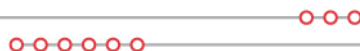


Feasibility Cluster Study for Generator Interconnection Requests (FCS-2015-004)

December 2015

Generator Interconnection Studies



Revision History

| Date | Author | Change Description |
|------------|--------|-------------------------------|
| 12/31/2015 | SPP | Report Issued (FCS-2015-004). |

Executive Summary

Generator Interconnection customers have requested a Feasibility Study under the Generator Interconnection Procedures (GIP) in the Southwest Power Pool Open Access Transmission Tariff (OATT). The Interconnection Customers' requests have been clustered together for the following Feasibility Cluster Study (FCS) window which closed September 30th, 2015¹. This Feasibility Cluster Study analyzes generation interconnection requests totaling approximately 2,349 MW which would be located within the transmission systems of American Electric Power – West (AEPW), Oklahoma Gas and Electric Company (OKGE), Southwestern Public Service (SPS), Westar Energy, Inc. (WERE), and Western Farmers Electric Cooperative (WFEC). The generation interconnection requests have a proposed in-service dates². The generation interconnection requests included in this Feasibility Cluster Study are listed in Appendix A by 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, 2,349 MW of nameplate generation may be interconnected with transmission system reinforcements within the AEPW, OKGE, WERE, and WFEC transmission system. The need for reactive compensation in accordance with Order No. 661-A for wind farm interconnection requests will be evaluated in the Preliminary Interconnection System Impact Study (PISIS) and Definitive Interconnection System Impact Study (DISIS) based on the wind turbine manufacturer and type requested by the Customer. Dynamic stability studies performed as part of the PISIS and DISIS Cluster Studies will provide additional guidance as to whether required reactive compensation can be static or a portion must be dynamic (such as a SVC).

Seven (7) scenario assumption analyses were conducted for the current study to account for GEN-2015-035 primary and secondary POIs, GEN-2015-049 primary and secondary POIs, and GEN-2015-050 mutually exclusive request from GEN-2015-051. **Table 1** displays the seven (7) Energy Resource Interconnection Service (ERIS) analyses that were performed. Interconnection Requests dispatching is explained in further detail in the Model Development Section.

¹ The Integrated System including Western Area Power Administration – Upper Great Plains Region, Basin Electric Power Cooperative, and Heartland Consumers Power District (Collectively the I.S. Parties) Feasibility study window closing was October 22, 2015.

² 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 Customer's that proceed to the Facility Study will be provided a new in-service date based on the completion of the Facility Study.

Table 1: Seven (7) ERIIS Analysis Assumptions

| Scenario Number | Scenario Description | Interconnection Requests | Point of Interconnection (POI) |
|-----------------|---|--------------------------|---|
| Scenario #1 | Group 1 HVER- GEN-2015-049 Primary POI | GEN-2015-037 | TUCO Interchange 345kV |
| | | GEN-2015-049 | Tap Tatonga – Woodward 345kV |
| | | GEN-2015-070 | Tap Oklaunion – Lawton Eastside 345kV |
| | | GEN-2015-086 | Mooreland 138kV |
| Scenario #2 | Group 1 HVER - GEN-2015-049 Secondary POI | GEN-2015-037 | TUCO Interchange 345kV |
| | | GEN-2015-049 | Tap Dewey – Iodine 138kV |
| | | GEN-2015-070 | Tap Oklaunion – Lawton Eastside 345kV |
| | | GEN-2015-086 | Mooreland 138kV |
| Scenario #3 | Group 6 HVER | GEN-2015-037 | TUCO Interchange 345kV |
| | | GEN-2015-049 | Tap Tatonga – Woodward 345kV |
| | | GEN-2015-070 | Tap Oklaunion – Lawton Eastside 345kV |
| | | GEN-2015-086 | Mooreland 138kV |
| Scenario #4 | Summer/Winter Peak Low VER / GEN-2015-035 Primary POI / with GEN-2015- 051 | GEN-2015-035 | Osage 69kV |
| | | GEN-2015-037 | TUCO Interchange 345kV |
| | | GEN-2015-049 | Tap Tatonga – Woodward 345kV |
| | | GEN-2015-051 | Tap Emporia Energy Center – Wichita 345kV |
| | | GEN-2015-070 | Tap Oklaunion – Lawton Eastside 345kV |
| Scenario #5 | Summer/Winter Peak Low VER / GEN-2015-035 Secondary POI with GEN-2015- 051 | GEN-2015-035 | Continental Black 69kV |
| | | GEN-2015-037 | TUCO Interchange 345kV |
| | | GEN-2015-049 | Tap Tatonga – Woodward 345kV |
| | | GEN-2015-051 | Tap Emporia Energy Center – Wichita 345kV |
| | | GEN-2015-070 | Tap Oklaunion – Lawton Eastside 345kV |
| | | GEN-2015-086 | Mooreland 138kV |
| Scenario #6 | Summer/Winter Peak Low VER / GEN-2015-035 Primary POI with GEN-2015- 050 | GEN-2015-035 | Osage 69kV |
| | | GEN-2015-037 | TUCO Interchange 345kV |
| | | GEN-2015-049 | Tap Tatonga – Woodward 345kV |
| | | GEN-2015-050 | Tap Emporia Energy Center – Wichita 345kV |
| | | GEN-2015-070 | Tap Oklaunion – Lawton Eastside 345kV |
| Scenario #7 | Summer/Winter Peak Low VER / GEN-2015-035 Primary POI with GEN-2015- 050 | GEN-2015-035 | Continental Black 69kV |
| | | GEN-2015-037 | TUCO Interchange 345kV |
| | | GEN-2015-049 | Tap Tatonga – Woodward 345kV |
| | | GEN-2015-050 | Tap Emporia Energy Center – Wichita 345kV |
| | | GEN-2015-070 | Tap Oklaunion – Lawton Eastside 345kV |
| | | GEN-2015-086 | Mooreland 138kV |

The applicable analysis from the seven (7) ERIIS analysis assumption were also analyzed for Network Resource Interconnection Service (NRIS).

In no way does this study guarantee operation for all periods of time. This interconnection study identifies and assigns transmission reinforcements for Energy Resource Interconnection Service (ERIS) interconnection injection constraints and Network Resource Interconnection Service (NRIS) 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.

The total estimated minimum cost for interconnecting the studied generation interconnection requests for each analysis is listed in **Table 2**.

Table 2: Total estimated minimum cost for Interconnecting the Studied Generation Interconnection Request(s)

| Analysis Number | Estimated Minimum Costs (\$) |
|-----------------|------------------------------|
| Scenario #1 | \$105,000,000 |
| Scenario #2 | \$152,700,000 |
| Scenario #3 | \$485,700,000 |
| Scenario #4 | \$91,250,000 |
| Scenario #5 | \$95,250,000 |
| Scenario #6 | \$23,000,000 |
| Scenario #7 | \$27,000,000 |

These costs are shown in Appendices E and F. The one-line diagrams in Appendix D should be consulted for details of the alternate POIs. 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 the possible need for reactive compensation or additional interconnection facilities or network upgrades that may be identified through additional analyses performed in the PISIS and DISIS. Most importantly, these costs do not include potential costs from upgrades that are identified for the DISIS-2015-002 Cluster Study. If any Interconnection Requests are withdrawn from the highered queued studies including DISIS-2015-002, then potential upgrades tentatively assigned to those Interconnection Requests may be assigned to the Interconnection Requests in this FCS-2015-004 study once these Interconnection Requests execute a Definitive Interconnection System Impact Study Agreement.

Network Constraints listed in Appendix I are located in the local area of the new generation when this generation is injected throughout the SPP footprint for the Energy Resource Interconnection Service (ERIS) Interconnection Request. Certain interconnection requests have been studied for Network Resource Interconnection Service (NRIS). Those constraints are also listed in Appendix I. 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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Introduction

Generator Interconnection customers have requested a Feasibility Study under the Generator Interconnection Procedures (GIP) in the Southwest Power Pool Open Access Transmission Tariff (OATT). The Interconnection Customers' requests have been clustered together for the following Feasibility Cluster Study (FCS) window which closed September 30th, 2015³. This Feasibility Cluster Study analyzes generation interconnection requests totaling approximately 2,349 MW which would be located within the transmission systems of American Electric Power – West (AEPW), Oklahoma Gas and Electric Company (OKGE), Southwestern Public Service (SPS), Westar Energy, Inc. (WERE), and Western Farmers Electric Cooperative (WFEC). The generation interconnection requests have various proposed in-service dates⁴. The generation interconnection requests included in this Feasibility Cluster Study are listed in Appendix A by queue number, amount, area, requested interconnection service, requested interconnection point, proposed interconnection point, and the requested in-service date.

Table 1 displays the seven (7) Energy Resource Interconnection Service (ERIS) analysis that were performed. Interconnection Requests dispatching is explained in further detail in the Model Development Section. The applicable analysis from the seven (7) ERIS analyses assumptions were also analyzed for Network Resource Interconnection Service (NRIS). Please note, if the Interconnection Customers proceed into the Preliminary Interconnection System Impact Study (PISIS) or Definitive Interconnection System Impact Study (DISIS), the Interconnection Customer can propose only one Point of Interconnection (POI).

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

³ Please refer to footnote #1.

⁴ The generator interconnection requests in-service dates will need to be deferred based on the required lead time for the Network Upgrades necessary. The Interconnection Customer's that proceed to the Facility Study will be provided a new in-service date based on the competition of the Facility Study.

Model Development

Interconnection Requests Included in the Cluster

SPP has included all interconnection requests that submitted a Feasibility Study Agreement no later than September 30th, 2015⁵ and were subsequently accepted by Southwest Power Pool under the terms of the Generator Interconnection Procedures (GIP) effective at the time of this study. The Interconnection Request(s) that are included in this study are listed in Appendix A.

Previously Queued Interconnection Requests

The previously queued Interconnection Requests included in this study are listed in Appendix B. In addition to the Base Case Upgrades, the previously 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 Interconnection Service (ERIS) and/or Network Resources Interconnection Service (NRIS) (in accordance with the individual Generator Interconnection Requests) with equal distribution across the SPP footprint.

Development of Base Cases

The 2015 model series Integrated Transmission Planning Near-Term models (used in the 2016 ITPNT) including the 2016 Winter Peak (16WP), 2017 Spring (17G), 2017 Summer Peak (17SP), 2020 Summer and Winter peak (20SP,20WP), and 2025 Summer Peak (25SP) 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.

Base Case Upgrades

The following facilities are part of the SPP Transmission Expansion Plan or the Balanced Portfolio or recently approved Priority Projects. These facilities, have an approved Notice 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 FCS-2015-004 Interconnection Customers have not been assigned cost for the below listed projects. The FCS-2015-004 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 Feasibility Study Interconnection Customers.

- 2012 Integrated Transmission Plan (2012 ITP10) Projects
 - Woodward-Tatonga-Mathewson-Cimarron 345kV transmission line, scheduled for 2021 in-service⁶
 - Chisholm – Gracemont 345kV transmission line, and Chisholm 345/230kV transformer circuit #1, scheduled for 3/1/2018 in-service⁷

⁵ Please refer to footnote #1.

⁶ SPP Notification to Construct (NTC) 200223

⁷ SPP Notification to Construct (NTC) 200240 and 200255

- 2015 Integrated Transmission Plan Near Term (2015 ITPNT) Projects
 - China Draw 115kV Reactive Power Support
 - 200Mvar Capacitive and 50Mvar Inductive Static Var Compensator (SVC)
 - Road Runner 115kV Reactive Power Support
 - 200Mvar Capacitive and 50Mvar Inductive Static Var Compensator (SVC)
 - Potash Junction – Intrepid – IMC #1 – Livingston Ridge 115kV rebuild
 - National Enrichment Plant – Targa – Cardinal 115kV circuit #1 rebuild
- Nebraska City – Mullin Creek – Sibley 345kV circuit #1 build, scheduled for 12/31/2016 in-service⁸
- Northwest 345/138/13.8 kV circuit #3 autotransformer, placed in-service in 2015⁹
- Hoskins – Neligh East 345/115 kV Project¹⁰
 - Neligh East 345/115 kV substation and transformer
 - Neligh East Area 115 kV upgrades to support new station
 - Hoskins – Neligh East 345 kV circuit #1
- High Priority Incremental Loads (HPILs) Projects¹¹:
 - TUCO Interchange – Yoakum – Hobbs Interchange 345/230 kV Project
 - TUCO Interchange – Yoakum – Hobbs Interchange 345 kV circuit #1 and associated terminal equipment upgrades
 - Hobbs 345/230/13 kV transformer circuit #1
 - Yoakum 345/230/13 kV transformer circuit #1
 - Battle Axe – Road Runner 115 kV circuit #1
 - Chaves County – Price – CV Pines – Capitan 115 kV circuit #1
 - China Draw – Yeso Hills 115 kV circuit #1
 - Dollarhide – Toboso Flats 115 kV circuit #1
 - Hobbs Interchange – Kiowa 345 kV circuit #1
 - Kiowa – North Loving – China Draw 345/115 kV Projects
 - Kiowa – North Loving – China Draw circuit #1 and associated terminal equipment upgrades
 - China Draw 345/115/13 kV transformer circuit #1
 - North Loving 345/115/13 kV transformer circuit #1
 - Kiowa – Road Runner 345/230/115 kV Projects
 - Kiowa 345/230 kV transformer circuit #1
 - Road Runner 345/115/13 kV transformer circuit #1
 - Livingston Ridge – Sage Brush – Lagarto – Cardinal 115 kV circuit #1
 - North Loving – South Loving 115 kV circuit #1
 - Ponderosa – Ponderosa Tap 115 kV circuit #1
 - Potash 230/115/13kV Transformer circuit #1 replacement

⁸ SPP Notification to Construct (NTC) 20097 and 20098

⁹ SPP Transmission Service Project identified in SPP 2009-AG2-AFS6. Per SPP NTC 20137 & 200194

¹⁰ SPP Regional Reliability 2012 ITP 10 Project Per SPP-NTC-200220

¹¹ Per Network Upgrades assigned in High Priority Incremental Loads (HPILs) study, Including Direct Assigned Upgrades, Projects in SPP-NTC-200256 and SPP-NTC-200283.

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 FCS-2015-004 study and are assumed to be in service. This list may not be all inclusive. The FCS-2015-004 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 GIA or withdraw from the interconnection queue. The FCS-2015-004 Interconnection Customer Generation Facilities in-service dates may need to be delayed until the completion of the following upgrade(s).

- Upgrades assigned to DISIS-2010-002 Interconnection Customers:
 - Twin Church – Dixon County 230 kV circuit #1 rerate (320 MVA)
 - Buckner – Spearville 345 kV terminal equipment
- Upgrades assigned to DISIS-2011-001 Interconnection Customers:
 - Hoskins – Dixon County – Twin Church 230 kV circuit #1 conductor clearance increase
 - (NRIS only) Woodward District EHV Phase Shifting Transformer
- Upgrades assigned to DISIS-2012-002 Interconnection Customers:
 - Associated Electric Cooperatives Inc. (AECI) Fairfax 138/69 kV transformer replacement
 - Lake Creek – Lone Wolf 69 kV circuit #1 reset CT
 - Remington – Fairfax 138 kV circuit #1 conductor clearance increase
 - (NRIS only) Arkansas City – Paris –Creswell – Oak – Rainbow – City of Winfield 69kV circuit #1 rebuild
 - (NRIS only) Creswell 138/69/13kV Transformer circuit #1 and #2, replacements
- Upgrades assigned to DISIS-2013-002 Interconnection Customers:
 - Battle Creek – County Line – Neligh East 115kV circuit #1 rebuild
- Upgrades assigned to DISIS-2014-002 Interconnection Customers:
 - Arnold – Ransom 115kV circuit #1, terminal equipment replacement
 - Beaver County 345kV Reactive Power Support, build approximately 75Mvars of capacitive reactive power support
 - Carlisle 230/115/13kV Transformer circuit #1 replacement
 - Tolk – Plant X 230kV circuit #1 and circuit #2 re-conductor
 - Crawfish Draw Substation 345/230kV
 - Build new 345/230kV substation along TUCO – Border 345kV and TUCO – Swisher 230kV. Tie in and Terminate TUCO 345kV, Border 345kV, TUCO 230kV, and Swisher 230kV at TUCO 2.
 - Build 345/230/13kV transformer
- Upgrades assigned to DISIS-2015-001 Interconnection Customers:
 - Altus SW – Navajo – Snyder 69kV circuit #1 rebuild
 - Anadarko – Sequaoyah – Cornville Tap 138kV circuit #1 rebuild
 - Beach – GEN-2010-048 Tap circuit #1 replace terminal equipment
 - Cimarron River Tap – Kismet – Cudahy – Crooked Creek 115kV circuit #1 rebuild
 - Cornville Tap – Naples Tap – Payne 138kV circuit #1 rebuild
 - Elk City 230/138/13kV Transformer circuit #1 replace terminal equipment

- Greenburg – Shooting Star 115kV circuit #1 rebuild
- Kress Interchange – Swisher 115kV circuit #1 replace terminal equipment
- Nichols – Grapevine – Wheeler 230kV circuit #1 replace terminal equipment
- Oklaunion 345kV Reactive Power Support
 - Install two (2) – 130Mvar Capacitor Bank(s) at Oklaunion
- Stateline – Sweetwater 230kV circuit #1 replace terminal equipment
- (NRIS Only) Carlisle – LP-Doug 115kV circuit #1 replace terminal equipment
- (NRIS Only) Cox Interchange – Hale County 115kV circuit #1 rebuild
- (NRIS Only) Potter County Interchange 345/230/13kV Transformer circuit #2 build
- (NRIS Only) Renfrow – Renfrow 138kV circuit #1 rebuild
- (NRIS Only) TUCO Interchange – Jones 230kV circuit #1 replace terminal equipment
- (NRIS Only) Wolfforth – Sundown 230kV circuit #1 replace terminal equipment
- (NRIS Only) Wolfforth – Terry County 115kV circuit #1 replace terminal equipment
- Upgrades assigned to DISIS-2015-002 Interconnection Customers:
 - Study in Progress

Potential Upgrades Not in the Base Cases

Any Potential Upgrade(s) that do not have a Notification to Construct (NTC) have not been included in the Base Case(s). These upgrade(s) 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 Request(s) listed in Appendix A are grouped together into three (3) active regional groups based on geographical and electrical impacts. These groupings are shown in Appendix C.

To determine interconnection impacts, seven (7) different scenario assumption analyses of the spring, summer, and winter base case models are developed to accommodate the regional groupings.

Power Flow

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

Peaking units are not dispatched in the 2017 spring, or in the “High VER” summer and winter peaks. To study peaking units’ impacts, the 2016 summer and winter peaks, 2020 summer and winter peaks, and 2025 summer peak models are developed with peaking units dispatched at 100% of the nameplate rating and VERs dispatched at 20% of the nameplate rating. Each interconnection request is also modeled separately at 100% nameplate for certain analyses.

All generators (VER and peaking) that requested Network Resource Interconnection Service (NRIS) are dispatched in an additional analysis into the interconnecting Transmission Owner’s (T.O.) area

at 100% nameplate with Energy Resource Interconnection Service (ERIS) only requests at 80% nameplate. This method allows for identification of network constraints that are common between regional groupings to have affecting requests share the mitigating upgrade costs throughout the cluster.

Identification of Network Constraints

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. The Energy Resource Interconnection Service (ERIS) constraints were then screened to determine which of the generation interconnection requests had at least a 20% Distribution Factor (DF) upon outage based constraints (n-1) and 3% DF upon system intact constraints (n-0). Interconnection Requests that have requested Network Resource Interconnection Service (NRIS) were studied in the NRIS analysis to determine if any constraint measured at least a 3% DF. If so, these constraints were also considered for mitigation under NRIS. Other network constraints which do not require transmission reinforcements are shown in Appendix H.

Network constraints are found by using PSS® MUST First Contingency Incremental Transfer Capability (FCITC) analysis on the entire cluster grouping dispatched at the various levels previously mentioned. The ERIS constraints are then screened to determine which of the generation interconnection requests have at least a 20% Distribution Factor (DF) upon outage based constraints (n-1) and 3% DF upon system intact constraints (n-0) or on non-convergences case solutions during outage based constraints (n-1). In addition, stability issues are also considered for transmission reinforcement under ERIS. Interconnection Requests that requested Network Resource Interconnection Service (NRIS) are also studied in the NRIS analysis to determine if any constraint measured greater than or equal to a 3% DF. If so, these constraints are also considered for mitigation under NRIS. With a defined source and sink in a Transmission Service Request, this list of network constraints can be refined and expanded to account for all Network Upgrade requirements for firm transmission service.

Constraints that are identified and require transmission reinforcement are listed in Appendix G. These constraints met the criteria for analysis for Energy Resource Interconnection Service and Network Resource Interconnection Service (if requested).

Other network constraints not requiring transmission reinforcements are shown in Appendix H. With a defined source and sink in a Transmission Service Request, this list of network constraints can be refined and expanded to account for all Network Upgrade requirements for firm transmission service.

In no way does the list of constraints in Appendix G identify all potential constraints that 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.

Identification of Electrically Isolated Groups and Requests

From the FCITC analysis, it may be determined that some of the regional groups had no common impacts with the other groups. However, this determination may change as the Interconnection Customers depending upon the time at which the interconnection customers enter either the Preliminary Interconnection System Impact Study (PISIS) or the Definitive Interconnection System Impact Study (DISIS).

Determination of Cost Allocated Network Upgrades

Cost Allocated Network Upgrades of Variable Energy Resources (VER) (solar/wind) generation interconnection requests are determined using the 2017 spring model. Cost Allocated Network Upgrades of peaking units is determined using the 2020 summer peak model. A PSS/E and MUST sensitivity analysis is performed to determine the Distribution Factors (DF), a distribution factor with no contingency that each generation interconnection request has on each new upgrade. The impact each generation interconnection request has on each upgrade project is weighted by the size of each request. Finally the costs due by each request for a particular project are 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:

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

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

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

- 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/Compensation for Amounts Advanced for Network Upgrades

Interconnection Customer shall be entitled to either credits or potentially Long Term Congestion Rights (LTCR), otherwise known as compensation, 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.

Interconnection and Network Upgrade Facilities

The generator Interconnection Customers requested interconnection within the transmission systems of American Electric Power – West (AEPW), Oklahoma Gas and Electric Company (OKGE), Southwestern Public Service (SPS), Westar Energy, Inc. (WERE), and Western Farmers Electric Cooperative (WFEC).

The requirement to interconnect the 2,349 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 Appendices E and F. The summarized cost for each analysis are listed in **Table 3** below.

Table 3. Interconnection Costs

| Analysis Number | Estimated Minimum Costs (\$) |
|-----------------|------------------------------|
| Scenario #1 | \$105,000,000 |
| Scenario #2 | \$152,700,000 |
| Scenario #3 | \$485,700,000 |
| Scenario #4 | \$91,250,000 |
| Scenario #5 | \$95,250,000 |
| Scenario #6 | \$23,000,000 |
| Scenario #7 | \$27,000,000 |

Appendices E and F also include Interconnection Facilities specific to each generation interconnection request. GEN-2015-035 and GEN-2015-049 requested additional analyses for alternate Points of Interconnection (POIs). The one-line diagrams in Appendix D should be consulted for details of the alternate POIs. Separate cost allocations are included in this report for the alternate Points of Interconnection.

For an explanation of how required Network Upgrades and Interconnection Facilities were determined, refer to the section on “Identification of Network Constraints” above.

A preliminary one-line drawing for each generation interconnection request are listed in Appendix D.

Power Flow Analysis

Power Flow Analysis Methodology

The FCITC function of PSS® MUST 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. This satisfies the “more probable” contingency testing criteria mandated by NERC and the SPP criteria.

Power Flow Analysis

A power flow analysis is conducted for each Interconnection Customer’s facility using modified versions of the 2016 summer and winter, 2017 spring, 2020 summer and winter, and 2025 summer peaks. The output of the Interconnection Customer’s facility is 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 also pursuing Network Resource Interconnection Service (NRIS) have an additional analysis conducted for displacing resources in the interconnecting Transmission Owner’s balancing area.

This analysis was conducted assuming that previous queued requests in the immediate area of these interconnect requests were in-service. The analysis of the each Customer’s project indicates that criteria violations will occur on the SPS transmission system under steady state and contingency conditions in the peak seasons.

The need for reactive compensation will be determined during the Interconnection System Impact Study. The need for reactive compensation will be based on the Interconnection Customer’s choice of wind turbine make and manufacturer. Dynamic Stability studies performed as part of the System Impact Cluster Study will provide additional guidance as to whether the reactive compensation can be static or a portion must be dynamic (such as a SVC or STATCOM). It is possible that an SVC or STATCOM device will be required at the Customer facility because of FERC Order 661A Low Voltage Ride-Through Provisions (LVRT) which went into effect January 1, 2006. FERC Order 661A orders that wind farms stay on-line for 3-phase faults at the point of interconnection even if that requires the installation of a SVC or STATCOM device.

Cluster Group 1 (Woodward Area)

In addition to the 5,859.9 MW of previously queued generation in the area, 400.0 MW of new Interconnection Service was studied. GEN-2015-049 requested a secondary Point of Interconnection, resulting in two separate analyses for the Group 1 analysis. The two analyses are described below.

Scenario #1: GEN-2015-049 at Tap Tatonga – Woodward 345kV: ERIS Constraints were observed for the the Dewey area, Southard area, and the Woodward –Tatonga – Mathewson corridor.

Mitigations to alleviate the ERIS constraints include Woodward – Tatonga – Mathewson 345kV circuit #2, Woodward 345/138/13kV transformer circuit #1 and #2 replacements, and higher queued assigned Woodward phase shifting transformer. In addition the the ERIS constraints, several NRIS constraints were observed as listed in the following table. New transmission circuit(s), rebuild(s), and/or terminal equipment upgrade(s) for mitigation are listed in Appendix E and F (Scenario #1).

Table 4: GEN-2015-049 POI: Tatonga – Woodward 345kV

| ERIS Constraints | | | |
|--|--------------|-----------------|--|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 787.9 | 104.0603 | CIMARRON - MINCO 345KV CKT 1 |
| MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 123.4502 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 100.6089 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 101.1756 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |

| NRIS Constraints | | | |
|---|--------------|-----------------|---|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 118.4738 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 112.7841 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 133.6003 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| CIMARRON - MINCO 345KV CKT 1 | 955.1 | 109.2573 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| CLEARWATER - MILAN TAP 138KV CKT 1 | 105.7 | 118.8893 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 141.1723 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| DOVER SW - OKEENE 138KV CKT 1 | 128.3 | 117.4887 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| EVANS ENERGY CENTER NORTH - MAIZEW 4 138.00 138KV CKT 1 | 380.1 | 100.6698 | BENTON - WICHITA 345KV CKT 1 |
| FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 154.2139 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 242.508 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 137.4188 | CIMARRON - MINCO 345KV CKT 1 |
| G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.2 | 116.1712 | BASE CASE |
| GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 104.336 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358 | 117.6944 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.7 | 109.7173 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 115.1053 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 122.7447 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.8 | 107.9125 | BASE CASE |
| PITTSBURG - SEMINOLE 345KV CKT 1 | 716.9 | 103.17 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 553.6 | 103.5271 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.5 | 137.0088 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 107.2433 | HOYT - STRANGER CREEK 345KV CKT 1 |
| TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 111.7713 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| WOODWARD - WOODWARD 69KV CKT 1 | 109.2 | 111.6355 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| WOODWARD - WOODWARD EHV 138KV CKT 1 | 281.3 | 122.9755 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.5 | 125.2875 | FPL SWITCH - MOORELAND 138KV CKT 1 |

Scenario #2: GEN-2015-049 at Tap Dewey – Iodine 138kV: ERIS Constraints were observed for the the Dewey area, Southard area, and the Woodward –Tatonga – Mathewson corridor. Mitigations to alleviate the ERIS constraints include Woodward – Tatonga – Mathewson 345kV circuit #2,

Woodward 345/138/13kV transformer circuit #1 and #2 replacements, and higher queued assigned Woodward phase shifting transformer. In addition the the ERIS constraints, several NRIS constraints were observed as listed in the following table. New transmission circuit(s), rebuild(s), and/or terminal equipment upgrade(s) for mitigation are listed in Appendix E and F (Scenario #2).

Table 5: GEN-2015-049 POI: Tap Dewey – Iodine 138kV

| ERIS Constraints | | | |
|--|--------------|-----------------|--|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| DEWEY - G15_049_T 138.00 138KV CKT 1 | 221.6 | 104.2692 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| DEWEY - SOUTHARD 138KV CKT 1 | 221.4 | 103.3258 | DEWEY - TALOGA 138KV CKT 1 |
| DEWEY - TALOGA 138KV CKT 1 | 164.9 | 118.6689 | DEWEY - SOUTHARD 138KV CKT 1 |
| G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 787.9 | 104.4832 | CIMARRON - MINCO 345KV CKT 1 |
| MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 116.3199 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.3 | 141.7519 | DEWEY - TALOGA 138KV CKT 1 |
| WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 124.3243 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 125.0205 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |

| NRIS Constraints | | | |
|---|--------------|-----------------|---|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| CANTON - OKEENE 69KV CKT 1 | 64.3 | 106.3857 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 116.837 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 112.093 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| CIMARRON - CZECH HALL 138KV CKT 1 | 382 | 100.689 | CIMARRON - HAYMAKER 138KV CKT 1 |
| CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 140.2891 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| CIMARRON - MINCO 345KV CKT 1 | 955.1 | 109.9139 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 140.8891 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.2 | 122.6667 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| DEWEY - SOUTHARD 138KV CKT 1 | 221.1 | 107.0077 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| DEWEY - TALOGA 138KV CKT 1 | 165 | 118.3806 | DEWEY - SOUTHARD 138KV CKT 1 |
| DOVER SW - OKEENE 138KV CKT 1 | 128 | 117.1375 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| EL RENO - ROMAN NOSE 138KV CKT 1 | 148.1 | 106.8197 | DARLINGTONRD4138.00 - ROMAN NOSE 138KV CKT 1 |
| EVANS ENERGY CENTER NORTH - MAIZEW 4 138.00 138KV CKT 1 | 380.1 | 100.4573 | BENTON - WICHITA 345KV CKT 1 |
| FPL SWITCH - MOORELAND 138KV CKT 1 | 269.6 | 123.3175 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 193.1285 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 137.84 | CIMARRON - MINCO 345KV CKT 1 |
| G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.2 | 116.1712 | BASE CASE |
| GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 103.0909 | CANTON - TALOGA 69KV CKT 1 |
| MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 110.6665 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 121.1607 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| MOORELAND - TALOGA 138KV CKT 1 | 143 | 103.0965 | IODINE - WOODWARD EHV 138KV CKT 1 |
| NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.8 | 107.9125 | BASE CASE |
| PITTSBURG - SEMINOLE 345KV CKT 1 | 716.8 | 106.2654 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 152.0257 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 105.9818 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 114.0085 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |

Cluster Group 6 (South Texas Panhandle/New Mexico)

In addition to the 6,604.05 MW of previously queued generation in the area, 553.0 MW of new interconnection service was studied. The Interconnection Requests in Group 6 of this Feasibility Study have lower queue priority than the Interconnection Requests in Group 6 of the DISIS-2014-002, DISIS-2015-001, and DISIS-2015-002 studies. At the time of the posting of this Feasibility Study, the

Interconnection Request(s) in Group 6 of DISIS-2014-002 and DISIS-2015-001 will require the following Group 06 Network Upgrades to receive Interconnection Service. DISIS-2015-002 Network Upgrade are not listed below.

