	<b>Upgrade Cost</b>
Border - Tuco Interchange 345KV CKT 1 Balanced Portfolio: Tuco - Woodward 345kV CKT 1 (Total Project E&C Cost Shown)	Previously Allocated		\$249,247,072.00
	<b>Current Study Total</b>	\$34,676,277.00	
<b>GEN-2013-032</b>			
GEN-2013-032 Interconnection Costs See One-line diagram	Current Study	\$2,500,000.00	\$2,500,000.00
Hoskins - Neligh 345/115kV Project Per SPP 2014 ITP NT and NTC 200253 for 6/1/2016 in-service.	Previously Allocated		\$98,697,720.00
Meadow Grove - North Petersburg 115kV CKT 1 Build approximately 25 miles of new 115kV circuit from Meadow Grove - North Petersburg	Previously Allocated		\$18,000,000.00
Meadow Grove - South Norfolk 230kV CKT 1 Build approximately 25 miles of new 230kV circuit from Meadow Grove - South Norfolk	Previously Allocated		\$25,000,000.00
Meadow Grove 230/115/13.8kV Transformer CKT 1 Build Meadow Grove 230/115/13.8kV Transformer	Previously Allocated		\$6,000,000.00
Twin Church - Dixon County 230kV Increase conductor clearances to accommodate 320MVA facility rating	Previously Allocated		\$100,000.00
	<b>Current Study Total</b>	\$2,500,000.00	
<b>GEN-2013-033</b>			
GEN-2013-033 Interconnection Costs See One-line diagram	Current Study	\$0.00	\$0.00
Clark - Thistle 345KV Dbl CKT Priority Project: Spearville - Clark - Thistle Dbl 345kV CKT (Total Project E&C Cost Shown.)	Previously Allocated		\$426,504,292.00
Spearville - Clark 345KV Dbl CKT Priority Project: Spearville - Clark - Thistle Dbl 345kV CKT (Total Project E&C Cost Shown.)	Previously Allocated		\$426,504,292.00
Thistle - Wichita 345KV Dbl CKT Priority Project: Thistle - Wichita Dbl 345kV CKT (Total Project E&C Cost Shown.)	Previously Allocated		\$426,504,292.00
	<b>Current Study Total</b>	\$0.00	
<b>GEN-2013-034</b>			
GEN-2013-034 Interconnection Costs See One-line diagram	Current Study	\$18,500,000.00	\$18,500,000.00
Border - Woodward 345KV CKT 1 Balanced Portfolio: Tuco - Woodward 345kV CKT 1 (Total Project E&C Cost Shown)	In-Service		\$249,247,072.00

\* Withdrawal of higher queued projects will cause a restudy and may result in higher costs

<b>Interconnection Request and Upgrades</b>	<b>Upgrade Type</b>	<b>Allocated Cost</b>	<b>Upgrade Cost</b>
TUCO Interchange 345/230/13.2KV Autotransformer CKT 2 Balanced Portfolio: TUCO 345/230 kV Transformer CKT 2 (Total Project E&C Cost Shown)	In-Service		\$14,900,907.00
Border - Tuco Interchange 345KV CKT 1 Balanced Portfolio: Tuco - Woodward 345kV CKT 1 (Total Project E&C Cost Shown)	Previously Allocated		\$249,247,072.00
Thistle - Flat Ridge 138kV CKT 1 Priority Project: Thistle - Flat Ridge 138kV CKT 1 (Total Project E&C Cost Shown.)	Previously Allocated		\$5,776,280.00
Thistle - Wichita 345KV Dbl CKT Priority Project: Thistle - Wichita Dbl 345kV CKT (Total Project E&C Cost Shown.)	Previously Allocated		\$426,504,292.00
Thistle 345/138KV Transformer CKT 1 Priority Project: Thistle 345/138kV Transformer CKT 1 (Total Project E&C Cost Shown.)	Previously Allocated		\$6,585,986.00
	<b>Current Study Total</b>	\$18,500,000.00	
<b>TOTAL CURRENT STUDY COSTS:</b>			<b>\$83,162,424.00*</b>
			*Does not include cost to mitigate GGS Stability Flowgate Limit for GEN-2013-021

\* Withdrawal of higher queued projects will cause a restudy and may result in higher costs

## **F: Cost Allocation per Proposed Study Network Upgrade**

Important Note:

**\*\*WITHDRAWAL OF HIGHER QUEUED PROJECTS WILL CAUSE A RESTUDY  
AND MAY RESULT IN HIGHER INTERCONNECTION COSTS\*\***

This section shows each Direct Assigned Facility and Network Upgrade and the Generation Interconnection Request Customer(s) which have an impact in this study assuming all higher queued projects remain in the queue and achieve commercial operation.

The required interconnection costs listed do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request through SPP's Open Access Same Time Information System (OASIS) as required by Attachment Z1 of the SPP OATT. In addition, costs associated with a short circuit analysis will be allocated should the Interconnection Request Customer choose to execute a Facility Study Agreement.

There may be additional costs allocated to each Customer. See Appendix E for more details.



# Appendix F. Cost Allocation by Upgrade

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**ASGI-2013-004 Interconnection Costs** **\$697,212.00**

See One-line diagram

ASGI-2013-004 \$697,212.00

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**Total Allocated Costs** **\$697,212.00**

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**ASGI-2013-005 Interconnection Costs** **\$0.00**

See One-line diagram

ASGI-2013-005 \$0.00

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**Total Allocated Costs** **\$0.00**

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**Bushland - Tumbleweed 230kV CKT 1** **\$33,938,902.00**

Build 15 miles of 345kV operating at 230kV from Bushland to New Bushland South Substation. Also includes terminal equipment at each end. Includes substation work.

GEN-2013-031 \$33,938,902.00

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**Total Allocated Costs** **\$33,938,902.00**

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**Bushland - Potter 230kV CKT 1** **\$400,000.00**

Replace terminal equipment

GEN-2013-031 \$400,000.00

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**Total Allocated Costs** **\$400,000.00**

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**GEN-2013-019 Interconnection Costs** **\$0.00**

See One-line diagram

GEN-2013-019 \$0.00

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**Total Allocated Costs** **\$0.00**

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**GEN-2013-021 Interconnection Costs** **\$7,000,000.00**

See One-line diagram

GEN-2013-021 \$7,000,000.00

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**Total Allocated Costs** **\$7,000,000.00**

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**GEN-2013-022 Interconnection Costs** **\$0.00**

See One-line diagram

GEN-2013-022 \$0.00

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**Total Allocated Costs** **\$0.00**

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\* Withdrawal of higher queued projects will cause a restudy and may result in higher costs

<b>GEN-2013-025 Interconnection Costs</b>		<b>\$0.00</b>
See One-line diagram		
	GEN-2013-025	\$0.00
	<b>Total Allocated Costs</b>	<b>\$0.00</b>
<b>GEN-2013-028 Interconnection Costs</b>		<b>\$10,000,000.00</b>
See One-line diagram		
	GEN-2013-028	\$10,000,000.00
	<b>Total Allocated Costs</b>	<b>\$10,000,000.00</b>
<b>GEN-2013-029 Interconnection Costs</b>		<b>\$2,688,935.00</b>
See One-line diagram		
	GEN-2013-029	\$2,688,935.00
	<b>Total Allocated Costs</b>	<b>\$2,688,935.00</b>
<b>GEN-2013-030 Interconnection Costs</b>		<b>\$7,000,000.00</b>
See One-line diagram		
	GEN-2013-030	\$7,000,000.00
	<b>Total Allocated Costs</b>	<b>\$7,000,000.00</b>
<b>GEN-2013-031 Interconnection Costs</b>		<b>\$337,375.00</b>
See One-line diagram		
	GEN-2013-031	\$337,375.00
	<b>Total Allocated Costs</b>	<b>\$337,375.00</b>
<b>GEN-2013-032 Interconnection Costs</b>		<b>\$2,500,000.00</b>
See One-line diagram		
	GEN-2013-032	\$2,500,000.00
	<b>Total Allocated Costs</b>	<b>\$2,500,000.00</b>
<b>GEN-2013-033 Interconnection Costs</b>		<b>\$0.00</b>
See One-line diagram		
	GEN-2013-033	\$0.00
	<b>Total Allocated Costs</b>	<b>\$0.00</b>
<b>GEN-2013-034 Interconnection Costs</b>		<b>\$18,500,000.00</b>
See One-line diagram		
	GEN-2013-034	\$18,500,000.00
	<b>Total Allocated Costs</b>	<b>\$18,500,000.00</b>

\* Withdrawal of higher queued projects will cause a restudy and may result in higher costs

**Gerald Gentleman Station Flowgate Stability Limit Mitigation**

**TBD in Facility Study**

Mitigation for GGS Flowgate Stability Limit. TBD in the Facilities Study with NPPD.

GEN-2013-021

TBD

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**Total Allocated Costs**

**TBD**

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**Viola - Wichita 345kV CKT 1**

**\$100,000.00**

Replace Terminal Equipment

GEN-2013-029

\$100,000.00

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**Total Allocated Costs**

**\$100,000.00**

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\* Withdrawal of higher queued projects will cause a restudy and may result in higher costs

**G: Power Flow Analysis (Constraints Used For Mitigation)**

See next page.

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.21217	108.0231	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.21217	107.969	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_021		0 14SP	G13_021	'FROM->TO'	'GGS'	1635	0.78328	100.142	'BASE CASE'	
FDNS	00NR		0 19SP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.05246	127.623	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.06724	119.1177	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14WP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.07608	108.0857	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 19WP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.06538	108.039	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 24SP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.05336	103.6191	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 19SP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.05246	128.1458	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 19SP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.05246	122.7104	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.06724	119.1063	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 19WP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.06538	116.9106	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14WP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.07608	116.8228	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.06724	114.7805	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 19WP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.06538	114.5265	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14WP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.07608	114.3298	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 24SP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.05336	104.8136	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 24SP	G13_022	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.05336	100.5592	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 19SP	G13_022	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.05246	102.4138	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06NR		0 14G	G13_022	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.16408	100.8587	'DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.21125	108.0231	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.21125	107.969	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	08ALL		0 14G	G13_029	'FROM->TO'	'VIOLA 7 345.00 - WICHITA 345KV CKT 1'	1035	0.82996	101.3548	'HUNTERS7 345.00 - WOODRING 345KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.40972	187.6308	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.41121	159.1049	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.39813	157.8591	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.39755	149.9956	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	0		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.40984	135.0409	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	0		0 19SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.39718	123.6286	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	0		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.39826	118.1037	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	0		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.41137	117.6454	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	0		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.39761	100.2691	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.73327	131.4126	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.73327	131.4012	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.73327	126.8518	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.83204	126.8368	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.83204	126.6407	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.83392	125.6827	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.83392	125.4651	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73643	125.2507	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73643	125.2408	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73003	125.0114	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73003	125.0056	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73643	121.8728	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73003	121.222	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.83209	115.2627	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.83209	115.1059	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65915	113.6712	'SPP-AEPW-32'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65915	113.6194	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.66067	113.5677	'SPP-SWPS-01'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.65624	112.216	'SPP-AEPW-32'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65544	112.2095	'SPP-AEPW-32'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.65624	112.2082	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65544	112.1422	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.65775	112.0742	'SPP-SWPS-01'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65695	111.9905	'SPP-SWPS-01'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.62281	110.7953	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	109.4112	'BASE CASE'	
FDNS	00G13_031		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.83392	109.1321	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.83392	108.9524	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	108.6644	'BASE CASE'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64922	108.449	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65217	108.4204	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	107.9912	'BASE CASE'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64922	107.2819	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64921	107.2548	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65217	107.2113	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64921	106.0311	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64751	105.866	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64166	104.0047	'DEAF SMITH COUNTY INTERCHANGE - Panda Energy Substation Hereford 115KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64056	103.9056	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 2'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65	103.5444	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64016	103.5285	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	103.5148	'GEN523973 1-HARRINGTON GEN #3 24 KV'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	103.5072	'GEN523973 1-HARRINGTON GEN #3 24 KV'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	103.5033	'GEN523972 1-HARRINGTON GEN #2 24 KV'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	103.503	'GEN523971 1-HARRINGTON GEN #1 24 KV'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	103.4946	'GEN523972 1-HARRINGTON GEN #2 24 KV'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	103.4943	'GEN523971 1-HARRINGTON GEN #1 24 KV'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64166	103.4169	'SPP-SWPS-W40'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64166	103.3422	'DAWN SUB - Panda Energy Substation Hereford 115KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64474	103.0549	'DEAF SMITH COUNTY INTERCHANGE - Panda Energy Substation Hereford 115KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.62837	103.0331	'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63385	103.0288	'NEWHART 230 - PLANT X STATION 230KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64166	102.8684	'CANYON WEST SUB - DAWN SUB 115KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64474	102.527	'SPP-SWPS-W40'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64474	102.4939	'DAWN SUB - Panda Energy Substation Hereford 115KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	102.493	'GEN523973 1-HARRINGTON GEN #3 24 KV'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	102.4815	'GEN523972 1-HARRINGTON GEN #2 24 KV'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	102.4812	'GEN523971 1-HARRINGTON GEN #1 24 KV'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.62672	102.4597	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64091	102.2218	'DEAF SMITH COUNTY INTERCHANGE - Panda Energy Substation Hereford 115KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	102.1673	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64474	102.0887	'CANYON WEST SUB - DAWN SUB 115KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64091	101.7489	'SPP-SWPS-W40'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64091	101.6778	'DAWN SUB - Panda Energy Substation Hereford 115KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64152	101.6396	'PLANT X STATION - SUNDOWN INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64332	101.5572	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 2'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63727	101.5477	'SPP-SWPS-25'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.3916	'GEN531447 1-HOLCOMB GENERATOR'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.3619	'GEN336821 1-GRAND GULF UNIT'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64293	101.3393	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.3288	'GEN640009 1-COOPER NUCLEAR STATION'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.3188	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64274	101.2952	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64293	101.2604	'SPP-SWPS-T04'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63897	101.2594	'PLANT X STATION - SUNDOWN INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64091	101.2568	'CANYON WEST SUB - DAWN SUB 115KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	101.2499	'GEN531447 1-HOLCOMB GENERATOR'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	101.1526	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.1442	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.0937	'GEN336153 1-WATERFORD UNIT#3'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.0532	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.0422	'GEN645012 2-NEBRASKA CITY 2'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	101.0393	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.0113	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.8965	'GEN542962 2-IATAN UNIT #2'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.8807	'GEN335831 1-RIVERBEND UNIT#1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63733	100.8478	'HALE CO INTERCHANGE - PLANT X STATION 115KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63737	100.798	'JONES STATION - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64166	100.715	'CANYON EAST SUB - CANYON WEST SUB 115KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63966	100.6658	'COULTER INTERCHANGE - PUCKETT SUB 115KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.6368	100.6542	'WOLFFORTH INTERCHANGE - YUMA INTERCHANGE 115KV CKT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.6533	'GEN542957 1-IATAN UNIT #1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.5621	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63792	100.5545	'PLANT X STATION - SUNDOWN INTERCHANGE 230KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63763	100.5462	'LAWTON EASTSIDE - SUNNYSIDE 345KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.5445	'GEN523462 1-BLACKHAWK GEN #2'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.5388	'GEN645001 1-FORT CALHOUN 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.5232	'GEN523461 1-BLACKHAWK GEN #1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.5161	'GEN300003 1-THOMAS HILL UNIT 3'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63916	100.4948	'SPP-SWPS-V29'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.4871	'GEN640009 1-COOPER NUCLEAR STATION'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63512	100.4858	'HALE CO INTERCHANGE - KRESS INTERCHANGE 115KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63971	100.4406	'DEAF SMITH COUNTY INTERCHANGE (LIKE POTTER) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63971	100.4406	'DEAF SMITH COUNTY INTERCHANGE (LIKE POTTER) 230/115/13.8KV TRANSFORMER CKT 2'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	100.4255	'GEN531447 1-HOLCOMB GENERATOR'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63981	100.4231	'COULTER INTERCHANGE - PUCKETT SUB 115KV CKT 1'	
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	100.4214	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.6431	100.4041	'SPP-SWPS-T58'	
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.6431	100.4031	'DEAF SMITH REC-#6 - HEREFORD INTERCHANGE 115KV CKT 1'	
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.3802	'GEN645012 2-NEBRASKA CITY 2'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	00G13_031	0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.3609	'GEN542962 2-IATAN UNIT #2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.3603	'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.3603	'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	100.3506	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.3372	'GEN645011 1-NEBRASKA CITY 1'
FDNS	00G13_031	0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.3299	'GEN645011 1-NEBRASKA CITY 1'
FDNS	00G13_031	0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.62582	100.3287	'AMARILLO SOUTH INTERCHANGE - SWISHER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63624	100.3268	'BOWERS INTERCHANGE (NA 70456-A) 115/69/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.3221	'GEN542951 5-HAWTHORN UNIT #5'
FDNS	00G13_031	0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64027	100.3168	'DEAF SMITH REC-#6 - HEREFORD INTERCHANGE 115KV CKT 1'
FDNS	00G13_031	0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64027	100.3142	'SPP-SWPS-T58'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.3135	'GEN338388 1-PLUMPT_G1 23.000'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.2874	'GEN659111 2-LELAND OLDS UNIT2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.2782	'GEN523462 1-BLACKHAWK GEN #2'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	100.2691	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.2599	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.2558	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64044	100.222	'LAWTON EASTSIDE - SUNNYSIDE 345KV CKT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.6431	100.1976	'DEAF SMITH REC-#6 - FRIONA SUB 115KV CKT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64474	100.1917	'CANYON EAST SUB - CANYON WEST SUB 115KV CKT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64245	100.121	'COULTER INTERCHANGE - PUCKETT SUB 115KV CKT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.1051	'GEN300007 1-NEW MADRID UNIT 2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.1033	'GEN300006 1-NEW MADRID UNIT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	100.0798	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.0621	'GEN524295 1-SPNSPUR_WND10.6900'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN303006 1-1BC2 U1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN303007 1-1BC2 U2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN336252 1-NINEMILE POINT UNIT#5'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN337041 1-GERALD ANDRUS'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN501813 1-RODEMACHER UNIT 3'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN541151 3-SIBLEY GENERATING UNIT #3'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN542956 2-LACYGNE UNIT #2'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63981	100	'PUCKETT SUB - SONCY_TP 3115.00 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63704	100	'LAWTON EASTSIDE - SUNNYSIDE 345KV CKT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.6431	99.9	'CARGILL SUB - FRIONA SUB 115KV CKT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63955	99.9	'TOLK STATION WEST - YOAKUM COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN335206 1-NELSON UNIT 6'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN336831 1-BAXTER WILSON SES'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN509394 1-FLINT CREEK'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN514805 1-SOONER UNIT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN514806 1-SOONER UNIT 2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63971	99.9	'DEAF SMITH REC-#6 - HEREFORD INTERCHANGE 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63971	99.9	'SPP-SWPS-T58'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63307	99.8	'CHERRY1 - HARRINGTON STATION 230KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63572	99.8	'SPP-SWPS-V29'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.8	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.8	'GEN542962 2-IATAN UNIT #2'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.8	'GEN645012 2-NEBRASKA CITY 2'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.6297	99.8	'CHERRY1 - HARRINGTON STATION 230KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63971	99.7	'DEAF SMITH REC-#6 - FRIONA SUB 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.6	'GEN523462 1-BLACKHAWK GEN #2'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.6	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.6	'GEN645001 1-FORT CALHOUN 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.5	'GEN336153 1-WATERFORD UNIT#3'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.5	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.5	'GEN542957 1-IATAN UNIT #1'
FDNS	00G13_031	0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.40972	188.4723	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.40972	178.8008	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.41121	174.3142	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39813	172.3888	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.41121	167.8929	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39813	166.5558	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39755	149.0516	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39755	143.4005	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0	0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.40984	134.8042	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0	0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.40984	129.7522	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39826	127.7152	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.41137	127.0714	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39826	124.9996	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.41137	124.2399	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	0		019SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39718	124.1917		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		019SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39718	118.9409		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		024SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39761	101.4593		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		014SP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.40972	159.0806		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		014WP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.41121	139.39		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		019WP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.39813	137.1148		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		024SP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.39755	120.7924		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		014SP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.40984	111.0748		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		014WP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.41137	100.9063		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		019WP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.39826	100.2145		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		214SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63631	101.4		'BUSHLAND INTERCHANGE - BUSHLAND_S 230.00 230KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.38379	137.495		'BLOOMFIELD - GAVINS POINT 115KV CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.38388	122.7776		'BLOOMFIELD - GAVINS POINT 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35416	120.5041		'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35416	120.3463		'ALBION - PETERSBURG 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31484	117.0157		'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.49494	116.4866		'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32406	116.3596		'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32406	116.3357		'S_NORFOLK 345.00 (SNORFOLKT) 345/230/13.8KV TRANSFORMER CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.36883	116.0986		'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.36883	116.0969		'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.34694	115.7847		'WAPA-OG-2'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32412	114.1206		'GAVINS POINT - HARTINGTON 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33603	113.8936		'ALBION - GENOA 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32412	113.0599		'NEB02WAPAB2'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33676	112.932		'WAPA-OG-1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.49487	112.6937		'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33603	112.6052		'COLUMBUS - GENOA 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32604	111.9841		'GAVINS POINT - YANKON JCT 115KV CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35412	111.8532		'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35412	111.695		'ALBION - PETERSBURG 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32412	111.4651		'BELDEN - HARTINGTON 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37838	111.1799		'LN-1164'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37838	111.1593		'CLEARWATER - NELIGH 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32305	110.8571		'DAK02WAPAB2'
FDNS	9		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.38388	110.6629		'BLOOMFIELD - GAVINS POINT 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37838	110.5971		'CLEARWATER - ONEILL 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32434	109.8024		'UTICA - YANKON JCT 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32225	109.6026		'KELLY - MEADOWGROVE 230.00 230KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.34782	109.4632		'LN-WAPA6'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.34782	109.4632		'NEB001NPPB2'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.34782	109.4273		'ONEILL - SPENCER 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32071	108.9751		'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.34782	108.8819		'FT RANDAL - SPENCER 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32071	108.4037		'BERSFORD - MANNING 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.38379	108.3964		'CREIGHTON - NELIGH 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	107.893		'GEN560350 1-G10-51 0.6900'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31984	107.7864		'FT RANDAL - SIOUX CITY 230KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32071	107.3498		'BERSFORD - SIOUX FALLS 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.3172	107.2284		'G10-51T 230.00 - HOSKINS 230KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32005	106.7663		'RASMUSN - UTICA JCT 230KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32027	106.7632		'MISSION - ST FRANCIS 115KV CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.315	106.4816		'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32187	106.4587		'UTICA JCT (UJ KV3A) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32005	106.4289		'RASMUSN - SIOUX CITY 230KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32083	106.4064		'LOUP CITY - ST LIBORY 115KV CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32412	106.2173		'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32412	106.1982		'S_NORFOLK 345.00 (SNORFOLKT) 345/230/13.8KV TRANSFORMER CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.36893	106.0162		'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.36893	106.015		'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.347	105.7285		'WAPA-OG-2'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32417	105.3456		'GAVINS POINT - HARTINGTON 115KV CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32417	104.508		'NEB02WAPAB2'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33609	104.2577		'ALBION - GENOA 115KV CKT 1'
FDNS	09ALL		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	104.0598		'BASE CASE'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33681	103.1122		'WAPA-OG-1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33609	102.9276		'COLUMBUS - GENOA 115KV CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32417	102.9252		'BELDEN - HARTINGTON 115KV CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.3261	102.8212		'GAVINS POINT - YANKON JCT 115KV CKT 1'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37846	102.2634		'LN-1164'
FDNS	09G13_032		014G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37846	102.2426		'CLEARWATER - NELIGH 115KV CKT 1'



SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32311	102.0588	'DAK02WAPAB2'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31214	101.6911	'NORFOLK - NORTH NORFOLK 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37846	101.6807	'CLEARWATER - ONEILL 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	101.1447	'GEN560228 1-G08-86N2 0.6900'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.3244	100.9773	'UTICA - YANKON JCT 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32722	100.8247	'LN-1267'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32722	100.7802	'EMMET - ONEILL 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32229	100.7014	'KELLY - MEADOWGROVE 230.00 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32722	100.6847	'ATKINSON - EMMET 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	100.6588	'GEN659118 1-LARAMIE RIVER UNIT1'
FDNS	9		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35412	100.5072	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	100.4741	'GEN640026 1-AINSWORTH WIND'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32722	100.4505	'ATKINSON - STUART 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32077	100.4386	'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	9		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35412	100.349	'ALBION - PETERSBURG 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32722	100.348	'AINSORTH - STUART 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.38388	100.3067	'CREIGHTON - NELIGH 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.3164	100.1969	'SIOUX CITY - TWIN CHURCH 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	100	'GEN640421 1-CROFTON HILLS WIND'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32077	99.9	'BERSFORD - MANNING 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.2927	99.5	'HOSKINS - NORTH NORFOLK 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.38379	132.0141	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.38388	117.2534	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.35416	114.9663	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.35416	114.8085	'ALBION - PETERSBURG 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.31484	111.4807	'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.49494	110.9647	'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32406	110.8149	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32406	110.7933	'S_NORFOLK 345.00 (SNORFOLK) 345/230/13.8KV TRANSFORMER CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.36883	110.5665	'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.36883	110.5649	'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.34694	110.2598	'WAPA-OG-2'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32412	108.5997	'GAVINS POINT - HARTINGTON 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.33603	108.369	'ALBION - GENOA 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32412	107.5026	'NEB02WAPAB2'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.33676	107.4096	'WAPA-OG-1'
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.49487	107.1676	'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.33603	107.0845	'COLUMBUS - GENOA 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32604	106.4578	'GAVINS POINT - YANKON JCT 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.35412	106.3137	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.35412	106.1553	'ALBION - PETERSBURG 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32412	105.9099	'BELDEN - HARTINGTON 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.37838	105.6469	'LN-1164'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.37838	105.6265	'CLEARWATER - NELIGH 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32305	105.3004	'DAK02WAPAB2'
FDNS	9		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.38388	105.1565	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.37838	105.0643	'CLEARWATER - ONEILL 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32434	104.2484	'UTICA - YANKON JCT 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32225	104.0457	'KELLY - MEADOWGROVE 230.00 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.34782	103.9394	'LN-WAPA6'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.34782	103.9394	'NEB001NPPB2'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.34782	103.9036	'ONEILL - SPENCER 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32071	103.4209	'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.34782	103.3578	'FT RANDAL - SPENCER 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.38379	102.8648	'CREIGHTON - NELIGH 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32071	102.8542	'BERSFORD - MANNING 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.31879	102.346	'GEN560350 1-G10-51 0.6900'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.31984	102.2456	'FT RANDAL - SIOUX CITY 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32071	101.807	'BERSFORD - SIOUX FALLS 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.3172	101.6975	'G10-51T 230.00 - HOSKINS 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32027	101.2454	'MISSION - ST FRANCIS 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32005	101.2294	'RASMUSN - UTICA JCT 230KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.315	100.9388	'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32187	100.9222	'UTICA JCT (UJ KV3A) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32005	100.8932	'RASMUSN - SIOUX CITY 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32083	100.8788	'LOUP CITY - ST LIBORY 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32412	100.6751	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32412	100.6577	'S_NORFOLK 345.00 (SNORFOLK) 345/230/13.8KV TRANSFORMER CKT 1'
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.36893	100.484	'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.36893	100.4828	'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.347	100.204	'WAPA-OG-2'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32417	99.8	'GAVINS POINT - HARTINGTON 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	120	0.24793	115.6089	'COUNTY LINE - NELIGH 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	120	0.24793	115.5584	'LN-1163'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	120	0.24793	115.4674	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	120	0.24793	113.9411	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.38379	138.1868	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.38388	123.469	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35416	121.1946	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35416	121.0369	'ALBION - PETERSBURG 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31484	117.7072	'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.49494	117.1803	'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32406	117.0504	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32406	117.0265	'S_NORFOLK 345.00 (SNORFOLK) 345/230/13.8KV TRANSFORMER CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.36883	116.7909	'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.36883	116.7893	'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.34694	116.4776	'WAPA-OG-2'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32412	114.8141	'GAVINS POINT - HARTINGTON 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33603	114.587	'ALBION - GENOA 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32412	113.7505	'NEB02WAPAB2'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33676	113.6259	'WAPA-OG-1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.49487	113.388	'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33603	113.2993	'COLUMBUS - GENOA 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32604	112.6779	'GAVINS POINT - YANKON JCT 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35412	112.5462	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35412	112.3881	'ALBION - PETERSBURG 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32412	112.1563	'BELDEN - HARTINGTON 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37838	111.8732	'LN-1164'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37838	111.8527	'CLEARWATER - NELIGH 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32305	111.5484	'DAK02WAPAB2'	
FDNS	9		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.38388	111.3606	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37838	111.2906	'CLEARWATER - ONEILL 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32434	110.4945	'UTICA - YANKON JCT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32225	110.2945	'KELLY - MEADOWGROVE 230.00 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.34782	110.159	'LN-WAPA6'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.34782	110.159	'NEB001NPPB2'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.34782	110.1231	'ONEILL - SPENCER 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32071	109.6673	'MANNING - SPIRIT MOUND 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.34782	109.5777	'FT RANDAL - SPENCER 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32071	109.0967	'BERSFORD - MANNING 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.38379	109.0904	'CREIGHTON - NELIGH 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	108.5866	'GEN560350 1-G10-51 0.6900'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31984	108.4804	'FT RANDAL - SIOUX CITY 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32071	108.0438	'BERSFORD - SIOUX FALLS 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3172	107.9236	'G10-51T 230.00 - HOSKINS 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32027	107.461	'MISSION - ST FRANCIS 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32005	107.461	'RASMUSN - UTICA JCT 230KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.315	107.1771	'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32187	107.1536	'UTICA JCT (U KV3A) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32412	106.9117	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32412	106.8927	'S_NORFOLK 345.00 (SNORFOLK) 345/230/13.8KV TRANSFORMER CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.36893	106.7117	'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.36893	106.7106	'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.347	106.425	'WAPA-OG-2'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32417	106.0372	'GAVINS POINT - HARTINGTON 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32417	105.2011	'NEB02WAPAB2'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33609	104.9501	'ALBION - GENOA 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	104.7522	'BASE CASE'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33681	103.8052	'WAPA-OG-1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33609	103.6207	'COLUMBUS - GENOA 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32417	103.6189	'BELDEN - HARTINGTON 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3261	103.5143	'GAVINS POINT - YANKON JCT 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37846	102.9555	'LN-1164'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37846	102.9347	'CLEARWATER - NELIGH 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32311	102.7534	'DAK02WAPAB2'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37846	102.373	'CLEARWATER - ONEILL 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	102.3194	'GEN659103 1-ANTELOPE VALLEY UNIT1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	102.3194	'GEN659107 2-ANTELOPE VALLEY UNIT2'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	101.8418	'GEN560228 1-G08-86N2 0.6900'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3244	101.6728	'UTICA - YANKON JCT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32722	101.5185	'LN-1267'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32722	101.4741	'EMMET - ONEILL 115KV CKT 1'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32229	101.3965	'KELLY - MEADOWGROVE 230.00 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32722	101.3785	'ATKINSON - EMMET 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	101.3541	'GEN659118 1-LARAMIE RIVER UNIT1'	
FDNS	9		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35412	101.2016	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	101.1678	'GEN640026 1-AINSWORTH WIND'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32722	101.1444	'ATKINSON - STUART 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32077	101.1343	'MANNING - SPIRIT MOUND 115KV CKT 1'	
FDNS	9		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35412	101.0434	'ALBION - PETERSBURG 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32722	101.0418	'AINSWORTH - STUART 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.38388	100.9984	'CREIGHTON - NELIGH 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3164	100.8901	'SIOUX CITY - TWIN CHURCH 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	100.6868	'GEN640421 1-CROFTON HILLS WIND'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32077	100.5682	'BERSFORD - MANNING 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.2927	100.204	'HOSKINS - NORTH NORFOLK 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3479	100.1032	'LN-WAPA6'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3479	100.1032	'NEB001NPPB2'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3479	100.0687	'ONEILL - SPENCER 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3199	100	'FT RANDAL - SIOUX CITY 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	99.9	'GEN645062 W-TPWPBG1W 0.6900'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31884	99.7	'GEN560350 1-G10-51 0.6900'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32077	99.6	'BERSFORD - SIOUX FALLS 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3479	99.5	'FT RANDAL - SPENCER 115KV CKT 1'	

## **H: Power Flow Analysis (Other Constraints Not Requiring Mitigation)**

See next page.

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY	
FDNS	00ASGI_13_004		0	14WP	ASGI_13_004	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04152	109.547	'DBL-WICH-THI'
FDNS	0		0	14WP	ASGI_13_004	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04152	109.547	'DBL-WICH-THI'
FDNS	00ASGI_13_004		0	19SP	ASGI_13_004	'FROM->TO'	'DOBSON - GANO 3 115.00 115KV CKT 1'	148.2	0.59559	113.7814	'HOLCOMB (HOLCOMB) 345/115/13.8KV TRANSFORMER CKT 1'
FDNS	0		0	19SP	ASGI_13_004	'FROM->TO'	'DOBSON - GANO 3 115.00 115KV CKT 1'	148.2	0.59559	113.7814	'HOLCOMB (HOLCOMB) 345/115/13.8KV TRANSFORMER CKT 1'
FDNS	00ASGI_13_004		0	24SP	ASGI_13_004	'FROM->TO'	'DOBSON - GANO 3 115.00 115KV CKT 1'	148.2	0.59589	105.9261	'HOLCOMB (HOLCOMB) 345/115/13.8KV TRANSFORMER CKT 1'
FDNS	0		0	24SP	ASGI_13_004	'FROM->TO'	'DOBSON - GANO 3 115.00 115KV CKT 1'	148.2	0.59589	105.9261	'HOLCOMB (HOLCOMB) 345/115/13.8KV TRANSFORMER CKT 1'
FDNS	00ASGI_13_004		0	14WP	ASGI_13_004	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04152	119.7998	'DBL-WICH-THI'
FDNS	0		0	14WP	ASGI_13_004	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04152	119.7998	'DBL-WICH-THI'
FDNS	00ASGI_13_004		0	19WP	ASGI_13_004	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04272	101.5308	'DBL-WICH-THI'
FDNS	0		0	19WP	ASGI_13_004	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04272	101.5308	'DBL-WICH-THI'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.11001	116.9687	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	14SP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.11173	137.7944	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	14WP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.10979	120.129	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	19SP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.09852	125.9917	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	19WP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.09959	120.2333	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	24SP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.09896	102.4004	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.11001	112.7879	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.11001	115.2691	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	14SP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.11173	132.3172	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	14SP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.11173	137.5003	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	14WP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.10979	126.7902	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	14WP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.10979	129.7177	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	19SP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.09852	121.1607	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	19SP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.09852	126.5268	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	19WP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.09959	127.1881	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	19WP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.09959	129.9846	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	24SP	ASGI_13_005	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.09896	103.6026	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'CANYON EAST SUB - CANYON WEST SUB 115KV CKT 1'	96	0.10766	118.5099	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'CANYON EAST SUB - CANYON WEST SUB 115KV CKT 1'	96	0.10766	118.3691	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'CANYON EAST SUB - OSAGE SWITCHING STATION 115KV CKT 1'	96	0.10766	107.6243	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'CANYON EAST SUB - OSAGE SWITCHING STATION 115KV CKT 1'	96	0.10766	107.5519	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'CANYON WEST SUB - DAWN SUB 115KV CKT 1'	96	0.10766	130.9771	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'CANYON WEST SUB - DAWN SUB 115KV CKT 1'	96	0.10766	130.7874	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	191	0.03048	104.8248	'DBL-WICH-THI'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03048	194.2016	'DBL-WICH-THI'
FDNS	06ASGI_13_005		0	14G	ASGI_13_005	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03156	140.9882	'DBL-WICH-THI'
FDNS	6		0	14G	ASGI_13_005	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03157	140.7155	'DBL-WICH-THI'
FDNS	00ASGI_13_005		0	14WP	ASGI_13_005	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03107	110.6791	'DBL-WICH-THI'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'CONWAY SUB - KIRBY SWITCHING STATION 115KV CKT 1'	160	0.03404	112.0442	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'CONWAY SUB - NICHOLS STATION 115KV CKT 1'	175	0.03404	109.5177	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	00ASGI_13_005		0	14SP	ASGI_13_005	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.11173	113.5899	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	14WP	ASGI_13_005	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.10979	103.2138	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	19SP	ASGI_13_005	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.09852	100.9209	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0	19WP	ASGI_13_005	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.09959	102.1935	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.16114	100.6972	'AMARILLO SOUTH INTERCHANGE - SWISHER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.1604	102.6299	'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.167	101.0697	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.16194	103.1611	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.15983	104.8377	'SPP-SWPS-26'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'DAWN SUB - Panda Energy Substation Hereford 115KV CKT 1'	96	0.10766	134.0297	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'DAWN SUB - Panda Energy Substation Hereford 115KV CKT 1'	96	0.10766	133.8479	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	316	0.0761	100.3759	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'FROM->TO'	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	316	0.07559	100.2403	'DBL-WICH-THI'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FLATRDRG3 - THISTLE4 138.00 138KV CKT 1'	286	0.04066	101.1393	'DBL-WICH-THI'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0399	139.863	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0399	127.2371	'STLN-DEMAR6 - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03106	113.0916	'WOODWARD - WOODWARD 69KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03266	121.3544	'DEWEY - IODINE 138KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03266	123.0288	'IODINE - WOODWARD EHV 138KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04205	163.5874	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03183	109.7746	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03184	109.7931	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04205	148.5103	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04205	150.1242	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0399	140.3806	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03409	127.5015	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0399	127.3596	'STATELINE INTERCHANGE - STLN-DEMAR6 230KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03071	111.8534	'THISTLE7 345.00 - WICHITA 345KV CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03071	111.8534	'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0399	139.7613	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	06ALL		0	14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03106	125.8563	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04092	161.948	'DBL-WICH-THI'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04296	141.8934	'DBL-THIS-WWR'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0399	127.358	'SPP-SWPS-02'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0399	133.1086	'SPP-SWPS-02A'
FDNS	06ASGI_13_005		0 14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04299	107.289	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ASGI_13_005		0 14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04197	101.808	'DBL-WICH-THI'
FDNS	6		0 14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04299	107.0706	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	6		0 14G	ASGI_13_005	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04198	101.6149	'DBL-WICH-THI'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06556	103.3987	'BASE CASE'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06981	106.262	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06981	103.4826	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06981	103.7827	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06881	102.21	'KINGSMILL INTERCHANGE - MCCULLOUGH SUB 69KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06881	100.1091	'BOWERS INTERCHANGE - MCCULLOUGH SUB 69KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.07413	109.1851	'CONWAY SUB - NICHOLS STATION 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.07413	107.3358	'CONWAY SUB - KIRBY SWITCHING STATION 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06907	99.5	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.0693	105.8692	'DBL-WICH-THI'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.07413	107.3504	'SPP-SWPS-T53'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	351	0.0761	100.1286	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	351	0.07559	99.8	'DBL-WICH-THI'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.0373	115.3093	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.0373	130.9951	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	00ASGI_13_005		0 14SP	ASGI_13_005	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03088	117.0206	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0 14SP	ASGI_13_005	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03088	122.1216	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0 14WP	ASGI_13_005	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03024	116.9072	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	00ASGI_13_005		0 14WP	ASGI_13_005	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03024	121.6509	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'HALE CO INTERCHANGE - KRESS INTERCHANGE 115KV CKT 1'	154	0.04924	111.3229	'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03048	204.5797	'DBL-WICH-THI'
FDNS	06ASGI_13_005		0 14G	ASGI_13_005	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03156	151.5201	'DBL-WICH-THI'
FDNS	6		0 14G	ASGI_13_005	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03157	151.2484	'DBL-WICH-THI'
FDNS	00ASGI_13_005		0 14WP	ASGI_13_005	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03107	120.9288	'DBL-WICH-THI'
FDNS	00ASGI_13_005		0 19WP	ASGI_13_005	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03052	102.6908	'DBL-WICH-THI'
FNLS-Blown up	06ALL		0 14G	ASGI_13_005		Non-converged contingency	0	0.42252	9999	'SPP-AEPW-32'
FNLS-Blown up	06ALL		0 14G	ASGI_13_005		Non-converged contingency	0	0.40987	9999	'SPP-SWPS-01'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.1574	'BASE CASE'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21125	108.7558	'DOLET HILLS - SOUTHWEST SHREVEPORT 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20996	105.9377	'LYDIA - VALLIANT 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21129	107.4968	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21079	107.4852	'HUGO - VALLIANT 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21345	109.7095	'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21345	109.6307	'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21082	107.6441	'DUNCAN - OMPA-DUNCAN 840 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21409	110.0455	'CLINTON JUNCTION - ELK CITY 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.19842	102.9814	'GRACEMONT - LAWTON EASTSIDE 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22662	121.5878	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21082	107.5303	'COMANCHE TAP - OMPA-DUNCAN 840 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22662	117.424	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21184	108.9498	'JERICHO - KIRBY SWITCHING STATION 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21184	108.9499	'HWRDWCK2 69.000 - JERICHO 69KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21184	108.7976	'CLARENDON - CLARENDON REC 69KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21184	108.9324	'CLARENDON - HWRDWCK2 69.000 69KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21308	108.9	'CHILDRESS - HOLLIS TAP 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21308	108.9529	'HOLLIS TAP - WELLINGTON 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21308	109.1555	'SHAMROCK - WELLINGTON 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21308	109.4263	'MCLEAN RURAL SUB - SHAMROCK 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21168	108.9052	'HUNTERS7 345.00 - WOODRING 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21034	108.7905	'MATHWSN7 345.00 - WOODRING 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2118	108.7918	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21243	109.4617	'FPL SWITCH - WOODWARD 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21178	108.7784	'DEWEY - IODINE 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21202	109.2144	'DEWEY - SOUTHARD 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2118	108.8125	'GLASS MOUNTAIN - MOORELAND 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21178	108.8145	'IODINE - WOODWARD EHV 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.19957	104.4575	'CIMARRON - MINCO 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.19957	105.2114	'GRACEMONT - MINCO 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20951	107.3264	'JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21202	109.0314	'EL RENO - ROMAN NOSE 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21202	109.1292	'ROMAN NOSE - SOUTHARD 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21054	109.1772	'CIMARRON - NORTHWEST 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22513	121.9005	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21034	109.0404	'CIMARRON - MATHWSN7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20968	106.9074	'HUGO - SUNNYSIDE 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21045	109.0005	'CANADIAN RIVER - MUSKOGEE 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21384	109.8124	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21385	109.8148	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22513	118.6877	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22513	119.1462	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21243	109.5425	'FPL SWITCH - MOORELAND 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2117	108.8029	'CEDARDALE - MOORELAND 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2117	108.7861	'CEDARDALE - OKEENE 138KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21709	110.1888	'HITCHLAND INTERCHANGE - MOORE COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2162	110.509	'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21316	109.1714	'BEAVER CO 345.00 - Hitchland Interchange 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21316	109.1714	'BEAVER CO 345.00 - Hitchland Interchange 345KV CKT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21506	110.8335	'MOORE COUNTY INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22662	122.1455	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22037	119.4091	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22662	117.4998	'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21308	109.6043	'MCCLELLAN SUB - MCLCAN RURAL SUB 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21308	109.6433	'KIRBY SWITCHING STATION - MCCLELLAN SUB 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2162	110.7716	'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22398	111.3112	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21244	109.5252	'CONWAY SUB - NICHOLS STATION 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21244	109.3119	'CONWAY SUB - KIRBY SWITCHING STATION 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.23474	114.3967	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21326	108.8962	'PALO DURO SUB - RANDALL COUNTY INTERCHANGE 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21993	114.1131	'AMARILLO SOUTH INTERCHANGE - SWISHER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21326	108.9211	'HAPPY INTERCHANGE - PALO DURO SUB 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.23474	114.2996	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21326	109.2994	'HAPPY INTERCHANGE - TULIA TAP 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21326	109.3952	'KRESS INTERCHANGE - TULIA TAP 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21345	109.0456	'HALE CO INTERCHANGE - KRESS INTERCHANGE 115KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21584	115.6048	'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.18868	104.7578	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20862	107.1577	'JONES STATION - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21275	110.1326	'G12-011T 345.00 - POST ROCK 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21227	109.1365	'AXTELL - POST ROCK 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21161	108.9887	'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21324	109.4472	'HOLCOMB - SETAB 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21366	110.0483	'MINGO - SETAB 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21386	109.5876	'MINGO - RED WILLOW 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21708	112.346	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21275	109.4755	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21134	108.7568	'HOYT - JEFFREY ENERGY CENTER 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21248	109.0534	'BENTON - WICHITA 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21383	110.7544	'THISTLE7 345.00 - WICHITA 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21383	110.7544	'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21165	108.8096	'CIRCLE - MULLERGREN 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21165	108.821	'MULLERGREN - SPEARVILLE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21275	109.8132	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21277	109.6758	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21277	109.6758	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21162	108.9861	'GRAND ISLAND - SWEETWATER 345KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22662	121.5153	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2108	107.3092	'LAWTON EASTSIDE (LES 5) 345/138/13.8KV TRANSFORMER CKT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21184	108.9479	'JERICHO (JERIC2WT) 115/69/14.4KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21308	109.1513	'SHAMROCK (SHAMRCK2) 138/69/14.4KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21308	109.4211	'SHAMROCK (SHAMRCK1) 115/69/14.4KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.6842	'TUCO INTERCHANGE 230/13.0KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2016	105.3515	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20383	105.9599	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22212	119.9684	'DBL-WICH-THI'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22056	114.1092	'DBL-THIS-WWR'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21184	110.7916	'DBL-THIS-CLR'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21184	109.1698	'DBL-SPRVL-CL'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21184	109.7608	'DBL-IRON-CLR'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20995	105.9338	'SPP-AEPW-01'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.1574	'NC1_GEN-NEBRASKA CITY 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22662	117.5044	'SPP-SWPS-02'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22662	117.7328	'SPP-SWPS-0A'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2162	110.5584	'SPP-SWPS-05'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21133	108.9942	'SPP-SWPS-26'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21244	109.038	'SPP-SWPS-T53'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21308	109.1209	'SPP-SWPS-T54'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21326	108.8621	'SPP-SWPS-T66'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21326	109.2811	'SPP-SWPS-T67'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21143	108.8854	'SPP-SWPS-V29'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21134	108.7886	'WRTOD400'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.839	'GEN334440 1-SABINE UNIT 4'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.809	'GEN335204 1-NELSON UNIT 4'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.2508	'GEN335206 1-NELSON UNIT 6'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.9836	'GEN335831 1-RIVERBEND UNIT#1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	110.2006	'GEN336153 1-WATERFORD UNIT#3'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.9194	'GEN336252 1-NINEMILE POINT UNIT#5'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	110.3045	'GEN336821 1-GRAND GULF UNIT'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.8676	'GEN336831 1-BAXTER WILSON SES'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.8452	'GEN337041 1-GERALD ANDRUS'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.8827	'GEN338388 1-1PLUMPT G1 23.000'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	110.003	'GEN501801 1-DOLET HILLS UNIT1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.9362	'GEN501811 1-RODEMACHER UNIT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.1595	'GEN501812 1-RODEMACHER UNIT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.3813	'GEN501813 1-RODEMACHER UNIT 3'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.8081	'GEN509394 1-FLINT CREEK'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.6862	'GEN509403 1-PIRKEY GENERATION'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.6363	'GEN509404 1-WELSH #1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.6364	'GEN509405 1-WELSH #2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.6365	'GEN509406 1-WELSH #3'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.9284	'GEN509416 1-TURK GENERATION'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.0544	'GEN511851 1-COMANCHE #1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.7735	'GEN514805 1-SOONER UNIT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.8094	'GEN514806 1-SOONER UNIT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.8749	'GEN515040 1-SEMINOLE 1G'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.8367	'GEN515041 1-SEMINOLE 2G'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.7587	'GEN515042 1-SEMINOLE 3G'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.3202	'GEN515223 1-MUSKOGEE 4G'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.3354	'GEN515225 1-MUSKOGEE 5G'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.3303	'GEN515226 1-MUSKOGEE 6G'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.7795	'GEN520811 1-ANADRRK4'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	109.9962	'GEN520947 1-HUGO1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	106.2265	'GEN522814 1-LUBBOCK POWER & LIGHT-MACKENZIE GEN'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.1857	'GEN522875 1-LUBBOCK POWER & LIGHT-BRANDON GEN'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	105.5026	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	105.4547	'GEN523462 1-BLACKHAWK GEN #2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	99.7	'GEN523971 1-HARRINGTON GEN #1 24 KV'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	99.7	'GEN523972 1-HARRINGTON GEN #2 24 KV'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	99.7	'GEN523973 1-HARRINGTON GEN #3 24 KV'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	106.6501	'GEN524286 1-CLR_3 0.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	106.5432	'GEN524295 1-SPNSPUR_WND10.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.5424	'GEN524471 1-QUAY_CNTY 113.800'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	105.7986	'GEN524485 1-CAPROCK WIND GEN'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	103.6967	'GEN524895 1-SAN JUAN MESA WIND GEN'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	103.5859	'GEN526331 1-JONES GEN #1 22 KV'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	105.3305	'GEN526678 1-CIRRUS_WND 10.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	103.1832	'GEN527161 1-MUSTANG GEN #1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	103.1832	'GEN527162 1-MUSTANG GEN #2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	102.4384	'GEN527163 1-MUSTANG GEN #3 22 KV'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	101.164	'GEN527166 1-MUSTANG_6 118.000'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	101.0226	'GEN527882 1-CUNNINGHAM GEN #2 20 KV'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	102.5059	'GEN527901 1-HOBBS PLANT #1 (CT)'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	102.5448	'GEN527902 1-HOBBS PLANT #2 (CT)'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	99.9	'GEN527903 1-HOBBS PLANT #3 (ST)'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.0426	'GEN528332 1-WILDCAT_WND134.500'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	105.2865	'GEN531447 1-HOLCOMB GENERATOR'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.2383	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.2474	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.2476	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.0501	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	106.9648	'GEN539670 4-JUDSON LARGE GENERATOR'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.5528	'GEN542957 1-IATAN UNIT #1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.4242	'GEN542962 2-IATAN UNIT #2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.4389	'GEN560121 1-G08-47 0.5750'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	105.3716	'GEN560331 1-G10-46 13.800'



SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.0521	'GEN560363 1-ASGI-10-20 0.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.4464	'GEN560371 1-G07-46 0.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.522	'GEN560762 1-ASGI13_03_3 0.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	104.3553	'GEN562007 1-G11_025_3 0.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.3302	'GEN562017 1-G11_022_3 0.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.1213	'GEN562074 1-G11_049_3 0.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.374	'GEN562103 1-ASGI11_004_30.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.5115	'GEN562325 1-ASGI_12_02_30.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.5054	'GEN562414 1-G13-022 0.4800'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.4325	'GEN562432 1-G13-030 0.6900'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	119.8113	'GEN599891 1-OKLAUN'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.1225	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	106.8427	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	106.853	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.4418	'GEN645001 1-FORT CALHOUN 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.3678	'GEN645011 1-NEBRASKA CITY 1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.192	'GEN645012 2-NEBRASKA CITY 2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.3776	'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.3776	'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	107.4229	'GEN659111 2-LELAND OLDS UNIT2'
FDNS	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	108.411	'SPS_SVC2-TUCO Interchange SVC Bus'
FNSL	06ALL		0 14G	ASGI_13_005	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21126	106.003	'GEN659118 1-LARAMIE RIVER UNIT1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.21217	108.0231	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.21217	107.969	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.09348	101.1705	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.09348	102.779	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0719	106.4813	'LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0719	109.3319	'LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0719	106.4793	'LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0719	109.3109	'LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0719	106.4793	'SPP-SWPS-K37'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0719	109.311	'SPP-SWPS-K37'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'SPSSPTIESB'	620	0.41704	185.8689	'BASE CASE'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'SPSSPTIESB1'	620	0.32362	153.1265	'BASE CASE'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'SPSSPTIESC'	620	0.32362	153.1265	'BASE CASE'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'SPSSPTIESC1'	620	0.41704	185.8689	'BASE CASE'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	560	0.21086	100.4019	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	560	0.21086	100.4849	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	560	0.21086	100.3074	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	560	0.35656	160.3212	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	560	0.35656	151.1776	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'	560	0.35202	158.4154	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	ASGI_13_005	'FROM->TO'	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'	560	0.35202	148.3054	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	G13_019	'FROM->TO'	'LAWAESOKLUNI'	425	0.03034	191.6	'BASE CASE'
FDNS	06ALL		0 14G	G13_019	'FROM->TO'	'SPPSPSTIESB1'	1027	0.09759	106.8	'BASE CASE'
FDNS	06ALL		0 14G	G13_019	'FROM->TO'	'SPPSPSTIESC1'	1027	0.09759	106.8	'BASE CASE'
FDNS	06ALL		0 14G	G13_019	'FROM->TO'	'TUCXFR345230'	300	0.03984	154.1	'BASE CASE'
FDNS	00G13_021		0 14SP	G13_021	'FROM->TO'	'GGS'	1635	0.78328	100.142	'BASE CASE'
FDNS	00G13_021		0 14SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.04296	103.964	'BROKEN BOW - CROOKED CREEK 115KV CKT 1'
FDNS	00G13_021		0 14SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.0546	104.2212	'CROOKED CREEK - NORTH PLATTE 230KV CKT 1'
FDNS	00G13_021		0 14SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.04296	104.087	'CROOKED CREEK (CR.CREEK T1) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	00NR		0 14SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.0349	103.7852	'CROOKED CREEK - NORTH PLATTE 230KV CKT 1'
FDNS	00G13_021		0 19SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03955	107.1767	'BROKEN BOW - CROOKED CREEK 115KV CKT 1'
FDNS	00G13_021		0 19SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.04915	105.0308	'CROOKED CREEK - NORTH PLATTE 230KV CKT 1'
FDNS	00G13_021		0 19SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03955	107.2721	'CROOKED CREEK (CR.CREEK T1) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	00NR		0 19SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03089	108.6952	'CROOKED CREEK - NORTH PLATTE 230KV CKT 1'
FDNS	0		0 19SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03956	102.0476	'BROKEN BOW - CROOKED CREEK 115KV CKT 1'
FDNS	0		0 19SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03956	102.1852	'CROOKED CREEK (CR.CREEK T1) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	00G13_021		0 24SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03961	112.5191	'BROKEN BOW - CROOKED CREEK 115KV CKT 1'
FDNS	00G13_021		0 24SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.0493	105.4452	'CROOKED CREEK - NORTH PLATTE 230KV CKT 1'
FDNS	00G13_021		0 24SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03689	101.6116	'HARMONY - ST FRANCIS 115KV CKT 1'
FDNS	00G13_021		0 24SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03689	99.5	'HARMONY - VALENTINE 115KV CKT 1'
FDNS	00G13_021		0 24SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03689	102.289	'MISSION - ST FRANCIS 115KV CKT 1'
FDNS	00G13_021		0 24SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03961	112.5282	'CROOKED CREEK (CR.CREEK T1) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	00G13_021		0 24SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03689	99.5	'LN-1091'
FDNS	00NR		0 24SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03352	109.672	'CROOKED CREEK - NORTH PLATTE 230KV CKT 1'
FDNS	0		0 24SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03962	107.5109	'BROKEN BOW - CROOKED CREEK 115KV CKT 1'
FDNS	0		0 24SP	G13_021	'TO->FROM'	'MAXWELL - NORTH PLATTE 115KV CKT 1'	160	0.03962	107.5168	'CROOKED CREEK (CR.CREEK T1) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	01ALL		0 14G	G13_021	'TO->FROM'	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	1195	0.07734	99.6	'DBL-WICH-THI'
FDNS	01ALL		0 14G	G13_021	'TO->FROM'	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	1195	0.04183	100.9896	'DBL-THIS-WWR'
FDNS	09ALL		0 14G	G13_021	'FROM->TO'	'OGALLALA (OGALLALA T1) 230/115/13.8KV TRANSFORMER CKT 1'	187	0.58903	102.7602	'GERALD GENTLEMAN STATION - OGALLALA 230KV CKT 1'



SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03174	197.2995	'DBL-WICH-THI'	
FDNS	1		0 14G	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03181	174.5911	'DBL-WICH-THI'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03051	194.2016	'DBL-WICH-THI'	
FDNS	06G13_022		0 14G	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03158	141.4745	'DBL-WICH-THI'	
FDNS	6		0 14G	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.0316	140.7155	'DBL-WICH-THI'	
FDNS	09ALL		0 14G	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03167	119.2038	'DBL-WICH-THI'	
FDNS	9		0 14G	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03188	114.6733	'DBL-WICH-THI'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03085	183.2881	'DBL-WICH-THI'	
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03061	208.9849	'DBL-WICH-THI'	
FDNS	00G13_022		0 14WP	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03105	112.3112	'DBL-WICH-THI'	
FDNS	0		0 14WP	G13_022	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03109	109.547	'DBL-WICH-THI'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'CONWAY SUB - KIRBY SWITCHING STATION 115KV CKT 1'	160	0.03419	112.0442	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'CONWAY SUB - NICHOLS STATION 115KV CKT 1'	175	0.03419	109.5177	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	
FDNS	00G13_022		0 14SP	G13_022	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.11345	116.3093	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	0		0 14SP	G13_022	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.11352	111.0748	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_022		0 14WP	G13_022	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.11026	106.5483	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	0		0 14WP	G13_022	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.11037	100.9063	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_022		0 19SP	G13_022	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.09896	103.2275	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 19SP	G13_022	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.05246	102.4138	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00G13_022		0 19WP	G13_022	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.1	105.1611	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	0		0 19WP	G13_022	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.10008	100.2145	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.17796	100.6972	'AMARILLO SOUTH INTERCHANGE - SWISHER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.17722	102.6299	'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.1838	101.0697	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.17872	103.1611	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.17627	104.8377	'SPP-SWPS-26'	
FDNS	06NR		0 14G	G13_022	'FROM->TO'	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC-#20 115KV CKT 1'	96	0.16408	100.8587	'DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'DAWN SUB - Panda Energy Substation Hereford 115KV CKT 1'	96	0.1106	134.0297	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'DAWN SUB - Panda Energy Substation Hereford 115KV CKT 1'	96	0.1106	133.8479	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	316	0.07641	100.3759	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	316	0.07589	100.2403	'DBL-WICH-THI'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FLATRDG3 - THISTLE4 138.00 138KV CKT 1'	286	0.04203	108.8667	'DBL-WICH-THI'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FLATRDG3 - THISTLE4 138.00 138KV CKT 1'	286	0.04068	101.1393	'DBL-WICH-THI'	
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FLATRDG3 - THISTLE4 138.00 138KV CKT 1'	286	0.04259	109.9488	'DBL-WICH-THI'	
FDNS	01ALL		0 14G	G13_022	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.04459	123.2828	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.04298	109.9883	'DBL-WICH-THI'	
FDNS	01ALL		0 14G	G13_022	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.04485	112.3286	'DBL-THIS-WWR'	
FDNS	1		0 14G	G13_022	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.04422	101.8672	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	02ALL		0 14G	G13_022	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.04711	111.6706	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	02ALL		0 14G	G13_022	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.04711	103.2858	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	02ALL		0 14G	G13_022	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.04711	104.1942	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'	
FDNS	02ALL		0 14G	G13_022	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.04411	106.6184	'DBL-WICH-THI'	
FDNS	02ALL		0 14G	G13_022	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.05346	109.9292	'DBL-THIS-WWR'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04212	102.3433	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0328	109.859	'WOODWARD - WOODWARD 69KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03454	112.3941	'DEWEY - IODINE 138KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03454	114.0143	'IODINE - WOODWARD EHV 138KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04459	180.4542	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03346	114.8629	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03347	114.8894	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04459	103.7665	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04459	112.4981	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03016	99.8	'CARTER JCT - WOODWARD 69KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04212	102.1307	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03599	103.3042	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03028	103.9017	'G12-011T 345.00 - POST ROCK 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03025	100.2683	'HOLCOMB - SETAB 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03052	101.6154	'MINGO - SETAB 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03066	100.7683	'MINGO - RED WILLOW 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03153	100.9156	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03028	101.9676	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03009	100.366	'BENTON - WICHITA 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03237	110.8053	'THISTLE7 345.00 - WICHITA 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03237	110.8053	'THISTLE7 345.00 - WICHITA 345KV CKT 2'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03028	103.0327	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04212	102.3438	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0328	122.9478	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04298	154.1056	'DBL-WICH-THI'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04485	158.8713	'DBL-THIS-WWR'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04474	100.8976	'SPP-AEPW-32'	
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04212	99.7	'SPP-SWPS-02A'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04231	102.8312	'SPP-SWPS-03'	
FDNS	1		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04422	150.819	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	1		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03257	106.2692	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
FDNS	1		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04281	130.9535	'DBL-WICH-THI'	
FDNS	1		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04475	130.2755	'DBL-THIS-WWR'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03994	139.863	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03994	127.2371	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03105	113.0916	'WOODWARD - WOODWARD 69KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03266	121.3544	'DEWEY - IODINE 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03266	123.0288	'IODINE - WOODWARD EHV 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04206	163.5874	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03182	109.7746	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03183	109.7931	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04206	148.5103	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04206	150.1242	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03994	140.3806	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03411	127.5015	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03994	127.3596	'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0307	111.8534	'THISTLE7 345.00 - WICHITA 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0307	111.8534	'THISTLE7 345.00 - WICHITA 345KV CKT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03994	139.7613	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03105	125.8563	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04092	161.948	'DBL-WICH-THI'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04295	141.8934	'DBL-THIS-WWR'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03994	127.358	'SPP-SWPS-02'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03994	133.1086	'SPP-SWPS-02A'	
FDNS	06G13_022		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04297	107.8413	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	06G13_022		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04195	102.3927	'DBL-WICH-THI'	
FDNS	6		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.043	107.0706	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	6		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04198	101.6149	'DBL-WICH-THI'	
FDNS	09ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04295	102.2645	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	124.5067	'BASE CASE'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03036	106.0403	'LYDIA - VALLIANT 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04712	121.1854	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.031	110.2289	'ELK CITY - FALCON ROAD 138KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04414	130.326	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04414	121.3524	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0346	125.1019	'WOODWARD - WOODWARD 69KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03639	133.7826	'DEWEY - IODINE 138KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03131	111.138	'DEWEY - TALOGA 138KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03639	135.4682	'IODINE - WOODWARD EHV 138KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0303	111.5575	'CIMARRON - NORTHWEST 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04717	171.8663	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03125	106.0838	'CIMARRON - MATHWSN7 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03662	121.0641	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03663	121.0875	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04717	157.5343	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04717	158.8027	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03046	113.1829	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03001	105.819	'DOVER - DOVER SW 138KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03001	105.922	'DOVER - TWIN LAKES 138KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03078	105.4452	'IODINE - MOORELAND 138KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03036	100.4669	'MOORELAND - TALOGA 138KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03415	103.0999	'MOREWOOD SW - RED HILLS WIND 138KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03156	111.043	'FARGO JCT - WOODWARD 69KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03667	124.6927	'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04414	129.5852	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0378	123.7438	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04414	121.3661	'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03667	126.3589	'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0316	113.4941	'G12-011T 345.00 - POST ROCK 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03131	110.7547	'AXTELL - POST ROCK 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03087	110.5283	'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03166	111.1329	'HOLCOMB - SETAB 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03145	111.0962	'BUCKNER7 345.00 - HOLCOMB 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03189	112.5471	'MINGO - SETAB 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03202	111.4164	'MINGO - RED WILLOW 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03145	112.6281	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0316	111.6654	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03159	111.079	'BENTON - WICHITA 345KV CKT 1'	
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03388	120.8157	'THISTLE7 345.00 - WICHITA 345KV CKT 1'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03388	120.8157	'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0316	112.6527	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03087	110.4215	'GRAND ISLAND - SWEETWATER 345KV CKT 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04414	130.3206	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03017	112.1737	'WOODRNG (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0346	138.3697	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0304	105.6839	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04423	163.4226	'DBL-WICH-THI'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05372	159.6843	'DBL-THIS-WVWR'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03074	106.7644	'DBL-THIS-CLR'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03036	106.0383	'SPP-AEPW-01'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04712	123.7207	'SPP-AEPW-32'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	108.2313	'NC1_GEN-NEBRASKA CITY 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03108	110.9381	'SPP-MKEC-08'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04658	121.2257	'SPP-SWPS-01'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04414	121.3564	'SPP-SWPS-02'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04414	126.7179	'SPP-SWPS-02A'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04434	130.6446	'SPP-SWPS-03'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03667	124.7609	'SPP-SWPS-05'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	113.4743	'GEN514805 1-SOONER UNIT 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	111.6906	'GEN514806 1-SOONER UNIT 2'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	110.2695	'GEN515223 1-MUSKOGEE 4G'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	110.2963	'GEN515225 1-MUSKOGEE 5G'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	110.2868	'GEN515226 1-MUSKOGEE 6G'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.6465	'GEN515365 1-CENT 21 34.500'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.3906	'GEN515393 1-OGEWND2G'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	112.6319	'GEN515787 1-OKLA WIND ENERGY CENTER'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	111.7239	'GEN520922 1-SLEEPING BEAR'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	133.4941	'GEN520997 1-MORLND2'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	127.279	'GEN520998 1-MORLND3'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.6987	'GEN523107 1-NOVUS_WND 14.1600'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.7461	'GEN523121 1-NBLWND-WTG110.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.7835	'GEN523122 1-NBLWND-WTG210.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.6644	'GEN523123 1-NBLWND-WTG310.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	106.0296	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.9898	'GEN523462 1-BLACKHAWK GEN #2'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	102.0661	'GEN523971 1-HARRINGTON GEN #1 24 KV'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	102.0658	'GEN523972 1-HARRINGTON GEN #2 24 KV'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	102.0489	'GEN523973 1-HARRINGTON GEN #3 24 KV'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	106.12	'GEN524295 1-SPNSPUR_WND10.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.0962	'GEN526331 1-JONES GEN #1 22 KV'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	103.6215	'GEN526332 1-JONES GEN #2 21 KV'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.2591	'GEN526334 1-JONES_4 116.500'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.2773	'GEN527161 1-MUSTANG GEN #1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.2773	'GEN527162 1-MUSTANG GEN #2'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.8213	'GEN527163 1-MUSTANG GEN #3 22 KV'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.5339	'GEN527882 1-CUNNINGHAM GEN #2 20 KV'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.7	'GEN527901 1-HOBBS PLANT #1 (CT)'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.7243	'GEN527902 1-HOBBS PLANT #2 (CT)'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	103.0548	'GEN527903 1-HOBBS PLANT #3 (ST)'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	99.8	'GEN531447 1-HOLCOMB GENERATOR'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.971	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.9971	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.9975	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.6167	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.7267	'GEN539670 4-JUDSON LARGE GENERATOR'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.8992	'GEN542957 1-IATAN UNIT #1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.3873	'GEN542962 2-IATAN UNIT #2'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	106.2051	'GEN560221 1-G07-62-1 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	106.2051	'GEN560222 1-G07-62-2 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	106.2051	'GEN560223 1-G07-62-3 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	106.2051	'GEN560224 1-G07-62-4 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	102.7383	'GEN560256 1-G10-14-1 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	102.5861	'GEN560257 1-G10-14-2 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	103.0798	'GEN560286 1-G10-01-1WTG 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	103.0798	'GEN560287 1-G10-01-2WTG 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	102.9305	'GEN560371 1-G07-46 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.7033	'GEN560584 1-G06-44-2 4.1600'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.7671	'GEN560585 1-G06-44-3 4.1600'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.0766	'GEN560586 1-G06-44-4 4.1600'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.2777	'GEN562023 1-G11_020_3 0.6900'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.277		'GEN562026 1-G11_019_3 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	101.398		'GEN562042 1-G11_014_3 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	106.1571		'GEN562074 1-G11_049_3 0.6900'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.4861		'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.1628		'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.2119		'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.7046		'GEN645001 1-FORT CALHOUN 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.4491		'GEN645011 1-NEBRASKA CITY 1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	104.8117		'GEN645012 2-NEBRASKA CITY 2'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.4496		'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.4496		'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	105.612		'GEN659111 2-LELAND OLDS UNIT2'
FNSL	2		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03067	101.7278		'GEN659118 1-LARAMIE RIVER UNIT1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	144.7395		'BASE CASE'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03035	123.2258		'LYDIA - VALLIANT 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04701	143.3764		'OKLAUNION - TUCCO INTERCHANGE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03098	127.8488		'ELK CITY - FALCON ROAD 138KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03411	116.8313		'ELK CITY - RED HILLS WIND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04404	152.7851		'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04404	143.4949		'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03458	144.9826		'WOODWARD - WOODWARD 69KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03636	155.1318		'DEWEY - IODINE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03129	129.4223		'DEWEY - TALOGA 138KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03636	156.9127		'IODINE - WOODWARD EHV 138KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03028	129.3552		'CIMARRON - NORTHWEST 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04711	200.3117		'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03122	123.8659		'CIMARRON - MATHWSN7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03653	144.3486		'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03655	144.378		'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04711	184.7523		'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04711	186.3902		'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03005	130.5505		'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03154	128.2369		'FARGO JCT - FT SUPPLY 69KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03076	123.1639		'IODINE - MOORELAND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03034	117.8727		'MOORELAND - TALOGA 138KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.038	108.3712		'MOORELAND - NINE MILE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03411	120.7895		'MOREWOOD SW - RED HILLS WIND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.038	108.6634		'MOREWOOD SW - NINE MILE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03154	129.134		'FARGO JCT - WOODWARD 69KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03659	153.2889		'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04404	151.8546		'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03775	144.6383		'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04404	143.5161		'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03659	154.9217		'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0313	127.9039		'CONWAY SUB - NICHOLS STATION 115KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03156	132.0513		'G12-011T 345.00 - POST ROCK 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03128	128.9544		'AXTELL - POST ROCK 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03085	128.3658		'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03163	129.7613		'HOLCOMB - SETAB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03143	129.5597		'BUCKNER7 345.00 - HOLCOMB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03185	131.5135		'MINGO - SETAB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03198	130.4607		'MINGO - RED WILLOW 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03143	131.2056		'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03156	130.1538		'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03156	129.2134		'BENTON - WICHITA 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03384	140.5884		'THISTLE7 345.00 - WICHITA 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03384	140.5884		'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03156	131.1584		'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03085	128.2932		'GRAND ISLAND - SWEETWATER 345KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04404	152.5637		'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03017	129.4451		'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03458	158.75		'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03038	123.1804		'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04411	190.9995		'DBL-WICH-THI'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05346	197.5221		'DBL-THIS-WWR'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03071	123.7661		'DBL-THIS-CLR'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03035	123.2218		'SPP-AEPW-01'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04701	145.9426		'SPP-AEPW-32'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	125.8193		'NC1_GEN-NEBRASKA CITY 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03106	128.8276		'SPP-MKEC-08'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04648	143.3529		'SPP-SWPS-01'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04404	143.5065	'SPP-SWPS-02'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04404	148.5321	'SPP-SWPS-02A'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04424	153.4398	'SPP-SWPS-03'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03659	153.4112	'SPP-SWPS-05'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	131.0127	'GEN514805 1-SOONER UNIT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	129.2426	'GEN514806 1-SOONER UNIT 2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.1456	'GEN515365 1-CENT 21 34.500'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.8913	'GEN515393 1-OGEWIND2G'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	130.3318	'GEN515787 1-OKLA WIND ENERGY CENTER'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	129.4006	'GEN520922 1-SLEEPING BEAR'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	150.9631	'GEN520997 1-MORLND2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	144.7879	'GEN520998 1-MORLND3'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.5309	'GEN523107 1-NOVUS_WND 14.1600'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.6158	'GEN523121 1-NBLWND-WTG110.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.6707	'GEN523122 1-NBLWND-WTG210.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.4829	'GEN523123 1-NBLWND-WTG310.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.1612	'GEN523201 1-EXCELN4-WTG10.6000'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.4796	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.4373	'GEN523462 1-BLACKHAWK GEN #2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	118.9972	'GEN523971 1-HARRINGTON GEN #1 24 KV'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	118.9969	'GEN523972 1-HARRINGTON GEN #2 24 KV'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	118.9787	'GEN523973 1-HARRINGTON GEN #3 24 KV'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.6042	'GEN524295 1-SPNSPUR_WND10.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	113.3687	'GEN525561 1-TOLK GEN #1 24 KV'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	114.6112	'GEN525562 1-TOLK GEN #2 24 KV'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	121.3756	'GEN526331 1-JONES GEN #1 22 KV'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	120.8629	'GEN526332 1-JONES GEN #2 21 KV'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	121.4998	'GEN526334 1-JONES_4 116.500'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.6563	'GEN527161 1-MUSTANG GEN #1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.6564	'GEN527162 1-MUSTANG GEN #2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.1676	'GEN527163 1-MUSTANG GEN #3 22 KV'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	121.862	'GEN527882 1-CUNNINGHAM GEN #2 20 KV'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	121.9939	'GEN527901 1-HOBBS PLANT #1 (CT)'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.0203	'GEN527902 1-HOBBS PLANT #2 (CT)'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	120.2024	'GEN527903 1-HOBBS PLANT #3 (ST)'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	117.1853	'GEN531447 1-HOLCOMB GENERATOR'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.5342	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.5628	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.5631	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.0361	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.6365	'GEN539670 4-JUDSON LARGE GENERATOR'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.436	'GEN542957 1-IATAN UNIT #1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.917	'GEN542962 2-IATAN UNIT #2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	112.6101	'GEN560121 1-G08-47 0.5750'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.6516	'GEN560221 1-G07-62-1 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.6516	'GEN560222 1-G07-62-2 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.6516	'GEN560223 1-G07-62-3 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.6516	'GEN560224 1-G07-62-4 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	118.6232	'GEN560256 1-G10-14-1 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	118.4383	'GEN560257 1-G10-14-2 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	119.0399	'GEN560286 1-G10-01-1WTG 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	119.0399	'GEN560287 1-G10-01-2WTG 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	118.8888	'GEN560371 1-G07-46 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.5415	'GEN560584 1-G06-44-2 4.1600'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	121.3177	'GEN560585 1-G06-44-3 4.1600'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	121.7223	'GEN560586 1-G06-44-4 4.1600'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	113.5851	'GEN562017 1-G11_022_3 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.5967	'GEN562023 1-G11_020_3 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.5967	'GEN562026 1-G11_019_3 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	116.6506	'GEN562042 1-G11_014_3 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.3515	'GEN562074 1-G11_049_3 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	112.4857	'GEN562432 1-G13-030 0.6900'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.1284	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	121.8408	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	121.8977	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.2788	'GEN645001 1-FORT CALHOUN 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.0254	'GEN645011 1-NEBRASKA CITY 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.3725	'GEN645012 2-NEBRASKA CITY 2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.9611	'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	122.9611	'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	123.1295	'GEN659111 2-LELAND OLDS UNIT2'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FNSL	02ALL		0 14G	G13_022	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.03065	119.1352	'GEN659118 1-LARAMIE RIVER UNIT1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06582	103.3987	'BASE CASE'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.07008	106.262	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.07008	103.4826	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.07008	103.7827	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06908	102.21	'KINGSMILL INTERCHANGE - MCCULLOUGH SUB 69KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06908	100.1091	'BOWERS INTERCHANGE - MCCULLOUGH SUB 69KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.07443	109.1851	'CONWAY SUB - NICHOLS STATION 115KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.07443	107.3358	'CONWAY SUB - KIRBY SWITCHING STATION 115KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06934	99.5	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.06956	105.8692	'DBL-WICH-THI'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	351	0.07443	107.3504	'SPP-SWPS-T53'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	351	0.07641	100.1286	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	351	0.07589	99.8	'DBL-WICH-THI'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03747	115.3093	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03747	130.9951	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	02ALL		0 14G	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03978	100.5989	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	00G13_022		0 14SP	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03097	118.144	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	00G13_022		0 14SP	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03097	123.3407	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	0		0 14SP	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03101	115.8704	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	0		0 14SP	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03101	120.9976	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	00G13_022		0 14WP	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03023	118.4837	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	00G13_022		0 14WP	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03023	123.3283	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	0		0 14WP	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03029	115.8587	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	0		0 14WP	G13_022	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.03029	120.4753	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'HALE CO INTERCHANGE - KRESS INTERCHANGE 115KV CKT 1'	154	0.04831	111.3229	'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'
FDNS	01ALL		0 14G	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03174	207.631	'DBL-WICH-THI'
FDNS	1		0 14G	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03181	185.0298	'DBL-WICH-THI'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03051	204.5797	'DBL-WICH-THI'
FDNS	06G13_022		0 14G	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03158	152.0053	'DBL-WICH-THI'
FDNS	6		0 14G	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.0316	151.2484	'DBL-WICH-THI'
FDNS	09ALL		0 14G	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03167	129.7035	'DBL-WICH-THI'
FDNS	9		0 14G	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03188	125.1744	'DBL-WICH-THI'
FDNS	2		0 14G	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03085	193.6456	'DBL-WICH-THI'
FDNS	02ALL		0 14G	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03061	219.4552	'DBL-WICH-THI'
FDNS	00G13_022		0 14WP	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03105	122.5578	'DBL-WICH-THI'
FDNS	0		0 14WP	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03109	119.7998	'DBL-WICH-THI'
FDNS	00G13_022		0 19WP	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.0305	104.2437	'DBL-WICH-THI'
FDNS	0		0 19WP	G13_022	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03054	101.5308	'DBL-WICH-THI'
FNSL-Blown up	06ALL		0 14G	G13_022		Non-converged contingency	0	0.42083	9999	'SPP-AEPW-32'
FNSL-Blown up	06ALL		0 14G	G13_022		Non-converged contingency	0	0.40811	9999	'SPP-SWPS-01'
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	1195	0.15597	99.6	'DBL-WICH-THI'
FDNS	01ALL		0 14G	G13_022	'TO->FROM'	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	1195	0.16147	100.9896	'DBL-THIS-WWR'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.1574	'BASE CASE'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2104	108.7558	'DOLET HILLS - SOUTHWEST SHREVEPORT 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20912	105.9377	'LYDIA - VALLIANT 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21045	107.4968	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20995	107.4852	'HUGO - VALLIANT 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21261	109.7095	'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21261	109.6307	'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20998	107.6441	'DUNCAN - OMPA-DUNCAN 840 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21325	110.0455	'CLINTON JUNCTION - ELK CITY 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.19763	102.9814	'GRACEMONT - LAWTON EASTSIDE 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22584	121.5878	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20998	107.5303	'COMANCHE TAP - OMPA-DUNCAN 840 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22584	117.424	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.211	108.9498	'JERICHO - KIRBY SWITCHING STATION 115KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.211	108.9499	'HWRDWCK2 69.00 - JERICHO 69KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.211	108.7976	'CLARENDON - CLARENDON REC 69KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.211	108.9324	'CLARENDON - HWRDWCK2 69.00 69KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21225	108.9	'CHILDRESS - HOLLIS TAP 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21225	108.9529	'HOLLIS TAP - WELLINGTON 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21225	109.1555	'SHAMROCK - WELLINGTON 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21225	109.4263	'MCLEAN RURAL SUB - SHAMROCK 115KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21084	108.9052	'HUNTERS7 345.00 - WOODRING 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2095	108.7905	'MATHWSN7 345.00 - WOODRING 345KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21096	108.7918	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21159	109.4617	'FPL SWITCH - WOODWARD 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21094	108.7784	'DEWEY - IODINE 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21117	109.2144	'DEWEY - SOUTHARD 138KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21096	108.8125	'GLASS MOUNTAIN - MOORELAND 138KV CKT 1'



SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21094	108.8145	'JODINE - WOODWARD EHV 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.19876	104.4575	'CIMARRON - MINCO 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.19876	105.2114	'GRACEMONT - MINCO 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20867	107.3264	'JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21117	109.0314	'EL RENO - ROMAN NOSE 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21117	109.1292	'ROMAN NOSE - SOUTHWEST 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20971	109.1772	'CIMARRON - NORTHWEST 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2243	121.9005	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2095	109.0404	'CIMARRON - MATHWSN7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20884	106.9074	'HUGO - SUNNYSIDE 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20961	109.0005	'CANADIAN RIVER - MUSKOGEE 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.213	109.8124	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.213	109.8148	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2243	118.6877	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2243	119.1462	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21159	109.5425	'FPL SWITCH - MOORELAND 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21085	108.8029	'CEDARDALE - MOORELAND 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21085	108.7861	'CEDARDALE - OKEENE 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21627	110.1881	'HITCHLAND INTERCHANGE - MOORE COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21536	110.509	'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21232	109.1714	'BEAVER CO 345.00 - Hitchland Interchange 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21232	109.1714	'BEAVER CO 345.00 - Hitchland Interchange 345KV CKT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21423	110.8335	'MOORE COUNTY INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22584	122.1455	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21956	119.4091	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22584	117.4998	'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21225	109.6043	'MCCELLELLAN SUB - MCLEAN RURAL SUB 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21225	109.6433	'KIRBY SWITCHING STATION - MCCELLELLAN SUB 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21536	110.7716	'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22335	111.3112	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2116	109.5252	'CONWAY SUB - NICHOLS STATION 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2116	109.3119	'CONWAY SUB - KIRBY SWITCHING STATION 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.23428	114.3967	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21236	108.8962	'PALO DURO SUB - RANDALL COUNTY INTERCHANGE 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21883	114.1131	'AMARILLO SOUTH INTERCHANGE - SWISHER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21236	108.921	'HAPPY INTERCHANGE - PALO DURO SUB 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.23428	114.2996	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21236	109.2994	'HAPPY INTERCHANGE - TULIA TAP 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21236	109.3952	'KRESS INTERCHANGE - TULIA TAP 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21258	109.0456	'HALE CO INTERCHANGE - KRESS INTERCHANGE 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21476	115.6048	'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.18801	104.7578	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20781	107.1577	'JONES STATION - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21191	110.1326	'G12-011T 345.00 - POST ROCK 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21143	109.1365	'AXTELL - POST ROCK 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21076	108.9887	'SMOKYH6 230.00 - SUMMIT 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2124	109.4472	'HOLCOMB - SETAB 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21282	110.0483	'MINGO - SETAB 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21302	109.5876	'MINGO - RED WILLOW 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21625	112.346	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21191	109.4755	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21049	108.7568	'HOYT - JEFFREY ENERGY CENTER 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21164	109.0534	'BENTON - WICHITA 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21299	110.7544	'THISTLE7 345.00 - WICHITA 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21299	110.7544	'THISTLE7 345.00 - WICHITA 345KV CKT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2108	108.8096	'CIRCLE - MULLEREGREN 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2108	108.821	'MULLEREGREN - SPEARVILLE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21191	109.8132	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21194	109.6758	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21194	109.6758	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21078	108.9861	'GRAND ISLAND - SWEETWATER 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22584	121.5153	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20997	107.3092	'LAWTON EASTSIDE (LES 5) 345/138/13.8KV TRANSFORMER CKT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.211	108.9479	'JERICHO (JERIC2WT) 115/69/14.4KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21225	109.1513	'SHAMROCK (SHAMRCK2) 138/69/14.4KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21225	109.421	'SHAMROCK (SHAMRCK1) 115/69/14.4KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.6842	'TUCO INTERCHANGE 230/13.0KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2008	105.3515	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20302	105.9599	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22129	119.9684	'DBL-WICH-THI'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21971	114.1092	'DBL-THIS-WWR'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.211	110.7916	'DBL-THIS-CLR'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.211	109.1698	'DBL-SPRVL-CL'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.211	109.7608	'DBL-IRON-CLR'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.20911	105.9338	'SPP-AEPW-01'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.1574	'NC1_GEN-NEBRASKA CITY 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22584	117.5044	'SPP-SWPS-02'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.22584	117.7328	'SPP-SWPS-02A'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21536	110.5584	'SPP-SWPS-05'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21032	108.9942	'SPP-SWPS-26'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2116	109.038	'SPP-SWPS-T53'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21225	109.1209	'SPP-SWPS-T54'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21236	108.8621	'SPP-SWPS-T66'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21236	109.2811	'SPP-SWPS-T67'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21058	108.8854	'SPP-SWPS-V29'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.2105	108.7886	'WRTOD400'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.839	'GEN334440 1-SABINE UNIT 4'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.809	'GEN335204 1-NELSON UNIT 4'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.2508	'GEN335206 1-NELSON UNIT 6'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.9836	'GEN335831 1-RIVERBEND UNIT#1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	110.2006	'GEN336153 1-WATERFORD UNIT#3'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.9194	'GEN336252 1-NINEMILE POINT UNIT#5'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	110.3045	'GEN336821 1-GRAND GULF UNIT'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.8676	'GEN336831 1-BAXTER WILSON SES'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.8452	'GEN337041 1-GERALD ANDRUS'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.8827	'GEN338388 1-1PLUMPT_G1 23.000'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	110.003	'GEN501801 1-DOLET HILLS UNIT1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.9362	'GEN501811 1-RODEMACHER UNIT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.1595	'GEN501812 1-RODEMACHER UNIT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.3813	'GEN501813 1-RODEMACHER UNIT 3'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.8081	'GEN509394 1-FLINT CREEK'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.6862	'GEN509403 1-PIRKEY GENERATION'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.6363	'GEN509404 1-WELSH #1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.6364	'GEN509405 1-WELSH #2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.6365	'GEN509406 1-WELSH #3'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.9284	'GEN509416 1-TURK GENERATION'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.0544	'GEN511851 1-COMANCHE #1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.7735	'GEN514805 1-SOONER UNIT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.8094	'GEN514806 1-SOONER UNIT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.8749	'GEN515040 1-SEMINOLE 1G'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.8367	'GEN515041 1-SEMINOLE 2G'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.7587	'GEN515042 1-SEMINOLE 3G'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.3202	'GEN515223 1-MUSKOGEE 4G'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.3354	'GEN515225 1-MUSKOGEE 5G'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.3303	'GEN515226 1-MUSKOGEE 6G'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.7795	'GEN520811 1-ANADRK4'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	109.9962	'GEN520947 1-HUGO1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	106.2265	'GEN522814 1-LUBBOCK POWER & LIGHT-MACKENZIE GEN'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.1857	'GEN522875 1-LUBBOCK POWER & LIGHT-BRANDON GEN'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	105.5026	'GEN523461 1-BLACKHAWK GEN #1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	105.4547	'GEN523462 1-BLACKHAWK GEN #2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	99.7	'GEN523971 1-HARRINGTON GEN #1 24 KV'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	99.7	'GEN523972 1-HARRINGTON GEN #2 24 KV'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	99.7	'GEN523973 1-HARRINGTON GEN #3 24 KV'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	106.6501	'GEN524286 1-CLR_3 0.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	106.5432	'GEN524295 1-SPNSPUR_WND10.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.5424	'GEN524471 1-QUAY_CNTY 113.800'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	105.7986	'GEN524485 1-CAPROCK WIND GEN'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	103.6967	'GEN524895 1-SAN JUAN MESA WIND GEN'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	103.5859	'GEN526331 1-JONES GEN #1 22 KV'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	105.3305	'GEN526678 1-CIRRUS_WND 10.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	103.1832	'GEN527161 1-MUSTANG GEN #1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	103.1832	'GEN527162 1-MUSTANG GEN #2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	102.4384	'GEN527163 1-MUSTANG GEN #3 22 KV'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	101.164	'GEN527166 1-MUSTANG_6 118.000'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	101.0226	'GEN527882 1-CUNNINGHAM GEN #2 20 KV'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	102.5059	'GEN527901 1-HOBBS PLANT #1 (CT)'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	102.5448	'GEN527902 1-HOBBS PLANT #2 (CT)'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	99.9	'GEN527903 1-HOBBS PLANT #3 (ST)'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.0426	'GEN528332 1-WILDCAT_WND134.500'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	105.2865	'GEN531447 1-HOLCOMB GENERATOR'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.2383	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.2474	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.2476	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.0501	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	106.9648	'GEN539670 4-JUDSON LARGE GENERATOR'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.5528	'GEN542957 1-IATAN UNIT #1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.4242	'GEN542962 2-IATAN UNIT #2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.4389	'GEN560121 1-G08-47 0.5750'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	105.3716	'GEN560331 1-G10-46 13.800'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.0521	'GEN560363 1-ASGI-10-20 0.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.4464	'GEN560371 1-G07-46 0.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.5222	'GEN560762 1-ASGI13_03_3 0.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	104.3553	'GEN562007 1-G11_025_3 0.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.3302	'GEN562017 1-G11_022_3 0.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.1213	'GEN562074 1-G11_049_3 0.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.374	'GEN562103 1-ASGI11_004_30.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.5115	'GEN562325 1-ASGI_12_02_30.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.5054	'GEN562414 1-G13-022 0.4800'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.4325	'GEN562432 1-G13-030 0.6900'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	119.8113	'GEN599891 1-OKLAUN'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.1225	'GEN640009 1-COOPER NUCLEAR STATION'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	106.8427	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	106.853	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.4418	'GEN645001 1-FORT CALHOUN 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.3678	'GEN645011 1-NEBRASKA CITY 1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.192	'GEN645012 2-NEBRASKA CITY 2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.3776	'GEN659103 1-ANTELOPE VALLEY UNIT1'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.3776	'GEN659107 2-ANTELOPE VALLEY UNIT2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	107.4229	'GEN659111 2-LELAND OLDS UNIT2'	
FDNS	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	108.411	'SPS_SVC2-TUCO Interchange SVC Bus'	
FDNSL	06ALL		0 14G	G13_022	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.21041	106.003	'GEN659118 1-LARAMIE RIVER UNIT1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.21125	108.0231	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.21125	107.969	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.09098	101.1705	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.09098	102.779	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.06938	106.4813	'LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.06938	109.3319	'LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.06938	106.4793	'LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.06938	109.3109	'LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.06938	106.4793	'SPP-SWPS-K37'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.06938	109.311	'SPP-SWPS-K37'	
FDNS	06NR		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03443	100.8335	'LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1'	
FDNS	06NR		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03443	103.6886	'LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1'	
FDNS	06NR		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03443	100.8179	'LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	06NR		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03443	103.6601	'LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	06NR		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03443	100.8179	'SPP-SWPS-K37'	
FDNS	06NR		0 14G	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03443	103.6601	'SPP-SWPS-K37'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03798	100.8862	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03316	107.9279	'DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03316	109.6685	'DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.05098	99.8	'CURRY COUNTY INTERCHANGE - DEAF SMITH REC.#20 115KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.04059	100.8485	'PLANT X STATION - SUNDOWN INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.04059	102.4178	'PLANT X STATION - SUNDOWN INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.04593	102.2648	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.04593	103.8107	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0401	121.7663	'LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0401	123.5931	'LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03001	100.8267	'CROSSROADS 345.00 - EDDY COUNTY INTERCHANGE 345KV CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0401	121.7505	'LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0401	123.5771	'LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03001	100.8249	'EDDY COUNTY INTERCHANGE (ABB AEM30711) 345/230/13.2KV TRANSFORMER CKT 1'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0401	121.7505	'SPP-SWPS-K37'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.0401	123.5771	'SPP-SWPS-K37'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03809	107.3392	'SPP-SWPS-T04'	
FDNS	00NR		0 14SP	G13_022	'FROM->TO'	'PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1'	252	0.03809	108.9648	'SPP-SWPS-T04'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'SPSSPPTIESB'	620	0.41703	185.8689	'BASE CASE'	
FDNS	00G13_022		0 14WP	G13_022	'FROM->TO'	'SPSSPPTIESB1'	620	0.43953	102.4288	'BASE CASE'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'SPSSPPTIESB1'	620	0.32309	153.1265	'BASE CASE'	
FDNS	2		0 14G	G13_022	'FROM->TO'	'SPSSPPTIESB1'	620	0.38188	112.0512	'BASE CASE'	
FDNS	02ALL		0 14G	G13_022	'FROM->TO'	'SPSSPPTIESB1'	620	0.37921	147.3757	'BASE CASE'	
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'SPSSPPTIESC'	620	0.32309	153.1265	'BASE CASE'	
FDNS	2		0 14G	G13_022	'FROM->TO'	'SPSSPPTIESC'	620	0.38188	112.0512	'BASE CASE'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	02ALL		0 14G	G13_022	'FROM->TO'	'SPSSPTIESC'	620	0.37921	147.3757	'BASE CASE'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'SPSSPTIESC1'	620	0.41703	185.8689	'BASE CASE'
FDNS	00G13_022		0 14WP	G13_022	'FROM->TO'	'SPSSPTIESC1'	620	0.43953	102.4288	'BASE CASE'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	560	0.20999	100.4019	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	560	0.20999	100.4849	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	560	0.20999	100.3074	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	560	0.35491	160.3212	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	560	0.35491	151.1776	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'	560	0.35039	158.4154	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	G13_022	'FROM->TO'	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'	560	0.35039	148.3054	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_022	'TO->FROM'	'WOODWARD - WOODWARD EHV 138KV CKT 1'	287	0.03977	96	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_025	'FROM->TO'	'LAWEASOKLUNI'	425	0.0674	191.6	'BASE CASE'
FDNS	6		0 14G	G13_025	'FROM->TO'	'LAWEASOKLUNI'	425	0.06185	128.6	'BASE CASE'
FDNS	2		0 14G	G13_025	'FROM->TO'	'LAWEASOKLUNI'	425	0.06204	106.1	'BASE CASE'
FDNS	02ALL		0 14G	G13_025	'FROM->TO'	'LAWEASOKLUNI'	425	0.06326	119.9	'BASE CASE'
FDNS	00G13_025		0 14SP	G13_025	'FROM->TO'	'LAWEASOKLUNI'	425	0.05572	106	'BASE CASE'
FDNS	0		0 14SP	G13_025	'FROM->TO'	'LAWEASOKLUNI'	425	0.05583	109.4	'BASE CASE'
FDNS	00G13_025		0 14WP	G13_025	'FROM->TO'	'LAWEASOKLUNI'	425	0.05414	123.6	'BASE CASE'
FDNS	0		0 14WP	G13_025	'FROM->TO'	'LAWEASOKLUNI'	425	0.054	126.1	'BASE CASE'
FDNS	00G13_025		0 19WP	G13_025	'FROM->TO'	'LAWEASOKLUNI'	425	0.04887	113.4	'BASE CASE'
FDNS	0		0 19WP	G13_025	'FROM->TO'	'LAWEASOKLUNI'	425	0.04905	117.1	'BASE CASE'
FDNS	06ALL		0 14G	G13_025	'FROM->TO'	'SPPSPSTIESB1'	1027	0.11375	106.8	'BASE CASE'
FDNS	06ALL		0 14G	G13_025	'FROM->TO'	'SPPSPSTIESC1'	1027	0.11375	106.8	'BASE CASE'
FDNS	06ALL		0 14G	G13_025	'FROM->TO'	'TUCXFR345230'	300	0.05315	154.1	'BASE CASE'
FDNS	00G13_028		0 14SP	G13_028	'FROM->TO'	'LAWEASOKLUNI'	425	0.04352	109.4	'BASE CASE'
FDNS	0		0 14SP	G13_028	'FROM->TO'	'LAWEASOKLUNI'	425	0.04352	109.4	'BASE CASE'
FDNS	00G13_028		0 14WP	G13_028	'FROM->TO'	'LAWEASOKLUNI'	425	0.04432	132.9	'BASE CASE'
FDNS	0		0 14WP	G13_028	'FROM->TO'	'LAWEASOKLUNI'	425	0.04186	126.1	'BASE CASE'
FDNS	00G13_028		0 19WP	G13_028	'FROM->TO'	'LAWEASOKLUNI'	425	0.03838	117.1	'BASE CASE'
FDNS	0		0 19WP	G13_028	'FROM->TO'	'LAWEASOKLUNI'	425	0.03838	117.1	'BASE CASE'
FDNS	06ALL		0 14G	G13_029	'FROM->TO'	'LAWEASOKLUNI'	425	0.04293	191.6	'BASE CASE'
FDNS	6		0 14G	G13_029	'FROM->TO'	'LAWEASOKLUNI'	425	0.03738	128.6	'BASE CASE'
FDNS	2		0 14G	G13_029	'FROM->TO'	'LAWEASOKLUNI'	425	0.03838	106.1	'BASE CASE'
FDNS	02ALL		0 14G	G13_029	'FROM->TO'	'LAWEASOKLUNI'	425	0.0396	119.9	'BASE CASE'
FDNS	00G13_029		0 14SP	G13_029	'FROM->TO'	'LAWEASOKLUNI'	425	0.03132	107.4	'BASE CASE'
FDNS	0		0 14SP	G13_029	'FROM->TO'	'LAWEASOKLUNI'	425	0.0314	109.4	'BASE CASE'
FDNS	06ALL		0 14G	G13_029	'FROM->TO'	'SPPSPSTIESB1'	1027	0.0989	106.8	'BASE CASE'
FDNS	06ALL		0 14G	G13_029	'FROM->TO'	'SPPSPSTIESC1'	1027	0.0989	106.8	'BASE CASE'
FDNS	06ALL		0 14G	G13_029	'FROM->TO'	'TUCXFR345230'	300	0.04663	154.1	'BASE CASE'
FDNS	08ALL		0 14G	G13_029	'FROM->TO'	'VIOLA 7 345.00 - WICHITA 345KV CKT 1'	1035	0.82996	101.3548	'HUNTERS7 345.00 - WOODRING 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'FROM->TO'	'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	191	0.04401	106.5807	'DBL-WICH-THI'
FDNS	06ALL		0 14G	G13_030	'FROM->TO'	'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	191	0.04279	104.8248	'DBL-WICH-THI'
FDNS	02G13_030		0 14G	G13_030	'FROM->TO'	'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	191	0.04368	105.096	'DBL-WICH-THI'
FDNS	02ALL		0 14G	G13_030	'FROM->TO'	'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	191	0.04226	113.3349	'DBL-WICH-THI'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04401	197.2995	'DBL-WICH-THI'
FDNS	1		0 14G	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04408	174.5911	'DBL-WICH-THI'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04279	194.2016	'DBL-WICH-THI'
FDNS	6		0 14G	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04387	140.7155	'DBL-WICH-THI'
FDNS	09ALL		0 14G	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04394	119.2038	'DBL-WICH-THI'
FDNS	9		0 14G	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04415	114.6733	'DBL-WICH-THI'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04368	194.7651	'DBL-WICH-THI'
FDNS	2		0 14G	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.0425	183.2881	'DBL-WICH-THI'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04226	208.9849	'DBL-WICH-THI'
FDNS	00G13_030		0 14SP	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04472	114.4863	'DBL-WICH-THI'
FNSL	00G13_030		0 14WP	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04334	148.7211	'DBL-WICH-THI'
FDNS	0		0 14WP	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04338	109.547	'DBL-WICH-THI'
FNSL	00G13_030		0 19WP	G13_030	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04429	129.3036	'DBL-WICH-THI'
FDNS	06ALL		0 14G	G13_030	'FROM->TO'	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	316	0.03111	100.3759	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FLATRDG3 - THISTLE4 138.00 138KV CKT 1'	286	0.05476	108.8667	'DBL-WICH-THI'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FLATRDG3 - THISTLE4 138.00 138KV CKT 1'	286	0.05341	101.1393	'DBL-WICH-THI'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FLATRDG3 - THISTLE4 138.00 138KV CKT 1'	286	0.05443	99.5	'DBL-WICH-THI'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FLATRDG3 - THISTLE4 138.00 138KV CKT 1'	286	0.05663	109.9488	'DBL-WICH-THI'
FDNS	01ALL		0 14G	G13_030	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.07871	123.2828	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.07409	109.9883	'DBL-WICH-THI'
FDNS	01ALL		0 14G	G13_030	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.07178	112.3286	'DBL-THIS-WWR'
FDNS	1		0 14G	G13_030	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.07834	101.8672	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.08528	111.6706	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.08528	103.2858	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.08528	104.1942	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.07765	106.6184	'DBL-WICH-THI'
FDNS	02ALL		0 14G	G13_030	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.08767	109.9292	'DBL-THIS-WWR'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	112.3297		'BASE CASE'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05975	102.3433		'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06187	109.859		'WOODWARD - WOODWARD 69KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06473	112.3941		'DEWEY - IODINE 138KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05701	112.5357		'DEWEY - TALOGA 138KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06473	114.0143		'IODINE - WOODWARD EHV 138KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07871	180.4542		'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05806	110.0687		'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05965	114.8629		'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05966	114.8894		'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07871	103.7665		'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07871	112.4981		'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05806	112.041		'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0555	109.5249		'FT SUPPLY - IODINE 138KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0555	107.9714		'IODINE - MOORELAND 138KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05708	99.8		'CARTER JCT - WOODWARD 69KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05925	102.9073		'Hitchland Interchange - POTTER COUNTY INTERCHANGE 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05975	102.1307		'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05749	103.3042		'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05668	103.9017		'G12-011T 345.00 - POST ROCK 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.056	100.8646		'AXTELL - POST ROCK 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05543	100		'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05665	100.2683		'HOLCOMB - SETAB 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05704	101.6154		'MINGO - SETAB 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05722	100.7683		'MINGO - RED WILLOW 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0593	100.9156		'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05668	101.9676		'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05641	100.366		'BENTON - WICHITA 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0595	110.8053		'THISTLE7 345.00 - WICHITA 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0595	110.8053		'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05668	103.0327		'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04861	102.1219		'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04861	102.1219		'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 2'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05532	99.7		'GRAND ISLAND - SWEETWATER 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05975	102.3438		'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05452	100.871		'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06187	122.9478		'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05037	99.7		'WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04976	100		'WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05336	101.5291		'RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05925	104.4208		'POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07409	154.1056		'DBL-WICH-THI'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07178	158.8713		'DBL-THIS-WWR'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07176	112.7972		'DBL-HTCH-BVR'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05817	100.8976		'SPP-AEPW-32'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0555	100.3351		'SPP-MKEC-08'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05975	99.7		'SPP-SWPS-02A'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05981	102.8312		'SPP-SWPS-03'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05925	102.9482		'SPP-SWPS-04'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	103.1532		'GEN514805 1-SOONER UNIT 1'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	101.2281		'GEN514806 1-SOONER UNIT 2'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	99.8		'GEN515223 1-MUSKOGEE 4G'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	99.9		'GEN515225 1-MUSKOGEE 5G'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	99.9		'GEN515226 1-MUSKOGEE 6G'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	105.6943		'GEN515389 1-TLGAWND1 34.500'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	120.0012		'GEN515787 1-OKLA WIND ENERGY CENTER'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	115.0251		'GEN520922 1-SLEEPING BEAR'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	119.8671		'GEN520997 1-MORLND2'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	114.1963		'GEN520998 1-MORLND3'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	100.6569		'GEN521120 1-BUFBEAR2'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05498	99.8		'GEN560687 1-G11-007 0.6900'
FDNS	1		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07834	150.819		'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	1		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06163	106.2692		'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	1		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07393	130.9535		'DBL-WICH-THI'
FDNS	1		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07169	130.2755		'DBL-THIS-WWR'
FDNS	1		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05477	100.0682		'GEN515787 1-OKLA WIND ENERGY CENTER'
FDNS	1		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05477	106.8957		'GEN520997 1-MORLND2'
FDNS	1		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05477	100.9005		'GEN520998 1-MORLND3'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	111.9481		'BASE CASE'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05329	99.7		'ELK CITY - FALCON ROAD 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05344	100.1803		'GRACEMONT - LAWTON EASTSIDE 345KV CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05757	139.863		'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05757	127.2371		'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06012	113.0916		'WOODWARD - WOODWARD 69KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06284	121.3544		'DEWEY - IODINE 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06284	123.0288		'IODINE - WOODWARD EHV 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05411	99.7		'CIMARRON - NORTHWEST 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07618	163.5874		'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05801	109.7746		'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05802	109.7931		'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07618	148.5103		'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07618	150.1242		'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05604	101.2527		'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0501	102.5805		'RENFROW4 138.00 - SAND RDG 138138.00 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05481	99.9		'FARGO JCT - WOODWARD 69KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05533	102.5331		'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05757	140.3806		'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05561	127.5015		'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05757	127.3596		'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05533	102.8672		'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05365	100.2746		'CONWAY SUB - NICHOLS STATION 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05365	99.8		'CONWAY SUB - KIRBY SWITCHING STATION 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05345	99.7		'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05333	99.7		'AMARILLO SOUTH INTERCHANGE - SWISHER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05335	100.2516		'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05512	105.1659		'G12-011T 345.00 - POST ROCK 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05445	100.8822		'AXTELL - POST ROCK 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05387	100.7883		'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05508	101.1822		'HOLCOMB - SETAB 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05546	103.3518		'MINGO - SETAB 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05565	102.0197		'MINGO - RED WILLOW 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05766	107.5425		'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05512	102.6989		'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05481	100.9779		'BENTON - WICHITA 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05784	111.8534		'THISTLE7 345.00 - WICHITA 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05784	111.8534		'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05395	99.8		'CIRCLE - MULLERGREN 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05391	99.9		'MULLERGREN - SPEARVILLE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05512	104.0128		'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05377	100.0767		'GRAND ISLAND - SWEETWATER 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05757	139.7613		'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05297	101.0909		'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06012	125.8563		'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05184	104.9499		'RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07204	161.948		'DBL-WICH-THI'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06988	141.8934		'DBL-THIS-WWR'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05319	101.6098		'DBL-THIS-CLR'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05394	100.1748		'SPP-MKEC-08'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05757	127.358		'SPP-SWPS-02'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05757	133.1086		'SPP-SWPS-02A'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05533	102.6998		'SPP-SWPS-05'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05365	99.7		'SPP-SWPS-T53'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	99.8		'GEN501801 1-DOLET HILLS UNIT1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	99.9		'GEN509416 1-TURK GENERATION'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	102.5589		'GEN514805 1-SOONER UNIT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	100.972		'GEN514806 1-SOONER UNIT 2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	99.8		'GEN515223 1-MUSKOGEE 4G'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	99.8		'GEN515225 1-MUSKOGEE 5G'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	99.8		'GEN515226 1-MUSKOGEE 6G'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	101.5915		'GEN515787 1-OKLA WIND ENERGY CENTER'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	100.714		'GEN520922 1-SLEEPING BEAR'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	100.1363		'GEN520947 1-HUGO1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	121.741		'GEN520997 1-MORLND2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05343	115.5531		'GEN520998 1-MORLND3'
FDNS	6		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07712	107.0706		'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	6		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07309	101.6149		'DBL-WICH-THI'
FDNS	09ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07707	102.2645		'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	127.0151		'BASE CASE'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05385	107.8375		'LYDIA - VALLIANT 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05279	106.3406		'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05279	106.5525		'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05699	122.3786		'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05259	105.0929	'CLINTON JUNCTION - ELK CITY 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05389	112.4015	'ELK CITY - FALCON ROAD 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05258	101.1304	'ELK CITY - RED HILLS WIND 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05855	131.8208	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05855	123.1114	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0608	127.5256	'WOODWARD - WOODWARD 69KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05276	107.4876	'WOODWARD - WOODWARD EHV 138KV CKT 2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06357	136.2808	'DEWEY - IODINE 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05205	103.3879	'DEWEY - SOUTHARD 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05606	113.4463	'DEWEY - TALOGA 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05139	102.1992	'C_CITY_138 138.00 - KNOBHILL 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06357	138.0211	'IODINE - WOODWARD EHV 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05205	104.6165	'EL RENO - ROMAN NOSE 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05205	104.2081	'ROMAN NOSE - SOUTHARD 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05469	113.7836	'CIMARRON - NORTHWEST 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0772	173.3411	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05384	108.2463	'CIMARRON - MATHWSN7 345.00 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0572	113.5007	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05871	120.7685	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05872	120.787	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0772	159.0672	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05107	105.4918	'G13-034T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05107	105.4918	'G13-034T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0772	160.5539	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0572	115.4384	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05666	116.2608	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05059	117.0732	'RENFROW4 138.00 - SAND RDG 138138.00 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05139	102.8007	'BYRON_138 138.00 - C_CITY_138 138.00 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05139	104.147	'BYRON_138 138.00 - SANDY_CN 138138.00 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05059	113.3278	'SAND RDG_138138.00 - WAKITA_138 138.00 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05317	107.95	'DOVER - DOVER SW 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05317	108.0534	'DOVER - TWIN LAKES 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05033	100.2586	'DOVER SW - OKEENE 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05543	112.3962	'FARGO JCT - FT SUPPLY 69KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05454	107.6777	'IODINE - MOORELAND 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.054	102.6709	'MOORELAND - TALOGA 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05258	105.0446	'MOREWOOD SW - RED HILLS WIND 138KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05543	113.2773	'FARGO JCT - WOODWARD 69KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05598	114.3105	'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05836	115.3521	'Hitchland Interchange - POTTER COUNTY INTERCHANGE 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05855	131.1245	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05641	125.5235	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05855	123.1255	'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05598	114.7143	'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05575	117.1375	'G12-011T 345.00 - POST ROCK 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05507	113.5609	'AXTELL - POST ROCK 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05447	113.3027	'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05571	114.0563	'HOLCOMB - SETAB 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0561	115.7881	'MINGO - SETAB 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05629	114.6809	'MINGO - RED WILLOW 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0583	121.3626	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05575	115.0427	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05543	113.6259	'BENTON - WICHITA 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05852	124.0578	'THISTLE7 345.00 - WICHITA 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05852	124.0578	'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05455	112.7192	'CIRCLE - MULLERGREN 230KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05452	112.6282	'MULLERGREN - SPEARVILLE 230KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05575	116.1861	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04772	101.0697	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.04772	101.0697	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05437	112.8924	'GRAND ISLAND - SWEETWATER 345KV CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05855	131.8226	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05355	114.4414	'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0608	140.8718	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05368	107.8398	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0495	100.7313	'WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05238	119.1617	'RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05836	117.0386	'POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07302	170.5529	'DBL-WICH-THI'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07087	148.038	'DBL-THIS-WWR'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05385	107.8348	'SPP-AEPW-01'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05699	125.0987	'SPP-AEPW-32'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	110.4118	'NC1_GEN-NEBRASKA CITY 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05455	113.1687	'SPP-MKEC-08'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05704	122.427	'SPP-SWPS-01'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05855	123.1158	'SPP-SWPS-02'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05855	128.5687	'SPP-SWPS-02A'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05861	132.2917	'SPP-SWPS-03'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05836	115.4602	'SPP-SWPS-04'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05598	114.4395	'SPP-SWPS-05'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	115.77	'GEN514805 1-SOONER UNIT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	113.9765	'GEN514806 1-SOONER UNIT 2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	112.5373	'GEN515223 1-MUSKOGEE 4G'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	112.5654	'GEN515225 1-MUSKOGEE 5G'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	112.5554	'GEN515226 1-MUSKOGEE 6G'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.8511	'GEN515365 1-CENT 21 34.500'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.6094	'GEN515393 1-OGEWND2G'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	114.8587	'GEN515787 1-OKLA WIND ENERGY CENTER'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	113.9471	'GEN520922 1-SLEEPING BEAR'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	112.4744	'GEN520947 1-HUGO1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	135.5274	'GEN520997 1-MORLND2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	129.3533	'GEN520998 1-MORLND3'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	108.0974	'GEN523107 1-NOVUS_WND 14.1600'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	108.1402	'GEN523121 1-NBLWND-WTG110.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	108.1739	'GEN523122 1-NBLWND-WTG210.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	108.0648	'GEN523123 1-NBLWND-WTG310.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	104.969	'GEN523971 1-HARRINGTON GEN #1 24 KV'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	104.9687	'GEN523972 1-HARRINGTON GEN #2 24 KV'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	104.9536	'GEN523973 1-HARRINGTON GEN #3 24 KV'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	100.9876	'GEN525561 1-TOLK GEN #1 24 KV'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	101.1554	'GEN525562 1-TOLK GEN #2 24 KV'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	106.6648	'GEN526331 1-JONES GEN #1 22 KV'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	106.2331	'GEN526332 1-JONES GEN #2 21 KV'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	106.7692	'GEN526334 1-JONES_4 116.500'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.7453	'GEN527161 1-MUSTANG GEN #1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.7453	'GEN527162 1-MUSTANG GEN #2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.3329	'GEN527163 1-MUSTANG GEN #3 22 KV'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.0753	'GEN527882 1-CUNNINGHAM GEN #2 20 KV'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.1862	'GEN527901 1-HOBBS PLANT #1 (CT)'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.2084	'GEN527902 1-HOBBS PLANT #2 (CT)'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	105.6808	'GEN527903 1-HOBBS PLANT #3 (ST)'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	100.7479	'GEN531447 1-HOLCOMB GENERATOR'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	106.8791	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	106.9101	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	106.9105	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	106.4627	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.4109	'GEN539670 4-JUDSON LARGE GENERATOR'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.84	'GEN542957 1-IATAN UNIT #1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.2742	'GEN542962 2-IATAN UNIT #2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	108.4364	'GEN560221 1-G07-62-1 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	108.4364	'GEN560222 1-G07-62-2 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	108.4364	'GEN560223 1-G07-62-3 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	108.4364	'GEN560224 1-G07-62-4 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	105.3785	'GEN560256 1-G10-14-1 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	105.2392	'GEN560257 1-G10-14-2 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	104.5914	'GEN560286 1-G10-01-1WTG 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	104.5914	'GEN560287 1-G10-01-2WTG 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	105.5253	'GEN560371 1-G07-46 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	108.1008	'GEN560584 1-G06-44-2 4.1600'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.2417	'GEN560585 1-G06-44-3 4.1600'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.5278	'GEN560586 1-G06-44-4 4.1600'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	101.9741	'GEN562017 1-G11_022_3 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.5174	'GEN562023 1-G11_020_3 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.5174	'GEN562026 1-G11_019_3 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	102.7086	'GEN562042 1-G11_014_3 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	108.4155	'GEN562074 1-G11_049_3 0.6900'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	106.1145	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	105.7663	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	105.8258	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.4693	'GEN645001 1-FORT CALHOUN 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.1879	'GEN645011 1-NEBRASKA CITY 1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	106.4703	'GEN645012 2-NEBRASKA CITY 2'



SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.1497	'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.1497	'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	107.3327	'GEN659111 2-LELAND OLDS UNIT2'
FNSL	02G13_030		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05403	102.9686	'GEN659118 1-LARAMIE RIVER UNIT1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	124.5067	'BASE CASE'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05901	106.0403	'LYDIA - VALLIANT 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05781	104.2292	'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05781	104.4381	'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06296	121.1854	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05757	102.9808	'CLINTON JUNCTION - ELK CITY 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05907	110.2289	'ELK CITY - FALCON ROAD 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06471	130.326	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06471	121.3524	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06664	125.1019	'WOODWARD - WOODWARD 69KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05781	105.3491	'WOODWARD - WOODWARD EHV 138KV CKT 2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06968	133.7826	'DEWEY - IODINE 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05706	101.3712	'DEWEY - SOUTHARD 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06144	111.138	'DEWEY - TALOGA 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05603	100	'C_CITY_138 138.00 - KNOBHILL 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06968	135.4682	'IODINE - WOODWARD EHV 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05706	102.5823	'EL RENO - ROMAN NOSE 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05706	102.1819	'ROMAN NOSE - SOUTHARD 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05992	111.5575	'CIMARRON - NORTHWEST 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08534	171.8663	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05915	106.0838	'CIMARRON - MATHWSN7 345.00 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06228	111.0383	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06661	121.0641	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06663	121.0875	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08534	157.5343	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0561	103.7906	'G13-034T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0561	103.7906	'G13-034T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08534	158.8027	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06228	112.7911	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06101	113.1829	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05501	114.6983	'RENFROW4 138.00 - SAND RDG 138138.00 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05603	100.5756	'BYRON_138 138.00 - C_CITY_138 138.00 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05603	101.8975	'BYRON_138 138.00 - SANDY_CN 138138.00 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05501	110.938	'SAND RDG 138138.00 - WAKITA_138 138.00 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05829	105.819	'DOVER - DOVER SW 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05829	105.922	'DOVER - TWIN LAKES 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05974	105.4452	'IODINE - MOORELAND 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05917	100.4669	'MOORELAND - TALOGA 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05783	103.0999	'MOREWOOD SW - RED HILLS WIND 138KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06075	111.043	'FARGO JCT - WOODWARD 69KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06783	124.6927	'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0641	113.2381	'Hitchland Interchange - POTTER COUNTY INTERCHANGE 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06471	129.5852	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0621	123.7438	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06471	121.3661	'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06783	126.3589	'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0604	113.4941	'G12-011T 345.00 - POST ROCK 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05999	110.7547	'AXTELL - POST ROCK 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05949	110.5283	'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06056	111.1329	'HOLCOMB - SETAB 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06045	111.0962	'BUCKNER7 345.00 - HOLCOMB 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06087	112.5471	'MINGO - SETAB 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06103	111.4164	'MINGO - RED WILLOW 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06045	112.6281	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0604	111.6654	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0605	111.079	'BENTON - WICHITA 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0636	120.8157	'THISTLE7 345.00 - WICHITA 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0636	120.8157	'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0604	112.6527	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05245	99.8	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05245	99.8	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05946	110.4215	'GRAND ISLAND - SWEETWATER 345KV CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06471	130.3206	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05855	112.1737	'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06664	138.3697	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05883	105.6839	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05701	116.6978	'RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0641	115.0522	'POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07778	163.4226	'DBL-WICH-THI'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08793	159.6843	'DBL-THIS-WWR'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05904	106.7644	'DBL-THIS-CLR'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05901	106.0383	'SPP-AEPW-01'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06296	123.7207	'SPP-AEPW-32'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	108.2313	'NC1_GEN-NEBRASKA CITY 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05975	110.9381	'SPP-MKEC-08'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.063	121.2257	'SPP-SWPS-01'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06471	121.3564	'SPP-SWPS-02'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06471	126.7179	'SPP-SWPS-02A'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06479	130.6446	'SPP-SWPS-03'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0641	113.3244	'SPP-SWPS-04'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06783	124.7609	'SPP-SWPS-05'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	113.4743	'GEN514805 1-SOONER UNIT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	111.6906	'GEN514806 1-SOONER UNIT 2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	110.2695	'GEN515223 1-MUSKOGEE 4G'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	110.2963	'GEN515225 1-MUSKOGEE 5G'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	110.2868	'GEN515226 1-MUSKOGEE 6G'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.6465	'GEN515365 1-CENT 21 34.500'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.3906	'GEN515393 1-OGEWND2G'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	112.6319	'GEN515787 1-OKLA WIND ENERGY CENTER'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	111.7239	'GEN520922 1-SLEEPING BEAR'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	133.4941	'GEN520997 1-MORLND2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	127.279	'GEN520998 1-MORLND3'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.6987	'GEN523107 1-NOVUS_WND 14.1600'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.7461	'GEN523121 1-NBLWND-WTG110.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.7835	'GEN523122 1-NBLWND-WTG210.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.6644	'GEN523123 1-NBLWND-WTG310.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	106.0296	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.9898	'GEN523462 1-BLACKHAWK GEN #2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	102.0661	'GEN523971 1-HARRINGTON GEN #1 24 KV'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	102.0658	'GEN523972 1-HARRINGTON GEN #2 24 KV'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	102.0489	'GEN523973 1-HARRINGTON GEN #3 24 KV'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	106.12	'GEN524295 1-SPNSPUR_WND10.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.0962	'GEN526331 1-JONES GEN #1 22 KV'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	103.6215	'GEN526332 1-JONES GEN #2 21 KV'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.2591	'GEN526334 1-JONES_4 116.500'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.2773	'GEN527161 1-MUSTANG GEN #1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.2773	'GEN527162 1-MUSTANG GEN #2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.8213	'GEN527163 1-MUSTANG GEN #3 22 KV'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.5339	'GEN527882 1-CUNNINGHAM GEN #2 20 KV'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.7	'GEN527901 1-HOBBS PLANT #1 (CT)'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.7243	'GEN527902 1-HOBBS PLANT #2 (CT)'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	103.0548	'GEN527903 1-HOBBS PLANT #3 (ST)'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	99.8	'GEN531447 1-HOLCOMB GENERATOR'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.971	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.9971	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.9975	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.6167	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.7267	'GEN539670 4-JUDSON LARGE GENERATOR'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.8992	'GEN542957 1-IATAN UNIT #1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.3873	'GEN542962 2-IATAN UNIT #2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	106.2051	'GEN560221 1-G07-62-1 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	106.2051	'GEN560222 1-G07-62-2 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	106.2051	'GEN560223 1-G07-62-3 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	106.2051	'GEN560224 1-G07-62-4 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	102.7383	'GEN560256 1-G10-14-1 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	102.5861	'GEN560257 1-G10-14-2 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	103.0798	'GEN560286 1-G10-01-1WTG 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	103.0798	'GEN560287 1-G10-01-2WTG 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	102.9305	'GEN560371 1-G07-46 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.7033	'GEN560584 1-G06-44-2 4.1600'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.7671	'GEN560585 1-G06-44-3 4.1600'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.0766	'GEN560586 1-G06-44-4 4.1600'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.277	'GEN562023 1-G11_020_3 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.277	'GEN562026 1-G11_019_3 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	101.398	'GEN562042 1-G11_014_3 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	106.1571	'GEN562074 1-G11_049_3 0.6900'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.4861	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.1628	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.2119	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.7046	'GEN645001 1-FORT CALHOUN 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.4491	'GEN645011 1-NEBRASKA CITY 1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	104.8117	'GEN645012 2-NEBRASKA CITY 2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.4496	'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.4496	'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	105.612	'GEN659111 2-LELAND OLDS UNIT2'
FNSL	2		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0592	101.7278	'GEN659118 1-LARAMIE RIVER UNIT1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	144.7395	'BASE CASE'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.059	123.2258	'LYDIA - VALLIANT 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05781	121.068	'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05781	121.2833	'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06285	143.3764	'OKLAUNION - TUCCO INTERCHANGE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05756	119.542	'CLINTON JUNCTION - ELK CITY 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05905	127.8488	'ELK CITY - FALCON ROAD 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05778	116.8313	'ELK CITY - RED HILLS WIND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06462	152.7851	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06462	143.4949	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05242	103.3725	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05302	109.1434	'CLEO CORNER - MEN TAP 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06662	144.9826	'WOODWARD - WOODWARD 69KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0528	110.9101	'WOODWARD - WOODWARD EHV 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05779	122.5808	'WOODWARD - WOODWARD EHV 138KV CKT 2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06966	155.1318	'DEWEY - IODINE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05705	118.1912	'DEWEY - SOUTHARD 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06142	129.4223	'DEWEY - TALOGA 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05242	102.6312	'GLASS MOUNTAIN - MOORELAND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05302	109.8825	'IMO TAP - MEN TAP 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05604	115.7737	'C_CITY_138 138.00 - KNOBHILL 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05389	102.7002	'KNOBHILL - MOORELAND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06966	156.9127	'IODINE - WOODWARD EHV 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05705	119.4145	'EL RENO - ROMAN NOSE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05705	119.0318	'ROMAN NOSE - SOUTHARD 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05991	129.3552	'CIMARRON - NORTHWEST 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08528	200.3117	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05911	123.8659	'CIMARRON - MATHWSN7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06235	128.7047	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06653	144.3486	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06655	144.378	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08528	184.7523	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05609	121.4827	'G13-034T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05609	121.4827	'G13-034T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08528	186.3902	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06235	129.701	'BORDER 7345.00 - TUCCO INTERCHANGE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06105	130.5505	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05503	130.7077	'RENFROW4 138.00 - SAND RDG 138138.00 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05604	116.3826	'BYRON_138 138.00 - C_CITY_138 138.00 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05604	117.5543	'BYRON_138 138.00 - SANDY_CN 138138.00 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05604	123.3722	'SANDY_CN 138138.00 - WAKITA_138 138.00 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05352	103.9783	'CEDARDALE - MOORELAND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05352	104.6324	'CEDARDALE - OKEENE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05827	123.1005	'DOVER - DOVER SW 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05827	123.2048	'DOVER - TWIN LAKES 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05508	114.118	'DOVER SW - OKEENE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06073	128.2369	'FARGO JCT - FT SUPPLY 69KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05972	123.1639	'IODINE - MOORELAND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05916	117.8727	'MOORELAND - TALOGA 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05619	108.3712	'MOORELAND - NINE MILE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05778	120.7895	'MOREWOOD SW - RED HILLS WIND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05619	108.6634	'MOREWOOD SW - NINE MILE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06073	129.134	'FARGO JCT - WOODWARD 69KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06775	153.2889	'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06413	131.83	'Hitchland Interchange - POTTER COUNTY INTERCHANGE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06462	151.8546	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06204	144.6383	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06462	143.5161	'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06775	154.9217	'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05946	127.9039	'CONWAY SUB - NICHOLS STATION 115KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06037	132.0513	'G12-011T 345.00 - POST ROCK 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05996	128.9544	'AXTELL - POST ROCK 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05947	128.3658	'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06053	129.7613	'HOLCOMB - SETAB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06042	129.5597	'BUCKNER7 345.00 - HOLCOMB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06084	131.5135	'MINGO - SETAB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06099	130.4607	'MINGO - RED WILLOW 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06042	131.2056	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06037	130.1538	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06047	129.2134	'BENTON - WICHITA 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06355	140.5884	'THISTLE7 345.00 - WICHITA 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06355	140.5884	'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06037	131.1584	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05244	115.2272	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05244	115.2272	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05945	128.2932	'GRAND ISLAND - SWEETWATER 345KV CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06462	152.5637	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05854	129.4451	'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06662	158.75	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05882	123.1804	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05424	114.9888	'WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05359	113.5614	'WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05703	133.4669	'RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06413	133.616	'POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07765	190.9995	'DBL-WICH-THI'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08767	197.5221	'DBL-THIS-WWR'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05902	123.7661	'DBL-THIS-CLR'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09623	103.4343	'DBL-HTCH-BVR'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.059	123.2218	'SPP-AEPW-01'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06285	145.9426	'SPP-AEPW-32'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	125.8193	'NCL_GEN-NEBRASKA CITY 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05972	128.8276	'SPP-MKEC-08'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06289	143.3529	'SPP-SWPS-01'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06462	143.5065	'SPP-SWPS-02'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06462	148.5321	'SPP-SWPS-02A'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06469	153.4398	'SPP-SWPS-03'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06413	131.915	'SPP-SWPS-04'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06775	153.4112	'SPP-SWPS-05'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	131.0127	'GEN514805 1-SOONER UNIT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	129.2426	'GEN514806 1-SOONER UNIT 2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.1456	'GEN515365 1-CENT 21 34.500'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.8913	'GEN515393 1-OGEWND2G'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	130.3318	'GEN515787 1-OKLA WIND ENERGY CENTER'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	129.4006	'GEN520922 1-SLEEPING BEAR'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	150.9631	'GEN520997 1-MORLND2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	144.7879	'GEN520998 1-MORLND3'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.5309	'GEN523107 1-NOVUS_WND 14.1600'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.6158	'GEN523121 1-NBLWND-WTG110.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.6707	'GEN523122 1-NBLWND-WTG210.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.4829	'GEN523123 1-NBLWND-WTG310.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.1612	'GEN523201 1-EXCELN4-WTG10.6000'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.4796	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.4373	'GEN523462 1-BLACKHAWK GEN #2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	118.9972	'GEN523971 1-HARRINGTON GEN #1 24 KV'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	118.9969	'GEN523972 1-HARRINGTON GEN #2 24 KV'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	118.9787	'GEN523973 1-HARRINGTON GEN #3 24 KV'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.6042	'GEN524295 1-SPNSPUR_WND10.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	113.3687	'GEN525561 1-TOLK GEN #1 24 KV'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	114.6112	'GEN525562 1-TOLK GEN #2 24 KV'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	121.3756	'GEN526331 1-JONES GEN #1 22 KV'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	120.8629	'GEN526332 1-JONES GEN #2 21 KV'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	121.4998	'GEN526334 1-JONES 4 116.500'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.6563	'GEN527161 1-MUSTANG GEN #1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.6564	'GEN527162 1-MUSTANG GEN #2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.1676	'GEN527163 1-MUSTANG GEN #3 22 KV'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	121.862	'GEN527882 1-CUNNINGHAM GEN #2 20 KV'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	121.9939	'GEN527901 1-HOBBS PLANT #1 (CT)'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.0203	'GEN527902 1-HOBBS PLANT #2 (CT)'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	120.2024	'GEN527903 1-HOBBS PLANT #3 (ST)'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	117.1853	'GEN531447 1-HOLCOMB GENERATOR'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.5342	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.5628	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.5631	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.0361	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.6365	'GEN539670 4-JUDSON LARGE GENERATOR'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.436	'GEN542957 1-IATAN UNIT #1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.917	'GEN542962 2-IATAN UNIT #2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	112.6101	'GEN560121 1-G08-47 0.5750'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.6516	'GEN560221 1-G07-62-1 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.6516	'GEN560222 1-G07-62-2 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.6516	'GEN560223 1-G07-62-3 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.6516	'GEN560224 1-G07-62-4 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	118.6232	'GEN560256 1-G10-14-1 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	118.4383	'GEN560257 1-G10-14-2 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	119.0399	'GEN560286 1-G10-01-1WTG 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	119.0399	'GEN560287 1-G10-01-2WTG 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	118.8888	'GEN560371 1-G07-46 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.5415	'GEN560584 1-G06-44-2 4.1600'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	121.3177	'GEN560585 1-G06-44-3 4.1600'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	121.7223	'GEN560586 1-G06-44-4 4.1600'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	113.5851	'GEN562017 1-G11_022_3 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.5967	'GEN562023 1-G11_020_3 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.5967	'GEN562026 1-G11_019_3 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	116.6506	'GEN562042 1-G11_014_3 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.3515	'GEN562074 1-G11_049_3 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	112.4857	'GEN562432 1-G13-030 0.6900'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.1284	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	121.8408	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	121.8977	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.2788	'GEN645001 1-FORT CALHOUN 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.0254	'GEN645011 1-NEBRASKA CITY 1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.3725	'GEN645012 2-NEBRASKA CITY 2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.9611	'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	122.9611	'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	123.1295	'GEN659111 2-LELAND OLDS UNIT2'
FNSL	02ALL		0 14G	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.05918	119.1352	'GEN659118 1-LARAMIE RIVER UNIT1'
FNSL	00G13_030		0 14WP	G13_030	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	185	0.07878	100.6275	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'FROM->TO'	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	351	0.03111	100.1286	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	01ALL		0 14G	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04401	207.631	'DBL-WICH-THI'
FDNS	1		0 14G	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04408	185.0298	'DBL-WICH-THI'
FDNS	06ALL		0 14G	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04279	204.5797	'DBL-WICH-THI'
FDNS	6		0 14G	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04387	151.2484	'DBL-WICH-THI'
FDNS	09ALL		0 14G	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04394	129.7035	'DBL-WICH-THI'
FDNS	9		0 14G	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04415	125.1744	'DBL-WICH-THI'
FDNS	02G13_030		0 14G	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04368	205.1077	'DBL-WICH-THI'
FDNS	2		0 14G	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.0425	193.6456	'DBL-WICH-THI'
FDNS	02ALL		0 14G	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04226	219.4552	'DBL-WICH-THI'
FDNS	00G13_030		0 14SP	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04472	129.056	'DBL-WICH-THI'
FNSL	00G13_030		0 14WP	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04334	158.9122	'DBL-WICH-THI'
FDNS	0		0 14WP	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04338	119.7998	'DBL-WICH-THI'
FDNS	00G13_030		0 19SP	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04512	105.577	'DBL-WICH-THI'
FNSL	00G13_030		0 19WP	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04429	140.6131	'DBL-WICH-THI'
FDNS	0		0 19WP	G13_030	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.0443	101.5308	'DBL-WICH-THI'
FDNS	00G13_030		0 14SP	G13_030	'FROM->TO'	'Harrington Station Mid Bus - NICHOLS STATION 230KV CKT 2'	617	0.03265	102.1509	'HARRINGTON STATION - NICHOLS STATION 230KV CKT 1'
FDNS	00G13_030		0 24SP	G13_030	'FROM->TO'	'HITCHLAND INTERCHANGE (H TP80148301) 230/115/13.2KV TRANSFORMER CKT 1'	288	0.04074	100.3358	'HITCHLAND INTERCHANGE - OCHILTREE 230KV CKT 1'
FDNS	00G13_030		0 24SP	G13_030	'FROM->TO'	'HITCHLAND INTERCHANGE (H TP80148301) 230/115/13.2KV TRANSFORMER CKT 1'	288	0.04074	100.5351	'OCHILTREE (H TP80219401) 230/115/13.2KV TRANSFORMER CKT 1'
FNSL-Blown up	06ALL		0 14G	G13_030		Non-converged contingency	0	0.07245	9999	'SPP-AEPW-32'
FNSL-Blown up	06ALL		0 14G	G13_030		Non-converged contingency	0	0.03094	9999	'SPP-SWPS-01'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	1195	0.23241	99.6	'DBL-WICH-THI'
FDNS	01ALL		0 14G	G13_030	'TO->FROM'	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	1195	0.22578	100.9896	'DBL-THIS-WWR'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.1574	'BASE CASE'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03624	108.7558	'DOLET HILLS - SOUTHWEST SHREVEPORT 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03551	105.9377	'LYDIA - VALLIANT 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03648	107.4968	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03609	107.4852	'HUGO - VALLIANT 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03767	109.7095	'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03767	109.6307	'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03616	107.6441	'DUNCAN - OMPA-DUNCAN 840 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03765	110.0455	'CLINTON JUNCTION - ELK CITY 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03611	102.9814	'GRACEMONT - LAWTON EASTSIDE 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04137	121.5878	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03616	107.5303	'COMANCHE TAP - OMPA-DUNCAN 840 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04137	117.424	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03647	108.9498	'JERICHO - KIRBY SWITCHING STATION 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03647	108.9499	'HWRDWCK2 69.000 - JERICHO 69KV CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03647	108.7976		'CLARENDON - CLARENDON REC 69KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03647	108.9324		'CLARENDON - HWRDWC2 69.000 69KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03698	108.9		'CHILDRESS - HOLLIS TAP 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03698	108.9529		'HOLLIS TAP - WELLINGTON 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03698	109.1555		'SHAMROCK - WELLINGTON 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03698	109.4263		'MCLEAN RURAL SUB - SHAMROCK 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03786	108.9052		'HUNTERS7 345.00 - WOODRING 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03661	108.7905		'MATHWSN7 345.00 - WOODRING 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03687	108.7918		'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.0385	109.4617		'FPL SWITCH - WOODWARD 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03719	108.7784		'DEWEY - IODINE 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03747	109.2144		'DEWEY - SOUTHARD 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03687	108.8125		'GLASS MOUNTAIN - MOORELAND 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03719	108.8145		'IODINE - WOODWARD EHV 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.0361	104.4575		'CIMARRON - MINCO 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.0361	105.2114		'GRACEMONT - MINCO 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03567	107.3264		'JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03747	109.0314		'EL RENO - ROMAN NOSE 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03747	109.1292		'ROMAN NOSE - SOUTHARD 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03746	109.1772		'CIMARRON - NORTHWEST 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.05797	121.9005		'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03661	109.0404		'CIMARRON - MATHWSN7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03541	106.9074		'HUGO - SUNNYSIDE 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03579	109.0005		'CANADIAN RIVER - MUSKOGEE 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03898	109.8124		'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03899	109.8148		'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.05797	118.6877		'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.05797	119.1462		'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.0385	109.5425		'FPL SWITCH - MOORELAND 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.0368	108.8029		'CEDARDALE - MOORELAND 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.0368	108.7861		'CEDARDALE - OKEENE 138KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03225	110.188		'HITCHLAND INTERCHANGE - MOORE COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04203	110.509		'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03349	109.1714		'BEAVER CO 345.00 - Hitchland Interchange 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03349	109.1714		'BEAVER CO 345.00 - Hitchland Interchange 345KV CKT 2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03391	110.8335		'MOORE COUNTY INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04137	122.1455		'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03925	119.4091		'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04137	117.4998		'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03698	109.6043		'MCCELLELLAN SUB - MCLEAN RURAL SUB 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03698	109.6433		'KIRBY SWITCHING STATION - MCCELLELLAN SUB 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04203	110.7716		'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03323	111.3112		'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03665	109.5252		'CONWAY SUB - NICHOLS STATION 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03665	109.3119		'CONWAY SUB - KIRBY SWITCHING STATION 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03131	114.3967		'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03521	108.8962		'PALO DURO SUB - RANDALL COUNTY INTERCHANGE 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03065	114.1131		'AMARILLO SOUTH INTERCHANGE - SWISHER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03521	108.921		'HAPPY INTERCHANGE - PALO DURO SUB 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03131	114.2996		'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03521	109.2994		'HAPPY INTERCHANGE - TULIA TAP 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03521	109.3952		'KRESS INTERCHANGE - TULIA TAP 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03564	109.0456		'HALE CO INTERCHANGE - KRESS INTERCHANGE 115KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.0312	115.6048		'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03696	104.7578		'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03698	107.1577		'JONES STATION - TUCO INTERCHANGE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03835	110.1326		'G12-011T 345.00 - POST ROCK 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03758	109.1365		'AXTELL - POST ROCK 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03677	108.9887		'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03907	109.4472		'HOLCOMB - SETAB 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03969	110.0483		'MINGO - SETAB 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03994	109.5876		'MINGO - RED WILLOW 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04668	112.346		'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03835	109.4755		'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03634	108.7568		'HOYT - JEFFREY ENERGY CENTER 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03801	109.0534		'BENTON - WICHITA 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.0398	110.7544		'THISTLE7 345.00 - WICHITA 345KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.0398	110.7544		'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03686	108.8096		'CIRCLE - MULLERGREN 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03681	108.821		'MULLERGREN - SPEARVILLE 230KV CKT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03835	109.8132		'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04119	109.6758	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04119	109.6758	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 2'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03674	108.9861	'GRAND ISLAND - SWEETWATER 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04137	121.5153	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03623	107.3092	'LAWTON EASTSIDE (LES 5) 345/138/13.8KV TRANSFORMER CKT 2'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03647	108.9479	'JERICHO (JERIC2WT) 115/69/14.4KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03698	109.1513	'SHAMROCK (SHAMRCK2) 138/69/14.4KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03698	109.4211	'SHAMROCK (SHAMRCK1) 115/69/14.4KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.6842	'TUCO INTERCHANGE 230/13.0KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03648	105.3515	'TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03642	105.9599	'TUCO INTERCHANGE (SIEM 8743066) 345/230/13.2KV TRANSFORMER CKT 2'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.05133	119.9684	'DBL-WICH-THI'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04615	114.1092	'DBL-THIS-WWR'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03794	110.7916	'DBL-THIS-CLR'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03794	109.1698	'DBL-SPRVL-CL'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03794	109.7608	'DBL-IRON-CLR'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.0355	105.9338	'SPP-AEPW-01'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.1574	'NCL_GEN-NEBRASKA CITY 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04137	117.5044	'SPP-SWPS-02'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04137	117.7328	'SPP-SWPS-02A'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04203	110.5584	'SPP-SWPS-05'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03583	108.9942	'SPP-SWPS-26'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03665	109.038	'SPP-SWPS-T53'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03698	109.1209	'SPP-SWPS-T54'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03521	108.8621	'SPP-SWPS-T66'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03521	109.2811	'SPP-SWPS-T67'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03625	108.8854	'SPP-SWPS-V29'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03635	108.7886	'WRTOD400'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.839	'GEN334440 1-SABINE UNIT 4'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.809	'GEN335204 1-NELSON UNIT 4'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.2508	'GEN335206 1-NELSON UNIT 6'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.9836	'GEN335831 1-RIVERBEND UNIT#1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	110.2006	'GEN336153 1-WATERFORD UNIT#3'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.9194	'GEN336252 1-NINEMILE POINT UNIT#5'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	110.3045	'GEN336821 1-GRAND GULF UNIT'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.8676	'GEN336831 1-BAXTER WILSON SES'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.8452	'GEN337041 1-GERALD ANDRUS'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.8827	'GEN338388 1-1PLUMPT_G1 23.000'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	110.003	'GEN501801 1-DOLET HILLS UNIT1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.9362	'GEN501811 1-RODEMACHER UNIT 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.1595	'GEN501812 1-RODEMACHER UNIT 2'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.3813	'GEN501813 1-RODEMACHER UNIT 3'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.8081	'GEN509394 1-FLINT CREEK'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.6862	'GEN509403 1-PIRKEY GENERATION'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.6363	'GEN509404 1-WELSH #1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.6364	'GEN509405 1-WELSH #2'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.6365	'GEN509406 1-WELSH #3'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.9284	'GEN509416 1-TURK GENERATION'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.0544	'GEN511851 1-COMANCHE #1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.7735	'GEN514805 1-SOONER UNIT 1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.8094	'GEN514806 1-SOONER UNIT 2'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.8749	'GEN515040 1-SEMINOLE 1G'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.8367	'GEN515041 1-SEMINOLE 2G'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.7587	'GEN515042 1-SEMINOLE 3G'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.3202	'GEN515223 1-MUSKOGEE 4G'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.3354	'GEN515225 1-MUSKOGEE 5G'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.3303	'GEN515226 1-MUSKOGEE 6G'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.7795	'GEN520811 1-ANADRK4'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	109.9962	'GEN520947 1-HUGO1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	106.2265	'GEN522814 1-LUBBOCK POWER & LIGHT-MACKENZIE GEN'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.1857	'GEN522875 1-LUBBOCK POWER & LIGHT-BRANDON GEN'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	105.5026	'GEN523461 1-BLACKHAWK GEN #1'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	105.4547	'GEN523462 1-BLACKHAWK GEN #2'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	99.7	'GEN523971 1-HARRINGTON GEN #1 24 KV'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	99.7	'GEN523972 1-HARRINGTON GEN #2 24 KV'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	99.7	'GEN523973 1-HARRINGTON GEN #3 24 KV'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	106.6501	'GEN524286 1-CLR_3 0.6900'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	106.5432	'GEN524295 1-SPNSPUR_WND10.6900'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.5424	'GEN524471 1-QUAY CNTY 113.800'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	105.7986	'GEN524485 1-CAPROCK WIND GEN'	
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	103.6967	'GEN524895 1-SAN JUAN MESA WIND GEN'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	103.5859	'GEN526331 1-JONES GEN #1 22 KV'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	105.3305	'GEN526678 1-CIRRUS_WND 10.6900'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	103.1832	'GEN527161 1-MUSTANG GEN #1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	103.1832	'GEN527162 1-MUSTANG GEN #2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	102.4384	'GEN527163 1-MUSTANG GEN #3 22 KV'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	101.164	'GEN527166 1-MUSTANG_6 118.000'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	101.0226	'GEN527882 1-CUNNINGHAM GEN #2 20 KV'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	102.5059	'GEN527901 1-HOBBS PLANT #1 (CT)'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	102.5448	'GEN527902 1-HOBBS PLANT #2 (CT)'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	99.9	'GEN527903 1-HOBBS PLANT #3 (ST)'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.0426	'GEN528332 1-WILDCAT_WND134.500'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	105.2865	'GEN531447 1-HOLCOMB GENERATOR'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.2383	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.2474	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.2476	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.0501	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	106.9648	'GEN539670 4-JUDSON LARGE GENERATOR'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.5528	'GEN542957 1-IATAN UNIT #1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.4242	'GEN542962 2-IATAN UNIT #2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.4389	'GEN560121 1-G08-47 0.5750'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	105.3716	'GEN560331 1-G10-46 13.800'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.0521	'GEN560363 1-ASGI-10-20 0.6900'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.4464	'GEN560371 1-G07-46 0.6900'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.522	'GEN560762 1-ASGI13_03_3 0.6900'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	104.3553	'GEN562007 1-G11_025_3 0.6900'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.3302	'GEN562017 1-G11_022_3 0.6900'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.1213	'GEN562074 1-G11_049_3 0.6900'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.374	'GEN562103 1-ASGI11_004_30.6900'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.5115	'GEN562325 1-ASGI_12_02_30.6900'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.5054	'GEN562414 1-G13-022 0.4800'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.4325	'GEN562432 1-G13-030 0.6900'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	119.8113	'GEN599891 1-OKLAUN'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.1225	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	106.8427	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	106.853	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.4418	'GEN645001 1-FORT CALHOUN 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.3678	'GEN645011 1-NEBRASKA CITY 1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.192	'GEN645012 2-NEBRASKA CITY 2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.3776	'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.3776	'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	107.4229	'GEN659111 2-LELAND OLDS UNIT2'
FDNS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	108.411	'SPS_SVC2-TUCO Interchange SVC Bus'
FNLS	06ALL		0 14G	G13_030	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03622	106.003	'GEN659118 1-LARAMIE RIVER UNIT1'
FDNS	06ALL		0 14G	G13_030	'FROM->TO'	'SPSPPTIESB1'	1027	0.08135	106.8	'BASE CASE'
FDNS	06ALL		0 14G	G13_030	'FROM->TO'	'SPSPPTIESC1'	1027	0.08135	106.8	'BASE CASE'
FDNS	06ALL		0 14G	G13_030	'FROM->TO'	'SPSPPTIESB1'	620	0.15545	153.1265	'BASE CASE'
FDNS	2		0 14G	G13_030	'FROM->TO'	'SPSPPTIESB1'	620	0.26578	112.0512	'BASE CASE'
FDNS	02ALL		0 14G	G13_030	'FROM->TO'	'SPSPPTIESB1'	620	0.2631	147.3757	'BASE CASE'
FDNS	06ALL		0 14G	G13_030	'FROM->TO'	'SPSPPTIESC'	620	0.15545	153.1265	'BASE CASE'
FDNS	2		0 14G	G13_030	'FROM->TO'	'SPSPPTIESC'	620	0.26578	112.0512	'BASE CASE'
FDNS	02ALL		0 14G	G13_030	'FROM->TO'	'SPSPPTIESC'	620	0.2631	147.3757	'BASE CASE'
FDNS	02ALL		0 14G	G13_030	'TO->FROM'	'WOODWARD - WOODWARD EHV 138KV CKT 1'	287	0.07182	96	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.40972	187.6308	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.40984	135.0409	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.41121	159.1049	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.41137	117.6454	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0 19SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.39718	123.6286	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.39813	157.8591	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0 19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	177	0.39826	118.1037	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.39755	149.9956	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.11653	103.3968	'NORTHWEST INTERCHANGE - ROLLHILLS 3115.00 115KV CKT 1'
FDNS	00G13_031		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.16608	112.5316	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.11554	102.4225	'RANDALL COUNTY INTERCHANGE - SOUTH GEORGIA INTERCHANGE 115KV CKT 1'
FDNS	00G13_031		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.16608	112.6114	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.11767	100.8941	'AMARILLO SOUTH INTERCHANGE (ABB 801466) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.12092	99.7	'SPP-SWPS-K19'
FDNS	0		0 24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'	160	0.39761	100.2691	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	109.4112	'BASE CASE'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.65624	112.2082	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63763	100.5462	'LAWTON EASTSIDE - SUNNYSIDE 345KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64922	108.449	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'



SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64922	107.2819	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.62281	110.7953	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63966	100.6658	'COULTER INTERCHANGE - PUCKETT SUB 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.73327	131.4126	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.83209	115.2627	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.73327	126.8518	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.62582	100.3287	'AMARILLO SOUTH INTERCHANGE - SWISHER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64166	100.715	'CANYON EAST SUB - CANYON WEST SUB 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64166	102.8684	'CANYON WEST SUB - DAWN SUB 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64166	103.3422	'DAWN SUB - Panda Energy Substation Hereford 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64166	104.0047	'DEAF SMITH COUNTY INTERCHANGE - Panda Energy Substation Hereford 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64027	100.3168	'DEAF SMITH REC #6 - HEREFORD INTERCHANGE 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.83209	115.1059	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63512	100.4858	'HALE CO INTERCHANGE - KRESS INTERCHANGE 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.62837	103.0331	'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63733	100.8478	'HALE CO INTERCHANGE - PLANT X STATION 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63897	101.2594	'PLANT X STATION - SUNDOWN INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64751	105.866	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63737	100.798	'JONES STATION - TUCO INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.6368	100.6542	'WOLFFORTH INTERCHANGE - YUMA INTERCHANGE 115KV CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63624	100.3268	'BOWERS INTERCHANGE (NA 70456-A) 115/69/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.73327	131.4012	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64056	103.9056	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 2'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64016	103.5285	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.65624	112.216	'SPP-AEPW-32'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.65775	112.0742	'SPP-SWPS-01'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63727	101.5477	'SPP-SWPS-25'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64166	103.4169	'SPP-SWPS-W40'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64293	101.2604	'SPP-SWPS-T04'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.64027	100.3142	'SPP-SWPS-T58'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.5232	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.5445	'GEN523462 1-BLACKHAWK GEN #2'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	103.503	'GEN523971 1-HARRINGTON GEN #1 24 KV'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	103.5033	'GEN523972 1-HARRINGTON GEN #2 24 KV'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	103.5148	'GEN523973 1-HARRINGTON GEN #3 24 KV'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	101.2499	'GEN531447 1-HOLCOMB GENERATOR'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.5621	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.3609	'GEN542962 2-IATAN UNIT #2'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.4871	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	101.0393	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	101.1526	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.3299	'GEN645011 1-NEBRASKA CITY 1'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.63629	100.3802	'GEN645012 2-NEBRASKA CITY 2'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	108.6644	'BASE CASE'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65915	113.6194	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64044	100.222	'LAWTON EASTSIDE - SUNNYSIDE 345KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65217	108.4204	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65217	107.213	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.62672	102.4597	'PLANT X STATION - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63307	99.8	'CHERRY1 - HARRINGTON STATION 230KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64245	100.121	'COULTER INTERCHANGE - PUCKETT SUB 115KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73643	125.2507	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.83204	126.8368	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73643	121.8728	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64474	100.1917	'CANYON EAST SUB - CANYON WEST SUB 115KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64474	102.0887	'CANYON WEST SUB - DAWN SUB 115KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64474	102.4939	'DAWN SUB - Panda Energy Substation Hereford 115KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64474	103.0549	'DEAF SMITH COUNTY INTERCHANGE - Panda Energy Substation Hereford 115KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.6431	100.4031	'DEAF SMITH REC #6 - HEREFORD INTERCHANGE 115KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.83204	126.6407	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.6431	100.1976	'DEAF SMITH REC #6 - FRIONA SUB 115KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.6431	99.9	'CARGILL SUB - FRIONA SUB 115KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64152	101.6396	'PLANT X STATION - SUNDOWN INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65	103.5444	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63955	99.9	'TOLK STATION WEST - YOAKUM COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73643	125.2408	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64332	101.5572	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 2'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64293	101.3393	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65915	113.6712	'SPP-AEPW-32'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.66067	113.5677	'SPP-SWPS-01'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64474	102.527	'SPP-SWPS-W40'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.6431	100.4041	'SPP-SWPS-T58'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63916	100.4948	'SPP-SWPS-V29'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.5161	'GEN300003 1-THOMAS HILL UNIT 3'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.1033	'GEN300006 1-NEW MADRID UNIT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.1051	'GEN300007 1-NEW MADRID UNIT 2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN303006 1-1BC2 U1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN303007 1-1BC2 U2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN335206 1-NELSON UNIT 6'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.8807	'GEN335831 1-RIVERBEND UNIT#1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.0937	'GEN336153 1-WATERFORD UNIT#3'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN336252 1-NINEMILE POINT UNIT#5'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.3619	'GEN336821 1-GRAND GULF UNIT'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN336831 1-BAXTER WILSON SES'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN337041 1-GERALD ANDRUS'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.3135	'GEN338388 1-1PLUMPT_G1 23.000'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN501813 1-RODEMACHER UNIT 3'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN509394 1-FLINT CREEK'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN514805 1-SOONER UNIT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN514806 1-SOONER UNIT 2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.2558	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.2782	'GEN523462 1-BLACKHAWK GEN #2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	103.4943	'GEN523971 1-HARRINGTON GEN #1 24 KV'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	103.4946	'GEN523972 1-HARRINGTON GEN #2 24 KV'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	103.5072	'GEN523973 1-HARRINGTON GEN #3 24 KV'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.0621	'GEN524295 1-SPNSPUR_WND10.6900'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.3916	'GEN531447 1-HOLCOMB GENERATOR'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.0113	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.0532	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.2599	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	99.9	'GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	102.1673	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN541151 3-SIBLEY GENERATING UNIT #3'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.3221	'GEN542951 5-HAWTHORN UNIT #5'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100	'GEN542956 2-LACYGNE UNIT #2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.6533	'GEN542957 1-IATAN UNIT #1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.8965	'GEN542962 2-IATAN UNIT #2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.3288	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.3188	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.1442	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.5388	'GEN645001 1-FORT CALHOUN 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.3372	'GEN645011 1-NEBRASKA CITY 1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	101.0422	'GEN645012 2-NEBRASKA CITY 2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.3603	'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.3603	'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	00G13_031	0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63905	100.2874	'GEN659111 2-LELAND OLDS UNIT2'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	107.9912	'BASE CASE'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65544	112.1422	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63704	100	'LAWTON EASTSIDE - SUNNYSIDE 345KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64921	107.2548	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64921	106.0311	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.6297	99.8	'CHERRY1 - HARRINGTON STATION 230KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63981	100	'PUCKETT SUB - SONCY_TP 3115.00 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63981	100.4231	'COULTER INTERCHANGE - PUCKETT SUB 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73003	125.0114	'BUSHLAND INTERCHANGE - HILLSIDE 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.83392	125.6827	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73003	121.222	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64091	101.2568	'CANYON WEST SUB - DAWN SUB 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64091	101.6778	'DAWN SUB - Panda Energy Substation Hereford 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64091	102.2218	'DEAF SMITH COUNTY INTERCHANGE - Panda Energy Substation Hereford 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63971	99.9	'DEAF SMITH REC-#6 - HEREFORD INTERCHANGE 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.83392	125.4651	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63971	99.7	'DEAF SMITH REC-#6 - FRIONA SUB 115KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63385	103.0288	'NEWHART 230 - PLANT X STATION 230KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63792	100.5545	'PLANT X STATION - SUNDOWN INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64274	101.2952	'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.73003	125.0056	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63971	100.4406	'DEAF SMITH COUNTY INTERCHANGE (LIKE POTTER) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63971	100.4406	'DEAF SMITH COUNTY INTERCHANGE (LIKE POTTER) 230/115/13.8KV TRANSFORMER CKT 2'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65544	112.2095	'SPP-AEPW-32'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.65695	111.9905	'SPP-SWPS-01'
FDNS	00G13_031	0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.64091	101.7489	'SPP-SWPS-W40'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY	
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63971	99.9	'SPP-SWPS-T58'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63572	99.8	'SPP-SWPS-V29'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.5	'GEN336153 1-WATERFORD UNIT#3'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.5	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.6	'GEN523462 1-BLACKHAWK GEN #2'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	102.4812	'GEN523971 1-HARRINGTON GEN #1 24 KV'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	102.4815	'GEN523972 1-HARRINGTON GEN #2 24 KV'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	102.493	'GEN523973 1-HARRINGTON GEN #3 24 KV'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	100.4255	'GEN531447 1-HOLCOMB GENERATOR'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.6	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.8	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	100.4214	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.5	'GEN542957 1-IATAN UNIT #1'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.8	'GEN542962 2-IATAN UNIT #2'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	100.0798	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	100.3506	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	100.2691	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.6	'GEN645001 1-FORT CALHOUN 1'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	361	0.63563	99.8	'GEN645012 2-NEBRASKA CITY 2'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.83392	109.1321	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'	351	0.83392	108.9524	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.40972	178.8008	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.40972	188.4723	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.40984	129.7522	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	14SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.40984	134.8042	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.41121	167.8929	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.41121	174.3142	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.41137	124.2399	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	14WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.41137	127.0714	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	19SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39718	118.9409	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	19SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39718	124.1917	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39813	166.5558	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39813	172.3888	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39826	124.9996	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	19WP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39826	127.7152	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39755	143.4005	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39755	149.0516	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.11653	104.0309	'NORTHWEST INTERCHANGE - ROLLHILLS 3115.00 115KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.16608	109.4404	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.16608	114.5099	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.11554	103.0085	'RANDALL COUNTY INTERCHANGE - SOUTH GEORGIA INTERCHANGE 115KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.16608	109.5898	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.16608	114.7312	'BUFFALO 230.00 - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.11767	101.5878	'AMARILLO SOUTH INTERCHANGE (ABB 801466) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.12092	100.2302	'SPP-SWPS-K19'
FDNS	0		0	24SP	G13_031	'FROM->TO'	'BUSHLAND INTERCHANGE (WH 7001795) 230/115/13.2KV TRANSFORMER CKT 1'	168	0.39761	101.4593	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	14WP	G13_031	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.0336	115.6214	'DBL-WICH-THI'
FDNS	0		0	14WP	G13_031	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.03366	109.547	'DBL-WICH-THI'
FDNS	00G13_031		0	14SP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.40972	159.0806	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	14SP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.40984	111.0748	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	14WP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.41121	139.39	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	14WP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.41137	100.9063	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	19WP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.39813	137.1148	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	0		0	19WP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	191	0.39826	100.2145	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	24SP	G13_031	'TO->FROM'	'COULTER INTERCHANGE - HILLSIDE 115KV CKT 1'	176	0.39755	120.7924	'BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	14SP	G13_031	'FROM->TO'	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 1'	168	0.05912	112.5895	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031		0	14SP	G13_031	'FROM->TO'	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 1'	168	0.05912	120.3169	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	0		0	14SP	G13_031	'FROM->TO'	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 1'	168	0.0591	108.1837	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	0		0	14SP	G13_031	'FROM->TO'	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 1'	168	0.0591	115.8825	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	00G13_031		0	14SP	G13_031	'FROM->TO'	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 2'	168	0.05802	110.0666	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 2'
FDNS	00G13_031		0	14SP	G13_031	'FROM->TO'	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 2'	168	0.05802	118.2318	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 2'
FDNS	0		0	14SP	G13_031	'FROM->TO'	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 2'	168	0.058	105.7785	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 2'
FDNS	0		0	14SP	G13_031	'FROM->TO'	'DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 2'	168	0.058	113.9056	'DEAF SMITH COUNTY INTERCHANGE (ELCO 13458-1) 230/115/13.8KV TRANSFORMER CKT 2'
FDNS	00G13_031		0	24SP	G13_031	'FROM->TO'	'DEAF SMITH COUNTY INTERCHANGE (LIKE POTTER) 230/115/13.2KV TRANSFORMER CKT 2'	250	0.06899	100.4427	'DEAF SMITH COUNTY INTERCHANGE (LIKE POTTER) 230/115/13.8KV TRANSFORMER CKT 2'
FDNS	00G13_031		0	14SP	G13_031	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.04079	123.4475	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	14SP	G13_031	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.04079	129.2362	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	0		0	14SP	G13_031	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.04085	115.8704	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	0		0	14SP	G13_031	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.04085	120.9976	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	14WP	G13_031	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.04019	123.6826	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0	14WP	G13_031	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.04019	128.446	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	0		0	14WP	G13_031	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.04029	115.8587	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	0		0 14WP	G13_031	'FROM->TO'	'GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13.2KV TRANSFORMER CKT 1'	112	0.04029	120.4753	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.0336	125.8578	'DBL-WICH-THI'
FDNS	0		0 14WP	G13_031	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03366	119.7998	'DBL-WICH-THI'
FDNS	00G13_031		0 19WP	G13_031	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03287	107.4759	'DBL-WICH-THI'
FDNS	0		0 19WP	G13_031	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.03292	101.5308	'DBL-WICH-THI'
FDNS	00G13_031		0 14SP	G13_031	'FROM->TO'	'Harrington Station Mid Bus - NICHOLS STATION 230KV CKT 2'	617	0.13899	101.2045	'HARRINGTON STATION - NICHOLS STATION 230KV CKT 1'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'SPSSPPTIESB'	620	0.44272	110.7889	'BASE CASE'
FDNS	00G13_031		0 14WP	G13_031	'FROM->TO'	'SPSSPPTIESC1'	620	0.44272	110.7889	'BASE CASE'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	104.0598	'BASE CASE'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.36883	116.0969	'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31484	117.0157	'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32406	116.3596	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.3172	107.2284	'G10-51T 230.00 - HOSKINS 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32722	100.348	'AINSWORTH - STUART 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33603	113.8936	'ALBION - GENOA 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35416	120.3463	'ALBION - PETERSBURG 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32722	100.6847	'ATKINSON - EMMET 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32722	100.4505	'ATKINSON - STUART 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32412	111.4651	'BELDEN - HARTINGTON 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.38379	137.495	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37838	111.1593	'CLEARWATER - NELIGH 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37838	110.5971	'CLEARWATER - ONEILL 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32225	109.6026	'KELLY - MEADOWGROVE 230.00 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33603	112.6052	'COLUMBUS - GENOA 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.38379	108.3964	'CREIGHTON - NELIGH 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32722	100.7802	'EMMET - ONEILL 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32412	114.1206	'GAVINS POINT - HARTINGTON 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.2927	99.5	'HOSKINS - NORTH NORFOLK 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32083	106.4064	'LOUP CITY - ST LIBORY 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.49494	116.4866	'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31214	101.691	'NORFOLK - NORTH NORFOLK 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.34782	109.4273	'ONEILL - SPENCER 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35416	120.5041	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT 21'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.34782	108.8819	'FT RANDAL - SPENCER 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32027	106.7632	'MISSION - ST FRANCIS 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.3164	100.1969	'SIOUX CITY - TWIN CHURCH 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32071	108.4037	'BERSFORD - MANNING 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32071	107.3498	'BERSFORD - SIOUX FALLS 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31984	107.7864	'FT RANDAL - SIOUX CITY 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32604	111.9841	'GAVINS POINT - YANKON JCT 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32071	108.9751	'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32005	106.7663	'RASMUSN - UTICA JCT 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32005	106.4289	'RASMUSN - SIOUX CITY 230KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32434	109.8024	'UTICA - YANKON JCT 115KV CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.36883	116.0986	'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32406	116.3357	'S_NORFOLK 345.00 (SNORFOLK) 345/230/13.8KV TRANSFORMER CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32187	106.4587	'UTICA JCT (UJ KV3A) 230/115/13.2KV TRANSFORMER CKT 1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32722	100.8247	'LN-1267'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37838	111.1799	'LN-1164'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.34782	109.4632	'LN-WAPA6'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33676	112.932	'WAPA-OG-1'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.34694	115.7847	'WAPA-OG-2'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32305	110.8571	'DAK02WAPAB2'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.34782	109.4632	'NEB001NPPB2'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32412	113.0599	'NEB02WAPAB2'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	101.1447	'GEN560228 1-G08-86N2 0.6900'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	107.893	'GEN560350 1-G10-51 0.6900'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	100.4741	'GEN640026 1-AINSWORTH WIND'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	100	'GEN640421 1-CROFTON HILLS WIND'
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.31879	100.6588	'GEN659118 1-LARAMIE RIVER UNIT1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.36893	106.0162	'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.315	106.4816	'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32412	106.2173	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33609	104.2577	'ALBION - GENOA 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35412	111.695	'ALBION - PETERSBURG 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32417	102.9252	'BELDEN - HARTINGTON 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.38388	122.7776	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37846	102.2426	'CLEARWATER - NELIGH 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37846	101.6807	'CLEARWATER - ONEILL 115KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32229	100.7014	'KELLY - MEADOWGROVE 230.00 230KV CKT 1'
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33609	102.9276	'COLUMBUS - GENOA 115KV CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.38388	100.3067	'CREIGHTON - NELIGH 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32417	105.3456	'GAVINS POINT - HARTINGTON 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.49487	112.6937	'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35412	111.8532	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32077	99.9	'BERSFORD - MANNING 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.3261	102.8212	'GAVINS POINT - YANKON JCT 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32077	100.4386	'MANNING - SPIRIT MOUND 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.3244	100.9737	'UTICA - YANKON JCT 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.36893	106.015	'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32412	106.1982	'S_NORFOLK 345.00 (SNORFOLK) 345/230/13.8KV TRANSFORMER CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.37846	102.2634	'LN-1164'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.33681	103.1122	'WAPA-OG-1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.347	105.7285	'WAPA-OG-2'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32311	102.0588	'DAK02WAPAB2'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.32417	104.508	'NEB02WAPAB2'	
FDNS	9		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35412	100.349	'ALBION - PETERSBURG 115KV CKT 1'	
FDNS	9		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.38388	110.6629	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	
FDNS	9		0 14G	G13_032	'TO->FROM'	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	120	0.35412	100.5072	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.36883	110.5649	'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.31484	111.4807	'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32406	110.8149	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.3172	101.6975	'G10-51T 230.00 - HOSKINS 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.33603	108.369	'ALBION - GENOA 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.35416	114.8085	'ALBION - PETERSBURG 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32412	105.9099	'BELDEN - HARTINGTON 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.38379	132.0141	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.37838	105.6265	'CLEARWATER - NELIGH 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.37838	105.0643	'CLEARWATER - ONEILL 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32225	104.0457	'KELLY - MEADOWGROVE 230.00 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.33603	107.0845	'COLUMBUS - GENOA 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.38379	102.8648	'CREIGHTON - NELIGH 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32412	108.5997	'GAVINS POINT - HARTINGTON 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32083	100.8788	'LOUP CITY - ST LIBORY 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.49494	110.9647	'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.34782	103.9036	'ONEILL - SPENCER 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.35416	114.9663	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.34782	103.3578	'FT RANDAL - SPENCER 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32027	101.2454	'MISSION - ST FRANCIS 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32071	102.8542	'BERSFORD - MANNING 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32071	101.807	'BERSFORD - SIOUX FALLS 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.31984	102.2456	'FT RANDAL - SIOUX CITY 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32604	106.4578	'GAVINS POINT - YANKON JCT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32071	103.4209	'MANNING - SPIRIT MOUND 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32005	101.2294	'RASMUSN - UTICA JCT 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32005	100.8932	'RASMUSN - SIOUX CITY 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32434	104.2484	'UTICA - YANKON JCT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.36883	110.5665	'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32406	110.7933	'S_NORFOLK 345.00 (SNORFOLK) 345/230/13.8KV TRANSFORMER CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32187	100.9222	'UTICA JCT (UJ KV3A) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.37838	105.6469	'LN-1164'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.34782	103.9394	'LN-WAPA6'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.33676	107.4096	'WAPA-OG-1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.34694	110.2598	'WAPA-OG-2'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32305	105.3004	'DAK02WAPAB2'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.34782	103.9394	'NEB001NPPB2'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32412	107.5026	'NEB02WAPAB2'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.31879	102.346	'GEN560350 1-G10-51 0.6900'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.36893	100.484	'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.315	100.9388	'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32412	100.6751	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.35412	106.1553	'ALBION - PETERSBURG 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.38388	117.2534	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32417	99.8	'GAVINS POINT - HARTINGTON 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.49487	107.1676	'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.35412	106.3137	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.36893	100.4828	'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.32412	100.6577	'S_NORFOLK 345.00 (SNORFOLK) 345/230/13.8KV TRANSFORMER CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.347	100.204	'WAPA-OG-2'	
FDNS	9		0 14G	G13_032	'FROM->TO'	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	120	0.38388	105.1565	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	120	0.24793	115.4674	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	120	0.24793	113.9411	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	120	0.24793	115.6089	'COUNTY LINE - NELIGH 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'FROM->TO'	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	120	0.24793	115.5584	'LN-1163'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	104.7522	'BASE CASE'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.36883	116.7893	'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31484	117.7072	'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32406	117.0504	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3172	107.9236	'G10-51T 230.00 - HOSKINS 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32722	101.0418	'AINSWORTH - STUART 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33603	114.587	'ALBION - GENOA 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35416	121.0369	'ALBION - PETERSBURG 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32722	101.3785	'ATKINSON - EMMET 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32722	101.1444	'ATKINSON - STUART 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32412	112.1563	'BELDEN - HARTINGTON 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.38379	138.1868	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37838	111.8527	'CLEARWATER - NELIGH 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37838	111.2906	'CLEARWATER - ONEILL 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32225	110.2945	'KELLY - MEADOWGROVE 230.00 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33603	113.2993	'COLUMBUS - GENOA 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.38379	109.0904	'CREIGHTON - NELIGH 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32722	101.4741	'EMMET - ONEILL 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32412	114.8141	'GAVINS POINT - HARTINGTON 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.2927	100.204	'HOSKINS - NORTH NORFOLK 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.49494	117.1803	'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.34782	110.1231	'ONEILL - SPENCER 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35416	121.1946	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.34782	109.5777	'FT RANDAL - SPENCER 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32027	107.461	'MISSION - ST FRANCIS 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3164	100.8901	'SIOUX CITY - TWIN CHURCH 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32071	109.0967	'BERSFORD - MANNING 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32071	108.0438	'BERSFORD - SIOUX FALLS 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31984	108.4804	'FT RANDAL - SIOUX CITY 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32604	112.6779	'GAVINS POINT - YANKON JCT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32071	109.6673	'MANNING - SPIRIT MOUND 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32005	107.461	'RASMUSN - UTICA JCT 230KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32434	110.4945	'UTICA - YANKON JCT 115KV CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.36883	116.7909	'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32406	117.0265	'S_NORFOLK 345.00 (SNORFOLK) 345/230/13.8KV TRANSFORMER CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32187	107.1536	'UTICA JCT (UJ KV3A) 230/115/13.2KV TRANSFORMER CKT 1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32722	101.5185	'LN-1267'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37838	111.8732	'LN-1164'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.34782	110.159	'LN-WAPA6'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33676	113.6259	'WAPA-OG-1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.34694	116.4776	'WAPA-OG-2'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32305	111.5484	'DAK02WAPAB2'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.34782	110.159	'NEB001NPPB2'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32412	113.7505	'NEB02WAPAB2'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	101.8418	'GEN560228 1-G08-86N2 0.6900'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	108.5866	'GEN560350 1-G10-51 0.6900'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	101.1678	'GEN640026 1-AINSWORTH WIND'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	100.6868	'GEN640421 1-CROFTON HILLS WIND'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	99.9	'GEN645062 W-TPWPBG1W 0.6900'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	102.3194	'GEN659103 1-ANTELOPE VALLEY UNIT1'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	102.3194	'GEN659107 2-ANTELOPE VALLEY UNIT2'	
FDNS	09ALL		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31879	101.3541	'GEN659118 1-LARAMIE RIVER UNIT1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.36893	106.7117	'MEADOWGROVE 115.00 - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.315	107.1771	'HOSKINS - S_NORFOLK 345.00 345KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32412	106.9117	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33609	104.9501	'ALBION - GENOA 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35412	112.3881	'ALBION - PETERSBURG 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32417	103.6189	'BELDEN - HARTINGTON 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.38388	123.469	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37846	102.9347	'CLEARWATER - NELIGH 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37846	102.373	'CLEARWATER - ONEILL 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32229	101.3965	'KELLY - MEADOWGROVE 230.00 230KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33609	103.6207	'COLUMBUS - GENOA 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.38388	100.9984	'CREIGHTON - NELIGH 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32417	106.0372	'GAVINS POINT - HARTINGTON 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.49487	113.388	'NELIGH - PETERSBRG.N7115.00 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3479	100.0687	'ONEILL - SPENCER 115KV CKT 1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35412	112.5462	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'	
FDNS	09G13_032		0 14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3479	99.5	'FT RANDAL - SPENCER 115KV CKT 1'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32077	100.5682	'BERSFORD - MANNING 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32077	99.6	'BERSFORD - SIOUX FALLS 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31999	100	'FT RANDAL - SIOUX CITY 230KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3261	103.5143	'GAVINS POINT - YANKON JCT 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32077	101.1343	'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3244	101.6728	'UTICA - YANKON JCT 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.36893	106.7106	'MEADOWGROVE 230.00 (MEADOWGROVE) 230/115/13.8KV TRANSFORMER CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32412	106.8927	'S_NORFOLK 345.00 (SNORFOLK) 345/230/13.8KV TRANSFORMER CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.37846	102.9555	'LN-1164'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3479	100.1032	'LN-WAPA6'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.33681	103.8052	'WAPA-OG-1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.347	106.425	'WAPA-OG-2'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32311	102.7534	'DAK02WAPAB2'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.3479	100.1032	'NEB001NPPB2'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.32417	105.2011	'NEB02WAPAB2'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.31884	99.7	'GEN560350 1-G10-51 0.6900'
FDNS	9		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35412	101.0434	'ALBION - PETERSBURG 115KV CKT 1'
FDNS	9		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.38388	111.3606	'BLOOMFIELD - GAVINS POINT 115KV CKT 1'
FDNS	9		0	14G	G13_032	'TO->FROM'	'COUNTY LINE - NELIGH 115KV CKT 1'	120	0.35412	101.2016	'PETERSBRG.N7115.00 - PETERSBURG 115KV CKT Z1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - HARTINGTON 115KV CKT 1'	120	0.08109	114.587	'GAVINS POINT - YANKON JCT 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - HARTINGTON 115KV CKT 1'	120	0.08109	107.6098	'GAVINS POINT - YANKON JCT 115KV CKT 1'
FDNS	9		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - HARTINGTON 115KV CKT 1'	120	0.08109	104.9681	'GAVINS POINT - YANKON JCT 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12662	100.5355	'BATTLE CREEK - COUNTY LINE 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12662	100.0601	'BATTLE CREEK - NORTH NORFOLK 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12027	122.4444	'BELDEN - HARTINGTON 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12662	100.5811	'COUNTY LINE - NELIGH 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12027	132.6936	'GAVINS POINT - HARTINGTON 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.10326	101.6273	'SIOUX CITY - TWIN CHURCH 230KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.11603	129.7729	'BERSFORD - MANNING 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.11603	120.3076	'BERSFORD - SIOUX FALLS 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.0988	104.8783	'FT RANDAL - UTICA JCT 230KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.11603	134.8755	'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12662	100.782	'LN-1163'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12027	132.8132	'NEB02WAPAB2'
FDNS	09G13_032		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12033	111.5285	'BELDEN - HARTINGTON 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12033	121.7868	'GAVINS POINT - HARTINGTON 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.11616	117.1254	'BERSFORD - MANNING 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.11616	108.0872	'BERSFORD - SIOUX FALLS 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.11616	122.22	'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12033	121.8967	'NEB02WAPAB2'
FDNS	9		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12033	107.9231	'BELDEN - HARTINGTON 115KV CKT 1'
FDNS	9		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12033	118.1728	'GAVINS POINT - HARTINGTON 115KV CKT 1'
FDNS	9		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.11616	113.6879	'BERSFORD - MANNING 115KV CKT 1'
FDNS	9		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.11616	104.6914	'BERSFORD - SIOUX FALLS 115KV CKT 1'
FDNS	9		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.11616	118.7534	'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	9		0	14G	G13_032	'FROM->TO'	'GAVINS POINT - YANKON JCT 115KV CKT 1'	128	0.12033	118.2827	'NEB02WAPAB2'
FDNS	06ALL		0	14G	G13_032	'FROM->TO'	'LAWEASOKLUNI'	425	0.03089	191.6	'BASE CASE'
FDNS	09ALL		0	14G	G13_032	'TO->FROM'	'MANNING - SPIRIT MOUND 115KV CKT 1'	128	0.0572	103.0508	'GAVINS POINT - YANKON JCT 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'FROM->TO'	'MEADOWGROVE 230.00 - S_NORFOLK 230.00 230KV CKT 1'	320	0.13299	99.6	'KELLY - MEADOWGROVE 230.00 230KV CKT 1'
FDNS	06ALL		0	14G	G13_032	'FROM->TO'	'SPPSPSTIESB1'	1027	0.09811	106.8	'BASE CASE'
FDNS	06ALL		0	14G	G13_032	'FROM->TO'	'SPPSPSTIESC1'	1027	0.09811	106.8	'BASE CASE'
FDNS	06ALL		0	14G	G13_032	'FROM->TO'	'TUCXFR345230'	300	0.03985	154.1	'BASE CASE'
FDNS	09ALL		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.09998	106.3514	'BELDEN - HARTINGTON 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.09998	114.5046	'GAVINS POINT - HARTINGTON 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.0971	112.6936	'BERSFORD - MANNING 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.0971	105.0187	'BERSFORD - SIOUX FALLS 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.08611	109.969	'FT RANDAL - UTICA JCT 230KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.0971	116.8404	'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	09ALL		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.09998	114.5853	'NEB02WAPAB2'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.10005	104.1452	'GAVINS POINT - HARTINGTON 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.09721	100.8931	'BERSFORD - MANNING 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.09721	105.0469	'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	09G13_032		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.10005	104.219	'NEB02WAPAB2'
FDNS	9		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.10005	100.9723	'GAVINS POINT - HARTINGTON 115KV CKT 1'
FDNS	9		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.09721	101.9824	'MANNING - SPIRIT MOUND 115KV CKT 1'
FDNS	9		0	14G	G13_032	'TO->FROM'	'UTICA - YANKON JCT 115KV CKT 1'	120	0.10005	101.0474	'NEB02WAPAB2'
FDNS	01ALL		0	14G	G13_034	'FROM->TO'	'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	191	0.04594	106.5807	'DBL-WICH-THI'
FDNS	06ALL		0	14G	G13_034	'FROM->TO'	'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	191	0.04471	104.8248	'DBL-WICH-THI'
FDNS	02ALL		0	14G	G13_034	'FROM->TO'	'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	191	0.04476	113.3349	'DBL-WICH-THI'
FDNS	01ALL		0	14G	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04594	197.2995	'DBL-WICH-THI'
FDNS	01G13_034		0	14G	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04601	175.2589	'DBL-WICH-THI'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	1		0 14G	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04601	174.5911	'DBL-WICH-THI'	
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04471	194.2016	'DBL-WICH-THI'	
FDNS	6		0 14G	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.0458	140.7155	'DBL-WICH-THI'	
FDNS	09ALL		0 14G	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04587	119.2038	'DBL-WICH-THI'	
FDNS	9		0 14G	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04608	114.6733	'DBL-WICH-THI'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.045	183.2881	'DBL-WICH-THI'	
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04476	208.9849	'DBL-WICH-THI'	
FDNS	00G13_034		0 14WP	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04527	112.2845	'DBL-WICH-THI'	
FDNS	0		0 14WP	G13_034	'TO->FROM'	'CLEARWATER - MILAN TAP 138KV CKT 1'	110	0.04527	109.547	'DBL-WICH-THI'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'EL RENO - ROMAN NOSE 138KV CKT 1'	153	0.03517	102.3433	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FLATRDG3 - THISTLE4 138.00 138KV CKT 1'	286	0.06336	108.8667	'DBL-WICH-THI'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FLATRDG3 - THISTLE4 138.00 138KV CKT 1'	286	0.06201	101.1393	'DBL-WICH-THI'	
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FLATRDG3 - THISTLE4 138.00 138KV CKT 1'	286	0.06403	109.9488	'DBL-WICH-THI'	
FDNS	01ALL		0 14G	G13_034	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.10092	123.2828	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.09174	109.9883	'DBL-WICH-THI'	
FDNS	01ALL		0 14G	G13_034	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.09988	112.3286	'DBL-THIS-WWR'	
FDNS	01G13_034		0 14G	G13_034	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.10056	102.388	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	1		0 14G	G13_034	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.10055	101.8672	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.10419	111.6706	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.10419	103.2858	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.10419	104.1942	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.09308	106.6184	'DBL-WICH-THI'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'FPL SWITCH - MOORELAND 138KV CKT 1'	287	0.11149	109.9292	'DBL-THIS-WWR'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	112.3297	'BASE CASE'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07328	102.3433	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08044	109.859	'WOODWARD - WOODWARD 69KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08394	112.3941	'DEWEY - IODINE 138KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07447	112.5357	'DEWEY - TALOGA 138KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08394	114.0143	'IODINE - WOODWARD EHV 138KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10092	180.4542	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07716	110.0687	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0794	114.8629	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07941	114.8894	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10092	103.7665	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10092	112.4981	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07716	112.041	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07222	109.5249	'FT SUPPLY - IODINE 138KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07222	107.9714	'IODINE - MOORELAND 138KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07425	99.8	'CARTER ICT - WOODWARD 69KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07442	102.9073	'Hitchland Interchange - POTTER COUNTY INTERCHANGE 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07328	102.1307	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07248	103.3042	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07292	103.9017	'G12-011T 345.00 - POST ROCK 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07243	100.8646	'AXTELL - POST ROCK 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07182	100	'SMOKYHLE 230.00 - SUMMIT 230KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07266	100.2683	'HOLCOMB - SETAB 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07294	101.6154	'MINGO - SETAB 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07312	100.7683	'MINGO - RED WILLOW 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0735	100.9156	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07292	101.9676	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07294	100.366	'BENTON - WICHITA 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0763	110.8053	'THISTLE7 345.00 - WICHITA 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0763	110.8053	'THISTLE7 345.00 - WICHITA 345KV CKT 2'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07292	103.0327	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07587	102.1219	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07587	102.1219	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 2'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07178	99.7	'GRAND ISLAND - SWEETWATER 345KV CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07328	102.3438	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07078	100.871	'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08044	122.9478	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06555	99.7	'WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06477	100	'WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06915	101.5291	'RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07442	104.4208	'POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09174	154.1056	'DBL-WICH-THI'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09988	158.8713	'DBL-THIS-WWR'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0822	112.7972	'DBL-HTCH-BVR'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07376	100.8976	'SPP-AEPW-32'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07211	100.3351	'SPP-MKEC-08'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07328	99.7	'SPP-SWPS-02A'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07332	102.8312	'SPP-SWPS-03'	



SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07442	102.9482	'SPP-SWPS-04'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	103.1532	'GEN514805 1-SOONER UNIT 1'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	101.2281	'GEN514806 1-SOONER UNIT 2'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	99.8	'GEN515223 1-MUSKOGEE 4G'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	99.9	'GEN515225 1-MUSKOGEE 5G'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	99.9	'GEN515226 1-MUSKOGEE 6G'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	105.6943	'GEN515389 1-TLGAWND1 34.500'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	120.0012	'GEN515787 1-OKLA WIND ENERGY CENTER'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	115.0251	'GEN520922 1-SLEEPING BEAR'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	119.8671	'GEN520997 1-MORLND2'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	114.1963	'GEN520998 1-MORLND3'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	100.6569	'GEN521120 1-BUFBEAR2'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07151	99.8	'GEN560687 1-G11-007 0.6900'	
FDNS	01G13_034		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10056	151.7929	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	01G13_034		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0802	107.0857	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
FDNS	01G13_034		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09158	131.8895	'DBL-WICH-THI'	
FDNS	01G13_034		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09979	131.2671	'DBL-THIS-WWR'	
FDNS	01G13_034		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07131	100.7462	'GEN515787 1-OKLA WIND ENERGY CENTER'	
FDNS	01G13_034		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07131	107.5843	'GEN520997 1-MORLND2'	
FDNS	01G13_034		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07131	101.5787	'GEN520998 1-MORLND3'	
FDNS	1		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10055	150.819	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	1		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0802	106.2692	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
FDNS	1		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09158	130.9535	'DBL-WICH-THI'	
FDNS	1		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09979	130.2755	'DBL-THIS-WWR'	
FDNS	1		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0713	100.0682	'GEN515787 1-OKLA WIND ENERGY CENTER'	
FDNS	1		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0713	106.8957	'GEN520997 1-MORLND2'	
FDNS	1		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0713	100.9005	'GEN520998 1-MORLND3'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	111.9481	'BASE CASE'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06964	99.7	'ELK CITY - FALCON ROAD 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06989	100.1803	'GRACEMONT - LAWTON EASTSIDE 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07111	139.863	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07111	127.2371	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07869	113.0916	'WOODWARD - WOODWARD 69KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08205	121.3544	'DEWEY - IODINE 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08205	123.0288	'IODINE - WOODWARD EHV 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07097	99.7	'CIMARRON - NORTHWEST 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0984	163.5874	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07775	109.7746	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07777	109.7931	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0984	148.5103	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0984	150.1242	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.072	101.2527	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06552	102.5805	'RENFROW4 138.00 - SAND RDG 138138.00 138KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07177	99.9	'FARGO JCT - WOODWARD 69KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.071	102.5331	'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07111	140.3806	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0706	127.5015	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07111	127.3596	'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.071	102.8672	'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07005	100.2746	'CONWAY SUB - NICHOLS STATION 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07005	99.8	'CONWAY SUB - KIRBY SWITCHING STATION 115KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06998	99.7	'BUFFALO 230.00 - BUSHLAND INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06992	99.7	'AMARILLO SOUTH INTERCHANGE - SWISHER COUNTY INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06993	100.2516	'SWISHER COUNTY INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07135	105.1659	'G12-011T 345.00 - POST ROCK 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07088	100.8822	'AXTELL - POST ROCK 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07027	100.7883	'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07109	101.1822	'HOLCOMB - SETAB 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07137	103.3518	'MINGO - SETAB 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07154	102.0197	'MINGO - RED WILLOW 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07186	107.5425	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07135	102.6989	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07134	100.9779	'BENTON - WICHITA 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07463	111.8534	'THISTLE7 345.00 - WICHITA 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07463	111.8534	'THISTLE7 345.00 - WICHITA 345KV CKT 2'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07031	99.8	'CIRCLE - MULLERGREN 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07033	99.9	'MULLERGREN - SPEARVILLE 230KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07135	104.0128	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07022	100.0767	'GRAND ISLAND - SWEETWATER 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07111	139.7613	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06923	101.0909	'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07869	125.8563	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06763	104.9499	'RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08969	161.948	'DBL-WICH-THI'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09799	141.8934	'DBL-THIS-WWR'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06998	101.6098	'DBL-THIS-CLR'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07055	100.1748	'SPP-MKEC-08'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07111	127.358	'SPP-SWPS-02'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07111	133.1086	'SPP-SWPS-02A'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.071	102.6998	'SPP-SWPS-05'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07005	99.7	'SPP-SWPS-T53'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	99.8	'GEN501801 1-DOLET HILLS UNIT1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	99.9	'GEN509416 1-TURK GENERATION'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	102.5589	'GEN514805 1-SOONER UNIT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	100.972	'GEN514806 1-SOONER UNIT 2'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	99.8	'GEN515223 1-MUSKOGEE 4G'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	99.8	'GEN515225 1-MUSKOGEE 5G'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	99.8	'GEN515226 1-MUSKOGEE 6G'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	101.5915	'GEN515787 1-OKLA WIND ENERGY CENTER'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	100.714	'GEN520922 1-SLEEPING BEAR'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	100.1363	'GEN520947 1-HUGO1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	121.741	'GEN520997 1-MORLND2'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06997	115.5531	'GEN520998 1-MORLND3'	
FDNS	6		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09934	107.0706	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	6		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09075	101.6149	'DBL-WICH-THI'	
FDNS	09ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09929	102.2645	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	124.5067	'BASE CASE'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07315	106.0403	'LYDIA - VALLIANT 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07229	104.2292	'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07229	104.4381	'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07583	121.1854	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07223	102.9808	'CLINTON JUNCTION - ELK CITY 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07304	110.2289	'ELK CITY - FALCON ROAD 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0754	130.326	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0754	121.3524	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08253	125.1019	'WOODWARD - WOODWARD 69KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07163	105.3491	'WOODWARD - WOODWARD EHV 138KV CKT 2'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0861	133.7826	'DEWEY - IODINE 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07084	101.3712	'DEWEY - SOUTHARD 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07643	111.138	'DEWEY - TALOGA 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06963	100	'C_CITY_138 138.00 - KNOBHILL 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0861	135.4682	'IODINE - WOODWARD EHV 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07084	102.5823	'EL RENO - ROMAN NOSE 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07084	102.1819	'ROMAN NOSE - SOUTHARD 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07438	111.5575	'CIMARRON - NORTHWEST 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10425	171.8663	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07328	106.0838	'CIMARRON - MATHWSN7 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07903	111.0383	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08326	121.0641	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08328	121.0875	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10425	157.5343	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06931	103.7906	'G13-034T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06931	103.7906	'G13-034T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10425	158.8027	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07903	112.7911	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07495	113.1829	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0684	114.6983	'RENFROW4 138.00 - SAND RDG_138138.00 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06963	100.5756	'BYRON_138 138.00 - C_CITY_138 138.00 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06963	101.8975	'BYRON_138 138.00 - SANDY_CN_138138.00 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0684	110.938	'SAND RDG_138138.00 - WAKITA_138 138.00 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07235	105.819	'DOVER - DOVER SW 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07235	105.922	'DOVER - TWIN LAKES 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07407	105.4452	'IODINE - MOORELAND 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07359	100.4669	'MOORELAND - TALOGA 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07007	103.0999	'MOREWOOD SW - RED HILLS WIND 138KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07526	111.043	'FARGO JCT - WOODWARD 69KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07809	124.6927	'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07666	113.2381	'Hitchland Interchange - POTTER COUNTY INTERCHANGE 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0754	129.5852	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07447	123.7438	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0754	121.3661	'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07809	126.3589	'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07444	113.4941	'G12-011T 345.00 - POST ROCK 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07412	110.7547	'AXTELL - POST ROCK 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07357	110.5283	'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07432	111.1329	'HOLCOMB - SETAB 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07381	111.0962	'BUCKNER7 345.00 - HOLCOMB 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07456	112.5471	'MINGO - SETAB 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07471	111.4164	'MINGO - RED WILLOW 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07381	112.6281	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07444	111.6654	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07468	111.079	'BENTON - WICHITA 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07805	120.8157	'THISTLE7 345.00 - WICHITA 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07805	120.8157	'THISTLE7 345.00 - WICHITA 345KV CKT 2'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07444	112.6527	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07666	99.8	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07666	99.8	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 2'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07357	110.4215	'GRAND ISLAND - SWEETWATER 345KV CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0754	130.3206	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07251	112.1737	'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08253	138.3697	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07294	105.6839	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07068	116.6978	'RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07666	115.0522	'POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09321	163.4226	'DBL-WICH-THI'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.11175	159.6843	'DBL-THIS-WWR'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07388	106.7644	'DBL-THIS-CLR'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07315	106.0383	'SPP-AEPW-01'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07583	123.7207	'SPP-AEPW-32'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	108.2313	'NCL_GEN-NEBRASKA CITY 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07397	110.9381	'SPP-MKEC-08'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07595	121.2257	'SPP-SWPS-01'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0754	121.3564	'SPP-SWPS-02'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0754	126.7179	'SPP-SWPS-02A'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07543	130.6446	'SPP-SWPS-03'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07666	113.3244	'SPP-SWPS-04'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07809	124.7609	'SPP-SWPS-05'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	113.4743	'GEN514805 1-SOONER UNIT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	111.6906	'GEN514806 1-SOONER UNIT 2'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	110.2695	'GEN515223 1-MUSKOGEE 4G'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	110.2963	'GEN515225 1-MUSKOGEE 5G'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	110.2868	'GEN515226 1-MUSKOGEE 6G'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.6465	'GEN515365 1-CENT 21 34.500'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.3906	'GEN515393 1-OGEWND2G'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	112.6319	'GEN515787 1-OKLA WIND ENERGY CENTER'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	111.7239	'GEN520922 1-SLEEPING BEAR'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	133.4941	'GEN520997 1-MORLND2'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	127.279	'GEN520998 1-MORLND3'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.6987	'GEN523107 1-NOVUS_WND 14.1600'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.7461	'GEN523121 1-NBLWND-WTG110.6900'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.7835	'GEN523122 1-NBLWND-WTG210.6900'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.6644	'GEN523123 1-NBLWND-WTG310.6900'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	106.0296	'GEN523461 1-BLACKHAWK GEN #1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.9898	'GEN523462 1-BLACKHAWK GEN #2'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	102.0661	'GEN523971 1-HARRINGTON GEN #1 24 KV'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	102.0658	'GEN523972 1-HARRINGTON GEN #2 24 KV'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	102.0489	'GEN523973 1-HARRINGTON GEN #3 24 KV'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	106.12	'GEN524295 1-SPNSPUR_WND10.6900'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.0962	'GEN526331 1-JONES GEN #1 22 KV'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	103.6215	'GEN526332 1-JONES GEN #2 21 KV'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.2591	'GEN526334 1-JONES 4 116.500'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.2773	'GEN527161 1-MUSTANG GEN #1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.2773	'GEN527162 1-MUSTANG GEN #2'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.8213	'GEN527163 1-MUSTANG GEN #3 22 KV'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.5339	'GEN527882 1-CUNNINGHAM GEN #2 20 KV'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.7	'GEN527901 1-HOBBS PLANT #1 (CT)'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.7243	'GEN527902 1-HOBBS PLANT #2 (CT)'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	103.0548	'GEN527903 1-HOBBS PLANT #3 (ST)'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	99.8	'GEN531447 1-HOLCOMB GENERATOR'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.971	'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.9971	'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.9975	'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'	
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.6167	'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'	