- Upgrades assigned to DISIS-2014-002 Interconnection Customers:
 - Carlisle 230/115/13kV Transformer circuit #1 replacement
 - Norton – Pleasant Hill 230kV circuit #1 rebuild for voltage conversion
 - Tolk – Plant X 230kV circuit #1 and #2 rebuild
 - Crawfish Draw (TUCO 2) Substation 345/230kV
 - Build new 345/230kV substation along TUCO – Border 345kV and TUCO – Swisher 230kV. Tie in and Terminate TUCO 345kV, Border 345kV, TUCO 230kV, and Swisher 230kV at Crawfish Draw (TUCO 2).
 - Build 345/230/13kV transformer
- Upgrades assigned to DISIS 2015-001 Interconnection Customers
 - Elk City 230/138/13kV Transformer circuit #1 replace terminal equipment
 - Greenburg – Shooting Star 115kV circuit #1 rebuild
 - Kress Interchange – Swisher 115kV circuit #1 replace terminal equipment
 - Nichols – Grapevine – Wheeler 230kV circuit #1 replace terminal equipment
 - Oklaunion 345kV Reactive Power Support
 - Install two (2) – 130Mvar Capacitor Bank(s) at Oklaunion
 - Stateline – Sweetwater 230kV circuit #1 replace terminal equipment
 - (NRIS Only) Carlisle – LP-Doug 115kV circuit #1 replace terminal equipment
 - (NRIS Only) Cox Interchange – Hale County 115kV circuit #1 rebuild
 - (NRIS Only) Potter County Interchange 345/230/13kV Transformer circuit #2 build
 - (NRIS Only) Renfrow – Renfrow 138kV circuit #1 rebuild
 - (NRIS Only) TUCO Interchange – Jones 230kV circuit #1 replace terminal equipment
 - (NRIS Only) Wolfforth – Sundown 230kV circuit #1 replace terminal equipment
 - (NRIS Only) Wolfforth – Terry County 115kV circuit #1 replace terminal equipment
- Upgrades assigned to DISIS-2015-002 Interconnection Customers:
 - Study in Progress

Any change in the status of Interconnection Requests in or any other higher queued DISIS study including DISIS-2015-002 may cause the cost of the above Network Upgrades to become the cost responsibility of the Feasibility Cluster Study Customers. The related overloads are in Appendix H.

Scenario #3 Group 06 Requests: ERIS constraints were observed for along the Crawfish Draw (TUCO2) - TUCO – Oklaunion – Lawton Eastside – Gracemont 345kV corridor, Lawton Eastside – Sunnyside 345kV transmission line, and at the TUCO 345/230kV facilities. The mitigation for these ERIS constraints is to build a new TUCO Interchange – Oklaunion – Sunnyside 345kV transmission circuit along with terminal equipment upgrades for Cimarron – Minco 345kV and Lawton Eastside – GEN-2014-057 Tap – Sunnyside 345kV. In the following table, additional NRIS constraints that were observed are listed. New transmission circuit(s), rebuild(s), and/or terminal equipment upgrade(s) for mitigation are listed in Appendix E and F (Scenario #3).

The powerflow results listed below were obtained by analyzing the powerflow models with the 553.0 MW of Feasibility Study Interconnection Requests in-service in addition to all the prior queued Group 06 generation including DISIS-2015-002. Potential DISIS-2015-002 Network Upgrades could be included in as in-service.

Table 6: Group 6 Power Flow Analysis (Analysis #3)

| ERIS Constraints | | | |
|--|--------------|-----------------|--|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| CIMARRON - MINCO 345KV CKT 1 | 946.6 | 154.1421 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 144.8391 | CIMARRON - MINCO 345KV CKT 1 |
| G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 156.932 | CIMARRON - MINCO 345KV CKT 1 |
| G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 994.9 | 119.9602 | BASE CASE |
| G15093_T 345.00 - GRACEMONT 345KV CKT 1 | 789 | 103.3812 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| GRACEMONT - MINCO 345KV CKT 1 | 1181.2 | 112.0902 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| SWISHER COUNTY INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 349.6 | 127.8224 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 530.9 | 221.8854 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 | 1955.5 | 101.2402 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 544.8 | 221.0385 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |

| NRIS Constraints | | | |
|---|--------------|-----------------|--|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| ANADARKO - GRACMNT4 138.00 138KV CKT 1 | 224.1 | 114.9174 | CIMARRON - MINCO 345KV CKT 1 |
| ARDMORE WEST - CARTER 138KV CKT 1 | 218 | 108.9853 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| ARDMORE WEST - UNIROYAL 138KV CKT 1 | 218.9 | 112.603 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| BLANCHARD - MAUD 138KV CKT 1 | 71.4 | 107.8683 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1 | 350.6 | 106.6509 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| CARTER - CHICKASAW 138KV CKT 1 | 187.6 | 128.3881 | ROCKY POINT - SUNNYSIDE 138KV CKT 1 |
| CHISHOLM6 230.00 - ELK CITY 230KV 230KV CKT 1 | 437.9 | 106.2555 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 122.1144 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 135.2563 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| CIMARRON - MINCO 345KV CKT 1 | 940.7 | 138.9187 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| CLEAVELAND - CLEVELND 4 138.00 138KV CKT Z1 | 354.4 | 122.3541 | P12:345:AEPW-GRDA:T.NO.-7:CLEVELND7 |
| CLINTON JUNCTION - ELK CITY 138KV CKT 1 | 184.4 | 112.3232 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.7 | 169.3259 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| CORN TAP - SEQUOYAHJ4 138.00 138KV CKT 1 | 142.9 | 111.2309 | CIMARRON - MINCO 345KV CKT 1 |
| DUNCAN - OMPA-DUNCAN 840 138KV CKT 1 | 156 | 100.8256 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1 | 310.5 | 131.03 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 115.6172 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 157.4243 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 130.8058 | CIMARRON - MINCO 345KV CKT 1 |
| G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 150.8072 | CIMARRON - MINCO 345KV CKT 1 |
| G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1322.8 | 105.6616 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| G15093_T 345.00 - GRACEMONT 345KV CKT 1 | 781.8 | 118.3385 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358 | 127.0804 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.7 | 119.3738 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 113.0541 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.2 | 165.4589 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| PITTSBURG - SEMINOLE 345KV CKT 1 | 716.9 | 106.3967 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 126.3214 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1 | 452.6 | 100.2466 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |

| | | | |
|---|-------|----------|--|
| STLN-DEMARC6 - SWEETWATER 230KV CKT 1 | 342.2 | 104.6338 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 107.5878 | HOYT - STRANGER CREEK 345KV CKT 1 |
| TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 538.8 | 171.732 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1 | 559.9 | 110.5603 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 549.4 | 180.7044 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| TUPELO - TUPELO TAP 138KV CKT 1 | 140.3 | 127.6301 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |

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

In addition to the 7,810.6 MW of previously queued generation in the area, 1,396¹² MW of new Interconnection Service was studied. GEN-2015-035 requested a secondary Point of Interconnection and GEN-2015-050 requesting mutual exclusive analysis from GEN-2015-051, results in four separate analyses (Scenario #4 Scenario #7) for the Group 8 analysis. The four analyses are described below.

Scenario #4: GEN-2015-035 at Osage 69kV with GEN-2015-051 dispatched: Eris Constraints were observed along the Emporia Energy Center - Swissvale – West Gardner 345kV transmission circuits. The mitigation for Emporia Energy Center - Swissvale – West Gardner 345kV overloads is to upgrade terminal equipment to alleviate the overloads. Various NRIS constraints were observed along the Lang – Reading Lake – Osage Junction – Scranton – Four Corners – Carbondale 115kV , Mockingbird Hill – Stull Tap – Tecumseh Hill 115kV, Emporia Energy Center – GEN-2015-050/51 Tap 345kV and Lawrence Energy Center – Swissvale 230kV transmission lines. New transmission circuit(s), rebuild(s), and/or terminal equipment upgrade(s) for mitigation are listed in Appendix E and F (Scenario #4).

Table 7: GEN-2015-035 POI at Osage 69kV with GEN-2015-051 dispatched

| ERIS Constraints | | | |
|---|--------------|-----------------|---------------------------------------|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 126.2379 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 120.7752 | HOYT - STRANGER CREEK 345KV CKT 1 |

| NRIS Constraints | | | |
|--|--------------|-----------------|---|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| BALDWIN6 230.00 - SWISSVALE 230KV CKT 1 | 357.6 | 100.5192 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| CARB-KW 3 - FOUR CORNERS 115KV CKT 1 | 91.3 | 101.6623 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 114.3153 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 133.1032 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| FOUR CORNERS - SCRNTJN3 115.00 115KV CKT 1 | 91.4 | 105.8181 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| LANG - READING LAKE 115KV CKT 1 | 91.5 | 120.4565 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| LAWRENCE HILL - SWISSVALE 230KV CKT 1 | 355.5 | 104.1827 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| MOCKINGBIRD HILL SWITCHING STATION - STULL | 89.8 | 118.7633 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 |

¹² 1,396MW contains mutually exclusive requests

| | | | |
|---|-------|----------|---|
| SWITCHING STATION 115KV CKT 1 | | | |
| OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.4 | 116.4308 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJS3 115.00 115KV CKT 1 | 91.4 | 109.6474 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| STULL SWITCHING STATION - TECUMSEH HILL 115KV CKT 1 | 90.2 | 122.6713 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 117.2709 | HOYT - STRANGER CREEK 345KV CKT 1 |

Scenario #5: GEN-2015-035 at Continental Black 69kV with GEN-2015-051 dispatched: In comparison to Analysis #4, similar ERI and NRIS constrained elements were observed. New transmission circuit(s), rebuild(s), and/or terminal equipment upgrade(s) for mitigation are listed in Appendix E and F (Scenario #5).

Table 8: GEN-2015-035 POI at Continental Black 69kV with GEN-2015-051 dispatched

| ERIS Constraints | | | |
|---|--------------|-----------------|---------------------------------------|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 126.2379 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 120.7768 | HOYT - STRANGER CREEK 345KV CKT 1 |

| NRIS Constraints | | | |
|--|--------------|-----------------|---|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| BALDWIN6 230.00 - SWISSVALE 230KV CKT 1 | 357.6 | 100.5192 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| CARB-KW 3 - FOUR CORNERS 115KV CKT 1 | 91.3 | 101.6623 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 114.3153 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 133.1032 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| FOUR CORNERS - SCRNTJN3 115.00 115KV CKT 1 | 91.4 | 105.8181 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| LANG - READING LAKE 115KV CKT 1 | 91.5 | 120.4565 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| LAWRENCE HILL - SWISSVALE 230KV CKT 1 | 355.5 | 104.1827 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| MOCKINGBIRD HILL SWITCHING STATION - STULL SWITCHING STATION 115KV CKT 1 | 89.8 | 118.7633 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 |
| OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.4 | 116.4308 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJS3 115.00 115KV CKT 1 | 91.4 | 109.6474 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| STULL SWITCHING STATION - TECUMSEH HILL 115KV CKT 1 | 90.2 | 122.6713 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 117.2709 | HOYT - STRANGER CREEK 345KV CKT 1 |

Scenario #6: GEN-2015-035 at Osage 69kV with GEN-2015-050 dispatched : ERI and NRIS Constraints were observed along the Emporie Energy Center - Swissvle – West Gardner 345kV transmission circuits. The mitigation for Emporie Energy Center - Swissvle – West Gardner 345kV overloads is to upgrade terminal equipment to alleviate the overloads. Please refer to Appendix E and F (Scenario #6) for cost allocation.

Table 9: GEN-2015-035 POI at Osage 69kV with GEN-2015-050 dispatched

| ERIS Constraints | | | |
|-------------------|--------------|-----------------|-------------|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |

| | | | |
|---|-------|----------|------------------------------------|
| EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 100.6819 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 100.6111 | HOYT - STRANGER CREEK 345KV CKT 1 |

| NRIS Constraints | | | |
|---|--------------|-----------------|------------------------------------|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 114.2751 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 111.7311 | HOYT - STRANGER CREEK 345KV CKT 1 |

Scenario #7: GEN-2015-035 at Continental Black 69kV with GEN-2015-050 dispatched: In comparison to Analysis #6, similar ERI and NRIS constrained elements were observed. Analysis #7 network upgrade(s) for mitigation are listed in Appendix E and F (Scenario #7).

Table 10: GEN-2015-035 POI at Continental Black 69kV with GEN-2015-050 dispatched

| ERIS Constraints | | | |
|---|--------------|-----------------|------------------------------------|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 100.6819 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 100.6111 | HOYT - STRANGER CREEK 345KV CKT 1 |

| NRIS Constraints | | | |
|---|--------------|-----------------|------------------------------------|
| MONITORED ELEMENT | RATE B (MVA) | TC% LOADING (%) | CONTINGENCY |
| EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 114.2751 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 111.7311 | HOYT - STRANGER CREEK 345KV CKT 1 |

Curtailement 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.

Conclusion

The minimum cost of interconnecting 2,349 MW of new interconnection requests included in this Feasibility Cluster Study are listed in Appendices E and F, which include the Allocated Network Upgrades and Transmission Owner Interconnection Facilities. GEN-2015-035 and GEN-2015-049 requested additional analysis for alternate Points of Interconnection (POIs). GEN-2015-050 requested mutual exclusive analysis from GEN-2015-051 also resulted in additional analysis. Seven (7) Point of Interconnection (POI) and mutual exclusive analyses were conducted for all the possible configurations. The constraints identified for each of these configurations can be found in Appendix G and H.

If the Interconnection Customers proceed into the Preliminary Interconnection System Impact Study (PISIS) or Definitive Interconnection System Impact Study (DISIS), the Interconnection Customer can propose only one Point of Interconnection (POI). The total estimated minimum cost for interconnecting the studied generation interconnection request is given in **Table 11** below.

Table 11. Interconnection Costs

| Analysis Number | Estimated Minimum Costs (\$) |
|-----------------|------------------------------|
| Scenario #1 | \$105,000,000 |
| Scenario #2 | \$152,700,000 |
| Scenario #3 | \$485,700,000 |
| Scenario #4 | \$91,250,000 |
| Scenario #5 | \$95,250,000 |
| Scenario #6 | \$23,000,000 |
| Scenario #7 | \$27,000,000 |

If the Interconnection Customers proceed into the Preliminary Interconnection System Impact Study (PISIS) or Definitive Interconnection System Impact Study (DISIS), the Interconnection Customer can propose only one Point of Interconnection (POI)

The one-line diagrams in Appendix D should be consulted for details of the alternate POIs. Separate cost allocations are included in this report for the alternate Points of Interconnection. These costs 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 AC power flow analysis, short circuit or transient stability analysis. These studies will be performed if the Interconnection Customer executes the appropriate Interconnection System Impact Study Agreement and provides the required data along with demonstration of Site Control and the appropriate deposit. At the time of the System Impact Cluster 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).

Appendix

A: Generator Interconnection Requests Considered for Study

See next page.

A: Generation Interconnection Requests Considered for 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* |
|---------------|--------|-----------------|------|------------------------------------|------------------------------------|---------------------------|--|
| GEN-2015-035 | 22.00 | ER | OKGE | Osage 69kV/Continental Black 69 kV | Osage 69kV /Continental Black 69kV | 9/1/2018 | TBD |
| GEN-2015-037 | 253.00 | ER | SPS | Tuco 345 kV | Tuco 345kV | 6/1/2018 | TBD |
| GEN-2015-049 | 200.00 | ER/NR | OKGE | Tatonga-Woodward 345/Dewey-Iodine | Vici 345kV / Dewey-Iodine 138kV | 12/31/2018 | TBD |
| GEN-2015-050 | 458.00 | ER/NR | WERE | Emporia-Wichita 345 kV | Emporia-Wichita 345kV | 6/1/2019 | TBD |
| GEN-2015-051 | 916.00 | ER/NR | WERE | Emporia-Wichita 345 kV | Emporia-Wichita 345kV | 6/1/2019 | TBD |
| GEN-2015-070 | 300.00 | ER/NR | AEPW | Oklaunion-Lawton Eastside 345 kV | Oklaunion-Lawton Eastside 345kV | 12/10/2019 | TBD |
| GEN-2015-086 | 200.00 | ER/NR | WFEC | Mooreland 138 kV | Mooreland 138kV | 12/31/2018 | TBD |
| Total: | | 2,349.00 | | | | | |

*In-Service Date for each request is to be determined after the Interconnection Facility Study is completed.

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 | Remington 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 | 27.30 | SPS | Lovington 115kV | On-Line |
| ASGI-2011-002 | 20.00 | SPS | Herring 115kV | On-Line |
| ASGI-2011-003 | 10.00 | SPS | Hendricks 69kV | 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-2013-004 | 36.60 | SUNCMKEC | Morris 115kV | Under Study (DISIS-2013-002) |
| ASGI-2013-005 | 1.65 | SPS | FE Clovis 115kV | Under Study (DISIS-2013-002) |
| ASGI-2013-006 | 2.00 | SPS | SP-Erskine 115kV | |
| ASGI-2014-001 | 2.50 | SPS | SP-Erskine 115kV | Under Study (DISIS-2014-001) |
| ASGI-2014-002 | 49.60 | SPS | Tap Tucumcari - Santa Rosa 115kV | Under Study (DISIS-2014-001) |
| ASGI-2014-005 | 10.00 | SPS | Strata 69kV | Under Study (DISIS-2014-002) |
| ASGI-2014-008 | 10.00 | SPS | South Loving 69kV | Under Study (DISIS-2014-002) |
| ASGI-2014-009 | 10.00 | SPS | Wood Draw 115kV | Under Study (DISIS-2014-002) |
| ASGI-2014-010 | 10.00 | SPS | Ochoa 115kV | Under Study (DISIS-2014-002) |
| ASGI-2014-012 | 10.00 | SPS | Cooper Ranch 115kV | Under Study (DISIS-2014-002) |
| ASGI-2014-014 | 56.40 | GRDA | Ferguson 69kV | Under Study (DISIS-2014-002) |
| ASGI-2015-001 | 6.13 | SUNCMKEC | Ninnescah 115kV | Under Study (DISIS-2015-001) |
| ASGI-2015-002 | 2.00 | SPS | SP-Yuma 69kV | Under Study (DISIS-2015-001) |
| ASGI-2015-004 | 56.36 | GRDA | Coffeyville City 69kV | Under Study (DISIS-2015-001) |
| ASGI-2015-006 | 9.00 | SWPA | Tupelo 138kV | Under Study (DISIS-2015-002) |
| G255 | 100.00 | XEL | Yankee 115kV | MISO Queued Request |
| G359 | 150.00 | MDU | MDU 230 kV system near Ellendale | MISO Queued Request |
| G380 | 150.00 | OTP | Rugby 115kV | MISO Queued Request |
| G408 | 12.00 | XEL | Tap McHenry - Souris 115kV | MISO Queued Request |
| G502 | 50.60 | MP | Milton Young 230kV | MISO Queued Request |
| G645 | 50.00 | OTP | Ladish 115kV | MISO Queued Request |
| G723 | 10.00 | MDU | Haskett 115kV | MISO Queued Request |
| G752 | 150.00 | MDU | Tap Bison - Hettinger 230kV | MISO Queued Request |
| G788 | 49.00 | GRE | Ladish 115kV | MISO Queued Request |
| G830 | 99.00 | GRE | GRE McHenry 115kV | MISO Queued Request |
| GEN-2001-014 | 96.00 | WFEC | Ft Supply 138kV | On-Line |
| GEN-2001-026 | 74.30 | 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 | 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 |

| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|------------------|--------|----------|---|---------------------------|
| 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-2002-008IS | 40.50 | WAPA | Edgeley 115kV [Pomona 115kV] | Commercial Operation |
| 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 | Weatherford 138kV | On-Line |
| GEN-2004-014 | 154.50 | SUNCMKEC | Spearville 230kV | On-Line at 100MW |
| GEN-2004-020 | 27.00 | AEPW | Weatherford 138kV | 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-2005-003IS | 100.00 | WAPA | Nelson 115kV | Commercial Operation |
| GEN-2005-008 | 120.00 | OKGE | Woodward 138kV | On-Line |
| GEN-2005-008IS | 50.00 | WAPA | Hilken 230kV [Ecklund 230kV] | Commercial Operation |
| GEN-2005-012 | 250.00 | SUNCMKEC | Ironwood 345kV | On-Line at 160MW |
| GEN-2005-013 | 201.00 | WERE | Caney River 345kV | On-Line |
| GEN-2006-001IS | 10.00 | XEL | Marshall 115kV | Commercial Operation |
| GEN-2006-002 | 101.00 | AEPW | Sweetwater 230kV | On-Line |
| GEN-2006-002IS | 51.00 | WAPA | Wessington Springs 230kV | Commercial Operation |
| GEN-2006-006IS | 10.00 | XEL | Marshall 115kV | Commercial Operation |
| GEN-2006-015IS | 50.00 | WAPA | Hilken 230kV [Ecklund 230kV] | Commercial Operation |
| GEN-2006-018 | 170.00 | SPS | TUCO Interchange 230kV | On-Line |
| 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 | 502.00 | 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-Line |
| GEN-2006-038N005 | 80.00 | NPPD | Broken Bow 115kV | On-Line |
| GEN-2006-038N019 | 80.00 | NPPD | Petersburg North 115kV | On-Line |
| 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-2007-011N08 | 81.00 | NPPD | Bloomfield 115kV | On-Line |
| GEN-2007-013IS | 50.00 | WAPA | Wessington Springs 230kV | Commercial Operation |
| GEN-2007-014IS | 100.00 | WAPA | Wessington Springs 230kV | Commercial Operation |
| GEN-2007-017IS | 166.00 | WAPA | Ft Thompson-Grand Island 345kV | On Schedule |
| GEN-2007-018IS | 234.00 | WAPA | Ft Thompson-Grand Island 345kV | On Schedule |

| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|-----------------|--------|----------|---|---|
| GEN-2007-020IS | 16.00 | WAPA | Nelson 115kV | Commercial Operation |
| GEN-2007-021 | 201.00 | OKGE | Tatonga 345kV | On-Line |
| GEN-2007-023IS | 50.00 | WAPA | Formit-Summit 115kV | On Suspension |
| GEN-2007-025 | 300.00 | WERE | Viola 345kV | On-Line |
| GEN-2007-027IS | 99.00 | WAPA | Bismarck-Garrison 230kV #1 | On Suspension |
| 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-Line at 199MW |
| GEN-2007-046 | 200.00 | 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 2016 and 2017 |
| GEN-2008-003 | 101.00 | OKGE | Woodward EHV 138kV | On-Line |
| GEN-2008-008IS | 5.00 | WAPA | Nelson 115kV | Commercial Operation |
| GEN-2008-013 | 300.00 | OKGE | Hunter 345kV | On-Line at 235MW |
| 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 | Crossroads 345kV | On Schedule for 2015 |
| GEN-2008-023 | 150.00 | AEPW | Hobart Junction 138kV | On-Line |
| GEN-2008-037 | 101.00 | WFEC | Slick Hills 138kV | On-Line |
| GEN-2008-044 | 197.80 | OKGE | Tatonga 345kV | On-Line |
| GEN-2008-047 | 300.00 | OKGE | Beaver County 345kV | On-Line |
| GEN-2008-051 | 322.00 | SPS | Potter County 345kV | On-Line at 161MW |
| GEN-2008-079 | 99.20 | SUNCMKEC | Crooked Creek 115kV | On-Line |
| GEN-2008-086N02 | 201.00 | NPPD | Meadow Grove 230kV | On-Line |
| GEN-2008-092 | 200.60 | MIDW | Post Rock 230kV | On-Line |
| GEN-2008-098 | 100.80 | WERE | Waverly 345kV | On Schedule for 2015 |
| GEN-2008-119O | 60.00 | OPPD | S1399 161kV | On-Line |
| GEN-2008-123N | 89.70 | NPPD | Tap Pauline - Hildreth (Rosemont) 115kV | On Schedule for 2015 |
| GEN-2008-124 | 200.10 | SUNCMKEC | Ironwood 345kV | On Schedule for 2016 |
| GEN-2008-129 | 80.00 | KCPL | Pleasant Hill 161kV | On-Line |
| GEN-2009-001IS | 200.00 | WAPA | Groton-Watertown 345kV | On Schedule |
| GEN-2009-006IS | 90.00 | WAPA | Mission 115kV | On Suspension |
| GEN-2009-007IS | 100.00 | WAPA | Mission 115kV | On Suspension |
| GEN-2009-008 | 199.50 | MIDW | South Hays 230kV | On-Line |
| GEN-2009-018IS | 100.00 | WAPA | Groton 115kV | Commercial Operation |
| GEN-2009-020 | 48.30 | MIDW | Walnut Creek 69kV | On Schedule for 2015 |
| GEN-2009-020AIS | 150.00 | WAPA | Tripp Junction 115kV | Commercial Operation |
| GEN-2009-025 | 59.80 | OKGE | Nardins 69kV | On-Line |
| GEN-2009-026IS | 110.00 | WAPA | Dickenson-Heskett 230kV | On Schedule |
| GEN-2009-040 | 73.80 | WERE | Marshall 115kV | On Schedule for 2016 |
| GEN-2010-001 | 300.00 | OKGE | Beaver County 345kV | On-Line at 204 MW, On Schedule for 2015 (96 MW) |
| GEN-2010-001IS | 99.00 | WAPA | Bismarck-Glenham 230kV | On Schedule |
| GEN-2010-003 | 100.80 | WERE | Waverly 345kV | On-Line |
| GEN-2010-003IS | 34.00 | WAPA | Wessington Springs 230kV | Commercial Operation |
| GEN-2010-005 | 299.20 | WERE | Viola 345kV | On-Line at 170MW |
| GEN-2010-006 | 205.00 | SPS | Jones 230kV | On-Line |
| GEN-2010-007IS | 172.50 | WAPA | Antelope Valley 345kV | On Suspension |
| GEN-2010-009 | 165.60 | SUNCMKEC | Buckner 345kV | On-Line |

| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|----------------|--------|----------|---|---------------------------|
| GEN-2010-011 | 29.70 | OKGE | Tatonga 345kV | On-Line |
| GEN-2010-014 | 358.80 | SPS | Hitchland 345kV | On Suspension |
| 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 | S1399 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 | FACILITY STUDY STAGE |
| GEN-2010-051 | 200.00 | NPPD | Tap Hoskins - Twin Church (Dixon County) 230kV | On Suspension |
| GEN-2010-055 | 4.50 | AEPW | Wekiwa 138kV | On-Line |
| GEN-2010-057 | 201.00 | MIDW | Rice County 230kV | On-Line |
| GEN-2011-008 | 600.00 | SUNCMKEC | Clark County 345kV | On Schedule for 2016 |
| GEN-2011-010 | 100.80 | OKGE | Minco 345kV | On-Line |
| GEN-2011-011 | 50.00 | KCPL | Iatan 345kV | On-Line |
| GEN-2011-014 | 201.00 | OKGE | Tap Hitchland - Woodward Dbl Ckt (GEN-2011-014 Tap) 345kV | On Schedule for 2016 |
| GEN-2011-016 | 200.10 | SUNCMKEC | Ironwood 345kV | Facility Study Stage |
| GEN-2011-018 | 73.60 | NPPD | Steele City 115kV | On-Line |
| GEN-2011-019 | 299.00 | OKGE | Woodward 345kV | On Suspension |
| GEN-2011-020 | 299.00 | OKGE | Woodward 345kV | On Suspension |
| GEN-2011-022 | 299.00 | SPS | Hitchland 345kV | On Suspension |
| GEN-2011-025 | 80.00 | SPS | Tap Floyd County - Crosby County 115kV | On Schedule for 2016 |
| GEN-2011-027 | 120.00 | NPPD | Tap Hoskins - Twin Church (Dixon County) 230kV | On Suspension |
| GEN-2011-037 | 7.00 | WFEC | Blue Canyon 5 138kV | On-Line |
| GEN-2011-040 | 111.00 | OKGE | Carter County 138kV | On-Line |
| 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 | 250.70 | OKGE | Border 345kV | On Schedule for 2016 |
| GEN-2011-050 | 109.80 | AEPW | Santa Fe Tap 138kV | On Schedule for 2016 |
| GEN-2011-051 | 104.40 | OKGE | Tap Woodward - Tatonga 345kV (GEN-2011-051 Tap) | On Suspension |
| GEN-2011-054 | 300.00 | OKGE | Cimarron 345kV | On Schedule for 2015 |
| 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 2015 |
| GEN-2012-001 | 61.20 | SPS | Cirrus Tap 230kV | On-Line |
| GEN-2012-004 | 41.40 | OKGE | Carter County 138kV | On-Line |
| GEN-2012-006IS | 125.01 | WAPA | Williston-Ch. Creek 230kV | On Schedule |
| GEN-2012-007 | 120.00 | SUNCMKEC | Rubart 115kV | On-Line |
| GEN-2012-009IS | 99.00 | WAPA | Tap Fort Randall - Lake Platte 230kV | On Suspension |
| GEN-2012-012IS | 75.00 | WAPA | Wolf Point-Circle 115kV | On Suspension |
| GEN-2012-014IS | 99.50 | WAPA | Groton 115kV | On Schedule |
| GEN-2012-020 | 478.00 | SPS | TUCO 230kV | On Schedule for 2016 |
| GEN-2012-021 | 4.80 | LES | Terry Bundy Generating Station 115kV | On-Line |
| GEN-2012-024 | 180.00 | SUNCMKEC | Clark County 345kV | On Schedule for 2016 |
| GEN-2012-027 | 136.00 | AEPW | Shidler 138kV | On Suspension |
| GEN-2012-028 | 74.80 | WFEC | Gotebo 69kV | On Schedule for 2015 |
| GEN-2012-032 | 300.00 | OKGE | Open Sky 345kV | On-Line |

| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|----------------|--------|----------|---|---|
| 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 | On-Line |
| GEN-2012-035 | 7.00 | SPS | Mustang 230kV | On-Line |
| GEN-2012-036 | 7.00 | SPS | Mustang 230kV | On-Line |
| GEN-2012-037 | 203.00 | SPS | TUCO 345kV | On-Line |
| GEN-2012-040 | 76.50 | WFEC | Tap Middlenton - Chilocco (GEN-2012-040 Tap) 138kV | On Suspension |
| GEN-2012-041 | 121.50 | OKGE | Ranch Road 345kV | On-Line |
| GEN-2013-001IS | 90.00 | WAPA | Summit-Watertown 115kV | On Suspension |
| GEN-2013-002 | 50.60 | LES | Tap Sheldon - Folsom & Pleasant Hill (GEN-2013-002 Tap) 115kV CKT 2 | On Schedule for 2016 |
| GEN-2013-007 | 100.30 | OKGE | Tap Prices Falls - Carter 138kV | On-Line |
| GEN-2013-008 | 1.20 | NPPD | Steele City 115kV | On-Line |
| GEN-2013-009IS | 19.50 | WAPA | Redfield NW 115kV | Commercial Operation |
| GEN-2013-010 | 99.00 | SUNCMKEC | Tap Spearville - Post Rock (North of GEN-2011-017 Tap) 345kV | Facility Study |
| GEN-2013-011 | 30.00 | AEPW | Turk 138kV | On-Line |
| GEN-2013-012 | 147.00 | OKGE | Redbud 345kV | On-Line |
| GEN-2013-014 | 25.50 | NPPD | Tap Pauline - Hildreth (Rosemont) 115kV | On Suspension |
| GEN-2013-016 | 203.00 | SPS | TUCO 345kV | IA Pending |
| GEN-2013-019 | 73.60 | LES | Tap Sheldon - Folsom & Pleasant Hill (GEN-2013-002 Tap) 115kV CKT 2 | On Schedule for 2016 |
| GEN-2013-022 | 25.00 | SPS | Norton 115kV | On Schedule for 2016 |
| GEN-2013-027 | 150.00 | SPS | Tap Tolk - Yoakum 230kV | Facility Study |
| GEN-2013-028 | 559.50 | GRDA | Tap N Tulsa - GRDA 1 345kV | On Schedule for 2017 |
| GEN-2013-029 | 300.00 | OKGE | Renfrow 345kV | On Schedule for 2016 (150MW) and 2016 (150MW) |
| GEN-2013-030 | 300.00 | OKGE | Beaver County 345kV | On Schedule for 2016 (200MW) and 2017 (100MW) |
| GEN-2013-032 | 204.00 | NPPD | Antelope 115kV | On Schedule for 2017 |
| GEN-2013-033 | 28.00 | MIDW | Knoll 115kV | On Schedule for 2016 |
| GEN-2014-001 | 200.60 | WERE | Tap Wichita - Emporia Energy Center (GEN-2014-001 Tap) 345kV | IA Pending |
| GEN-2014-001IS | 103.70 | WAPA | Newell-Maurine 115kV | IA Pending |
| GEN-2014-002 | 10.50 | OKGE | Tatonga 345kV (GEN-2007-021 POI) | Facility Study Stage |
| GEN-2014-003 | 15.80 | OKGE | Tatonga 345kV (GEN-2007-044 POI) | Facility Study Stage |
| GEN-2014-003IS | 91.00 | WAPA | Culbertson 115kV | On Schedule |
| GEN-2014-004 | 4.00 | NPPD | Steele City 115kV (GEN-2011-018 POI) | Facility Study Stage |
| GEN-2014-004IS | 384.20 | WAPA | Charlie Creek 345kV | IA Pending |
| GEN-2014-005 | 5.70 | OKGE | Minco 345kV (GEN-2011-010 POI) | On-Line |
| GEN-2014-006IS | 125.00 | WAPA | Williston 115kV | On Schedule |
| GEN-2014-010IS | 150.00 | WAPA | Neset 115kV | On Schedule |
| GEN-2014-012 | 225.00 | SPS | Tap Hobbs Interchange - Andrews 230kV | IA Pending |
| GEN-2014-013 | 73.50 | NPPD | Meadow Grove (GEN-2008-086N2 Sub) 230kV | On Schedule for 2015 |
| GEN-2014-014IS | 151.50 | WAPA | Belfield-Rhame 230kV | On Schedule |
| GEN-2014-020 | 100.00 | AEPW | Tuttle 138kV | On Schedule for 2017 |
| GEN-2014-021 | 300.00 | KCPL | Tap Nebraska City - Mullin Creek 345kV | On Schedule for 2016 |
| GEN-2014-025 | 2.40 | MIDW | Walnut Creek 69kV | On Schedule for 2016 |
| GEN-2014-026 | 150.00 | OKGE | Beaver County 345kV | Facility Study |
| GEN-2014-028 | 35.00 | EMDE | Riverton 161kV | Facility Study |
| GEN-2014-031 | 35.80 | NPPD | Meadow Grove 230kV | On Schedule for 2016 |
| GEN-2014-032 | 10.20 | NPPD | Meadow Grove 230kV | Facility Study |

| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|--------------|--------|----------|---|---------------------------|
| GEN-2014-033 | 70.00 | SPS | Chaves County 115kV | Facility Study |
| GEN-2014-034 | 70.00 | SPS | Chaves County 115kV | Facility Study |
| GEN-2014-035 | 30.00 | SPS | Chaves County 115kV | Facility Study |
| GEN-2014-037 | 200.00 | SPS | Tap Hitchland - Beaver County Dbl Ckt (Optima) 345kV | DISIS STAGE |
| GEN-2014-038 | 200.00 | SPS | Tap Hitchland - Potter County 345kV | DISIS STAGE |
| GEN-2014-039 | 73.40 | NPPD | Friend 115kV | IA Pending |
| GEN-2014-040 | 320.40 | SPS | Castro 115kV | IA Pending |
| GEN-2014-041 | 120.80 | SUNCMKEC | Arnold 115kV | Facility Study |
| GEN-2014-046 | 125.40 | SPS | Chaves County 115kV | DISIS STAGE |
| GEN-2014-047 | 40.00 | SPS | Crossroads 345kV | Facility Study |
| GEN-2014-053 | 80.00 | SPS | Carlisle 230kV | Facility Study |
| GEN-2014-054 | 120.00 | SPS | Carlisle 230kV | Facility Study |
| GEN-2014-056 | 250.00 | OKGE | Minco 345kV | Facility Study |
| GEN-2014-057 | 250.00 | AEPW | Tap Lawton - Sunnyside (Terry Road) 345kV | IA Pending |
| GEN-2014-059 | 160.00 | NPPD | Tap Sidney - Ogallala 230kV | DISIS STAGE |
| GEN-2014-064 | 248.40 | OKGE | Otter 138kV | IA Pending |
| GEN-2014-074 | 152.00 | SPS | Tap TUCO Interchange - Oklaunion (GEN-2014-074 Tap) 345kV | DISIS STAGE |
| GEN-2015-001 | 200.00 | OKGE | Ranch Road 345kV | FACILITY STUDY STAGE |
| GEN-2015-004 | 52.90 | OKGE | Border 345kV | FACILITY STUDY STAGE |
| GEN-2015-005 | 200.10 | KCPL | Tap Nebraska City - Sibley 345kV | FACILITY STUDY STAGE |
| GEN-2015-007 | 160.00 | NPPD | Hoskins 345kV | FACILITY STUDY STAGE |
| GEN-2015-013 | 120.00 | WFEC | Synder 138kV | FACILITY STUDY STAGE |
| GEN-2015-014 | 150.00 | SPS | Tap Cochran - Lehman 115kV | DISIS STAGE |
| GEN-2015-015 | 154.60 | OKGE | Tap Medford Tap - Coyote 138kV | FACILITY STUDY STAGE |
| GEN-2015-016 | 200.00 | KCPL | Tap Marmaton - Centerville 161kV | FACILITY STUDY STAGE |
| GEN-2015-017 | 172.00 | SUNCMKEC | Mingo 115kV | FACILITY STUDY STAGE |
| GEN-2015-018 | 80.00 | SPS | Tap Curry County - Bailey 115kV | DISIS STAGE |
| GEN-2015-020 | 100.00 | SPS | Oasis 115kV | DISIS STAGE |
| GEN-2015-021 | 20.00 | SUNCMKEC | Johnson Corner 115kV | DISIS STAGE |
| GEN-2015-022 | 112.00 | SPS | Swisher 115kV | DISIS STAGE |
| GEN-2015-023 | 300.70 | NPPD | Holt County 345kV | FACILITY STUDY STAGE |
| GEN-2015-024 | 220.00 | WERE | Tap Thistle - Wichita 345kV Dbl CKT | FACILITY STUDY STAGE |
| GEN-2015-025 | 220.00 | WERE | Tap Thistle - Wichita 345kV Dbl CKT | FACILITY STUDY STAGE |
| GEN-2015-027 | 4.90 | SUNCMKEC | Crooked Creek 115kV | FACILITY STUDY STAGE |
| GEN-2015-028 | 3.00 | OKGE | Nardins 69kV | FACILITY STUDY STAGE |
| GEN-2015-029 | 161.00 | OKGE | Tatonga 345kV | FACILITY STUDY STAGE |
| GEN-2015-030 | 200.10 | OKGE | Sooner 345kV | FACILITY STUDY STAGE |
| GEN-2015-031 | 300.00 | SPS | Tap Amarillo South - Swisher 230kV | DISIS STAGE |
| GEN-2015-033 | 152.00 | SPS | Tap TUCO Interchange - Oklaunion (GEN-2014-074 Tap) 345kV | DISIS STAGE |
| GEN-2015-034 | 200.00 | OKGE | Ranch Road 345kV | DISIS STAGE |
| GEN-2015-036 | 303.60 | OKGE | Johnston County 345kV | DISIS STAGE |
| GEN-2015-038 | 303.60 | OKGE | Cimarron 345kV | DISIS STAGE |
| GEN-2015-039 | 50.00 | SPS | Tap Deaf Smith - Plant X 230kV | DISIS STAGE |
| GEN-2015-040 | 50.10 | SPS | Mustang 230kV | DISIS STAGE |
| GEN-2015-041 | 5.00 | SPS | TUCO Interchange 345kV | DISIS STAGE |
| GEN-2015-042 | 320.00 | NPPD | Tap Hoskins - Twin Church (Dixon County) 230kV | DISIS STAGE |
| GEN-2015-043 | 20.00 | WERE | Tap Thistle - Wichita 345kV Dbl CKT | DISIS STAGE |
| GEN-2015-044 | 20.00 | OKGE | Minco 345kV | DISIS STAGE |

| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|--------------|--------|----------|---|---------------------------|
| GEN-2015-045 | 20.00 | AEPW | Tap Lawton - Sunnyside (Terry Road) 345kV | DISIS STAGE |
| GEN-2015-046 | 300.00 | WAPA | Tande 345kV | DISIS STAGE |
| GEN-2015-047 | 300.00 | OKGE | Sooner 345kV | DISIS STAGE |
| GEN-2015-048 | 200.00 | OKGE | Cleo Corner 138kV | DISIS STAGE |
| GEN-2015-052 | 300.00 | WERE | Tap Open Sky - Rose Hill 345kV | DISIS STAGE |
| GEN-2015-053 | 50.00 | NPPD | Antelope 115kV | DISIS STAGE |
| GEN-2015-054 | 74.00 | NPPD | Antelope 115kV | DISIS STAGE |
| GEN-2015-055 | 40.00 | WFEC | Erick 138kV | DISIS STAGE |
| GEN-2015-056 | 101.20 | SPS | Crossroads 345kV | DISIS STAGE |
| GEN-2015-057 | 100.00 | OKGE | Minco 345kV | DISIS STAGE |
| GEN-2015-058 | 50.00 | SPS | Atoka 115kV | DISIS STAGE |
| GEN-2015-059 | 6.30 | OKGE | Minco 345kV | DISIS STAGE |
| GEN-2015-060 | 250.50 | OKGE | Woodward EHV 138kV | DISIS STAGE |
| GEN-2015-061 | 200.00 | SUNCMKEC | Tap Mingo - Setab 345kV | DISIS STAGE |
| GEN-2015-062 | 4.50 | OKGE | Tap and Tie South 4th - Bunch Creek & Enid Tap - Fairmont (GEN-2012-033T) 138kV | DISIS STAGE |
| GEN-2015-063 | 300.00 | OKGE | Tap Woodring - Mathewson 345kV | DISIS STAGE |
| GEN-2015-064 | 197.80 | SUNCMKEC | Mingo 115kV | DISIS STAGE |
| GEN-2015-065 | 202.40 | SUNCMKEC | Mingo 345kV | DISIS STAGE |
| GEN-2015-066 | 248.40 | OKGE | Tap Cleveland - Sooner 345kV | DISIS STAGE |
| GEN-2015-067 | 150.00 | OKGE | Sooner 138kV | DISIS STAGE |
| GEN-2015-068 | 300.00 | SPS | TUCO Interchange 345kV | DISIS STAGE |
| GEN-2015-069 | 300.00 | WERE | Union Ridge 230kV | DISIS STAGE |
| GEN-2015-071 | 200.00 | AEPW | Chisholm 345kV | DISIS STAGE |
| GEN-2015-072 | 20.90 | MIDW | South Hays 230kV | DISIS STAGE |
| GEN-2015-073 | 200.10 | WERE | Emporia Energy Center 345kV | DISIS STAGE |
| GEN-2015-074 | 174.00 | WERE | Tap Hoyt - Jeffrey Energy Center 345kV | DISIS STAGE |
| GEN-2015-075 | 51.48 | SPS | Carlisle 69kV | DISIS STAGE |
| GEN-2015-076 | 158.40 | NPPD | Belden 115kV | DISIS STAGE |
| GEN-2015-077 | 80.00 | SPS | Tap Terry - Clauene 115kV | DISIS STAGE |
| GEN-2015-078 | 50.10 | SPS | Mustang 115kV | DISIS STAGE |
| GEN-2015-079 | 129.20 | SPS | Tap Yoakum - Hobbs Interchange 230kV | DISIS STAGE |
| GEN-2015-080 | 129.20 | SPS | Tap Yoakum - Hobbs Interchange 230kV | DISIS STAGE |
| GEN-2015-081 | 180.00 | OKGE | Tap Woodward - Tatonga (GEN-2011-051 Tap) 345kV | DISIS STAGE |
| GEN-2015-082 | 200.00 | OKGE | Tap Hitchland - Woodward Dbl Ckt (GEN-2011-014 Tap) 345kV | DISIS STAGE |
| GEN-2015-083 | 125.00 | WERE | Belle Plain 138kV | DISIS STAGE |
| GEN-2015-084 | 51.30 | AEPW | Hollis 138kV | DISIS STAGE |
| GEN-2015-085 | 122.40 | AEPW | Tap Lake Pauline - Russell 138kV | DISIS STAGE |
| GEN-2015-087 | 76.00 | NPPD | Tap Fairbury - Hebron 115kV | DISIS STAGE |
| GEN-2015-088 | 300.00 | NPPD | Tap Moore - Pauline 345kV | DISIS STAGE |
| GEN-2015-090 | 220.00 | WERE | Tap Thistle - Wichita 345kV Dbl CKT | DISIS STAGE |
| GEN-2015-091 | 101.20 | WAPA | Daglum 230kV | DISIS STAGE |
| GEN-2015-092 | 250.00 | AEPW | Tap Lawton - Sunnyside (Terry Road) 345kV | DISIS STAGE |
| GEN-2015-093 | 250.00 | OKGE | Tap Lawton East Side - Gracemont 345kV | DISIS STAGE |
| GEN-2015-094 | 151.80 | WAPA | Tap Larmine River Station - Sidney 345kV | DISIS STAGE |
| GEN-2015-095 | 172.00 | WFEC | Tap Rose Valley - Mooreland 138kV | DISIS STAGE |
| GEN-2015-096 | 150.00 | WAPA | Tap Belfied - Rhame 230kV | DISIS STAGE |
| GEN-2015-097 | 100.00 | WAPA | Groton 115kV | DISIS STAGE |
| GEN-2015-098 | 100.00 | WAPA | Mingusville 230kV | DISIS STAGE |

| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|---|-----------------|----------|---|---------------------------|
| Gray County Wind (Montezuma) | 110.00 | SUNCMKEC | Gray County Tap 115kV | On-Line |
| J003 | 20.00 | MDU | Baker 115kV | MISO Queued Request |
| J249 | 180.00 | MDU | MDU Tatanka 230kV | MISO Queued Request |
| J262 | 100.00 | OTP | Jamestown 345 | MISO Queued Request |
| J263 | 100.00 | OTP | Jamestown 345 | MISO Queued Request |
| J316 | 150.00 | MDU | MDU 230 kV Tatanka-Ellendale line | MISO Queued Request |
| 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 (Buffalo County Solar) | 10.00 | NPPD | Kearney Northeast | 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 (North Platte - Lexington) | 54.00 | NPPD | Multiple: Jeffrey 115kV, John_1 115kV, John_2 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 |
| 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 |
| SPS Distributed (Yuma) | 2.57 | SPS | SP-Yuma 69kV | On-Line |
| Total: | 44,138.6 | | | |

C: Study Groupings

See next page.

C. Study Groups

| GROUP 1: WOODWARD AREA | | | |
|---------------------------------|-----------------|-------------|---|
| Request | Capacity | Area | Proposed Point of Interconnection |
| 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-2011-010 | 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-2011-051 Tap) |
| GEN-2011-054 | 300.00 | OKGE | Cimarron 345kV |
| GEN-2014-002 | 10.50 | OKGE | Tatonga 345kV (GEN-2007-021 POI) |
| GEN-2014-003 | 15.80 | OKGE | Tatonga 345kV (GEN-2007-044 POI) |
| GEN-2014-005 | 5.70 | OKGE | Minco 345kV (GEN-2011-010 POI) |
| GEN-2014-020 | 100.00 | AEPW | Tuttle 138kV |
| GEN-2014-056 | 250.00 | OKGE | Minco 345kV |
| GEN-2015-029 | 161.00 | OKGE | Tatonga 345kV |
| GEN-2015-038 | 303.60 | OKGE | Cimarron 345kV |
| GEN-2015-044 | 20.00 | OKGE | Minco 345kV |
| GEN-2015-048 | 200.00 | OKGE | Cleo Corner 138kV |
| GEN-2015-057 | 100.00 | OKGE | Minco 345kV |
| GEN-2015-059 | 6.30 | OKGE | Minco 345kV |
| GEN-2015-060 | 250.50 | OKGE | Woodward EHV 138kV |
| GEN-2015-081 | 180.00 | OKGE | Tap Woodward - Tatonga (GEN-2011-051 Tap) 345kV |
| GEN-2015-093 | 250.00 | OKGE | Tap Lawton East Side - Gracemont 345kV |
| GEN-2015-095 | 172.00 | WFEC | Tap Rose Valley - Mooreland 138kV |
| PRIOR QUEUED SUBTOTAL | 5,859.90 | | |
| GEN-2015-049 | 200.00 | OKGE | Vici 345kV / Dewey-Iodine 138kV |
| GEN-2015-086 | 200.00 | WFEC | Mooreland 138kV |
| CURRENT CLUSTER SUBTOTAL | 400.00 | | |
| AREA TOTAL | 6,259.90 | | |

| GROUP 2: HITCHLAND AREA | | | |
|-----------------------------------|-----------------|-------------|---|
| Request | Capacity | Area | Proposed Point of Interconnection |
| ASGI-2011-002 | 20.00 | SPS | Herring 115kV |
| ASGI-2013-001 | 11.50 | SPS | PanTex South 115kV |
| GEN-2002-008 | 240.00 | SPS | Hitchland 345kV |
| GEN-2002-009 | 80.00 | SPS | Hansford 115kV |
| GEN-2002-022 | 240.00 | SPS | Bushland 230kV |
| 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 | 200.00 | SPS | Hitchland 115kV |
| GEN-2008-047 | 300.00 | OKGE | Beaver County 345kV |
| GEN-2008-051 | 322.00 | SPS | Potter County 345kV |
| GEN-2010-001 | 300.00 | OKGE | Beaver County 345kV |
| GEN-2010-014 | 358.80 | SPS | Hitchland 345kV |
| GEN-2011-014 | 201.00 | OKGE | Tap Hitchland - Woodward Dbl Ckt (GEN-2011-014 Tap) 345kV |
| GEN-2011-022 | 299.00 | SPS | Hitchland 345kV |
| GEN-2013-030 | 300.00 | OKGE | Beaver County 345kV |
| GEN-2014-026 | 150.00 | OKGE | Beaver County 345kV |
| GEN-2014-037 | 200.00 | SPS | Tap Hitchland - Beaver County Dbl Ckt (Optima) 345kV |
| GEN-2014-038 | 200.00 | SPS | Tap Hitchland - Potter County 345kV |
| GEN-2015-082 | 200.00 | OKGE | Tap Hitchland - Woodward Dbl Ckt (GEN-2011-014 Tap) 345kV |
| Llano Estacado (White Deer) | 80.00 | SPS | Llano Wind 115kV |
| 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 |
| PRIOR QUEUED SUBTOTAL | 4,366.20 | | |
| AREA TOTAL | 4,366.20 | | |

| GROUP 3: SPEARVILLE AREA | | | |
|---------------------------------|-----------------|-------------|--|
| Request | Capacity | Area | Proposed Point of Interconnection |
| ASGI-2012-006 | 22.50 | SUNCMKEC | Tap Hugoton - Rolla 69kV |
| ASGI-2015-001 | 6.13 | SUNCMKEC | Ninnescah 115kV |
| GEN-2001-039A | 105.00 | SUNCMKEC | 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-2006-021 | 101.00 | SUNCMKEC | Flat Ridge Tap 138kV |
| GEN-2007-040 | 200.00 | SUNCMKEC | Buckner 345kV |
| GEN-2008-018 | 250.00 | SPS | Finney 345kV |
| GEN-2008-079 | 99.20 | SUNCMKEC | Crooked Creek 115kV |
| GEN-2008-124 | 200.10 | SUNCMKEC | Ironwood 345kV |
| GEN-2010-009 | 165.60 | SUNCMKEC | Buckner 345kV |
| GEN-2010-045 | 197.80 | SUNCMKEC | Buckner 345kV |
| GEN-2011-008 | 600.00 | SUNCMKEC | Clark County 345kV |
| GEN-2011-016 | 200.10 | SUNCMKEC | Ironwood 345kV |
| GEN-2012-007 | 120.00 | SUNCMKEC | Rubart 115kV |
| GEN-2012-024 | 180.00 | SUNCMKEC | Clark County 345kV |
| GEN-2013-010 | 99.00 | SUNCMKEC | Tap Spearville - Post Rock (North of GEN-2011-017 Tap) 345kV |
| GEN-2015-021 | 20.00 | SUNCMKEC | Johnson Corner 115kV |
| GEN-2015-027 | 4.90 | SUNCMKEC | Crooked Creek 115kV |
| Gray County Wind (Montezuma) | 110.00 | SUNCMKEC | Gray County Tap 115kV |
| PRIOR QUEUED SUBTOTAL | 3,235.83 | | |
| AREA TOTAL | 3,235.83 | | |

| GROUP 4: NORTHWEST KANSAS AREA | | | |
|---------------------------------------|-----------------|-------------|--|
| Request | Capacity | Area | Proposed Point of Interconnection |
| ASGI-2013-004 | 36.60 | SUNCMKEC | Morris 115kV |
| 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-2008-092 | 200.60 | MIDW | Post Rock 230kV |
| GEN-2009-008 | 199.50 | MIDW | South Hays 230kV |
| GEN-2009-020 | 48.30 | MIDW | Walnut Creek 69kV |
| GEN-2010-048 | 70.00 | MIDW | Tap Beach Station - Redline 115kV |
| GEN-2010-057 | 201.00 | MIDW | Rice County 230kV |
| GEN-2013-033 | 28.00 | MIDW | Knoll 115kV |
| GEN-2014-025 | 2.40 | MIDW | Walnut Creek 69kV |
| GEN-2014-041 | 120.80 | SUNCMKEC | Arnold 115kV |
| GEN-2015-017 | 172.00 | SUNCMKEC | Mingo 115kV |
| GEN-2015-061 | 200.00 | SUNCMKEC | Tap Mingo - Setab 345kV |
| GEN-2015-064 | 197.80 | SUNCMKEC | Mingo 115kV |
| GEN-2015-065 | 202.40 | SUNCMKEC | Mingo 345kV |
| GEN-2015-072 | 20.90 | MIDW | South Hays 230kV |
| PRIOR QUEUED SUBTOTAL | 2,325.30 | | |
| AREA TOTAL | 2,325.30 | | |

GROUP 6: SOUTH TEXAS PANHANDLE/NEW MEXICO AREA

| Request | Capacity | Area | Proposed Point of Interconnection |
|---------------|----------|------|---|
| 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 | 27.30 | SPS | Lovington 115kV |
| ASGI-2011-003 | 10.00 | SPS | Hendricks 69kV |
| 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-2013-005 | 1.65 | SPS | FE Clovis 115kV |
| ASGI-2013-006 | 2.00 | SPS | SP-Erskine 115kV |
| ASGI-2014-001 | 2.50 | SPS | SP-Erskine 115kV |
| ASGI-2014-002 | 49.60 | SPS | Tap Tucumcari - Santa Rosa 115kV |
| ASGI-2014-005 | 10.00 | SPS | Strata 69kV |
| ASGI-2014-008 | 10.00 | SPS | South Loving 69kV |
| ASGI-2014-009 | 10.00 | SPS | Wood Draw 115kV |
| ASGI-2014-010 | 10.00 | SPS | Ochoa 115kV |
| ASGI-2014-012 | 10.00 | SPS | Cooper Ranch 115kV |
| ASGI-2015-002 | 2.00 | SPS | SP-Yuma 69kV |
| 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 | 502.00 | SPS | Hobbs 230kV & Hobbs 115kV |
| GEN-2008-022 | 300.00 | SPS | Crossroads 345kV |
| GEN-2010-006 | 205.00 | SPS | Jones 230kV |
| GEN-2010-046 | 56.00 | SPS | TUCO Interchange 230kV |
| GEN-2011-025 | 80.00 | 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 | Cirrus Tap 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-2013-016 | 203.00 | SPS | TUCO 345kV |
| GEN-2013-022 | 25.00 | SPS | Norton 115kV |
| GEN-2013-027 | 150.00 | SPS | Tap Tolk - Yoakum 230kV |
| GEN-2014-012 | 225.00 | SPS | Tap Hobbs Interchange - Andrews 230kV |
| GEN-2014-033 | 70.00 | SPS | Chaves County 115kV |
| GEN-2014-034 | 70.00 | SPS | Chaves County 115kV |
| GEN-2014-035 | 30.00 | SPS | Chaves County 115kV |
| GEN-2014-040 | 320.40 | SPS | Castro 115kV |
| GEN-2014-046 | 125.40 | SPS | Chaves County 115kV |
| GEN-2014-047 | 40.00 | SPS | Crossroads 345kV |
| GEN-2014-053 | 80.00 | SPS | Carlisle 230kV |
| GEN-2014-054 | 120.00 | SPS | Carlisle 230kV |
| GEN-2014-074 | 152.00 | SPS | Tap TUCO Interchange - Oklaunion (GEN-2014-074 Tap) 345kV |

| | | | |
|---------------------------------|-----------------|------|---|
| GEN-2015-014 | 150.00 | SPS | Tap Cochran - Lehman 115kV |
| GEN-2015-018 | 80.00 | SPS | Tap Curry County - Bailey 115kV |
| GEN-2015-020 | 100.00 | SPS | Oasis 115kV |
| GEN-2015-022 | 112.00 | SPS | Swisher 115kV |
| GEN-2015-031 | 300.00 | SPS | Tap Amarillo South - Swisher 230kV |
| GEN-2015-033 | 152.00 | SPS | Tap TUCO Interchange - Oklaunion (GEN-2014-074 Tap) 345kV |
| GEN-2015-039 | 50.00 | SPS | Tap Deaf Smith - Plant X 230kV |
| GEN-2015-040 | 50.10 | SPS | Mustang 230kV |
| GEN-2015-041 | 5.00 | SPS | TUCO Interchange 345kV |
| GEN-2015-056 | 101.20 | SPS | Crossroads 345kV |
| GEN-2015-058 | 50.00 | SPS | Atoka 115kV |
| GEN-2015-068 | 300.00 | SPS | TUCO Interchange 345kV |
| GEN-2015-075 | 51.48 | SPS | Carlisle 69kV |
| GEN-2015-077 | 80.00 | SPS | Tap Terry - Clauene 115kV |
| GEN-2015-078 | 50.10 | SPS | Mustang 115kV |
| GEN-2015-079 | 129.20 | SPS | Tap Yoakum - Hobbs Interchange 230kV |
| GEN-2015-080 | 129.20 | SPS | Tap Yoakum - Hobbs Interchange 230kV |
| 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 |
| SPS Distributed (Yuma) | 2.57 | SPS | SP-Yuma 69kV |
| PRIOR QUEUED SUBTOTAL | 6,604.05 | | |
| GEN-2015-037 | 253.00 | SPS | Tuco 345kV |
| GEN-2015-070 | 300.00 | AEPW | Oklaunion-Lawton Eastside 345kV |
| CURRENT CLUSTER SUBTOTAL | 553.00 | | |
| AREA TOTAL | 7,157.05 | | |

| GROUP 7: SOUTHWEST OKLAHOMA AREA | | | |
|---|-----------------|-------------|--|
| Request | Capacity | Area | Proposed Point of Interconnection |
| GEN-2001-026 | 74.30 | 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 | Weatherford 138kV |
| GEN-2004-020 | 27.00 | AEPW | Weatherford 138kV |
| 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-2007-052 | 150.00 | WFEC | Anadarko 138kV |
| GEN-2008-023 | 150.00 | AEPW | Hobart Junction 138kV |
| GEN-2008-037 | 101.00 | WFEC | Slick Hills 138kV |
| GEN-2011-037 | 7.00 | WFEC | Blue Canyon 5 138kV |
| GEN-2011-049 | 250.70 | OKGE | Border 345kV |
| GEN-2012-028 | 74.80 | WFEC | Gotebo 69kV |
| GEN-2015-004 | 52.90 | OKGE | Border 345kV |
| GEN-2015-013 | 120.00 | WFEC | Synder 138kV |
| GEN-2015-055 | 40.00 | WFEC | Erick 138kV |
| GEN-2015-071 | 200.00 | AEPW | Chisholm 345kV |
| GEN-2015-084 | 51.30 | AEPW | Hollis 138kV |
| GEN-2015-085 | 122.40 | AEPW | Tap Lake Pauline - Russell 138kV |
| PRIOR QUEUED SUBTOTAL | 2,337.60 | | |
| AREA TOTAL | 2,337.60 | | |

| GROUP 8: NORTH OKLAHOMA/SOUTH CENTRAL KANSAS AREA | | | |
|--|-----------------|-------------|---|
| Request | Capacity | Area | Proposed Point of Interconnection |
| ASGI-2010-006 | 150.00 | AECI | Remington 138kV |
| ASGI-2014-014 | 56.40 | GRDA | Ferguson 69kV |
| ASGI-2015-004 | 56.36 | GRDA | Coffeyville City 69kV |
| GEN-2002-004 | 200.00 | WERE | Latham 345kV |
| GEN-2005-013 | 201.00 | WERE | Caney River 345kV |
| GEN-2007-025 | 300.00 | WERE | Viola 345kV |
| GEN-2008-013 | 300.00 | OKGE | Hunter 345kV |
| GEN-2008-021 | 42.00 | WERE | Wolf Creek 345kV |
| GEN-2008-098 | 100.80 | WERE | Waverly 345kV |
| GEN-2009-025 | 59.80 | OKGE | Nardins 69kV |
| GEN-2010-003 | 100.80 | WERE | Waverly 345kV |
| GEN-2010-005 | 299.20 | WERE | Viola 345kV |
| GEN-2010-055 | 4.50 | AEPW | Wekiwa 138kV |
| GEN-2011-057 | 150.40 | WERE | Creswell 138kV |
| GEN-2012-027 | 136.00 | AEPW | Shidler 138kV |
| GEN-2012-032 | 300.00 | OKGE | Open Sky 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 | Tap Middlenton - Chilocco (GEN-2012-040 Tap) 138kV |
| GEN-2012-041 | 121.50 | OKGE | Ranch Road 345kV |
| GEN-2013-012 | 147.00 | OKGE | Redbud 345kV |
| GEN-2013-028 | 559.50 | GRDA | Tap N Tulsa - GRDA 1 345kV |
| GEN-2013-029 | 300.00 | OKGE | Renfrow 345kV |

| | | | |
|---------------------------------|-----------------|------|---|
| GEN-2014-001 | 200.60 | WERE | Tap Wichita - Emporia Energy Center (GEN-2014-001 Tap) 345kV |
| GEN-2014-028 | 35.00 | EMDE | Riverton 161kV |
| GEN-2014-064 | 248.40 | OKGE | Otter 138kV |
| GEN-2015-001 | 200.00 | OKGE | Ranch Road 345kV |
| GEN-2015-015 | 154.60 | OKGE | Tap Medford Tap - Coyote 138kV |
| GEN-2015-016 | 200.00 | KCPL | Tap Marmaton - Centerville 161kV |
| GEN-2015-024 | 220.00 | WERE | Tap Thistle - Wichita 345kV Dbl CKT |
| GEN-2015-025 | 220.00 | WERE | Tap Thistle - Wichita 345kV Dbl CKT |
| GEN-2015-028 | 3.00 | OKGE | Nardins 69kV |
| GEN-2015-030 | 200.10 | OKGE | Sooner 345kV |
| GEN-2015-034 | 200.00 | OKGE | Ranch Road 345kV |
| GEN-2015-043 | 20.00 | WERE | Tap Thistle - Wichita 345kV Dbl CKT |
| GEN-2015-047 | 300.00 | OKGE | Sooner 345kV |
| GEN-2015-052 | 300.00 | WERE | Tap Open Sky - Rose Hill 345kV |
| GEN-2015-062 | 4.50 | OKGE | Tap and Tie South 4th - Bunch Creek & Enid Tap - Fairmont (GEN-2012-033T) 138kV |
| GEN-2015-063 | 300.00 | OKGE | Tap Woodring - Mathewson 345kV |
| GEN-2015-066 | 248.40 | OKGE | Tap Cleveland - Sooner 345kV |
| GEN-2015-067 | 150.00 | OKGE | Sooner 138kV |
| GEN-2015-069 | 300.00 | WERE | Union Ridge 230kV |
| GEN-2015-073 | 200.10 | WERE | Emporia Energy Center 345kV |
| GEN-2015-083 | 125.00 | WERE | Belle Plain 138kV |
| GEN-2015-090 | 220.00 | WERE | Tap Thistle - Wichita 345kV Dbl CKT |
| PRIOR QUEUED SUBTOTAL | 7,810.26 | | |
| GEN-2015-035 | 22.00 | OKGE | Osage 69kV /Continental Black 69kV |
| GEN-2015-050 | 458.00 | WERE | Emporia-Wichita 345kV |
| GEN-2015-051 | 916.00 | WERE | Emporia-Wichita 345kV |
| CURRENT CLUSTER SUBTOTAL | 1,396.00 | | |
| AREA TOTAL | 9,206.26 | | |

GROUP 9: NEBRASKA AREA

| Request | Capacity | Area | Proposed Point of Interconnection |
|------------------|----------|------|--|
| 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-2007-017IS | 166.00 | WAPA | Ft Thompson-Grand Island 345kV |
| GEN-2007-018IS | 234.00 | WAPA | Ft Thompson-Grand Island 345kV |
| GEN-2008-086N02 | 201.00 | NPPD | Meadow Grove 230kV |
| GEN-2008-119O | 60.00 | OPPD | S1399 161kV |
| GEN-2008-123N | 89.70 | NPPD | Tap Pauline - Hildreth (Rosemont) 115kV |
| GEN-2009-040 | 73.80 | WERE | Marshall 115kV |
| GEN-2010-041 | 10.50 | OPPD | S1399 161kV |
| GEN-2010-051 | 200.00 | NPPD | Tap Hoskins - Twin Church (Dixon County) 230kV |
| GEN-2011-018 | 73.60 | NPPD | Steele City 115kV |
| GEN-2011-027 | 120.00 | NPPD | Tap Hoskins - Twin Church (Dixon County) 230kV |
| 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-2012-021 | 4.80 | LES | Terry Bundy Generating Station 115kV |
| GEN-2013-002 | 50.60 | LES | Tap Sheldon - Folsom & Pleasant Hill (GEN-2013-002 Tap) 115kV CKT 2 |
| GEN-2013-008 | 1.20 | NPPD | Steele City 115kV |
| GEN-2013-014 | 25.50 | NPPD | Tap Pauline - Hildreth (Rosemont) 115kV |
| GEN-2013-019 | 73.60 | LES | Tap Sheldon - Folsom & Pleasant Hill (GEN-2013-002 Tap) 115kV CKT 2 |
| GEN-2013-032 | 204.00 | NPPD | Antelope 115kV |
| GEN-2014-004 | 4.00 | NPPD | Steele City 115kV (GEN-2011-018 POI) |
| GEN-2014-013 | 73.50 | NPPD | Meadow Grove (GEN-2008-086N2 Sub) 230kV |
| GEN-2014-031 | 35.80 | NPPD | Meadow Grove 230kV |
| GEN-2014-032 | 10.20 | NPPD | Meadow Grove 230kV |
| GEN-2014-039 | 73.40 | NPPD | Friend 115kV |
| GEN-2014-059 | 160.00 | NPPD | Tap Sidney - Ogallala 230kV |
| GEN-2015-007 | 160.00 | NPPD | Hoskins 345kV |
| GEN-2015-023 | 300.70 | NPPD | Holt County 345kV |
| GEN-2015-042 | 320.00 | NPPD | Tap Hoskins - Twin Church (Dixon County) 230kV |
| GEN-2015-053 | 50.00 | NPPD | Antelope 115kV |
| GEN-2015-054 | 74.00 | NPPD | Antelope 115kV |
| GEN-2015-076 | 158.40 | NPPD | Belden 115kV |
| GEN-2015-087 | 76.00 | NPPD | Tap Fairbury - Hebron 115kV |
| GEN-2015-088 | 300.00 | NPPD | Tap Moore - Pauline 345kV |
| GEN-2015-094 | 151.80 | WAPA | Tap Larmine River Station - Sidney 345kV |
| NPPD Distributed (Broken Bow) | 8.30 | NPPD | Broken Bow 115kV |
| NPPD Distributed (Buffalo County Solar) | 10.00 | NPPD | Kearney Northeast |
| 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 (North Platte - Lexington) | 54.00 | NPPD | Multiple: Jeffrey 115kV, John_1 115kV, John_2 115kV |
| NPPD Distributed (Ord) | 11.90 | NPPD | Ord 115kV |
| NPPD Distributed (Stuart) | 2.10 | NPPD | Ainsworth 115kV |
| PRIOR QUEUED SUBTOTAL | 4,243.40 | | |
| AREA TOTAL | 4,243.40 | | |

GROUP 10: SOUTHEAST OKLAHOMA/NORTHEAST TEXAS AREA

| Request | Capacity | Area | Proposed Point of Interconnection |
|-------------------|-------------|------|-----------------------------------|
| AREA TOTAL | 0.00 | | |

GROUP 12: NORTHWEST ARKANSAS AREA

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

GROUP 13: NORTHWEST MISSOURI AREA

| Request | Capacity | Area | Proposed Point of Interconnection |
|------------------------------|---------------|------|--|
| GEN-2008-129 | 80.00 | KCPL | Pleasant Hill 161kV |
| GEN-2010-036 | 4.60 | WERE | 6th Street 115kV |
| GEN-2011-011 | 50.00 | KCPL | Iatan 345kV |
| GEN-2014-021 | 300.00 | KCPL | Tap Nebraska City - Mullin Creek 345kV |
| GEN-2015-005 | 200.10 | KCPL | Tap Nebraska City - Sibley 345kV |
| GEN-2015-074 | 174.00 | WERE | Tap Hoyt - Jeffrey Energy Center 345kV |
| PRIOR QUEUED SUBTOTAL | 808.70 | | |
| AREA TOTAL | 808.70 | | |

GROUP 14: SOUTH CENTRAL OKLAHOMA AREA

| Request | Capacity | Area | Proposed Point of Interconnection |
|------------------------------|-----------------|------|---|
| ASGI-2015-006 | 9.00 | SWPA | Tupelo 138kV |
| GEN-2011-040 | 111.00 | OKGE | Carter County 138kV |
| GEN-2011-050 | 109.80 | AEPW | Santa Fe Tap 138kV |
| GEN-2012-004 | 41.40 | OKGE | Carter County 138kV |
| GEN-2013-007 | 100.30 | OKGE | Tap Prices Falls - Carter 138kV |
| GEN-2014-057 | 250.00 | AEPW | Tap Lawton - Sunnyside (Terry Road) 345kV |
| GEN-2015-036 | 303.60 | OKGE | Johnston County 345kV |
| GEN-2015-045 | 20.00 | AEPW | Tap Lawton - Sunnyside (Terry Road) 345kV |
| GEN-2015-092 | 250.00 | AEPW | Tap Lawton - Sunnyside (Terry Road) 345kV |
| PRIOR QUEUED SUBTOTAL | 1,195.10 | | |
| AREA TOTAL | 1,195.10 | | |

GROUP 15: E-SOUTH DAKOTA AREA

| Request | Capacity | Area | Proposed Point of Interconnection |
|------------------------------|-----------------|-------------|--|
| G255 | 100.00 | XEL | Yankee 115kV |
| GEN-2006-001IS | 10.00 | XEL | Marshall 115kV |
| GEN-2006-006IS | 10.00 | XEL | Marshall 115kV |
| GEN-2007-013IS | 50.00 | WAPA | Wessington Springs 230kV |
| GEN-2007-014IS | 100.00 | WAPA | Wessington Springs 230kV |
| GEN-2007-023IS | 50.00 | WAPA | Formit-Summit 115kV |
| GEN-2009-001IS | 200.00 | WAPA | Groton-Watertown 345kV |
| GEN-2009-018IS | 100.00 | WAPA | Groton 115kV |
| GEN-2010-001IS | 99.00 | WAPA | Bismarck-Glenham 230kV |
| GEN-2010-003IS | 34.00 | WAPA | Wessington Springs 230kV |
| GEN-2012-014IS | 99.50 | WAPA | Groton 115kV |
| GEN-2013-001IS | 90.00 | WAPA | Summit-Watertown 115kV |
| GEN-2013-009IS | 19.50 | WAPA | Redfield NW 115kV |
| GEN-2014-001IS | 103.70 | WAPA | Newell-Maurine 115kV |
| GEN-2015-097 | 100.00 | WAPA | Groton 115kV |
| PRIOR QUEUED SUBTOTAL | 1,165.70 | | |
| AREA TOTAL | 1,165.70 | | |

GROUP 16: W-NORTH DAKOTA AREA

| Request | Capacity | Area | Proposed Point of Interconnection |
|------------------------------|-----------------|------|-----------------------------------|
| G359 | 150.00 | MDU | MDU 230 kV system near Ellendale |
| G380 | 150.00 | OTP | Rugby 115kV |
| G408 | 12.00 | XEL | Tap McHenry - Souris 115kV |
| G502 | 50.60 | MP | Milton Young 230kV |
| G645 | 50.00 | OTP | Ladish 115kV |
| G723 | 10.00 | MDU | Haskett 115kV |
| G752 | 150.00 | MDU | Tap Bison - Hettinger 230kV |
| G788 | 49.00 | GRE | Ladish 115kV |
| G830 | 99.00 | GRE | GRE McHenry 115kV |
| GEN-2005-008IS | 50.00 | WAPA | Hilken 230kV [Ecklund 230kV] |
| GEN-2006-015IS | 50.00 | WAPA | Hilken 230kV [Ecklund 230kV] |
| GEN-2007-027IS | 99.00 | WAPA | Bismarck-Garrison 230kV #1 |
| GEN-2009-026IS | 110.00 | WAPA | Dickenson-Heskett 230kV |
| GEN-2010-007IS | 172.50 | WAPA | Antelope Valley 345kV |
| GEN-2012-006IS | 125.01 | WAPA | Williston-Ch. Creek 230kV |
| GEN-2012-012IS | 75.00 | WAPA | Wolf Point-Circle 115kV |
| GEN-2014-003IS | 91.00 | WAPA | Culbertson 115kV |
| GEN-2014-004IS | 384.20 | WAPA | Charlie Creek 345kV |
| GEN-2014-006IS | 125.00 | WAPA | Williston 115kV |
| GEN-2014-010IS | 150.00 | WAPA | Neset 115kV |
| GEN-2014-014IS | 151.50 | WAPA | Belfield-Rhame 230kV |
| GEN-2015-046 | 300.00 | WAPA | Tande 345kV |
| GEN-2015-091 | 101.20 | WAPA | Daglum 230kV |
| GEN-2015-096 | 150.00 | WAPA | Tap Belfied - Rhame 230kV |
| GEN-2015-098 | 100.00 | WAPA | Mingusville 230kV |
| J003 | 20.00 | MDU | Baker 115kV |
| J249 | 180.00 | MDU | MDU Tatanka 230kV |
| J262 | 100.00 | OTP | Jamestown 345 |
| J263 | 100.00 | OTP | Jamestown 345 |
| J316 | 150.00 | MDU | MDU 230 kV Tatanka-Ellendale line |
| PRIOR QUEUED SUBTOTAL | 3,505.01 | | |
| AREA TOTAL | 0.00 | | |

| GROUP 17: W-SOUTH DAKOTA AREA | | | |
|--------------------------------------|-----------------|-------------|--|
| Request | Capacity | Area | Proposed Point of Interconnection |
| GEN-2006-002IS | 51.00 | WAPA | Wessington Springs 230kV |
| GEN-2009-006IS | 90.00 | WAPA | Mission 115kV |
| GEN-2009-007IS | 100.00 | WAPA | Mission 115kV |
| GEN-2009-020AIS | 150.00 | WAPA | Tripp Junction 115kV |
| GEN-2012-009IS | 99.00 | WAPA | Tap Fort Randall - Lake Platte 230kV |
| PRIOR QUEUED SUBTOTAL | 490.00 | | |
| AREA TOTAL | 0.00 | | |

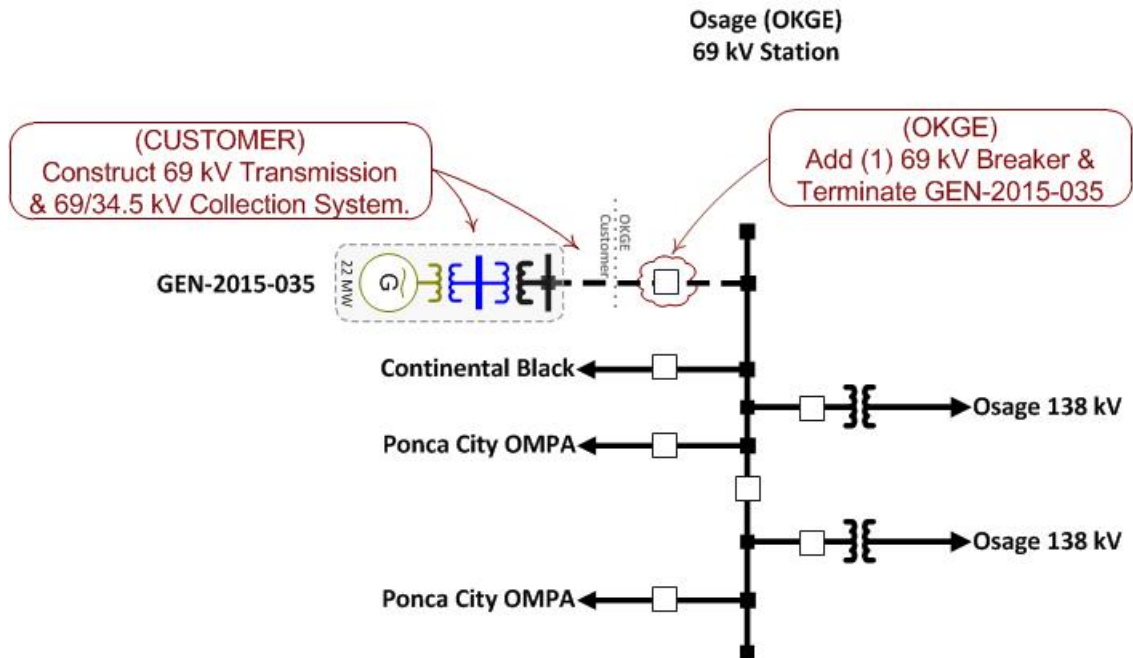
| GROUP 18: E-NORTH DAKOTA AREA | | | |
|--------------------------------------|-----------------|-------------|--|
| Request | Capacity | Area | Proposed Point of Interconnection |
| GEN-2002-008IS | 40.50 | WAPA | Edgeley 115kV [Pomona 115kV] |
| GEN-2005-003IS | 100.00 | WAPA | Nelson 115kV |
| GEN-2007-020IS | 16.00 | WAPA | Nelson 115kV |
| GEN-2008-008IS | 5.00 | WAPA | Nelson 115kV |
| PRIOR QUEUED SUBTOTAL | 161.50 | | |
| AREA TOTAL | 0.00 | | |

| | | |
|---|-----------------|-----------|
| CLUSTER TOTAL (CURRENT STUDY) | 2,349.0 | MW |
| PQ TOTAL (PRIOR QUEUED) | 44,138.6 | MW |
| CLUSTER TOTAL (INCLUDING PRIOR QUEUED) | 46,487.6 | MW |

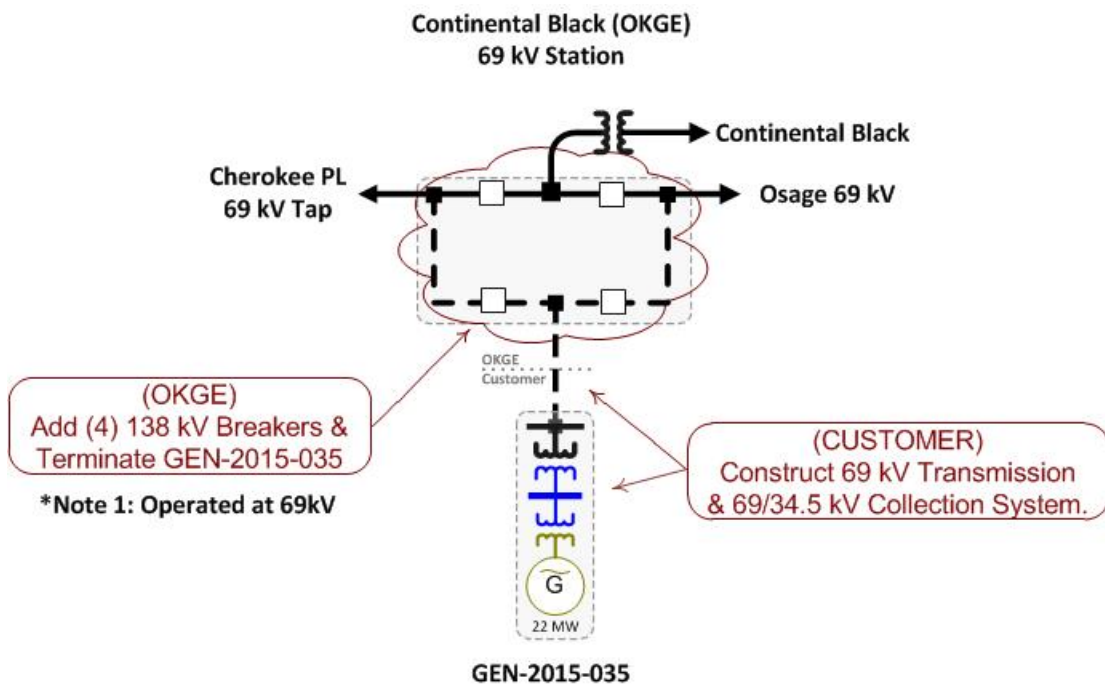
D: Proposed Point of Interconnection One line Diagrams

See next page.

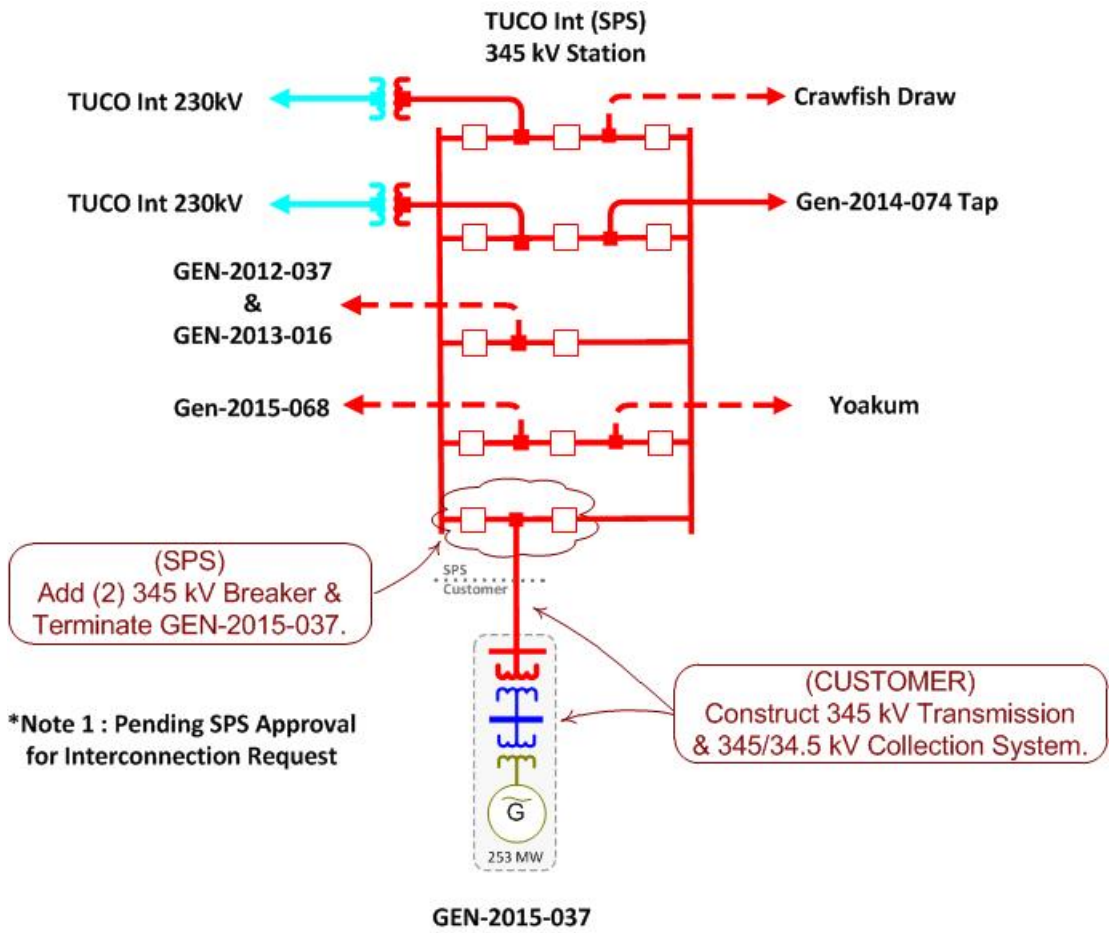
GEN-2015-035 (Osage 69kV)
Estimated Interconnection Costs: \$1,000,000



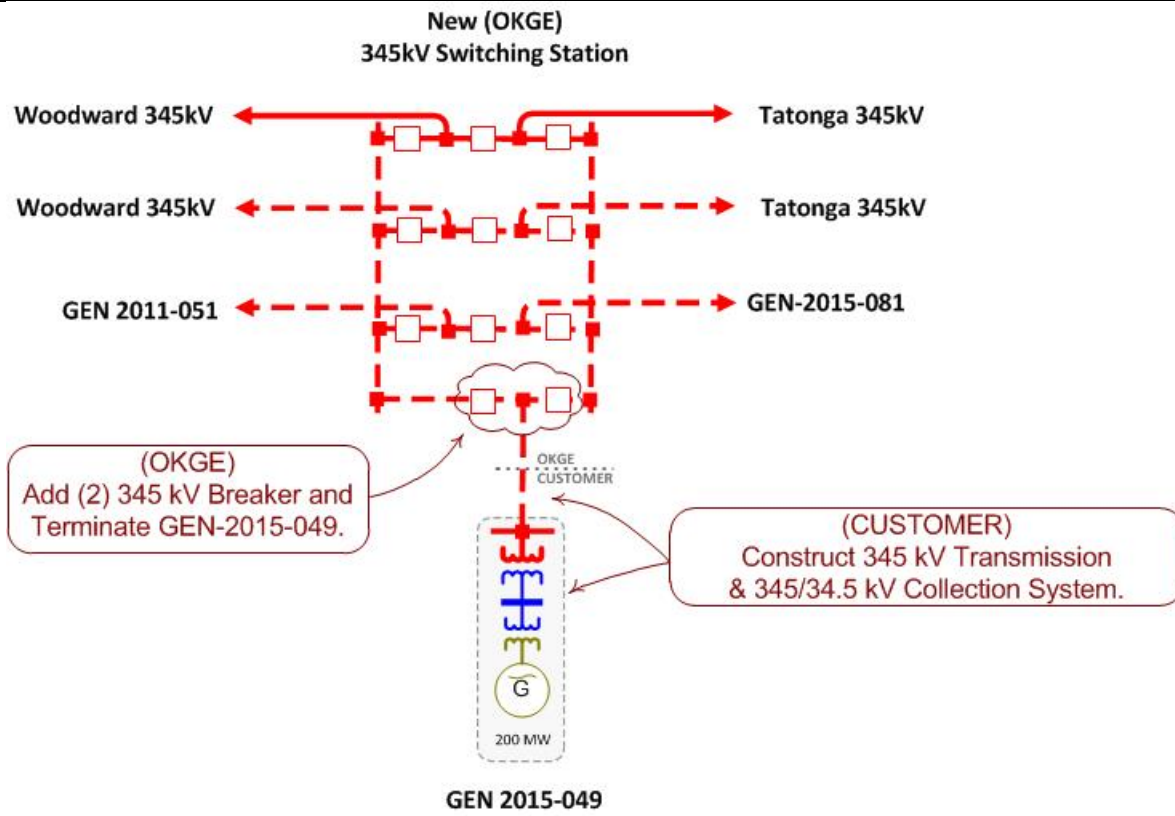
GEN-2015-035 (Continental Black 69kV)
Estimated Interconnection Costs: \$5,000,000



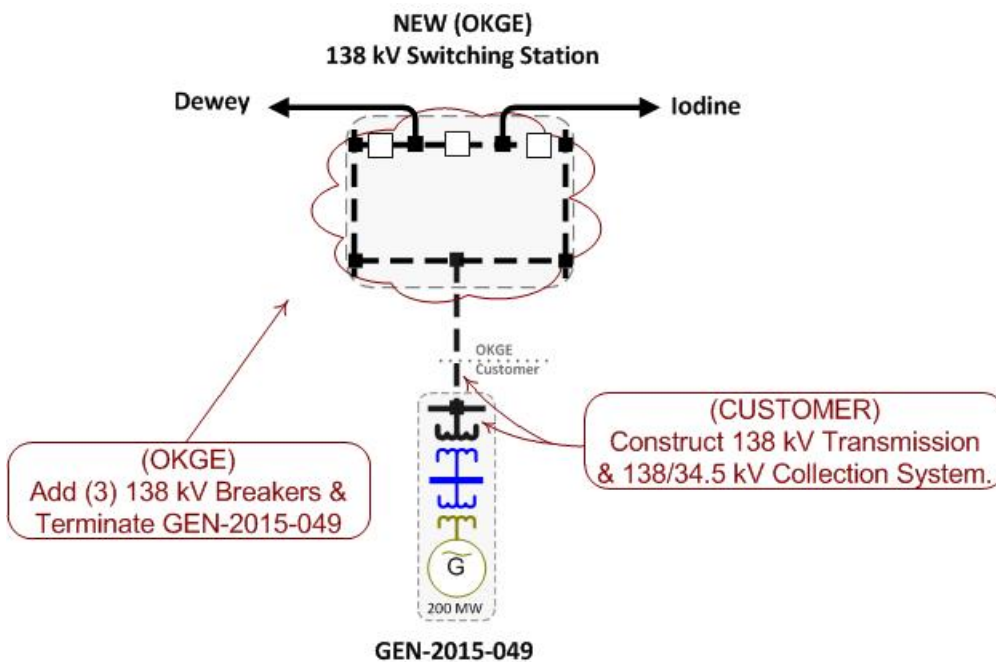
GEN-2015-037 (TUCO Interchange 345kV)
Estimated Interconnection Costs: \$1,500,000