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.7267	'GEN539670 4-JUDSON LARGE GENERATOR'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.8992	'GEN542957 1-IATAN UNIT #1'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.3873	'GEN542962 2-IATAN UNIT #2'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	106.2051	'GEN560221 1-G07-62-1 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	106.2051	'GEN560222 1-G07-62-2 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	106.2051	'GEN560223 1-G07-62-3 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	106.2051	'GEN560224 1-G07-62-4 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	102.7383	'GEN560256 1-G10-14-1 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	102.5861	'GEN560257 1-G10-14-2 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	103.0798	'GEN560286 1-G10-01-1WTG 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	103.0798	'GEN560287 1-G10-01-2WTG 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	102.9305	'GEN560371 1-G07-46 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.7033	'GEN560584 1-G06-44-2 4.1600'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.7671	'GEN560585 1-G06-44-3 4.1600'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.0766	'GEN560586 1-G06-44-4 4.1600'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.277	'GEN562023 1-G11_020_3 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.277	'GEN562026 1-G11_019_3 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	101.398	'GEN562042 1-G11_014_3 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	106.1571	'GEN562074 1-G11_049_3 0.6900'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.4861	'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.1628	'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.2119	'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.7046	'GEN645001 1-FORT CALHOUN 1'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.4491	'GEN645011 1-NEBRASKA CITY 1'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	104.8117	'GEN645012 2-NEBRASKA CITY 2'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.4496	'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.4496	'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	105.612	'GEN659111 2-LELAND OLDS UNIT2'
FNSL	2		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07336	101.7278	'GEN659118 1-LARAMIE RIVER UNIT1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	144.7395	'BASE CASE'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07315	123.2258	'LYDIA - VALLIANT 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07228	121.068	'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07228	121.2833	'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07572	143.3764	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07223	119.542	'CLINTON JUNCTION - ELK CITY 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07302	127.8488	'ELK CITY - FALCON ROAD 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07002	116.8313	'ELK CITY - RED HILLS WIND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0753	152.7851	'ELK CITY 230KV - SWEETWATER 230KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0753	143.4949	'STLN-DEMARC6 - SWEETWATER 230KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06558	103.3725	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0663	109.1434	'CLEO CORNER - MEN TAP 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0825	144.9826	'WOODWARD - WOODWARD 69KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06543	110.9101	'WOODWARD - WOODWARD EHV 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07161	122.5808	'WOODWARD - WOODWARD EHV 138KV CKT 2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08607	155.1318	'DEWEY - IODINE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07082	118.1912	'DEWEY - SOUTHARD 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07641	129.4223	'DEWEY - TALOGA 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06558	102.6312	'GLASS MOUNTAIN - MOORELAND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0663	109.8825	'IMO TAP - MEN TAP 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06964	115.7737	'C_CITY_138 138.00 - KNOBHILL 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06717	102.7002	'KNOBHILL - MOORELAND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08607	156.9127	'IODINE - WOODWARD EHV 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07082	119.4145	'EL RENO - ROMAN NOSE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07082	119.0318	'ROMAN NOSE - SOUTHARD 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07437	129.3552	'CIMARRON - NORTHWEST 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10419	200.3117	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07325	123.8659	'CIMARRON - MATHWSN7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0791	128.7047	'BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.08318	144.3486	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0832	144.378	'THISTLE7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10419	184.7523	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0693	121.4827	'G13-034T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0693	121.4827	'G13-034T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.10419	186.3902	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0791	129.701	'BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07499	130.5505	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06842	130.7077	'RENFROW4 138.00 - SAND RDG 138138.00 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06964	116.3826	'BYRON_138 138.00 - C_CITY_138 138.00 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06964	117.5543	'BYRON_138 138.00 - SANDY_CN 138138.00 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06964	123.3722	'SANDY_CN 138138.00 - WAKITA_138 138.00 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06683	103.9783	'CEDARDALE - MOORELAND 138KV CKT 1'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06683	104.6324	'CEDARDALE - OKEENE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07233	123.1005	'DOVER - DOVER SW 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07233	123.2048	'DOVER - TWIN LAKES 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06867	114.118	'DOVER SW - OKEENE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07524	128.2369	'FARGO JCT - FT SUPPLY 69KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07405	123.1639	'IODINE - MOORELAND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07358	117.8727	'MOORELAND - TALOGA 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06627	108.3712	'MOORELAND - NINE MILE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07002	120.7895	'MOREWOOD SW - RED HILLS WIND 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06627	108.6634	'MOREWOOD SW - NINE MILE 138KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07524	129.134	'FARGO JCT - WOODWARD 69KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07802	153.2889	'FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0767	131.83	'Hitchland Interchange - POTTER COUNTY INTERCHANGE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0753	151.8546	'GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07441	144.6383	'GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0753	143.5161	'STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07802	154.9217	'FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07346	127.9039	'CONWAY SUB - NICHOLS STATION 115KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07441	132.0513	'G12-011T 345.00 - POST ROCK 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07409	128.9544	'AXTELL - POST ROCK 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07355	128.3658	'SMOKYHL6 230.00 - SUMMIT 230KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07429	129.7613	'HOLCOMB - SETAB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07379	129.5597	'BUCKNER7 345.00 - HOLCOMB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07452	131.5135	'MINGO - SETAB 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07467	130.4607	'MINGO - RED WILLOW 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07379	131.2056	'BUCKNER7 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07441	130.1538	'G11-17T 345.00 - SPEARVILLE 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07466	129.2134	'BENTON - WICHITA 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07801	140.5884	'THISTLE7 345.00 - WICHITA 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07801	140.5884	'THISTLE7 345.00 - WICHITA 345KV CKT 2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07441	131.1584	'G11-17T 345.00 - G12-011T 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07665	115.2272	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07665	115.2272	'BEAVER CO 345.00 - G13-034T 345.00 345KV CKT 2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07355	128.2932	'GRAND ISLAND - SWEETWATER 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0753	152.5637	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0725	129.4451	'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0825	158.75	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07292	123.1804	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06724	114.9888	'WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.06645	113.5614	'WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07069	133.4669	'RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0767	133.616	'POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09308	190.9995	'DBL-WICH-THI'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.11149	197.5221	'DBL-THIS-WWR'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07386	123.7661	'DBL-THIS-CLR'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.09623	103.4343	'DBL-HTCH-BVR'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07314	123.2218	'SPP-AEPW-01'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07572	145.9426	'SPP-AEPW-32'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	125.8193	'NC1_GEN-NEBRASKA CITY 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07395	128.8276	'SPP-MKEC-08'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07585	143.3529	'SPP-SWPS-01'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0753	143.5065	'SPP-SWPS-02'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0753	148.5321	'SPP-SWPS-02A'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07534	153.4398	'SPP-SWPS-03'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.0767	131.915	'SPP-SWPS-04'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07802	153.4112	'SPP-SWPS-05'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	131.0127	'GEN514805 1-SOONER UNIT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	129.2426	'GEN514806 1-SOONER UNIT 2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.1456	'GEN515365 1-CENT 21 34.500'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.8913	'GEN515393 1-OGEWND2G'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	130.3318	'GEN515787 1-OKLA WIND ENERGY CENTER'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	129.4006	'GEN520922 1-SLEEPING BEAR'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	150.9631	'GEN520997 1-MORLND2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	144.7879	'GEN520998 1-MORLND3'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.5309	'GEN523107 1-NOVUS_WND 14.1600'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.6158	'GEN523121 1-NBLWND-WTG110.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.6707	'GEN523122 1-NBLWND-WTG210.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.4829	'GEN523123 1-NBLWND-WTG310.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.1612	'GEN523201 1-EXCELN4-WTG10.6000'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.4796	'GEN523461 1-BLACKHAWK GEN #1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.4373	'GEN523462 1-BLACKHAWK GEN #2'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	118.9972		'GEN523971 1-HARRINGTON GEN #1 24 KV'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	118.9969		'GEN523972 1-HARRINGTON GEN #2 24 KV'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	118.9787		'GEN523973 1-HARRINGTON GEN #3 24 KV'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.6042		'GEN524295 1-SPNSPUR_WND10.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	113.3687		'GEN525561 1-TOLK GEN #1 24 KV'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	114.6112		'GEN525562 1-TOLK GEN #2 24 KV'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	121.3756		'GEN526331 1-JONES GEN #1 22 KV'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	120.8629		'GEN526332 1-JONES GEN #2 21 KV'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	121.4998		'GEN526334 1-JONES_4 116.500'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.6563		'GEN527161 1-MUSTANG GEN #1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.6564		'GEN527162 1-MUSTANG GEN #2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.1676		'GEN527163 1-MUSTANG GEN #3 22 KV'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	121.862		'GEN527882 1-CUNNINGHAM GEN #2 20 KV'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	121.9939		'GEN527901 1-HOBBS PLANT #1 (CT)'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.0203		'GEN527902 1-HOBBS PLANT #2 (CT)'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	120.2024		'GEN527903 1-HOBBS PLANT #3 (ST)'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	117.1853		'GEN531447 1-HOLCOMB GENERATOR'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.5342		'GEN532651 1-JEFFREY ENERGY CENTER UNIT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.5628		'GEN532652 1-JEFFREY ENERGY CENTER UNIT 2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.5631		'GEN532653 1-JEFFREY ENERGY CENTER UNIT 3'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.0361		'GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.6365		'GEN539670 4-JUDSON LARGE GENERATOR'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.436		'GEN542957 1-IATAN UNIT #1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.917		'GEN542962 2-IATAN UNIT #2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	112.6101		'GEN560121 1-G08-47 0.5750'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.6516		'GEN560221 1-G07-62-1 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.6516		'GEN560222 1-G07-62-2 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.6516		'GEN560223 1-G07-62-3 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.6516		'GEN560224 1-G07-62-4 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	118.6232		'GEN560256 1-G10-14-1 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	118.4383		'GEN560257 1-G10-14-2 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	119.0399		'GEN560286 1-G10-01-1WTG 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	119.0399		'GEN560287 1-G10-01-2WTG 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	118.8888		'GEN560371 1-G07-46 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.5415		'GEN560584 1-G06-44-2 4.1600'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	121.3177		'GEN560585 1-G06-44-3 4.1600'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	121.7223		'GEN560586 1-G06-44-4 4.1600'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	113.5851		'GEN562017 1-G11_022_3 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.5967		'GEN562023 1-G11_020_3 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.5967		'GEN562026 1-G11_019_3 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	116.6506		'GEN562042 1-G11_014_3 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.3515		'GEN562074 1-G11_049_3 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	112.4857		'GEN562432 1-G13-030 0.6900'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.1284		'GEN640009 1-COOPER NUCLEAR STATION'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	121.8408		'GEN640010 1-GERALD GENTLEMAN STATION UNIT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	121.8977		'GEN640011 2-GERALD GENTLEMAN STATION UNIT 2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.2788		'GEN645001 1-FORT CALHOUN 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.0254		'GEN645011 1-NEBRASKA CITY 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.3725		'GEN645012 2-NEBRASKA CITY 2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.9611		'GEN659103 1-ANTELOPE VALLEY UNIT1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	122.9611		'GEN659107 2-ANTELOPE VALLEY UNIT2'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	123.1295		'GEN659111 2-LELAND OLDS UNIT2'
FNSL	02ALL		0 14G	G13_034	'TO->FROM'	'FPL SWITCH - WOODWARD 138KV CKT 1'	153	0.07334	119.1352		'GEN659118 1-LARAMIE RIVER UNIT1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'GLASS MOUNTAIN - MOORELAND 138KV CKT 1'	124	0.03035	102.573		'NORTHWEST - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'GLASS MOUNTAIN - MOORELAND 138KV CKT 1'	124	0.03035	96.9		'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'GLASS MOUNTAIN - MOORELAND 138KV CKT 1'	124	0.03035	97.6		'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'GLASS MOUNTAIN - MOORELAND 138KV CKT 1'	124	0.03371	102.6047		'DBL-THIS-WWR'
FDNS	01ALL		0 14G	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04594	207.631		'DBL-WICH-THI'
FDNS	01G13_034		0 14G	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04601	185.6977		'DBL-WICH-THI'
FDNS	1		0 14G	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04601	185.0298		'DBL-WICH-THI'
FDNS	06ALL		0 14G	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04471	204.5797		'DBL-WICH-THI'
FDNS	6		0 14G	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.0458	151.2484		'DBL-WICH-THI'
FDNS	09ALL		0 14G	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04587	129.7035		'DBL-WICH-THI'
FDNS	9		0 14G	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04608	125.1744		'DBL-WICH-THI'
FDNS	2		0 14G	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.045	193.6456		'DBL-WICH-THI'
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04476	219.4552		'DBL-WICH-THI'
FDNS	00G13_034		0 14WP	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04527	122.5339		'DBL-WICH-THI'
FDNS	0		0 14WP	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04527	119.7998		'DBL-WICH-THI'
FDNS	00G13_034		0 19WP	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04642	104.3025		'DBL-WICH-THI'
FDNS	0		0 19WP	G13_034	'FROM->TO'	'HARPER - MILAN TAP 138KV CKT 1'	110	0.04642	101.5308		'DBL-WICH-THI'
FNSL-Blown up	06ALL		0 14G	G13_034		Non-converged contingency	0	0.0462	9999		'SPP-AEPW-32'

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB		TC%LOADING		CONTINGENCY
							(MVA)	TDF	(% MVA)		
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	1195	0.27806	99.6	'DBL-WICH-THI'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	1195	0.30183	100.9896	'DBL-THIS-WWR'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.05028	121.9005	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.05028	118.6877	'G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.05028	119.1462	'G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.03912	119.9684	'DBL-WICH-THI'	
FDNS	06ALL		0 14G	G13_034	'TO->FROM'	'OKLAUNION - TUCO INTERCHANGE 345KV CKT 1'	679	0.04	114.1092	'DBL-THIS-WWR'	
FDNS	01ALL		0 14G	G13_034	'TO->FROM'	'ROMAN NOSE - SOUTHARD 138KV CKT 1'	153	0.03517	105.7962	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	06ALL		0 14G	G13_034	'FROM->TO'	'SPSPSTIESB1'	1027	0.06071	106.8	'BASE CASE'	
FDNS	06ALL		0 14G	G13_034	'FROM->TO'	'SPSPSTIESC1'	1027	0.06071	106.8	'BASE CASE'	
FDNS	06ALL		0 14G	G13_034	'FROM->TO'	'SPSPPTIESB1'	620	0.0872	153.1265	'BASE CASE'	
FDNS	2		0 14G	G13_034	'FROM->TO'	'SPSPPTIESB1'	620	0.15098	112.0512	'BASE CASE'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'SPSPPTIESB1'	620	0.1483	147.3757	'BASE CASE'	
FDNS	06ALL		0 14G	G13_034	'FROM->TO'	'SPSPPTIESC'	620	0.0872	153.1265	'BASE CASE'	
FDNS	2		0 14G	G13_034	'FROM->TO'	'SPSPPTIESC'	620	0.15098	112.0512	'BASE CASE'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'SPSPPTIESC'	620	0.1483	147.3757	'BASE CASE'	
FDNS	06ALL		0 14G	G13_034	'FROM->TO'	'TUCXFR345230'	300	0.03061	154.1	'BASE CASE'	
FDNS	02ALL		0 14G	G13_034	'TO->FROM'	'WOODWARD - WOODWARD EHV 138KV CKT 1'	287	0.08768	96	'NORTHWEST - TATONGA7 345.00 345KV CKT 1'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	134	0.03373	98.6	'FPL SWITCH - WOODWARD 138KV CKT 1'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	134	0.03373	97.4	'FPL SWITCH - WOODWARD 138KV CKT 1'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	134	0.03373	101.956	'FPL SWITCH - MOORELAND 138KV CKT 1'	
FDNS	02ALL		0 14G	G13_034	'FROM->TO'	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	134	0.03373	100.8237	'FPL SWITCH - MOORELAND 138KV CKT 1'	

## **I: Power Flow Analysis (Constraints from Category C Contingencies)**

Available upon request.