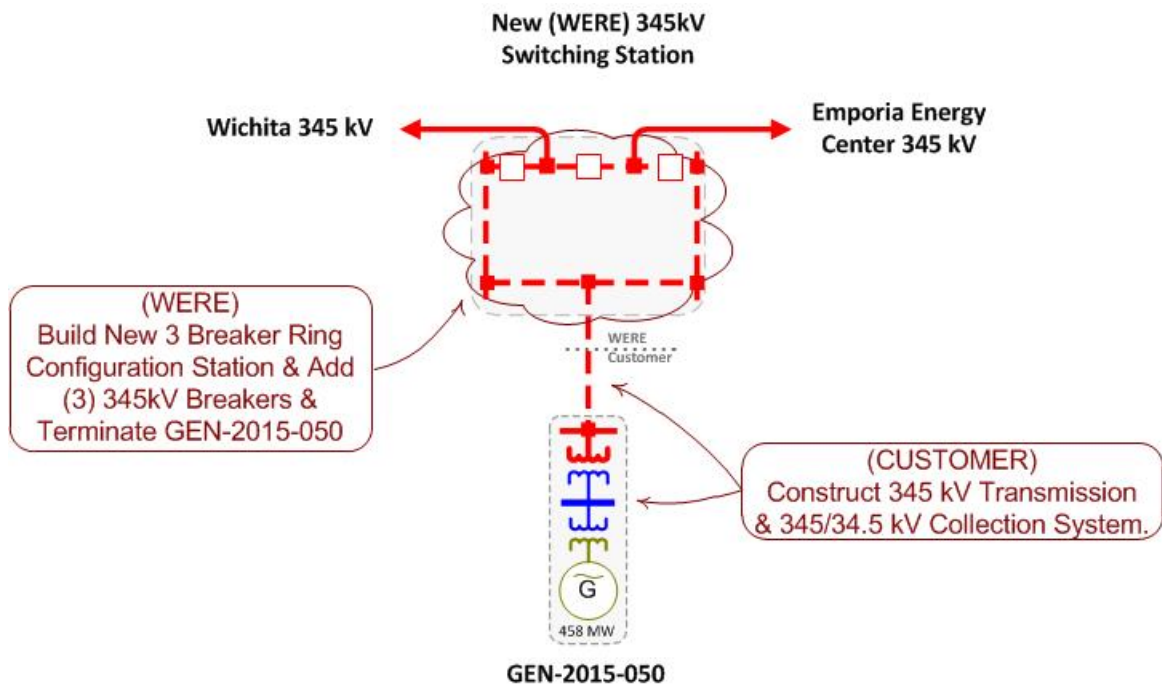
GEN-2015-049 (Tap Tatonga - Woodward 345kV)
Estimated Interconnection Costs: \$3,000,000



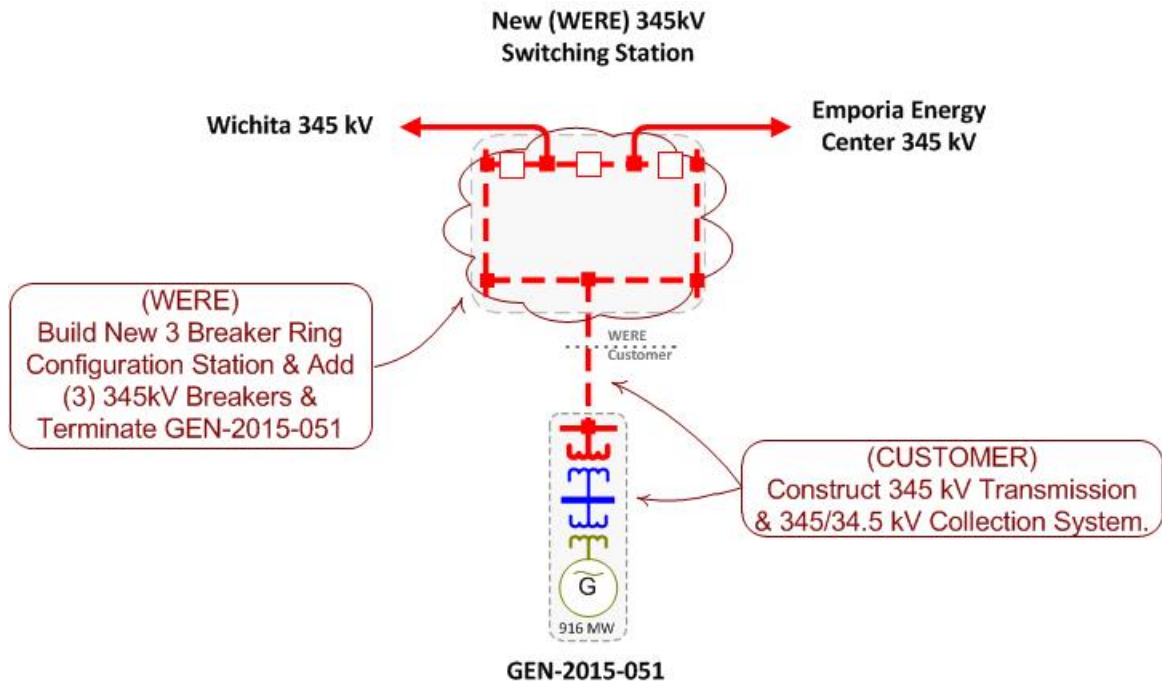
GEN-2015-049 (Tap Dewey - Iodine 138kV)
Estimated Interconnection Costs: \$5,000,000



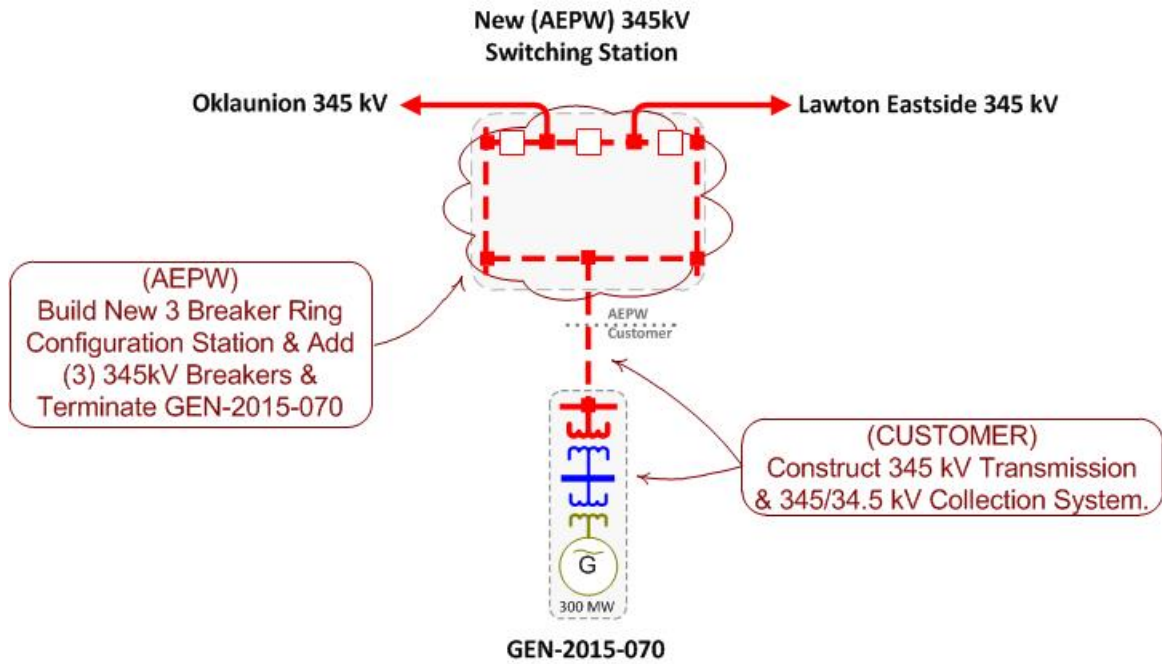
GEN-2015-050 (Tap Emporia Energy Center – Wichita 345kV)
Estimated Interconnection Costs: \$20,000,000



GEN-2015-051 (Tap Emporia Energy Center – Wichita 345kV)
Estimated Interconnection Costs: \$20,000,000

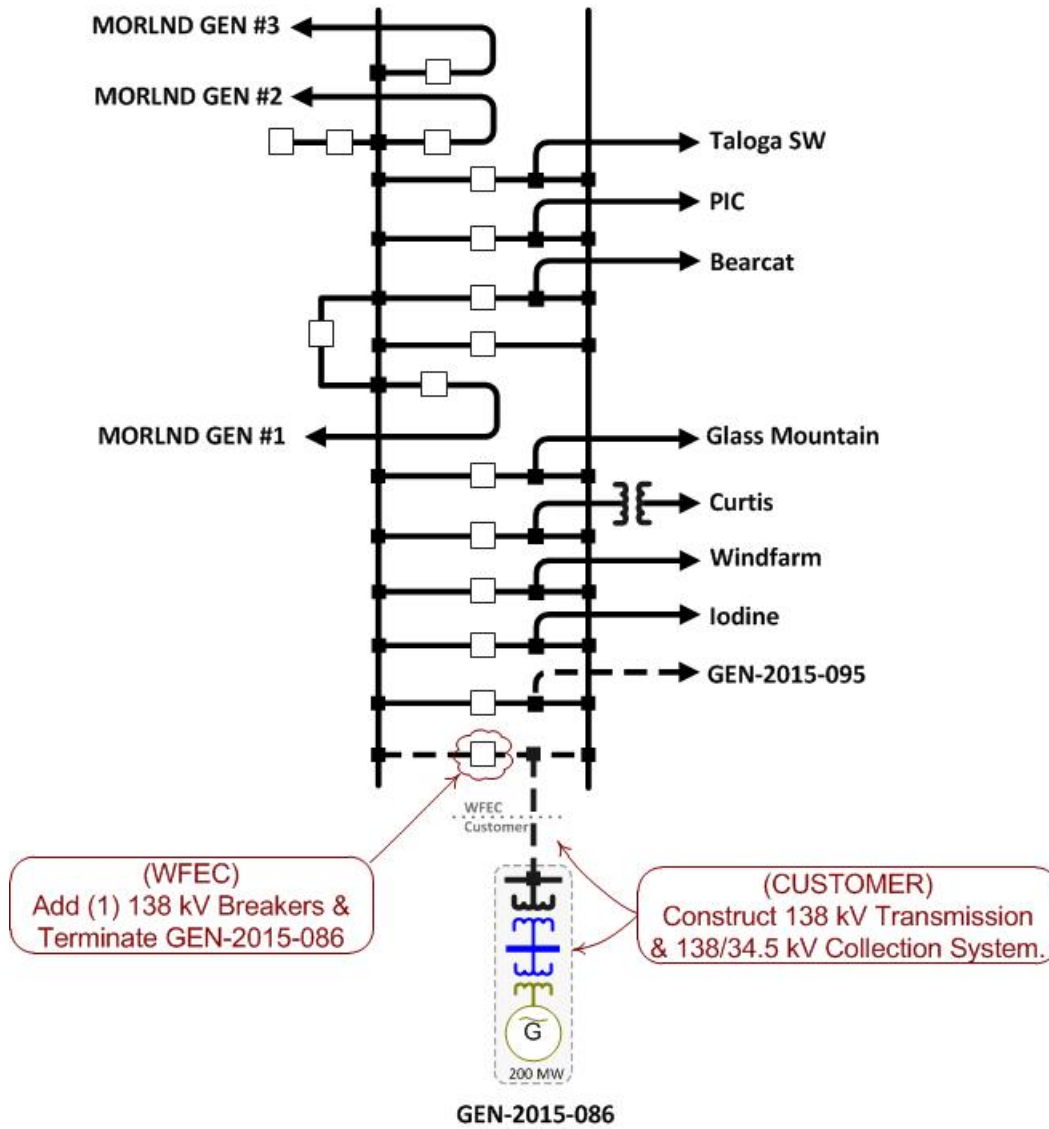


GEN-2015-070 (Tap Oklaunion – Lawton Eastside 345kV)
Estimated Interconnection Costs: \$20,000,000



GEN-2015-086 (Mooreland 138kV)
Estimated Interconnection Costs: \$2,000,000

Mooreland 138 kV Switching Station



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 Generator 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 an 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 Generator 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 Interconnection Facilities Study Agreement.

Appendix E. Scenario #1 Cost Allocation Per Request

(Including Previously Allocated Network Upgrades*)

| Interconnection Request and Upgrades | Upgrade Type | Allocated Cost | Upgrade Cost |
|---|----------------------------|---------------------|---------------|
| GEN-2015-049 | | | |
| Cimarron - Minco 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$1,000,000 | \$1,000,000 |
| GEN-2014-057 Tap - LES 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$198,401 | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 1 Replace terminal equipment | Current Study | \$99,200 | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 2 NRIS only required upgrade: Build approximately 45 miles of second circuit 345kV from GEN-2014-074 Tap to Sunnyside | Current Study | \$21,824,072 | \$55,000,000 |
| GEN-2015-049 Interconnection Costs See One-Line Diagram. | Current Study | \$3,000,000 | \$3,000,000 |
| Southard - Roman Nose 138kV CKT 1 NRIS only required upgrade: Rebuild approximately 17 miles of 138kV from Southard to Roman Nose | Current Study | \$1,888,525 | \$12,000,000 |
| Swissvale - West Gardner 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$1,000,000 | \$1,000,000 |
| Cimarron - Draper Lake 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment per SPP-NTC-200329 | Previously Allocated | | \$1,500,000 |
| Grapevine - Nichols 230kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Previously Allocated | | \$400,000 |
| Grapevine - Wheeler 230kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Previously Allocated | | \$400,000 |
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Tatonga - Mathewson 345kV CKT 2 Build second 345kV circuit from Tatonga - Mathewson @ 3000 amps per ITP10. | Previously Allocated | | \$104,260,473 |
| Woodward - GEN-2011-051 Tap - Tatonga 345kV CKT 2 Build second 345kV circuit from Woodward - Tatonga @ 3000 amps per ITP10. | Previously Allocated | | \$71,876,622 |
| | Current Study Total | \$29,109,398 | |

* 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 |
|---|----------------------------|-----------------------|---------------------|
| GEN-2015-086 | | | |
| GEN-2014-057 Tap - LES 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$301,599 | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 1 Replace terminal equipment | Current Study | \$150,800 | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 2 NRIS only required upgrade: Build approximately 45 miles of second circuit 345kV from GEN-2014-074 Tap to Sunnyside | Current Study | \$33,175,928 | \$55,000,000 |
| GEN-2015-086 Interconnection Costs See One-Line Diagram. | Current Study | \$2,000,000 | \$2,000,000 |
| Southard - Roman Nose 138kV CKT 1 NRIS only required upgrade: Rebuild approximately 17 miles of 138kV from Southard to Roman Nose | Current Study | \$10,111,475 | \$12,000,000 |
| Woodward XFMR 345/138/13.8kV CKT 1&2 Replace the existing two transformers. | Current Study | \$30,000,000 | \$30,000,000 |
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Tatonga - Mathewson 345kV CKT 2 Build second 345kV circuit from Tatonga - Mathewson @ 3000 amps per ITP10. | Previously Allocated | | \$104,260,473 |
| Woodward - GEN-2011-051 Tap - Tatonga 345kV CKT 2 Build second 345kV circuit from Woodward - Tatonga @ 3000 amps per ITP10. | Previously Allocated | | \$71,876,622 |
| Woodward EHV Phase Shifting Transformer CKT 1 Install one phase shifting transformer at Woodward | Previously Allocated | | \$7,200,000 |
| | Current Study Total | \$75,890,602 | |
| TOTAL CURRENT STUDY COSTS: | | \$105,000,000 | |

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

Appendix E. Scenario #2 Cost Allocation Per Request

(Including Previously Allocated Network Upgrades*)

| Interconnection Request and Upgrades | Upgrade Type | Allocated Cost | Upgrade Cost |
|--|----------------------|----------------|--------------|
| GEN-2015-049 | | | |
| Cimarron - Czech 138kV CKT 2 NRIS only required upgrade: Build approximately 5.6 miles of second circuit 138kV from Cimarron to Czech | Current Study | \$4,000,000 | \$4,000,000 |
| Cimarron - Minco 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$1,000,000 | \$1,000,000 |
| Cleo Corner - Cleo Corner Tap 138kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$131,023 | \$500,000 |
| Dewey - GEN-2015-049T 138kV CKT 1 Rebuild approximately 10 miles of 138kV line from Dewey to GEN-2015-049 Tap. | Current Study | \$7,000,000 | \$7,000,000 |
| Dewey - Southard 138kV CKT 2 Build approximately 28 miles of second 138kV circuit from Dewey - Southard. | Current Study | \$20,000,000 | \$20,000,000 |
| Dewey - Taloga 138kV CKT 2 Build approximately 4 miles of second 138kV circuit from Dewey - Taloga. | Current Study | \$3,000,000 | \$3,000,000 |
| GEN-2014-057 Tap - LES 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$210,681 | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 1 Replace terminal equipment | Current Study | \$210,681 | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 2 NRIS only required upgrade: Build approximately 45 miles second 345kV circuit from GEN-2014-057 Tap - Sunnyside. | Current Study | \$23,174,949 | \$55,000,000 |
| GEN-2015-049 Interconnection Costs See One-Line Diagram. | Current Study | \$5,000,000 | \$5,000,000 |
| Southard - Roman Nose 138kV CKT 1 Rebuild approximately 17 miles of 138kV from Southard to Roman Nose | Current Study | \$12,000,000 | \$12,000,000 |
| Swissvale - West Gardner 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$548,417 | \$1,000,000 |
| Woodward XFMR 345/138/13.8kV CKT 1&2 Replace the existing two transformers. | Current Study | \$17,301,443 | \$30,000,000 |
| Cimarron - Draper Lake 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment per SPP-NTC-200329 | Previously Allocated | | \$1,500,000 |

* 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 |
|--|----------------------------|-----------------------|---------------------|
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Tatonga - Mathewson 345kV CKT 2 Build second 345kV circuit from Tatonga - Mathewson @ 3000 amps per ITP10. | Previously Allocated | | \$104,260,473 |
| Woodward - GEN-2011-051 Tap - Tatonga 345kV CKT 2 Build second 345kV circuit from Woodward - Tatonga @ 3000 amps per ITP10. | Previously Allocated | | \$71,876,622 |
| Woodward EHV Phase Shifting Transformer CKT 1 Install one phase shifting transformer at Woodward | Previously Allocated | | \$7,200,000 |
| | Current Study Total | \$93,577,194 | |

GEN-2015-086

| | | | |
|--|----------------------|--------------|--------------|
| Cleo Corner - Cleo Corner Tap 138kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$368,977 | \$500,000 |
| GEN-2014-057 Tap - LES 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$289,319 | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 1 Replace terminal equipment | Current Study | \$289,319 | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 2 NRIS only required upgrade: Build approximately 45 miles second 345kV circuit from GEN-2014-057 Tap - Sunnyside. | Current Study | \$31,825,051 | \$55,000,000 |
| GEN-2015-086 Interconnection Costs See One-Line Diagram. | Current Study | \$2,000,000 | \$2,000,000 |
| GEN-2015-095 Tap - Rose Valley 138kV CTK 1 NRIS only required upgrade: Rebuild approximately 14 miles of 138kV from Rose Valley to GEN-2015-095 Tap | Current Study | \$10,000,000 | \$10,000,000 |
| Pittsburg - Seminole 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$500,000 | \$500,000 |
| Swissvale - West Gardner 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$451,583 | \$1,000,000 |
| Tupelo - Tupelo Tap 138kV CKT 2 NRIS only required upgrade: Build approximately 1 mile of second circuit 138kV from Tupelo to Tupelo Tap | Current Study | \$700,000 | \$700,000 |
| Woodward XFMR 345/138/13.8kV CKT 1&2 Replace the existing two transformers. | Current Study | \$12,698,557 | \$30,000,000 |
| Cimarron - Draper Lake 345kV CKT 1 NRIS only required upgrade: Replace terminal equipment per SPP-NTC-200329 | Previously Allocated | | \$1,500,000 |

* 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 |
|--|----------------------------|-----------------------|---------------------|
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Tatonga - Mathewson 345kV CKT 2 Build second 345kV circuit from Tatonga - Mathewson @ 3000 amps per ITP10. | Previously Allocated | | \$104,260,473 |
| Woodward - GEN-2011-051 Tap - Tatonga 345kV CKT 2 Build second 345kV circuit from Woodward - Tatonga @ 3000 amps per ITP10. | Previously Allocated | | \$71,876,622 |
| Woodward EHV Phase Shifting Transformer CKT 1 Install one phase shifting transformer at Woodward | Previously Allocated | | \$7,200,000 |
| | Current Study Total | \$59,122,806 | |
| TOTAL CURRENT STUDY COSTS: | | \$152,700,000 | |

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

Appendix E. Scenario #3 Cost Allocation Per Request

(Including Previously Allocated Network Upgrades*)

| Interconnection Request and Upgrades | Upgrade Type | Allocated Cost | Upgrade Cost |
|---|----------------------|----------------|---------------|
| GEN-2015-037 | | | |
| Cimarron - Minco 345kV CKT 1 Replace terminal equipment | Current Study | \$390,411 | \$1,000,000 |
| GEN-2014-057 Tap - Lawton Eastside 345kV CKT 1 Replace terminal equipment | Current Study | \$155,495 | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 1 Replace terminal equipment | Current Study | \$153,039 | \$500,000 |
| GEN-2015-037 Interconnection Costs See One-Line Diagram. | Current Study | \$1,000,000 | \$1,000,000 |
| Oklaunion - Sunnyside 345kV CKT 2 Build approximately 118 miles of 345kV line from Oklaunion - Sunnyside. | Current Study | \$58,278,889 | \$145,000,000 |
| TUCO Interchange - Oklaunion 345kV CKT 2 Build approximately 161 miles of second 345kV circuit from TUCO - Oklaunion. | Current Study | \$107,721,420 | \$195,000,000 |
| Carlisle 230/115/13kV Transformer CKT 1 Replace existing Carlisle 230/115/13kV Transformer circuit #1 with 250 MVA. | Previously Allocated | | \$4,192,913 |
| Elk City 230/138/13kV Transformer CKT 1 Replace terminal equipment for Elk City Transformer to achieve transformer limit of 450MVA. | Previously Allocated | | \$15,000,000 |
| Grapevine - Nichols 230kV CKT 1 Replace terminal equipment | Previously Allocated | | \$400,000 |
| Grapevine - Wheeler 230kV CKT 1 Replace terminal equipment | Previously Allocated | | \$400,000 |
| Kress Interchange - Swisher 115kV CKT 1 Replace terminal equipment | Previously Allocated | | \$500,000 |
| National Enrichment Plant-Targa 115kV CKT 1 Rebuild approximately 4 miles of 115kV from National Enrichment Plant to Targa per 2015 ITPNT. | Previously Allocated | | \$2,909,669 |
| Potash Junction 230/115 kV Ckt 1 Per HPILs SPP-NTC-200282 (Total Project E&C Cost Shown) | Previously Allocated | | \$3,508,346 |
| Targa-Cardinal 115kV CKT 1 Rebuild approximately 3 miles of 115kV from Targa to Cardinal per 2015 ITPNT. | Previously Allocated | | \$2,049,062 |

* 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 1 & 2 Rebuild circuit 1 and 2 between Tolk - Plant X 230kV to 1200 amps each. | Previously Allocated | | \$9,921,693 |
| TUCO 2 (Crawfish Draw) Substation Upgrade 345/230kV Tap Border-TUCO approximately 2 miles from TUCO and build TUCO 2 (Crawfish Draw) 345kV substation and add 345/230/13.2kV transformer and tie on TUCO-Swisher 230kV. | Previously Allocated | | \$24,764,205 |
| | Current Study Total | \$167,699,254 | |

GEN-2015-070

| | | | |
|---|---------------|--------------|---------------|
| Ardmore West - Uniroyal 138kV CKT 1 NRIS only required upgrade: Rebuild approximately 1/2 mile of 138kV from Ardmore West to Uniroyal | Current Study | \$500,000 | \$500,000 |
| Carter Seminary - Uniroyal 138kV CKT 1 NRIS only required upgrade: Rebuild approximately 4 miles of 138kV from Ardmore West to Carter Seminary | Current Study | \$2,800,000 | \$2,800,000 |
| Chickaw - Carter Seminary 138kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$500,000 | \$500,000 |
| Cimarron - Minco 345kV CKT 1 Replace terminal equipment | Current Study | \$609,589 | \$1,000,000 |
| GEN-2014-057 Tap - Lawton Eastside 345kV CKT 1 Replace terminal equipment | Current Study | \$344,505 | \$500,000 |
| GEN-2014-057 Tap - Lawton Eastside 345kV CKT 2 NRIS only required upgrade: Build approximately 27 miles of second circuit 345kV from GEN-2014-074 Tap to Lawton Eastside | Current Study | \$33,000,000 | \$33,000,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 1 Replace terminal equipment | Current Study | \$346,961 | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 2 NRIS only required upgrade: Build approximately 45 miles of second circuit 345kV from GEN-2014-074 Tap to Sunnyside | Current Study | \$55,000,000 | \$55,000,000 |
| GEN-2015-070 Interconnection Costs See One-Line Diagram. | Current Study | \$20,000,000 | \$20,000,000 |
| Oklaunion - Sunnyside 345kV CKT 2 Build approximately 118 miles of 345kV line from Oklaunion - Sunnyside. | Current Study | \$86,721,111 | \$145,000,000 |
| Russet - Springdale 138kV CKT 2 NRIS only required upgrade: Build approximately 16 miles of second circuit 138kV from Russet to Springdale | Current Study | \$11,000,000 | \$11,000,000 |
| Sunnyside - Uniroyal 138kV CKT 2 NRIS only required upgrade: Build approximately 6 miles of second circuit 138kV from Sunnyside to Uniroyal | Current Study | \$4,200,000 | \$4,200,000 |
| TUCO Interchange - Oklaunion 345kV CKT 2 Build approximately 161 miles of second 345kV circuit from TUCO - Oklaunion. | Current Study | \$87,278,580 | \$195,000,000 |

* 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 |
|--|----------------------|----------------|--------------|
| TUCO Interchange 345/230/13.2KV Autotransformer CKT 1 NRIS only required upgrade: Replace TUCO circuit #1 345/230/13kV transformer | Current Study | \$15,000,000 | \$15,000,000 |
| Tupelo - Tupelo Tap 138kV CKT 2 NRIS only required upgrade: Build approximately 1 mile of second circuit 138kV from Tupelo to Tupelo Tap | Current Study | \$700,000 | \$700,000 |
| Anadarko - Gracemont 138kV CKT 1 NRIS only required upgrade: Rebuild approximately 5 miles of 138kV from Anadarko - Gracemont 138kV per SPP-NTC-200329 (Upgrade is currently under Re-Evaluation) | Previously Allocated | | \$4,537,130 |
| Carlisle 230/115/13kV Transformer CKT 1 Replace existing Carlisle 230/115/13kV Transformer circuit #1 with 250 MVA. | Previously Allocated | | \$4,192,913 |
| Cornville Tap - Naples Tap 138kV CKT 1 NRIS only required upgrade: Rebuild approximately 11 miles of 138kV from Cornville Tap to Naples Tap | Previously Allocated | | \$7,700,000 |
| Elk City 230/138/13kV Transformer CKT 1 Replace terminal equipment for Elk City Transformer to achieve transformer limit of 450MVA. | Previously Allocated | | \$15,000,000 |
| Grapevine - Nichols 230kV CKT 1 Replace terminal equipment | Previously Allocated | | \$400,000 |
| Grapevine - Wheeler 230kV CKT 1 Replace terminal equipment | Previously Allocated | | \$400,000 |
| Kress Interchange - Swisher 115kV CKT 1 Replace terminal equipment | Previously Allocated | | \$500,000 |
| Naples Tap - Payne 138kV CKT 1 NRIS only required upgrade: Rebuild approximately 8 miles of 138kV from Naples Tap to Payne | Previously Allocated | | \$5,600,000 |
| National Enrichment Plant-Targa 115kV CKT 1 Rebuild approximately 4 miles of 115kV from National Enrichment Plant to Targa per 2015 ITPNT. | Previously Allocated | | \$2,909,669 |
| Potash Junction 230/115 kV Ckt 1 Per HPILs SPP-NTC-200282 (Total Project E&C Cost Shown) | Previously Allocated | | \$3,508,346 |
| Potash Junction 230kV Reactive Power Support Build Potash Junction 100Mvar Capacitor bank per 2015 ITPNT. | Previously Allocated | | \$6,465,875 |
| Potter County Interchange 345/230/13kV Transformer CKT 2 NRIS only required upgrade: Build second 345/230/13kV transformer at Potter County | Previously Allocated | | \$15,000,000 |
| Targa-Cardinal 115kV CKT 1 Rebuild approximately 3 miles of 115kV from Targa to Cardinal per 2015 ITPNT. | Previously Allocated | | \$2,049,062 |
| Tolk - Plant X 230kV CKT 1 & 2 Rebuild circuit 1 and 2 between Tolk - Plant X 230kV to 1200 amps each. | Previously Allocated | | \$9,921,693 |

* 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 |
|--|----------------------------|-----------------------|---------------------|
| TUCO 2 (Crawfish Draw) Substation Upgrade 345/230kV Tap Border-TUCO approximately 2 miles from TUCO and build TUCO 2 (Crawfish Draw) 345kV substation and add 345/230/13.2kV transformer and tie on TUCO-Swisher 230kV. | Previously Allocated | | \$24,764,205 |
| Woodward EHV Phase Shifting Transformer CKT 1 NRIS only required upgrade: Install one phase shifting transformer at Woodward | Previously Allocated | | \$7,200,000 |
| | Current Study Total | \$318,000,746 | |
| TOTAL CURRENT STUDY COSTS: | | \$485,700,000 | |

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

Appendix E. Scenario #4 Cost Allocation Per Request

(Including Previously Allocated Network Upgrades*)

| Interconnection Request and Upgrades | Upgrade Type | Allocated Cost | Upgrade Cost |
|--|----------------------------|--------------------|--------------|
| GEN-2015-035 | | | |
| GEN-2015-035 Interconnection Costs See One-Line Diagram. | Current Study | \$1,000,000 | \$1,000,000 |
| Baldwin Creek 230/115/13kV Transformer CKT 1 Build Baldwin 230kV and 230/115/13kV Transformer circuit #1 Per SPP-NTC-200345 (Upgrade is currently under Re-Evaluation). | Previously Allocated | | \$9,536,211 |
| Clearwater - Viola 138kV CKT 1 SPP 2013 ITP NT assigne upgrade per SPP-NTC-200288 for 6/1/2019 in-service. | Previously Allocated | | \$37,815,044 |
| Fairfax 138/69kV CKT 1 Per AECl Affected System Study for DISIS-2012-002 | Previously Allocated | | \$2,200,000 |
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Remington - Fairfax 138KV CKT 1 Increase conductor clearance | Previously Allocated | | \$400,000 |
| Viola 345/138 kV Transformer CKT 1 SPP 2013 ITP NT assigned upgrade per SPP-NTC-200288 for 6/1/2019 in-service. | Previously Allocated | | \$19,339,327 |
| | Current Study Total | \$1,000,000 | |
| GEN-2015-051 | | | |
| Baldwin - Lawrence Hill 230kV CKT NRIS only required upgrade: Replace terminal equipment | Current Study | \$500,000 | \$500,000 |
| Baldwin - Swissvale 230kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$500,000 | \$500,000 |
| Emporia Energy Center - GEN-2015-051 Tap CKT 2 NRIS only required upgrade: Build approximately 11 miles of second circuit 345kV from Emporia to GEN-2015-051 Tap | Current Study | \$15,000,000 | \$15,000,000 |
| Emporia Energy Center - Swissvale 345kV CKT 1 Replace terminal equipment. | Current Study | \$1,000,000 | \$1,000,000 |
| Emporia Energy Center - Swissvale 345kV CKT 1 Incremental Upgrade NRIS only required upgrade: Replace additional terminal equipment to achieve 1076MVA | Current Study | \$500,000 | \$500,000 |
| Four Corners - Carbondale 115kV CKT 1 NRIS only required upgrade: Build approximately 4 mile of second circuit 115kV from Four Corners to Carbondale | Current Study | \$2,750,000 | \$2,750,000 |

* 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 |
|--|----------------------|----------------|--------------|
| GEN-2015-051 Interconnection Costs See One-Line Diagram. | Current Study | \$20,000,000 | \$20,000,000 |
| Lang - Reading Lake 115kV CKT 1 NRIS only required upgrade: Rebuild approximately 10.6 miles of 115kV from Lang to Reading Lake | Current Study | \$7,000,000 | \$7,000,000 |
| Lang 345/115/13kV Transformer CKT 2 NRIS only required upgrade: Install a second 345/115/13kV transformer at Lang | Current Study | \$15,000,000 | \$15,000,000 |
| Osage Junction - Scranton 115kV CKT 1 NRIS only required upgrade: Rebuild approximately 9 miles of 115kV from Osage Jct to Scranton | Current Study | \$6,000,000 | \$6,000,000 |
| Reading Lake - Osage Junction 115kV CKT 1 NRIS only required upgrade: Rebuild approximately 9 miles of 115kV from Reading Lake to Osage Jct | Current Study | \$6,000,000 | \$6,000,000 |
| Scranton - Four Corners 115kV CKT 1 NRIS only required upgrade: Rebuild approximately 5 miles of 115kV from Scranton to Four Corners | Current Study | \$3,500,000 | \$3,500,000 |
| Stull Tap - Mockingbird Hill 115kV CKT 1 NRIS only required upgrade: Rebuild approximately 6.4 miles of 115kV from Stull Tap to Mockingbird Hill | Current Study | \$4,500,000 | \$4,500,000 |
| Stull Tap - Tecumseh Hill 115kV CKT 1 NRIS only required upgrade: Build approximately 10 mile of second circuit 115kV from Stull Tap - Tecumseh Hill | Current Study | \$7,000,000 | \$7,000,000 |
| Swissvale - West Gardner 345kV CKT 1 Replace terminal equipment | Current Study | \$1,000,000 | \$1,000,000 |
| Arkansas City - Paris 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 1.7 miles of 69kV. | Previously Allocated | | \$1,700,000 |
| Baldwin Creek 230/115/13kV Transformer CKT 1 Build Baldwin 230kV and 230/115/13kV Transformer circuit #1 Per SPP-NTC-200345 (Upgrade is currently under Re-Evaluation). | Previously Allocated | | \$9,536,211 |
| City of Winfield - Rainbow 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 4 miles of 69kV. | Previously Allocated | | \$4,000,000 |
| Creswell - Oak 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.2 miles of 69kV. | Previously Allocated | | \$5,200,000 |
| Creswell - Paris 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.7 miles of 69kV. | Previously Allocated | | \$5,700,000 |
| Creswell 138/69/13.2kV Transformer CKT 1 NRIS only required upgrade: Build new 138/69/13.2kV transformer at Creswell circuit #1. | Previously Allocated | | \$3,500,000 |
| Creswell 138/69/13.2kV Transformer CKT 2 NRIS only required upgrade: Build new 138/69/13.2kV transformer at Creswell circuit #2. | Previously Allocated | | \$3,500,000 |

* 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 |
|---|----------------------------|-----------------------|---------------------|
| Fairfax 138/69kV CKT 1 Per AECI Affected System Study for DISIS-2012-002 | Previously Allocated | | \$2,200,000 |
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Oak - Rainbow 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.1 miles of 69kV. | Previously Allocated | | \$5,100,000 |
| Remington - Fairfax 138KV CKT 1 Increase conductor clearance | Previously Allocated | | \$400,000 |
| Viola - Sumner County 138kV CKT 1 SPP 2014 ITP NT assigned upgrade per SPP-NTC-200296 for 6/1/2019 in-service. | Previously Allocated | | \$51,513,963 |
| | Current Study Total | | \$90,250,000 |
| TOTAL CURRENT STUDY COSTS: | | | \$91,250,000 |

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

Appendix E. Scenario #5 Cost Allocation Per Request

(Including Previously Allocated Network Upgrades*)

| Interconnection Request and Upgrades | Upgrade Type | Allocated Cost | Upgrade Cost |
|--|----------------------------|--------------------|--------------|
| GEN-2015-035 | | | |
| GEN-2015-035 Interconnection Costs See One-Line Diagram. | Current Study | \$5,000,000 | \$5,000,000 |
| Baldwin Creek 230/115/13kV Transformer CKT 1 Build Baldwin 230kV and 230/115/13kV Transformer circuit #1 Per SPP-NTC-200345 (Upgrade is currently under Re-Evaluation). | Previously Allocated | | \$9,536,211 |
| Clearwater - Viola 138kV CKT 1 SPP 2013 ITP NT assigne upgrade per SPP-NTC-200288 for 6/1/2019 in-service. | Previously Allocated | | \$37,815,044 |
| Fairfax 138/69kV CKT 1 Per AECl Affected System Study for DISIS-2012-002 | Previously Allocated | | \$2,200,000 |
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Remington - Fairfax 138KV CKT 1 Increase conductor clearance | Previously Allocated | | \$400,000 |
| Viola 345/138 kV Transformer CKT 1 SPP 2013 ITP NT assigned upgrade per SPP-NTC-200288 for 6/1/2019 in-service. | Previously Allocated | | \$19,339,327 |
| | Current Study Total | \$5,000,000 | |
| GEN-2015-051 | | | |
| Baldwin - Lawrence Hill 230kV CKT NRIS only required upgrade: Replace terminal equipment | Current Study | \$500,000 | \$500,000 |
| Baldwin - Swissvale 230kV CKT 1 NRIS only required upgrade: Replace terminal equipment | Current Study | \$500,000 | \$500,000 |
| Emporia Energy Center - GEN-2015-051 Tap CKT 2 NRIS only required upgrade: Build approximately 11 miles of second circuit 345kV from Emporia to GEN-2015-051 Tap | Current Study | \$15,000,000 | \$15,000,000 |
| Emporia Energy Center - Swissvale 345kV CKT 1 Replace terminal equipment. | Current Study | \$1,000,000 | \$1,000,000 |
| Emporia Energy Center - Swissvale 345kV CKT 1 Incremental Upgrade NRIS only required upgrade: Replace additional terminal equipment to achieve 1076MVA | Current Study | \$500,000 | \$500,000 |
| Four Corners - Carbondale 115kV CKT 1 NRIS only required upgrade: Build approximately 4 mile of second circuit 115kV from Four Corners to Carbondale | Current Study | \$2,750,000 | \$2,750,000 |

* 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 |
|--|----------------------|----------------|--------------|
| GEN-2015-051 Interconnection Costs See One-Line Diagram. | Current Study | \$20,000,000 | \$20,000,000 |
| Lang - Reading Lake 115kV CKT 1 NRIS only required upgrade: Rebuild approximately 10.6 miles of 115kV from Lang to Reading Lake | Current Study | \$7,000,000 | \$7,000,000 |
| Lang 345/115/13kV Transformer CKT 2 NRIS only required upgrade: Install a second 345/115/13kV transformer at Lang | Current Study | \$15,000,000 | \$15,000,000 |
| Osage Junction - Scranton 115kV CKT 1 NRIS only required upgrade: Rebuild approximately 9 miles of 115kV from Osage Jct to Scranton | Current Study | \$6,000,000 | \$6,000,000 |
| Reading Lake - Osage Junction 115kV CKT 1 NRIS only required upgrade: Rebuild approximately 9 miles of 115kV from Reading Lake to Osage Jct | Current Study | \$6,000,000 | \$6,000,000 |
| Scranton - Four Corners 115kV CKT 1 NRIS only required upgrade: Rebuild approximately 5 miles of 115kV from Scranton to Four Corners | Current Study | \$3,500,000 | \$3,500,000 |
| Stull Tap - Mockingbird Hill 115kV CKT 1 NRIS only required upgrade: Rebuild approximately 6.4 miles of 115kV from Stull Tap to Mockingbird Hill | Current Study | \$4,500,000 | \$4,500,000 |
| Stull Tap - Tecumseh Hill 115kV CKT 1 NRIS only required upgrade: Build approximately 10 mile of second circuit 115kV from Stull Tap - Tecumseh Hill | Current Study | \$7,000,000 | \$7,000,000 |
| Swissvale - West Gardner 345kV CKT 1 Replace terminal equipment | Current Study | \$1,000,000 | \$1,000,000 |
| Arkansas City - Paris 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 1.7 miles of 69kV. | Previously Allocated | | \$1,700,000 |
| Baldwin Creek 230/115/13kV Transformer CKT 1 Build Baldwin 230kV and 230/115/13kV Transformer circuit #1 Per SPP-NTC-200345 (Upgrade is currently under Re-Evaluation). | Previously Allocated | | \$9,536,211 |
| City of Winfield - Rainbow 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 4 miles of 69kV. | Previously Allocated | | \$4,000,000 |
| Creswell - Oak 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.2 miles of 69kV. | Previously Allocated | | \$5,200,000 |
| Creswell - Paris 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.7 miles of 69kV. | Previously Allocated | | \$5,700,000 |
| Creswell 138/69/13.2kV Transformer CKT 1 NRIS only required upgrade: Build new 138/69/13.2kV transformer at Creswell circuit #1. | Previously Allocated | | \$3,500,000 |
| Creswell 138/69/13.2kV Transformer CKT 2 NRIS only required upgrade: Build new 138/69/13.2kV transformer at Creswell circuit #2. | Previously Allocated | | \$3,500,000 |

* 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 |
|---|----------------------------|-----------------------|---------------------|
| Fairfax 138/69kV CKT 1 Per AECI Affected System Study for DISIS-2012-002 | Previously Allocated | | \$2,200,000 |
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Oak - Rainbow 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.1 miles of 69kV. | Previously Allocated | | \$5,100,000 |
| Remington - Fairfax 138KV CKT 1 Increase conductor clearance | Previously Allocated | | \$400,000 |
| Viola - Sumner County 138kV CKT 1 SPP 2014 ITP NT assigned upgrade per SPP-NTC-200296 for 6/1/2019 in-service. | Previously Allocated | | \$51,513,963 |
| | Current Study Total | | \$90,250,000 |
| TOTAL CURRENT STUDY COSTS: | | | \$95,250,000 |

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

Appendix E. Scenario #6 Cost Allocation Per Request (Including Previously Allocated Network Upgrades*)

| Interconnection Request and Upgrades | Upgrade Type | Allocated Cost | Upgrade Cost |
|--|----------------------------|--------------------|--------------|
| GEN-2015-035 | | | |
| GEN-2015-035 Interconnection Costs See One-Line Diagram. | Current Study | \$1,000,000 | \$1,000,000 |
| Baldwin Creek 230/115/13kV Transformer CKT 1 Build Baldwin 230kV and 230/115/13kV Transformer circuit #1 Per SPP-NTC-200345 (Upgrade is currently under Re-Evaluation). | Previously Allocated | | \$9,536,211 |
| Clearwater - Viola 138kV CKT 1 SPP 2013 ITP NT assigneg upgrade per SPP-NTC-200288 for 6/1/2019 in-service. | Previously Allocated | | \$37,815,044 |
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Remington - Fairfax 138KV CKT 1 Increase conductor clearance | Previously Allocated | | \$400,000 |
| Viola 345/138 kV Transformer CKT 1 SPP 2013 ITP NT assigned upgrade per SPP-NTC-200288 for 6/1/2019 in-service. | Previously Allocated | | \$19,339,327 |
| | Current Study Total | \$1,000,000 | |
| GEN-2015-050 | | | |
| Emporia Energy Center - Swissvale 345kV CKT 1 Replace terminal equipment. | Current Study | \$1,000,000 | \$1,000,000 |
| GEN-2015-050 Interconnection Costs See One-Line Diagram. | Current Study | \$20,000,000 | \$20,000,000 |
| Swissvale - West Gardner 345kV CKT 1 Replace terminal equipment | Current Study | \$1,000,000 | \$1,000,000 |
| Baldwin Creek 230/115/13kV Transformer CKT 1 Build Baldwin 230kV and 230/115/13kV Transformer circuit #1 Per SPP-NTC-200345 (Upgrade is currently under Re-Evaluation). | Previously Allocated | | \$9,536,211 |
| City of Winfield - Rainbow 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 4 miles of 69kV. | Previously Allocated | | \$4,000,000 |
| Creswell - Oak 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.2 miles of 69kV. | Previously Allocated | | \$5,200,000 |
| Creswell - Paris 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.7 miles of 69kV. | Previously Allocated | | \$5,700,000 |

* 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 |
|---|----------------------------|-----------------------|---------------------|
| Creswell 138/69/13.2kV Transformer CKT 1 NRIS only required upgrade: Build new 138/69/13.2kV transformer at Creswell circuit #1. | Previously Allocated | | \$3,500,000 |
| Creswell 138/69/13.2kV Transformer CKT 2 NRIS only required upgrade: Build new 138/69/13.2kV transformer at Creswell circuit #2. | Previously Allocated | | \$3,500,000 |
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Oak - Rainbow 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.1 miles of 69kV. | Previously Allocated | | \$5,100,000 |
| Remington - Fairfax 138KV CKT 1 Increase conductor clearance | Previously Allocated | | \$400,000 |
| Viola - Sumner County 138kV CKT 1 SPP 2014 ITP NT assigned upgrade per SPP-NTC-200296 for 6/1/2019 in-service. | Previously Allocated | | \$51,513,963 |
| | Current Study Total | | \$22,000,000 |
| TOTAL CURRENT STUDY COSTS: | | | \$23,000,000 |

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

Appendix E. Scenario #7 Cost Allocation Per Request (Including Previously Allocated Network Upgrades*)

| Interconnection Request and Upgrades | Upgrade Type | Allocated Cost | Upgrade Cost |
|--|----------------------------|--------------------|--------------|
| GEN-2015-035 | | | |
| GEN-2015-035 Interconnection Costs See One-Line Diagram. | Current Study | \$5,000,000 | \$5,000,000 |
| Baldwin Creek 230/115/13kV Transformer CKT 1 Build Baldwin 230kV and 230/115/13kV Transformer circuit #1 Per SPP-NTC-200345 (Upgrade is currently under Re-Evaluation). | Previously Allocated | | \$9,536,211 |
| Clearwater - Viola 138kV CKT 1 SPP 2013 ITP NT assigneg upgrade per SPP-NTC-200288 for 6/1/2019 in-service. | Previously Allocated | | \$37,815,044 |
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Remington - Fairfax 138KV CKT 1 Increase conductor clearance | Previously Allocated | | \$400,000 |
| Viola 345/138 kV Transformer CKT 1 SPP 2013 ITP NT assigned upgrade per SPP-NTC-200288 for 6/1/2019 in-service. | Previously Allocated | | \$19,339,327 |
| | Current Study Total | \$5,000,000 | |
| GEN-2015-050 | | | |
| Emporia Energy Center - Swissvale 345kV CKT 1 Replace terminal equipment. | Current Study | \$1,000,000 | \$1,000,000 |
| GEN-2015-050 Interconnection Costs See One-Line Diagram. | Current Study | \$20,000,000 | \$20,000,000 |
| Swissvale - West Gardner 345kV CKT 1 Replace terminal equipment | Current Study | \$1,000,000 | \$1,000,000 |
| Baldwin Creek 230/115/13kV Transformer CKT 1 Build Baldwin 230kV and 230/115/13kV Transformer circuit #1 Per SPP-NTC-200345 (Upgrade is currently under Re-Evaluation). | Previously Allocated | | \$9,536,211 |
| City of Winfield - Rainbow 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 4 miles of 69kV. | Previously Allocated | | \$4,000,000 |
| Creswell - Oak 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.2 miles of 69kV. | Previously Allocated | | \$5,200,000 |
| Creswell - Paris 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.7 miles of 69kV. | Previously Allocated | | \$5,700,000 |

* 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 |
|---|----------------------------|-----------------------|---------------------|
| Creswell 138/69/13.2kV Transformer CKT 1 NRIS only required upgrade: Build new 138/69/13.2kV transformer at Creswell circuit #1. | Previously Allocated | | \$3,500,000 |
| Creswell 138/69/13.2kV Transformer CKT 2 NRIS only required upgrade: Build new 138/69/13.2kV transformer at Creswell circuit #2. | Previously Allocated | | \$3,500,000 |
| Mathewson - Cimarron 345kV CKT 2 Build second 345kV circuit from Mathewson - Cimarron @ 3000 amps per ITP10. | Previously Allocated | | \$42,903,753 |
| Oak - Rainbow 69kV CKT 1 NRIS only required upgrade: Rebuild approximately 5.1 miles of 69kV. | Previously Allocated | | \$5,100,000 |
| Remington - Fairfax 138KV CKT 1 Increase conductor clearance | Previously Allocated | | \$400,000 |
| Viola - Sumner County 138kV CKT 1 SPP 2014 ITP NT assigned upgrade per SPP-NTC-200296 for 6/1/2019 in-service. | Previously Allocated | | \$51,513,963 |
| | Current Study Total | | \$22,000,000 |
| TOTAL CURRENT STUDY COSTS: | | | \$27,000,000 |

* 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 Generator 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. Scenario #1 Cost Allocation by Upgrade

| | | |
|---|------------------------------|---------------------|
| Cimarron - Minco 345kV CKT 1 | | \$1,000,000 |
| NRIS only required upgrade: Replace terminal equipment | | |
| | GEN-2015-049 | \$1,000,000 |
| | Total Allocated Costs | \$1,000,000 |
| GEN-2014-057 Tap - LES 345kV CKT 1 | | \$500,000 |
| NRIS only required upgrade: Replace terminal equipment | | |
| | GEN-2015-049 | \$198,401 |
| | GEN-2015-086 | \$301,599 |
| | Total Allocated Costs | \$500,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 1 | | \$500,000 |
| Replace terminal equipment | | |
| | GEN-2015-049 | \$99,200 |
| | GEN-2015-086 | \$150,800 |
| | Total Allocated Costs | \$1,000,000 |
| GEN-2014-057 Tap - Sunnyside 345kV CKT 2 | | \$55,000,000 |
| NRIS only required upgrade: Build approximately 45 miles of second circuit 345kV from GEN-2014-074 Tap to Sunnyside | | |
| | GEN-2015-049 | \$21,824,072 |
| | GEN-2015-086 | \$33,175,928 |
| | Total Allocated Costs | \$55,000,000 |
| GEN-2015-049 Interconnection Costs | | \$3,000,000 |
| See One-Line Diagram. | | |
| | GEN-2015-049 | \$3,000,000 |
| | Total Allocated Costs | \$3,000,000 |
| GEN-2015-086 Interconnection Costs | | \$2,000,000 |
| See One-Line Diagram. | | |
| | GEN-2015-086 | \$2,000,000 |
| | Total Allocated Costs | \$2,000,000 |

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

Southard - Roman Nose 138kV CKT 1 **\$12,000,000**

NRIS only required upgrade: Rebuild approximately 17 miles of 138kV from Southard to Roman Nose

| | |
|--------------|--------------|
| GEN-2015-049 | \$1,888,525 |
| GEN-2015-086 | \$10,111,475 |

| | |
|------------------------------|---------------------|
| Total Allocated Costs | \$12,000,000 |
|------------------------------|---------------------|

Swissvale - West Gardner 345kV CKT 1 **\$1,000,000**

NRIS only required upgrade: Replace terminal equipment

| | |
|--------------|-------------|
| GEN-2015-049 | \$1,000,000 |
|--------------|-------------|

| | |
|------------------------------|--------------------|
| Total Allocated Costs | \$1,000,000 |
|------------------------------|--------------------|

Woodward XFMR 345/138/13.8kV CKT 1&2 **\$30,000,000**

Replace the existing two transformers.

| | |
|--------------|--------------|
| GEN-2015-086 | \$30,000,000 |
|--------------|--------------|

| | |
|------------------------------|---------------------|
| Total Allocated Costs | \$30,000,000 |
|------------------------------|---------------------|

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

Appendix F. Scenario #2 Cost Allocation by Upgrade

| | | |
|--|------------------------------|---------------------|
| Cimarron - Czech 138kV CKT 2 | | \$4,000,000 |
| NRIS only required upgrade: Build approximately 5.6 miles of second circuit 138kV from Cimarron to Czech | | |
| | GEN-2015-049 | \$4,000,000 |
| | Total Allocated Costs | \$4,000,000 |
| Cimarron - Minco 345kV CKT 1 | | \$1,000,000 |
| NRIS only required upgrade: Replace terminal equipment | | |
| | GEN-2015-049 | \$1,000,000 |
| | Total Allocated Costs | \$1,000,000 |
| Cleo Corner - Cleo Corner Tap 138kV CKT 1 | | \$500,000 |
| NRIS only required upgrade: Replace terminal equipment | | |
| | GEN-2015-049 | \$131,023 |
| | GEN-2015-086 | \$368,977 |
| | Total Allocated Costs | \$500,000 |
| Dewey - GEN-2015-049T 138kV CKT 1 | | \$7,000,000 |
| Rebuild approximately 10 miles of 138kV line from Dewey to GEN-2015-049 Tap. | | |
| | GEN-2015-049 | \$7,000,000 |
| | Total Allocated Costs | \$7,000,000 |
| Dewey - Southard 138kV CKT 2 | | \$20,000,000 |
| Build approximately 28 miles of second 138kV circuit from Dewey - Southard. | | |
| | GEN-2015-049 | \$20,000,000 |
| | Total Allocated Costs | \$20,000,000 |
| Dewey - Taloga 138kV CKT 2 | | \$3,000,000 |
| Build approximately 4 miles of second 138kV circuit from Dewey - Taloga. | | |
| | GEN-2015-049 | \$3,000,000 |
| | Total Allocated Costs | \$3,000,000 |
| GEN-2014-057 Tap - LES 345kV CKT 1 | | \$500,000 |
| NRIS only required upgrade: Replace terminal equipment | | |
| | GEN-2015-049 | \$210,681 |
| | GEN-2015-086 | \$289,319 |
| | Total Allocated Costs | \$500,000 |

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

GEN-2014-057 Tap - Sunnyside 345kV CKT 1 **\$500,000**

Replace terminal equipment

| | |
|--------------|-----------|
| GEN-2015-049 | \$210,681 |
| GEN-2015-086 | \$289,319 |

| | |
|------------------------------|------------------|
| Total Allocated Costs | \$500,000 |
|------------------------------|------------------|

GEN-2014-057 Tap - Sunnyside 345kV CKT 2 **\$55,000,000**

NRIS only required upgrade: Build approximately 45 miles second 345kV circuit from GEN-2014-057 Tap - Sunnyside.

| | |
|--------------|--------------|
| GEN-2015-049 | \$23,174,949 |
| GEN-2015-086 | \$31,825,051 |

| | |
|------------------------------|---------------------|
| Total Allocated Costs | \$55,000,000 |
|------------------------------|---------------------|

GEN-2015-049 Interconnection Costs **\$5,000,000**

See One-Line Diagram.

| | |
|--------------|-------------|
| GEN-2015-049 | \$5,000,000 |
|--------------|-------------|

| | |
|------------------------------|--------------------|
| Total Allocated Costs | \$5,000,000 |
|------------------------------|--------------------|

GEN-2015-086 Interconnection Costs **\$2,000,000**

See One-Line Diagram.

| | |
|--------------|-------------|
| GEN-2015-086 | \$2,000,000 |
|--------------|-------------|

| | |
|------------------------------|--------------------|
| Total Allocated Costs | \$2,000,000 |
|------------------------------|--------------------|

GEN-2015-095 Tap - Rose Valley 138kV CTK 1 **\$10,000,000**

NRIS only required upgrade: Rebuild approximately 14 miles of 138kV from Rose Valley to GEN-2015-095 Tap

| | |
|--------------|--------------|
| GEN-2015-086 | \$10,000,000 |
|--------------|--------------|

| | |
|------------------------------|---------------------|
| Total Allocated Costs | \$10,000,000 |
|------------------------------|---------------------|

Pittsburg - Seminole 345kV CKT 1 **\$500,000**

NRIS only required upgrade: Replace terminal equipment

| | |
|--------------|-----------|
| GEN-2015-086 | \$500,000 |
|--------------|-----------|

| | |
|------------------------------|------------------|
| Total Allocated Costs | \$500,000 |
|------------------------------|------------------|

Southard - Roman Nose 138kV CKT 1 **\$12,000,000**

Rebuild approximately 17 miles of 138kV from Southard to Roman Nose

| | |
|--------------|--------------|
| GEN-2015-049 | \$12,000,000 |
|--------------|--------------|

| | |
|------------------------------|---------------------|
| Total Allocated Costs | \$12,000,000 |
|------------------------------|---------------------|

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

Swissvale - West Gardner 345kV CKT 1 **\$1,000,000**

NRIS only required upgrade: Replace terminal equipment

| | |
|--------------|-----------|
| GEN-2015-049 | \$548,417 |
| GEN-2015-086 | \$451,583 |

| | |
|------------------------------|--------------------|
| Total Allocated Costs | \$1,000,000 |
|------------------------------|--------------------|

Tupelo - Tupelo Tap 138kV CKT 2 **\$700,000**

NRIS only required upgrade: Build approximately 1 mile of second circuit 138kV from Tupelo to Tupelo Tap

| | |
|--------------|-----------|
| GEN-2015-086 | \$700,000 |
|--------------|-----------|

| | |
|------------------------------|------------------|
| Total Allocated Costs | \$700,000 |
|------------------------------|------------------|

Woodward XFMR 345/138/13.8kV CKT 1&2 **\$30,000,000**

Replace the existing two transformers.

| | |
|--------------|--------------|
| GEN-2015-049 | \$17,301,443 |
| GEN-2015-086 | \$12,698,557 |

| | |
|------------------------------|---------------------|
| Total Allocated Costs | \$30,000,000 |
|------------------------------|---------------------|

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

Appendix F. Scenario #3 Cost Allocation by Upgrade

Carter Seminary - Uniroyal 138kV CKT 1 \$2,800,000

NRIS only required upgrade: Rebuild approximately 4 miles of 138kV from Ardmore West to Carter Seminary

GEN-2015-070 \$2,800,000

Total Allocated Costs \$2,800,000

Ardmore West - Uniroyal 138kV CKT 1 \$500,000

NRIS only required upgrade: Rebuild approximately 1/2 mile of 138kV from Ardmore West to Uniroyal

GEN-2015-070 \$500,000

Total Allocated Costs \$500,000

Chickaw - Carter Seminary 138kV CKT 1 \$500,000

NRIS only required upgrade: Replace terminal equipment

GEN-2015-070 \$500,000

Total Allocated Costs \$500,000

Cimarron - Minco 345kV CKT 1 \$1,000,000

Replace terminal equipment

GEN-2015-037 \$390,411

GEN-2015-070 \$609,589

Total Allocated Costs \$1,000,000

GEN-2014-057 Tap - Lawton Eastside 345kV CKT 1 \$500,000

Replace terminal equipment

GEN-2015-037 \$155,495

GEN-2015-070 \$344,505

Total Allocated Costs \$500,000

GEN-2014-057 Tap - Lawton Eastside 345kV CKT 2 \$33,000,000

NRIS only required upgrade: Build approximately 27 miles of second circuit 345kV from GEN-2014-074 Tap to Lawton Eastside

GEN-2015-070 \$33,000,000

Total Allocated Costs \$33,000,000

GEN-2014-057 Tap - Sunnyside 345kV CKT 1 \$500,000

Replace terminal equipment

GEN-2015-037 \$153,039

GEN-2015-070 \$346,961

Total Allocated Costs \$500,000

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

GEN-2014-057 Tap - Sunnyside 345kV CKT 2 **\$55,000,000**

NRIS only required upgrade: Build approximately 45 miles of second circuit 345kV from GEN-2014-074 Tap to Sunnyside

GEN-2015-070 \$55,000,000

Total Allocated Costs **\$55,000,000**

GEN-2015-037 Interconnection Costs **\$1,000,000**

See One-Line Diagram.

GEN-2015-037 \$1,000,000

Total Allocated Costs **\$1,000,000**

GEN-2015-070 Interconnection Costs **\$20,000,000**

See One-Line Diagram.

GEN-2015-070 \$20,000,000

Total Allocated Costs **\$20,000,000**

Oklaunion - Sunnyside 345kV CKT 2 **\$145,000,000**

Build approximately 118 miles of 345kV line from Oklaunion - Sunnyside.

GEN-2015-037 \$58,278,889

GEN-2015-070 \$86,721,111

Total Allocated Costs **\$145,000,000**

Russet - Springdale 138kV CKT 2 **\$11,000,000**

NRIS only required upgrade: Build approximately 16 miles of second circuit 138kV from Russet to Springdale

GEN-2015-070 \$11,000,000

Total Allocated Costs **\$11,000,000**

Sunnyside - Uniroyal 138kV CKT 2 **\$4,200,000**

NRIS only required upgrade: Build approximately 6 miles of second circuit 138kV from Sunnyside to Uniroyal

GEN-2015-070 \$4,200,000

Total Allocated Costs **\$4,200,000**

TUCO Interchange - Oklaunion 345kV CKT 2 **\$195,000,000**

Build approximately 161 miles of second 345kV circuit from TUCO - Oklaunion.

GEN-2015-037 \$107,721,420

GEN-2015-070 \$87,278,580

Total Allocated Costs **\$195,000,000**

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

TUCO Interchange 345/230/13.2KV Autotransformer CKT 1 **\$15,000,000**

NRIS only required upgrade: Replace TUCO circuit #1 345/230/13kV transformer

GEN-2015-070 \$15,000,000

Total Allocated Costs **\$15,000,000**

Tupelo - Tupelo Tap 138kV CKT 2 **\$700,000**

NRIS only required upgrade: Build approximately 1 mile of second circuit 138kV from Tupelo to Tupelo Tap

GEN-2015-070 \$700,000

Total Allocated Costs **\$700,000**

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

Appendix F. Scenario #4 Cost Allocation by Upgrade

| | | |
|---|------------------------------|---------------------|
| Baldwin - Lawrence Hill 230kV CKT | | \$500,000 |
| NRIS only required upgrade: Replace terminal equipment | | |
| | GEN-2015-051 | \$500,000 |
| | Total Allocated Costs | \$500,000 |
| Baldwin - Swissvale 230kV CKT 1 | | \$500,000 |
| NRIS only required upgrade: Replace terminal equipment | | |
| | GEN-2015-051 | \$500,000 |
| | Total Allocated Costs | \$500,000 |
| Emporia Energy Center - GEN-2015-051 Tap CKT 2 | | \$15,000,000 |
| NRIS only required upgrade: Build approximately 11 miles of second circuit 345kV from Emporia to GEN-2015-051 Tap | | |
| | GEN-2015-051 | \$15,000,000 |
| | Total Allocated Costs | \$15,000,000 |
| Emporia Energy Center - Swissvale 345kV CKT 1 | | \$1,000,000 |
| Replace terminal equipment. | | |
| | GEN-2015-051 | \$1,000,000 |
| | Total Allocated Costs | \$1,000,000 |
| Emporia Energy Center - Swissvale 345kV CKT 1 Incremental Upgrade | | \$500,000 |
| NRIS only required upgrade: Replace additional terminal equipment to achieve 1076MVA | | |
| | GEN-2015-051 | \$500,000 |
| | Total Allocated Costs | \$500,000 |
| Four Corners - Carbondale 115kV CKT 1 | | \$2,750,000 |
| NRIS only required upgrade: Build approximately 4 mile of second circuit 115kV from Four Corners to Carbondale | | |
| | GEN-2015-051 | \$2,750,000 |
| | Total Allocated Costs | \$2,750,000 |
| GEN-2015-035 Interconnection Costs | | \$1,000,000 |
| See One-Line Diagram. | | |
| | GEN-2015-035 | \$1,000,000 |
| | Total Allocated Costs | \$1,000,000 |

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

GEN-2015-051 Interconnection Costs **\$20,000,000**

See One-Line Diagram.

GEN-2015-051 \$20,000,000

Total Allocated Costs **\$20,000,000**

Lang - Reading Lake 115kV CKT 1 **\$7,000,000**

NRIS only required upgrade: Rebuild approximately 10.6 miles of 115kV from Lang to Reading Lake

GEN-2015-051 \$7,000,000

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

Lang 345/115/13kV Transformer CKT 2 **\$15,000,000**

NRIS only required upgrade: Install a second 345/115/13kV transformer at Lang

GEN-2015-051 \$15,000,000

Total Allocated Costs **\$15,000,000**

Osage Junction - Scranton 115kV CKT 1 **\$6,000,000**

NRIS only required upgrade: Rebuild approximately 9 miles of 115kV from Osage Jct to Scranton

GEN-2015-051 \$6,000,000

Total Allocated Costs **\$6,000,000**

Reading Lake - Osage Junction 115kV CKT 1 **\$6,000,000**

NRIS only required upgrade: Rebuild approximately 9 miles of 115kV from Reading Lake to Osage Jct

GEN-2015-051 \$6,000,000

Total Allocated Costs **\$6,000,000**

Scranton - Four Corners 115kV CKT 1 **\$3,500,000**

NRIS only required upgrade: Rebuild approximately 5 miles of 115kV from Scranton to Four Corners

GEN-2015-051 \$3,500,000

Total Allocated Costs **\$3,500,000**

Stull Tap - Mockingbird Hill 115kV CKT 1 **\$4,500,000**

NRIS only required upgrade: Rebuild approximately 6.4 miles of 115kV from Stull Tap to Mockingbird Hill

GEN-2015-051 \$4,500,000

Total Allocated Costs **\$4,500,000**

Stull Tap - Tecumseh Hill 115kV CKT 1 **\$7,000,000**

NRIS only required upgrade: Build approximately 10 mile of second circuit 115kV from Stull Tap - Tecumseh Hill

GEN-2015-051 \$7,000,000

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

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

Swissvale - West Gardner 345kV CKT 1

\$1,000,000

Replace terminal equipment

GEN-2015-051

\$1,000,000

Total Allocated Costs

\$1,000,000

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

Appendix F. Scenario #5 Cost Allocation by Upgrade

| | | |
|---|------------------------------|---------------------|
| Baldwin - Lawrence Hill 230kV CKT | | \$500,000 |
| NRIS only required upgrade: Replace terminal equipment | | |
| | GEN-2015-051 | \$500,000 |
| | Total Allocated Costs | \$500,000 |
| Baldwin - Swissvale 230kV CKT 1 | | \$500,000 |
| NRIS only required upgrade: Replace terminal equipment | | |
| | GEN-2015-051 | \$500,000 |
| | Total Allocated Costs | \$500,000 |
| Emporia Energy Center - GEN-2015-051 Tap CKT 2 | | \$15,000,000 |
| NRIS only required upgrade: Build approximately 11 miles of second circuit 345kV from Emporia to GEN-2015-051 Tap | | |
| | GEN-2015-051 | \$15,000,000 |
| | Total Allocated Costs | \$15,000,000 |
| Emporia Energy Center - Swissvale 345kV CKT 1 | | \$1,000,000 |
| Replace terminal equipment. | | |
| | GEN-2015-051 | \$1,000,000 |
| | Total Allocated Costs | \$1,000,000 |
| Emporia Energy Center - Swissvale 345kV CKT 1 Incremental Upgrade | | \$500,000 |
| NRIS only required upgrade: Replace additional terminal equipment to achieve 1076MVA | | |
| | GEN-2015-051 | \$500,000 |
| | Total Allocated Costs | \$500,000 |
| Four Corners - Carbondale 115kV CKT 1 | | \$2,750,000 |
| NRIS only required upgrade: Build approximately 4 mile of second circuit 115kV from Four Corners to Carbondale | | |
| | GEN-2015-051 | \$2,750,000 |
| | Total Allocated Costs | \$2,750,000 |
| GEN-2015-035 Interconnection Costs | | \$5,000,000 |
| See One-Line Diagram. | | |
| | GEN-2015-035 | \$5,000,000 |
| | Total Allocated Costs | \$5,000,000 |

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

GEN-2015-051 Interconnection Costs **\$20,000,000**

See One-Line Diagram.

GEN-2015-051 \$20,000,000

Total Allocated Costs **\$20,000,000**

Lang - Reading Lake 115kV CKT 1 **\$7,000,000**

NRIS only required upgrade: Rebuild approximately 10.6 miles of 115kV from Lang to Reading Lake

GEN-2015-051 \$7,000,000

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

Lang 345/115/13kV Transformer CKT 2 **\$15,000,000**

NRIS only required upgrade: Install a second 345/115/13kV transformer at Lang

GEN-2015-051 \$15,000,000

Total Allocated Costs **\$15,000,000**

Osage Junction - Scranton 115kV CKT 1 **\$6,000,000**

NRIS only required upgrade: Rebuild approximately 9 miles of 115kV from Osage Jct to Scranton

GEN-2015-051 \$6,000,000

Total Allocated Costs **\$6,000,000**

Reading Lake - Osage Junction 115kV CKT 1 **\$6,000,000**

NRIS only required upgrade: Rebuild approximately 9 miles of 115kV from Reading Lake to Osage Jct

GEN-2015-051 \$6,000,000

Total Allocated Costs **\$6,000,000**

Scranton - Four Corners 115kV CKT 1 **\$3,500,000**

NRIS only required upgrade: Rebuild approximately 5 miles of 115kV from Scranton to Four Corners

GEN-2015-051 \$3,500,000

Total Allocated Costs **\$3,500,000**

Stull Tap - Mockingbird Hill 115kV CKT 1 **\$4,500,000**

NRIS only required upgrade: Rebuild approximately 6.4 miles of 115kV from Stull Tap to Mockingbird Hill

GEN-2015-051 \$4,500,000

Total Allocated Costs **\$4,500,000**

Stull Tap - Tecumseh Hill 115kV CKT 1 **\$7,000,000**

NRIS only required upgrade: Build approximately 10 mile of second circuit 115kV from Stull Tap - Tecumseh Hill

GEN-2015-051 \$7,000,000

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

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

Swissvale - West Gardner 345kV CKT 1

\$1,000,000

Replace terminal equipment

GEN-2015-051

\$1,000,000

Total Allocated Costs

\$1,000,000

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

Appendix F. Scenario #6 Cost Allocation by Upgrade

| | | |
|--|------------------------------|---------------------|
| Emporia Energy Center - Swissvale 345kV CKT 1 | | \$1,000,000 |
| Replace terminal equipment. | GEN-2015-050 | \$1,000,000 |
| | Total Allocated Costs | \$1,000,000 |
| GEN-2015-035 Interconnection Costs | | \$1,000,000 |
| See One-Line Diagram. | GEN-2015-035 | \$1,000,000 |
| | Total Allocated Costs | \$1,000,000 |
| GEN-2015-050 Interconnection Costs | | \$20,000,000 |
| See One-Line Diagram. | GEN-2015-050 | \$20,000,000 |
| | Total Allocated Costs | \$20,000,000 |
| Swissvale - West Gardner 345kV CKT 1 | | \$1,000,000 |
| Replace terminal equipment | GEN-2015-050 | \$1,000,000 |
| | Total Allocated Costs | \$1,000,000 |

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

Appendix F. Scenario #7 Cost Allocation by Upgrade

| | | |
|--|------------------------------|---------------------|
| Emporia Energy Center - Swissvale 345kV CKT 1 | | \$1,000,000 |
| Replace terminal equipment. | | |
| | GEN-2015-050 | \$1,000,000 |
| | Total Allocated Costs | \$1,000,000 |
| GEN-2015-035 Interconnection Costs | | \$5,000,000 |
| See One-Line Diagram. | | |
| | GEN-2015-035 | \$5,000,000 |
| | Total Allocated Costs | \$5,000,000 |
| GEN-2015-050 Interconnection Costs | | \$20,000,000 |
| See One-Line Diagram. | | |
| | GEN-2015-050 | \$20,000,000 |
| | Total Allocated Costs | \$20,000,000 |
| Swissvale - West Gardner 345kV CKT 1 | | \$1,000,000 |
| Replace terminal equipment | | |
| | GEN-2015-050 | \$1,000,000 |
| | Total Allocated Costs | \$1,000,000 |

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

G: FCITC Analysis Constraints Requiring Transmission Reinforcement

See next page.

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|--|
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06917 | 137.4188 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.42579 | 123.4502 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.42579 | 123.4502 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.1964 | 120.7888 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06866 | 136.6686 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.1964 | 120.7888 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.40334 | 120.7888 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.1964 | 119.3973 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.40334 | 119.3973 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.43165 | 119.3264 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.43165 | 119.3264 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.39733 | 118.8648 | CIMARRON - FSHRTAP7 345.00 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.40906 | 117.4878 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.40906 | 117.4792 | P12:345:SPS:J07.1.FINN.HITCH |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.40906 | 117.4792 | P12:345:SPS:FINNEY-HITCHLAND |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.40728 | 116.9915 | G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 2 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.40728 | 116.9915 | G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06917 | 127.5075 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06866 | 126.7637 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.39404 | 116.9819 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.39733 | 116.521 | FSHRTAP7 345.00 - G15038_1 345.00 345KV CKT 1 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1172 | 1 | 116.1775 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 1 | 116.1299 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 1 | 116.045 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1173.5 | 1 | 116.0205 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.41009 | 115.9412 | BORDER 7345.00 - TUCCO_2 345.00 345KV CKT 1 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 0.43818 | 115.3328 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 0.43818 | 115.3328 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.2062 | 115.2934 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.2062 | 115.2934 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.4112 | 115.2934 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.47695 | 115.1053 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.47695 | 114.8742 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.40263 | 114.768 | CIMARRON - FSHRTAP7 345.00 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.40922 | 114.3515 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.2062 | 113.881 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.4112 | 113.881 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.41421 | 113.484 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.4784 | 113.1198 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.41421 | 113.0034 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.4784 | 112.9233 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.41302 | 112.6959 | G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.41302 | 112.6959 | G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 2 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.39987 | 112.6265 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.4142 | 112.6081 | BORDER 7345.00 - TUCCO_2 345.00 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.40263 | 112.451 | FSHRTAP7 345.00 - G15038_1 345.00 345KV CKT 1 |
| 17G0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1173.5 | 0.43842 | 111.9958 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17G0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1173.5 | 0.43842 | 111.9958 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 0.40953 | 111.7437 | CIMARRON - FSHRTAP7 345.00 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.39733 | 111.7386 | BASE CASE |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.4142 | 111.5097 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1172 | 0.42926 | 111.4945 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1172 | 0.42926 | 111.4945 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 0.42161 | 110.9773 | BORDER 7345.00 - TUCCO_2 345.00 345KV CKT 1 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 0.42148 | 110.3283 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 0.42148 | 110.3112 | P12:345:SPS:J07.1.FINN.HITCH |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 0.42148 | 110.3112 | P12:345:SPS:FINNEY-HITCHLAND |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.47695 | 109.97 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 0.42161 | 109.918 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.42896 | 109.5264 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.42896 | 109.5264 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|--|
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.04541 | 112.5557 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.04592 | 112.3282 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.04541 | 112.0998 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03076 | 112.093 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.4 | 0.03167 | 118.1664 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.1 | 0.03075 | 117.4681 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.3 | 0.03167 | 117.3348 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.4 | 0.03167 | 116.6672 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 131.9 | 0.03075 | 116.6414 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.1 | 0.03075 | 115.8903 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.6 | 0.03188 | 115.2911 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.6 | 0.03188 | 114.7275 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 25SP | 00NR | 4 | FROM->TO | G15_049_1 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 553.6 | 0.03313 | 103.5271 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 25SP | 00NR | 3 | FROM->TO | G15_049_1 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 553.7 | 0.03237 | 103.2462 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | CLEARWATER - MILAN TAP 138KV CKT 1 | 105.7 | 0.03283 | 118.8893 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | CLEARWATER - MILAN TAP 138KV CKT 1 | 105.6 | 0.03247 | 118.0814 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 717 | 0.06247 | 124.9503 | BASE CASE |
| 17G | 01NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE VALLEY 138.00 138KV CKT 1 | 182.2 | 0.09382 | 116.1712 | BASE CASE |
| 17G | 01NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE VALLEY 138.00 138KV CKT 1 | 182.2 | 0.0908 | 115.5653 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 717 | 0.04256 | 124.395 | BASE CASE |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE VALLEY 138.00 138KV CKT 1 | 181.9 | 0.06716 | 115.0808 | BASE CASE |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE VALLEY 138.00 138KV CKT 1 | 182 | 0.0694 | 114.3846 | BASE CASE |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03755 | 107.2433 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | EVANS ENERGY CENTER NORTH - MAIZEW 4 138.00 138KV CKT 1 | 380.1 | 0.03573 | 100.6698 | BENTON - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07317 | 122.7447 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07477 | 121.1607 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07317 | 118.4738 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07477 | 116.837 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07332 | 120.3815 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07332 | 116.235 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07492 | 118.866 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07317 | 118.467 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07492 | 114.7556 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07317 | 114.0948 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03752 | 117.7447 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07477 | 116.9502 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07332 | 116.0337 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03636 | 115.7698 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.03752 | 113.3553 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358 | 0.03723 | 117.6944 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358 | 0.03683 | 117.4486 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358 | 0.03723 | 117.2475 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358 | 0.03683 | 117.0017 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 4 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 357.7 | 0.03033 | 112.0117 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.05855 | 124.3739 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.0583 | 124.3675 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06009 | 123.6905 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716.5 | 0.06203 | 123.5179 | BASE CASE |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03739 | 107.1968 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.05971 | 123.4422 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716.5 | 0.04215 | 122.963 | BASE CASE |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.05803 | 122.4992 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.05783 | 122.4941 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.07551 | 122.2943 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04866 | 121.6137 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.07501 | 120.7232 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04815 | 120.0419 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.7 | 0.03878 | 109.7173 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.7 | 0.03835 | 109.4703 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.7 | 0.03878 | 109.2434 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.7 | 0.03835 | 108.9964 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE | CONTINGENCY | | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|-------|-------------|-----------|--|
| | | | | | | (MVA) | TDF | LOADING % | |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10396 | 141.1723 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10656 | 140.8891 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07616 | 140.4892 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07608 | 140.2286 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07805 | 139.2178 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07797 | 138.8537 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128.3 | 0.09119 | 117.4887 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06664 | 119.2811 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06247 | 118.7065 | P12:345:AEPW:PITTSB-7-VALIANT7 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06247 | 118.6431 | P12:345:AEPW:PITTSB-7-VALIANT7 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06139 | 118.4383 | P12:345:AEPW:PITTSB-7-VALIANT7 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03334 | 118.437 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04364 | 137.0751 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04332 | 136.7929 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07616 | 136.7622 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 118.2018 | LACYGNE - STILWELL 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06437 | 118.1589 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 118.1384 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06619 | 117.963 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06437 | 117.9181 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04426 | 117.6492 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06247 | 117.5404 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.05652 | 117.3643 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06247 | 117.3503 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07608 | 136.5055 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06247 | 117.3503 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06203 | 117.3248 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06247 | 117.287 | CARTCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03214 | 111.9508 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03076 | 111.6371 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03214 | 111.4949 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.0463 | 105.4881 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.04578 | 105.2819 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06247 | 117.2743 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06203 | 117.236 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03299 | 117.1209 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 117.0357 | POCASSETT - TUTTLE 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | CIMARRON - MINCO 345KV CKT 1 | 955.1 | 0.05258 | 109.2573 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | CIMARRON - MINCO 345KV CKT 1 | 955.1 | 0.05235 | 109.1373 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03828 | 116.9019 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.5 | 0.08229 | 137.0088 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08573 | 136.9729 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06388 | 116.8771 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.13329 | 242.508 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.1387 | 242.1382 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.1397 | 229.1949 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.5 | 0.05624 | 133.5003 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.05441 | 132.7348 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.7 | 0.08375 | 130.6364 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.08714 | 130.4952 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.7 | 0.05742 | 127.0711 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 116.8456 | BRIDGEGR 138.00 - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 116.8456 | BRIDGEGR 138.00 - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 116.7823 | CARTCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 116.7696 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.05558 | 126.2014 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.06252 | 123.2097 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06388 | 116.6361 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.05973 | 122.8322 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.06502 | 121.5088 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06094 | 116.5996 | P12:345:AEPW:PITTSB-7-VALIANT7 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.05621 | 116.5177 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04382 | 116.3683 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06387 | 111.7713 | P12:345:AEPW-OKGE-PITTSB-7;SEMINOL7 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.9 | 0.06374 | 111.6026 | P12:345:AEPW-OKGE-PITTSB-7;SEMINOL7 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.15502 | 133.6003 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.05652 | 116.3503 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06203 | 116.2849 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04382 | 116.1273 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03799 | 116.0555 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06203 | 116.0058 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06203 | 116.0058 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06203 | 115.8917 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06203 | 115.8917 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03828 | 115.888 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04215 | 115.7806 | POCASSETT - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03791 | 115.7518 | P12:138:WFEC:MSL01 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.05621 | 115.5411 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04215 | 115.5016 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04215 | 115.5016 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03791 | 115.4857 | ANADARKO - POCASSETT 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04215 | 115.3875 | BRIDGEGR 138.00 - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03791 | 115.3336 | POCASSETT - TUTTLE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03799 | 115.079 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03791 | 115.0041 | BRIDGEGR 138.00 - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.05027 | 114.9118 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03753 | 114.5093 | P12:138:WFEC:MSL01 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06629 | 110.3395 | P12:345:AEPW:PITTSB-7;VALIANT7 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03753 | 114.243 | ANADARKO - POCASSETT 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03753 | 114.0781 | POCASSETT - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.15497 | 133.5569 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10313 | 136.2578 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.9 | 0.06617 | 110.1732 | P12:345:AEPW:PITTSB-7;VALIANT7 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03753 | 113.7357 | BRIDGEGR 138.00 - TUTTLE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.05007 | 113.6099 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.06928 | 113.4682 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.06262 | 113.2214 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.05787 | 120.5387 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.06252 | 116.1055 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.05973 | 115.728 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.4 | 0.06234 | 115.6793 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 180.2 | 0.06234 | 115.465 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.4 | 0.05941 | 115.2844 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 180.1 | 0.0626 | 115.1138 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 180.2 | 0.05699 | 114.8713 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 180.1 | 0.05741 | 114.5375 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10568 | 135.9137 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07566 | 131.3746 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07805 | 135.5958 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04226 | 135.4604 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07797 | 135.2879 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07582 | 131.337 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.15502 | 123.3073 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.06877 | 112.8353 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.05865 | 109.0412 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.15497 | 123.2778 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07566 | 121.0815 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07582 | 121.0579 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.06006 | 109.813 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.09368 | 117.1375 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | DOVER SW - OKEENE 138KV CKT 1 | 128.3 | 0.04332 | 110.0265 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.04201 | 109.0641 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14781 | 118.0006 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14776 | 117.9571 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.19148 | 116.8694 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.1451 | 116.8167 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.8 | 0.05965 | 109.1996 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.06928 | 105.2883 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.06877 | 104.6624 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WPO | 01ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 787.9 | 0.19044 | 104.0603 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.6 | 0.09507 | 114.2464 | BASE CASE |
| 20L | 01NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.6 | 0.092 | 113.5268 | BASE CASE |
| 17G | 01NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.8 | 0.09382 | 107.9125 | BASE CASE |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 181.7 | 0.06716 | 110.6945 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 181.8 | 0.0694 | 110.165 | BASE CASE |
| 17G | 01NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.0908 | 107.3046 | BASE CASE |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.19138 | 116.8105 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.13425 | 228.9632 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.13329 | 228.9216 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.1387 | 228.4938 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.13427 | 220.536 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.14016 | 220.4359 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.13467 | 220.31 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.1387 | 154.2139 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.13329 | 151.7343 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.1397 | 146.8885 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.1387 | 145.6678 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.13425 | 144.3722 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.13329 | 143.379 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.13971 | 219.4465 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.13383 | 219.2794 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.13926 | 217.4266 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.14085 | 216.8403 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.13533 | 216.3473 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.1397 | 215.5426 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 283.1 | 0.13971 | 141.0604 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 282.5 | 0.13926 | 140.1246 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 281.6 | 0.13427 | 139.5433 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.13425 | 215.4009 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.14016 | 203.5393 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.13467 | 203.5243 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.14085 | 200.1851 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.13533 | 199.7633 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | CONTINGENCY | | |
|--------|-------|----------|-----------|-----------|---|------------|-------------|-----------|---|
| | | | | | | | TDF | LOADING % | CONTINGENCY |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.08199 | 183.8421 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.07746 | 183.2264 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.07366 | 182.0881 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.07688 | 181.9705 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 280.9 | 0.13383 | 138.8273 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.1397 | 138.3327 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.13425 | 136.0513 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14504 | 116.773 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.1451 | 116.1296 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.08509 | 181.7 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.07366 | 181.6597 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.07688 | 181.557 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.08077 | 181.4849 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.08199 | 181.4553 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.08199 | 180.9657 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.06949 | 179.9866 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.06949 | 179.9254 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.07255 | 179.5688 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.08509 | 179.5145 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.07255 | 179.4507 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.08509 | 178.9829 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.07366 | 172.6022 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.07688 | 172.4017 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.08237 | 170.3279 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.0782 | 170.0286 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.07781 | 169.1754 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 282.9 | 0.14016 | 117.8268 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 283.5 | 0.14085 | 116.7443 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.07688 | 116.5283 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.07728 | 168.8775 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.06949 | 168.7258 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.08547 | 168.6663 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.07405 | 168.6016 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.06949 | 168.481 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.07728 | 168.4691 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.06949 | 168.4198 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.08157 | 168.3545 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.07405 | 168.1796 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.08237 | 168.0977 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04195 | 135.076 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03782 | 115.4025 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07492 | 114.6554 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.4 | 0.09835 | 113.628 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07477 | 112.6016 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07332 | 111.7221 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03665 | 113.4947 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03752 | 113.467 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.07255 | 168.0508 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.08509 | 116.3589 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.07255 | 167.9917 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10055 | 113.2507 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07324 | 112.5161 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03636 | 111.5593 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07579 | 111.4011 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.04437 | 134.9128 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.04299 | 134.2081 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04364 | 133.348 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07606 | 133.1647 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.08112 | 167.867 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04332 | 133.0697 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07795 | 132.1563 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04226 | 131.8383 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04195 | 131.5102 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.0698 | 167.7878 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 0.07071 | 104.336 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 0.07071 | 103.4432 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 0.07071 | 103.2808 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 0.07304 | 103.0909 | CANTON - TALOGA 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07616 | 130.253 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07608 | 130.108 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.04364 | 129.9989 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04327 | 129.724 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07805 | 129.3491 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07606 | 129.2823 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.04226 | 129.2379 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07797 | 129.1002 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07795 | 128.3788 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04187 | 128.3704 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.1 | 0.06703 | 109.3388 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.2 | 0.06926 | 108.7552 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.08067 | 116.1175 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.07287 | 167.7211 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.0698 | 167.6673 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.07287 | 167.6628 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.07688 | 116.2693 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.08077 | 116.2242 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.08199 | 115.656 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.09715 | 108.3245 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.1 | 0.0718 | 108.2166 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.09968 | 108.1073 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.7 | 0.09819 | 107.5266 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.7 | 0.09507 | 106.8495 | BASE CASE |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.08237 | 167.6154 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.07127 | 167.0465 | P12:230:AEPW:ELKCITY6:SWEETW6 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07324 | 166.7917 | FRANKLIN SW - MIDWEST TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.07746 | 115.2774 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|--|
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.07255 | 115.209 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.07255 | 115.0241 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.07013 | 166.7328 | FRANKLIN SW - MIDWEST TAP 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.07431 | 166.6639 | P12:230:AEPW:ELKCITY6:SWEETW6 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07608 | 128.2875 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.0705 | 127.4777 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.0997 | 127.3988 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07797 | 127.2791 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07281 | 126.881 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09653 | 126.7889 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07054 | 126.7234 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07285 | 126.1785 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.08547 | 166.5659 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07324 | 166.309 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07568 | 111.3156 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07484 | 111.1978 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.03636 | 111.3223 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03782 | 111.0547 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07568 | 110.9649 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.03782 | 111.149 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 138.5 | 0.09835 | 110.9531 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07317 | 110.9635 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 138 | 0.10055 | 110.7319 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07819 | 110.8337 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 110.8182 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07492 | 110.3828 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.03665 | 109.2688 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.7 | 0.09849 | 110.796 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07568 | 110.4741 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.03752 | 108.9763 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.4 | 0.07324 | 108.0826 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 110.4674 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.2 | 0.09849 | 107.1825 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WPD | 01ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 787.9 | 0.36081 | 104.0603 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.06502 | 114.521 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.1 | 0.06238 | 103.829 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14504 | 116.0858 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.08083 | 116.0799 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06991 | 114.7079 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04327 | 125.8415 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.09871 | 125.2326 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07134 | 124.9176 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.06485 | 113.8217 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07867 | 124.8472 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07132 | 124.8369 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04317 | 124.8342 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07134 | 124.8126 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.07013 | 166.3043 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE | CONTINGENCY | | |
|--------|-------|----------|-----------|-----------|---|-------|-------------|-----------|--|
| | | | | | | (MVA) | TDF | LOADING % | CONTINGENCY |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.08509 | 114.953 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.07255 | 114.9501 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07324 | 166.24 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 280.7 | 0.13467 | 114.7609 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.07013 | 166.2329 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.08509 | 114.6571 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10656 | 124.8092 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07867 | 124.7947 | P12:138:WFEC:MSL12 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07132 | 124.7321 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09557 | 124.7312 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10576 | 124.7252 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11123 | 124.722 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07867 | 124.6898 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11123 | 124.6695 | P12:138:WFEC:MSL12 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11167 | 124.6632 | DOVER SW - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.08547 | 166.0992 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.07264 | 165.9902 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07864 | 124.6607 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11123 | 124.6169 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04187 | 124.5929 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.5 | 0.10066 | 110.3406 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07579 | 110.2791 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 109.906 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07477 | 109.7221 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07819 | 109.7109 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03665 | 109.2842 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.03636 | 107.0869 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.3 | 0.07484 | 106.891 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 138.8 | 0.10066 | 106.8674 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07317 | 109.2104 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07577 | 109.1543 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07577 | 108.8738 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07817 | 108.7256 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07332 | 108.5302 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07817 | 108.4449 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07579 | 106.8615 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07568 | 106.8456 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.03782 | 106.6361 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07586 | 108.3254 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07577 | 108.3128 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07477 | 107.9677 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07324 | 107.9579 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07826 | 107.8961 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07817 | 107.8835 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07317 | 106.4853 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07568 | 106.4149 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 169.3 | 0.07579 | 165.6574 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.08308 | 164.44 | IODINE - WOODWARD EHV 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | CONTINGENCY | | | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|-------------|-----------|---|-------------|
| | | | | | | | TDF | LOADING % | | |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03816 | 107.5961 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07492 | 107.3572 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 | |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07819 | 106.3446 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07808 | 106.257 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.4 | 0.06949 | 163.228 | BASE CASE | |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.08622 | 162.789 | IODINE - WOODWARD EHV 138KV CKT 1 | |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.08308 | 161.8686 | G15_049_T 138.00 - IODINE 138KV CKT 1 | |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07586 | 107.2735 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07484 | 106.7798 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 | |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07826 | 106.7733 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.06913 | 106.0491 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 | |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07006 | 114.67 | CLEVELAND - G15066_T 345.00 345KV CKT 1 | |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.05787 | 113.5509 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 | |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.06485 | 113.4908 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07864 | 124.5558 | P12:138:WFEC:MSL12 | |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10396 | 124.5231 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 | |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07864 | 124.5034 | CEDARDALE - PIC4 138.00 138KV CKT 1 | |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.08141 | 124.4525 | MOORELAND - PIC4 138.00 138KV CKT 1 | |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07608 | 124.405 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 | |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.08141 | 124.3475 | P12:138:WFEC:MSL12 | |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11123 | 124.2491 | CEDARDALE - OKEENE 138KV CKT 1 | |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.08141 | 124.2425 | CEDARDALE - PIC4 138.00 138KV CKT 1 | |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07867 | 124.2173 | CEDARDALE - OKEENE 138KV CKT 1 | |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08139 | 124.1626 | MOORELAND - PIC4 138.00 138KV CKT 1 | |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08139 | 124.0577 | P12:138:WFEC:MSL12 | |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07864 | 124.0315 | CEDARDALE - OKEENE 138KV CKT 1 | |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08139 | 124.0052 | CEDARDALE - PIC4 138.00 138KV CKT 1 | |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07357 | 123.9969 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 | |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07357 | 123.9444 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10748 | 123.895 | MOORELAND - PIC4 138.00 138KV CKT 1 | |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07355 | 123.8647 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 | |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10217 | 123.8624 | P12:138:WFEC:MSL15 | |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10748 | 123.8424 | P12:138:WFEC:MSL12 | |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10783 | 123.8267 | DOVER SW - OKEENE 138KV CKT 1 | |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.06511 | 113.1936 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.05756 | 112.8373 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.05516 | 112.4136 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 281.3 | 0.11615 | 122.9755 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 153.9 | 0.07255 | 161.54 | BASE CASE | |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.08308 | 161.5114 | DEWEY - G15_049_T 138.00 138KV CKT 1 | |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.08622 | 160.3752 | G15_049_T 138.00 - IODINE 138KV CKT 1 | |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.07366 | 114.5773 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 | |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.07366 | 114.3139 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.08199 | 114.1882 | G15_049_T 138.00 - IODINE 138KV CKT 1 | |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.08141 | 123.8226 | CEDARDALE - OKEENE 138KV CKT 1 | |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07355 | 123.8123 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.0786 | 123.79 | DOVER SW - OKEENE 138KV CKT 1 | |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.08622 | 159.9614 | DEWEY - G15_049_T 138.00 138KV CKT 1 | |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07842 | 159.8753 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.07728 | 159.776 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.08199 | 113.8871 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 281.4 | 0.13533 | 113.634 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.06949 | 113.5107 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.07405 | 159.6203 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07344 | 158.9363 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07032 | 158.6563 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.08179 | 158.573 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07344 | 158.4565 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07344 | 158.3194 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07032 | 158.1602 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07032 | 158.0893 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.0698 | 156.6968 | P12:138:WFEC:MSL15 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.05558 | 112.1335 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 180.2 | 0.06234 | 109.9156 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 127.7 | 0.08967 | 107.3876 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 180.1 | 0.0626 | 109.4503 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 180.2 | 0.05699 | 109.3219 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 180.1 | 0.05741 | 108.874 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.4 | 0.06234 | 108.469 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 127.3 | 0.09211 | 107.0086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.10011 | 105.8766 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.7 | 0.10078 | 107.3588 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.06716 | 106.7425 | BASE CASE |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.07368 | 107.0581 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.7 | 0.092 | 106.185 | BASE CASE |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | PITTSBURG - SEMINOLE 345KV CKT 1 | 716.9 | 0.09563 | 103.17 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10748 | 123.7374 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07797 | 123.5016 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08139 | 123.4809 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 0.07304 | 102.1981 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04177 | 123.4806 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 181.9 | 0.06696 | 106.9225 | BASE CASE |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.0694 | 106.1126 | BASE CASE |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07048 | 123.4501 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10748 | 123.4223 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.0814 | 123.3491 | DOVER SW - OKEENE 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123 | 0.10001 | 102.1967 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 0.07304 | 102.0357 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.07077 | 101.5036 | CORN TAP - CORNVILLE 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.10011 | 105.4078 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.10011 | 104.8609 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 140.5 | 0.06557 | 104.5651 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.06913 | 105.9088 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07568 | 105.9124 | IMO TAP - MEN TAP 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03697 | 105.8864 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07808 | 105.8981 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 17SP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182 | 0.06919 | 106.5044 | BASE CASE |
| 17G | 01NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.9 | 0.09715 | 101.8122 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07857 | 123.3424 | DOVER SW - OKEENE 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11717 | 123.2486 | P12:138:WFEC:MSL14 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10212 | 123.1865 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10212 | 123.134 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10576 | 123.0962 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07279 | 123.063 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07461 | 122.8987 | P12:138:WFEC:MSL15 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07606 | 122.829 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08137 | 122.7446 | DOVER SW - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07458 | 122.6618 | P12:138:WFEC:MSL15 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07134 | 122.5554 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.4 | 0.03777 | 105.0594 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07103 | 104.7761 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07317 | 104.6522 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07103 | 104.6358 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07007 | 104.568 | CANTON - TALOGA 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07571 | 104.4474 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03801 | 104.2791 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.0366 | 104.1926 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09886 | 122.5168 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09886 | 122.5168 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07723 | 122.4913 | P12:138:WFEC:MSL15 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07132 | 122.4247 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10774 | 122.3466 | P12:138:WFEC:MSL14 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10217 | 122.2343 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.0772 | 122.15 | P12:138:WFEC:MSL15 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07795 | 122.1354 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07217 | 122.0944 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07217 | 122.0944 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10439 | 122.0589 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10088 | 122.0052 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10088 | 122.0052 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07357 | 121.7396 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07217 | 121.6976 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07217 | 121.6976 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 278.4 | 0.11153 | 120.1171 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 281.8 | 0.11697 | 117.1732 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09786 | 121.5714 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09786 | 121.5714 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 281.3 | 0.11615 | 116.0789 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 279.1 | 0.11233 | 114.4271 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 278.4 | 0.11153 | 113.472 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 281.8 | 0.11697 | 110.2179 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06991 | 114.0208 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07006 | 113.9829 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.07287 | 156.6943 | G15_049_T 138.00 - IODINE 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.08332 | 156.4592 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.06949 | 113.2849 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.06949 | 113.2473 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.0698 | 156.3954 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.07688 | 110.535 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.07287 | 156.3442 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 282.9 | 0.14016 | 109.1665 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.0698 | 156.3351 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.07287 | 156.2859 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.07728 | 109.0516 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.08547 | 108.9192 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07763 | 155.4662 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.07728 | 108.8322 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.07366 | 108.7437 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07763 | 155.2593 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.07436 | 155.1228 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.07287 | 108.6194 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.08112 | 108.4548 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.07436 | 154.98 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.08647 | 154.9651 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.07287 | 108.3634 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.07287 | 108.2903 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07365 | 113.5647 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07393 | 113.5165 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.15601 | 111.3311 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.15591 | 111.2722 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14343 | 111.2587 | P12:345: AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14338 | 111.2153 | P12:345: AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.1 | 0.14405 | 110.7551 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14425 | 110.7348 | CIMARRON - SARA 138KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.20052 | 104.127 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.40746 | 104.127 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.47695 | 103.4654 | G14-074T 345.00 - TUCO INTERCHANGE 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.1 | 0.14399 | 110.7255 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14421 | 110.6916 | CIMARRON - SARA 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14391 | 109.6735 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14385 | 109.6438 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14425 | 109.3325 | SARA - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14421 | 109.3033 | SARA - STHLAKE4 138.00 138KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.41209 | 103.3491 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.48649 | 103.3035 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.48649 | 103.3035 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14237 | 109.2517 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14226 | 109.1926 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06854 | 109.1583 | P12:345: AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.0687 | 109.1208 | P12:345: AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14425 | 109.1081 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14229 | 109.0812 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14421 | 109.079 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14218 | 109.022 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.39728 | 103.1451 | CIMARRON - MINCO 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.40012 | 103.0703 | FSHRTAP7 345.00 - G15038_1 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06945 | 108.9034 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.41032 | 102.9245 | G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 2 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.41032 | 102.9245 | G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.20052 | 102.7347 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.40746 | 102.7347 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.4122 | 102.704 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.2 | 0.4122 | 102.6784 | P12:345:SPS:FINNEY-HITCHLAND |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.14472 | 102.4982 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.45949 | 102.4667 | CIMARRON - FSHRTAP7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.47521 | 102.3683 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.47521 | 102.3513 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.4632 | 102.2201 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 1 | 102.1181 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.46768 | 101.963 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.48764 | 101.9587 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.48764 | 101.9587 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.46891 | 101.9209 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.46858 | 101.8586 | P12:230:AEPW:ELKCITY6:SWEETW6 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.4784 | 101.5531 | G14-074T 345.00 - TUCO INTERCHANGE 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.46815 | 101.4997 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.46815 | 101.4827 | P12:345:SPS:FINNEY-HITCHLAND |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.46815 | 101.4827 | P12:345:SPS:J07.1.FINN.HITCH |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.47027 | 101.1104 | G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 2 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.47027 | 101.1104 | G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.47137 | 100.982 | G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.47137 | 100.982 | G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 2 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1179.5 | 0.48766 | 100.9777 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1179.5 | 0.48766 | 100.9777 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1179.5 | 1 | 100.8648 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.46439 | 100.8353 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.46891 | 100.8236 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.46238 | 100.8231 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.18924 | 100.8037 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20L | 01NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.18924 | 100.8037 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17G0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1173.5 | 0.40979 | 100.5663 | BASE CASE |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.46768 | 100.5252 | P12:230:AEPW-SPS:SWEETW6:WHEELER 6 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.46768 | 100.5252 | STLN-DEMARC6 - SWEETWATER 230KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.46768 | 100.5252 | STATLINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.46768 | 100.5252 | P12:230:SPS:K74.1.WEELR.SWT(520) |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1172 | 0.40058 | 100.4905 | BASE CASE |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.46901 | 100.3504 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.47428 | 100.33 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.46995 | 100.3067 | P12:230:AEPW:ELKCITY6:SWEETW6 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.47428 | 100.2188 | FPL SWITCH - WOODWARD 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE | CONTINGENCY | | |
|--------|-------|----------|-----------|-----------|---|-------|-------------|-----------|--|
| | | | | | | (MVA) | TDF | LOADING % | CONTINGENCY |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.06262 | 103.3013 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07355 | 121.5574 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.08332 | 153.9079 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.0698 | 153.7812 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.0698 | 153.6427 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06974 | 108.8554 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.08332 | 153.5535 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | CIMARRON - MINCO 345KV CKT 1 | 955.2 | 0.05304 | 108.4703 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.0716 | 153.2972 | P12:230:AEPW:ELKCITY6:SWEETW6 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06367 | 121.5176 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07324 | 153.2745 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.07465 | 153.2264 | P12:230:AEPW:ELKCITY6:SWEETW6 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.07013 | 153.1614 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07324 | 152.9297 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07324 | 152.8607 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171.4 | 0.07618 | 152.8215 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.07302 | 152.8053 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.07013 | 152.8043 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.07013 | 152.8043 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.08647 | 152.6347 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.08647 | 152.2234 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.1 | 0.07555 | 108.8393 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 117.8 | 0.07013 | 152.1443 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.08237 | 108.237 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.1 | 0.07571 | 108.8158 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14298 | 108.792 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14293 | 108.7486 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.3 | 0.03095 | 114.6561 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.4 | 0.03095 | 114.0105 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 283.5 | 0.14085 | 108.1728 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.05859 | 102.6693 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.6 | 0.03188 | 113.0287 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 20WP | 00NR | 4 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 357.7 | 0.03033 | 111.6204 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.6 | 0.03188 | 112.482 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358.3 | 0.03752 | 107.6762 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06863 | 108.6139 | CIMARRON - SARA 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07571 | 104.1669 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06877 | 108.5758 | CIMARRON - SARA 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14298 | 108.3994 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14298 | 108.3713 | MORGAN - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.0463 | 105.1004 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14293 | 108.3559 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.04578 | 104.8714 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14293 | 108.3419 | MORGAN - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14298 | 108.2311 | MORGAN - MUSTANG 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.06485 | 108.0989 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14293 | 108.2017 | MORGAN - MUSTANG 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06293 | 107.4023 | P12:138:WFEC:MSLO3 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE | CONTINGENCY | | |
|--------|-------|----------|-----------|-----------|---|-------|-------------|-----------|---|
| | | | | | | (MVA) | TDF | LOADING % | CONTINGENCY |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06308 | 107.3785 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.05816 | 102.6602 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0781 | 104.1515 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06863 | 107.2116 | SARA - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06877 | 107.1875 | SARA - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 279.1 | 0.11233 | 107.6912 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07579 | 105.7129 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06613 | 107.1134 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.0581 | 102.6485 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.07255 | 107.8098 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.07255 | 107.7729 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.08547 | 107.6395 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.07781 | 107.5267 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.08077 | 107.4192 | WOODWARD - WOODWARD 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.08547 | 107.347 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.07405 | 107.1731 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.4 | 0.05941 | 108.0741 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07808 | 105.3955 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 283.6 | 0.11741 | 106.658 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.07405 | 106.9502 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.0698 | 106.9316 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06645 | 107.0663 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD 69KV CKT 1 | 109.2 | 0.03167 | 104.6099 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.05717 | 102.6291 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 270.3 | 0.07431 | 106.9042 | P12:230:AEPW:ELKCITY6:SWEETW6 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD 69KV CKT 1 | 108.8 | 0.03075 | 103.8143 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 20WP | 00NR | 4 | FROM->TO | G15_049_1 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.4 | 0.03174 | 104.4219 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.08237 | 106.8626 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.0698 | 106.6716 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.0698 | 106.6345 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128.3 | 0.09638 | 104.424 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20WP | 00NR | 4 | FROM->TO | G15_049_1 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.4 | 0.03174 | 104.0033 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.5 | 0.10485 | 106.3397 | BASE CASE |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03536 | 106.0754 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07455 | 121.4525 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03521 | 106.0291 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.07287 | 151.1326 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.07287 | 150.9973 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 123.7 | 0.07324 | 150.2409 | BASE CASE |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07787 | 149.8108 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07455 | 121.4525 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.13383 | 149.8021 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 150.1 | 0.0698 | 149.7402 | BASE CASE |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07787 | 149.6052 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07459 | 149.1977 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07459 | 148.9851 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 156.2 | 0.07287 | 148.5749 | BASE CASE |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.07021 | 147.9735 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.13926 | 146.9103 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.07021 | 146.7889 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.07021 | 146.7192 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.07781 | 146.3726 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07324 | 145.7572 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07324 | 145.6883 | MOORELAND 138/18.0KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.07013 | 145.59 | MOORELAND 138/18.0KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 127 | 0.07531 | 107.8441 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06863 | 106.9873 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.3 | 0.03095 | 112.2373 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.4 | 0.03095 | 111.6117 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.06511 | 107.743 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.08237 | 106.6025 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.5 | 0.03198 | 110.0347 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.1 | 0.03105 | 109.5458 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0781 | 103.871 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 280.7 | 0.13467 | 106.389 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 281.3 | 0.08556 | 105.7632 | WOODWARD - WOODWARD EHV 138KV CKT 2 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07477 | 105.2075 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07579 | 103.8275 | G15095_T 138.00 - ROSE VALLEY 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | EVANS ENERGY CENTER NORTH - MAIZEW 4 138.00 138KV CKT 1 | 380.1 | 0.03554 | 100.5546 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06877 | 106.9631 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.5 | 0.03198 | 109.5101 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07344 | 145.5024 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07032 | 145.1906 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07344 | 145.0226 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07344 | 144.9541 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07032 | 144.7654 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.06363 | 121.431 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145 | 0.07324 | 144.7227 | MOORELAND 138/18.0KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07032 | 144.6945 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.07013 | 144.6614 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.07329 | 144.6046 | SOONER 138/22.0KV TRANSFORMER CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.07329 | 143.4497 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.07329 | 143.3139 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 119.1 | 0.07032 | 142.3711 | BASE CASE |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.078 | 142.1745 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.078 | 142.1745 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10212 | 121.3999 | NSAH - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.08113 | 142.0338 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.0698 | 141.5928 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 124.7 | 0.07344 | 140.9687 | BASE CASE |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.08237 | 140.8407 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.3 | 0.03105 | 108.8597 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.5 | 0.03198 | 107.6196 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.5 | 0.03198 | 107.0382 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.1 | 0.03105 | 106.972 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08573 | 107.4059 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.06949 | 106.3598 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.05516 | 107.0217 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.06949 | 106.2093 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07228 | 103.6884 | CANTON - TALOGA 69KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 283.8 | 0.11798 | 104.8964 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.3 | 0.03105 | 106.3091 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.6 | 0.02961 | 102.8823 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.0698 | 140.6925 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.0698 | 140.6233 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.08135 | 139.6279 | P12:345:OKGE-PAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.08135 | 139.6279 | P12:345:OKGE-PAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.06004 | 102.0929 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07344 | 139.4023 | BENTON - MIDIAN 138KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07344 | 139.3338 | MOORELAND 138/18.0KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358.3 | 0.03711 | 107.4301 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | CIMARRON - MINCO 345KV CKT 1 | 955.2 | 0.05281 | 108.3608 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358 | 0.03723 | 107.3034 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.0698 | 139.169 | DOVER SW - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07639 | 121.3533 | DEWEY - SOUTHARD 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07032 | 139.1665 | BENTON - MIDIAN 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07032 | 139.0957 | MOORELAND 138/18.0KV TRANSFORMER CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.07287 | 138.8863 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.0698 | 138.6842 | OKLA WIND ENERGY CENTER (FPLWIND) 138/34.5/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.08237 | 138.6246 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.0698 | 138.4765 | FPL SWITCH - OKLA WIND ENERGY CENTER 138KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.9 | 0.07344 | 138.3742 | MOORELAND 138/18.0KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.07032 | 138.1035 | MOORELAND 138/18.0KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0705 | 121.1962 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.07287 | 137.8714 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.03088 | 104.7847 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.03226 | 104.6651 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.6 | 0.02961 | 102.4117 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.06949 | 106.1716 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 134 | 0.03076 | 100.5612 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 133.8 | 0.03076 | 100.4873 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 | 132.5 | 0.02976 | 100.2657 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.07746 | 106.1694 | WOODWARD - WOODWARD 69KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.4 | 0.03909 | 101.1211 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.4 | 0.03866 | 100.9018 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358.3 | 0.03752 | 107.2576 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07007 | 103.5862 | CANTON - OKEENE 69KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.05966 | 101.8765 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | CLEARWATER - MILAN TAP 138KV CKT 1 | 105.7 | 0.03283 | 113.9697 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 281.6 | 0.0698 | 105.7741 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 283.1 | 0.07287 | 105.3599 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 281.4 | 0.13533 | 105.354 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.07127 | 105.3271 | P12:230:AEPW:ELKICY6:SWEETWT6 |
| 17G | 01NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 283.1 | 0.07287 | 105.3246 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 281.3 | 0.11272 | 104.2105 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 281.6 | 0.0698 | 105.277 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 281.6 | 0.0698 | 105.2415 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07477 | 103.5467 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07819 | 105.1242 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 283.1 | 0.13971 | 104.6422 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.06485 | 106.9345 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 281.6 | 0.13427 | 104.3871 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | CLEARWATER - MILAN TAP 138KV CKT 1 | 105.6 | 0.03247 | 113.1572 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD 69KV CKT 1 | 109.2 | 0.03167 | 102.7784 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 278.4 | 0.08194 | 103.5877 | WOODWARD - WOODWARD EHV 138KV CKT 2 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.07728 | 103.3843 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD 69KV CKT 1 | 108.8 | 0.03075 | 101.8842 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.03665 | 104.8961 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.1 | 0.0718 | 105.7948 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 95.6 | 0.06006 | 101.7377 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.5 | 0.08229 | 106.7057 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 282.5 | 0.13926 | 103.3812 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 280.9 | 0.13383 | 103.3343 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 280.9 | 0.07021 | 102.3645 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 282.5 | 0.07329 | 102.1798 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.03088 | 104.3969 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_1 | WOODWARD - WOODWARD EHV 138KV CKT 1 | 281.4 | 0.11328 | 102.5075 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WPO | 01ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.19804 | 101.4804 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.1 | 0.03437 | 104.9203 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 140.7 | 0.06549 | 103.9076 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 25SP | 00NR | 4 | FROM->TO | G15_049_1 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.2 | 0.03313 | 102.6334 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_049_1 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 554 | 0.03176 | 102.4643 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.07287 | 137.8714 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 123.1 | 0.0698 | 136.8481 | BASE CASE |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.07287 | 136.3153 | NSAH - RINGWOOD 69KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07455 | 121.1601 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.08548 | 136.2625 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.07287 | 135.8417 | OKLA WIND ENERGY CENTER (FPLWIND) 138/34.5/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.07287 | 135.7064 | FPL SWITCH - OKLA WIND ENERGY CENTER 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 280.9 | 0.07021 | 101.7949 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.07021 | 133.6878 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.07021 | 133.6181 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.07823 | 133.5512 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.0785 | 133.101 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.0785 | 133.101 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.08264 | 132.7024 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 127 | 0.07287 | 132.263 | BASE CASE |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.07021 | 131.6669 | OKLA WIND ENERGY CENTER (FPLWIND) 138/34.5/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.07021 | 131.5275 | FPL SWITCH - OKLA WIND ENERGY CENTER 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.05558 | 106.683 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.07329 | 130.2025 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.07329 | 130.1345 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.08187 | 129.8057 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06611 | 106.9446 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 280.9 | 0.07021 | 101.7593 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.07405 | 101.6382 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.07368 | 104.7254 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 282.5 | 0.07329 | 101.578 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06643 | 106.8975 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07571 | 103.5358 | IMO TAP - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 281.6 | 0.07781 | 101.5135 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128.3 | 0.09638 | 103.8784 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07455 | 121.1076 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.08187 | 129.8057 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.8 | 0.07287 | 129.3464 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 127.8 | 0.07109 | 106.1174 | BASE CASE |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 122 | 0.07021 | 128.8049 | BASE CASE |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.08156 | 128.6087 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 282.5 | 0.07329 | 101.5073 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.07329 | 128.1644 | OKLA WIND ENERGY CENTER (FPLWIND) 138/34.5/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.07329 | 127.9606 | FPL SWITCH - OKLA WIND ENERGY CENTER 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.2 | 0.08576 | 127.3451 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 126.2 | 0.07329 | 123.4216 | BASE CASE |
| 25SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 151.2 | 0.05767 | 102.0728 | ARKANSAS NUCLEAR ONE - FT SMITH 500KV CKT 1 |
| 25SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 151.2 | 0.05767 | 101.7421 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 25SP | 00NR | 2 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 151.2 | 0.05767 | 101.6098 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 25SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.9 | 0.05514 | 100.9655 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 25SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.9 | 0.05514 | 100.6275 | G15095_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 25SP | 00NR | 0 | TO->FROM | G15_049_1 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.9 | 0.05514 | 100.5598 | G15095_1 138.00 - G15095_T 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128.3 | 0.09638 | 103.4107 | IMO TAP - MEN TAP 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07819 | 103.533 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.8 | 0.10629 | 104.4628 | BASE CASE |
| 20SP | 00NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.05756 | 105.95 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.07287 | 101.453 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.4 | 0.07317 | 104.7251 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.07287 | 101.2336 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 273.5 | 0.07287 | 101.1971 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_1 | FPL SWITCH - MOORELAND 138KV CKT 1 | 283.1 | 0.08113 | 100.6097 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06636 | 106.6431 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06651 | 106.6053 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06636 | 106.2505 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06636 | 106.2224 | MORGAN - XEROX 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06651 | 106.2126 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06651 | 106.1986 | MORGAN - XEROX 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10064 | 121.0756 | DEWEY - SOUTHARD 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.05933 | 105.7448 | ANADARKO - POCASSETT 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06357 | 120.9937 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.05951 | 105.7078 | ANADARKO - POCASSETT 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.155 | 105.3522 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.15506 | 105.3259 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 17G | 01NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.12155 | 104.4173 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04317 | 120.9517 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.12133 | 104.3832 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14038 | 104.1335 | BASE CASE |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14031 | 104.1035 | BASE CASE |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06574 | 120.9481 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.155 | 102.0403 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06568 | 102.0384 | BASE CASE |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06587 | 102.0157 | BASE CASE |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.15506 | 102.014 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.06569 | 120.9123 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11021 | 120.8642 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07637 | 120.8568 | DEWEY - SOUTHARD 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.03226 | 104.2546 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11021 | 120.8116 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10466 | 120.8063 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09886 | 120.7836 | NSAH - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07281 | 120.7566 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11021 | 120.7063 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06564 | 120.6338 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 3 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.9 | 0.03574 | 102.745 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07859 | 120.4187 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07859 | 120.3662 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11021 | 120.3379 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07859 | 120.2613 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08134 | 120.1826 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP0 | 01ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.36719 | 101.4804 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.06252 | 104.1976 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.06923 | 103.3282 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0781 | 103.2398 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07577 | 104.6948 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.5 | 0.05624 | 103.1973 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.3 | 0.07176 | 103.6744 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | PITTSBURG - SEMINOLE 345KV CKT 1 | 716.9 | 0.09538 | 103.177 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07577 | 104.4083 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.12155 | 101.1054 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.06923 | 103.1879 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03816 | 103.0379 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.06913 | 102.8934 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03683 | 102.6428 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07228 | 102.6358 | CANTON - OKEENE 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07579 | 102.5652 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.03301 | 103.478 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.06548 | 103.3562 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07817 | 104.3971 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07817 | 104.1104 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07332 | 104.0573 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.8 | 0.05766 | 101.1647 | P12:345:AEPW-OKGE:PITTSB-7;SEMINOL7 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07577 | 103.9069 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07586 | 103.8481 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10526 | 102.4448 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07579 | 102.3548 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07817 | 103.5369 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.06703 | 101.7529 | BASE CASE |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10542 | 102.3258 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_1 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.03474 | 102.8355 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.09682 | 101.2684 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07819 | 102.2707 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123 | 0.10001 | 101.2211 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123 | 0.10001 | 101.0585 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07701 | 102.2454 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07701 | 102.2454 | P12:138:WFEC:MSL14 |
| 17G | 01NR | 2 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.7 | 0.03782 | 102.2329 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.12133 | 101.0713 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.0686 | 120.168 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10649 | 120.1462 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10649 | 120.0936 | P12:138:WFEC:MSL12 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08134 | 120.0776 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10111 | 120.0536 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 0 | TO->FROM | G15_049_1 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.05441 | 103.1678 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11041 | 120.0432 | DOVER SW - OKEENE 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10649 | 120.041 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08134 | 120.0252 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10102 | 119.9495 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10102 | 119.9495 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10568 | 119.9137 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07859 | 119.8416 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06859 | 119.8312 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10313 | 119.7401 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_1 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04177 | 119.703 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10649 | 119.6728 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08134 | 119.6055 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.06502 | 103.0556 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.0978 | 119.4424 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07113 | 102.1937 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.07362 | 102.5611 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.4 | 0.07324 | 103.5242 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07819 | 102.0618 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 126 | 0.07648 | 102.9333 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07113 | 102.0533 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10526 | 102.0198 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07568 | 101.8485 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07826 | 103.4781 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07017 | 101.8471 | CANTON - TALOGA 69KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 140.4 | 0.06738 | 102.8319 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07103 | 101.7586 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07701 | 101.7545 | BEARCAT 138.00 - NINE MILE 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.0978 | 119.4424 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11111 | 119.38 | P12:138:WFEC:MSL14 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10662 | 119.3709 | DOVER SW - OKEENE 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10466 | 119.1747 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07852 | 119.0997 | DOVER SW - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08132 | 118.8164 | DOVER SW - OKEENE 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.09975 | 118.7105 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.09975 | 118.7105 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07127 | 118.6012 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07127 | 118.6012 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07454 | 118.5247 | P12:138:WFEC:MSL15 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09676 | 118.4387 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09676 | 118.4387 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10111 | 118.4229 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08145 | 101.9553 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07716 | 118.2749 | P12:138:WFEC:MSL15 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10344 | 118.2042 | DEWEY - SOUTHARD 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08219 | 118.1731 | P12:138:WFEC:MSL14 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.1 | 0.03437 | 102.4985 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0721 | 118.0588 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08145 | 101.7524 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10526 | 101.6657 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07953 | 101.6182 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.4 | 0.07477 | 103.4573 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.03337 | 102.2753 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07953 | 101.6182 | P12:138:WFEC:MSL14 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 101.5551 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07568 | 101.4979 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03697 | 101.4684 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_1 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.5 | 0.03665 | 101.2933 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.9 | 0.0718 | 101.6499 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 140.4 | 0.03816 | 103.0855 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.04592 | 102.4582 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 3 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.9 | 0.03574 | 102.3577 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0721 | 118.0063 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0735 | 117.9958 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07608 | 117.9517 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0735 | 117.9433 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07448 | 117.6264 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07448 | 117.6264 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06368 | 117.4376 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09973 | 117.3309 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07797 | 117.2581 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.0982 | 117.1263 | P12:138:WFEC:MSL14 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07358 | 117.1123 | DEWEY - SOUTHARD 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07632 | 117.0325 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06575 | 117.0252 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.0978 | 117.0226 | NSAH - RINGWOOD 69KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.09923 | 116.7346 | BASE CASE |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07864 | 116.3841 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07864 | 116.3316 | P12:138:WFEC:MSL12 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08145 | 101.5494 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.4 | 0.10198 | 101.2702 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07864 | 116.2791 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_1 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.7 | 0.03516 | 101.9903 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 101.2042 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07492 | 102.9276 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 126.8 | 0.07231 | 101.4685 | BASE CASE |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07586 | 102.7736 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227 | 0.0718 | 101.7004 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.04541 | 102.2298 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10542 | 101.1926 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.5 | 0.10523 | 101.1632 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.4 | 0.10213 | 101.1499 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07953 | 101.0568 | BEARCAT 138.00 - NINE MILE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07237 | 101.0344 | CANTON - TALOGA 69KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.4 | 0.10198 | 100.9165 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.8 | 0.09819 | 101.597 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.1 | 0.0718 | 101.5676 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.8 | 0.05669 | 101.1444 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.3 | 0.07484 | 102.4719 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07826 | 102.4029 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07579 | 100.8822 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 138.5 | 0.03777 | 102.205 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07568 | 100.8668 | IMO TAP - MEN TAP 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 140.3 | 0.03697 | 101.4925 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_1 | CEDARDALE - OKEENE 138KV CKT 1 | 138 | 0.0366 | 101.4638 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.06913 | 101.3826 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07017 | 100.8653 | CANTON - OKEENE 69KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 140.6 | 0.0673 | 102.1053 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.07077 | 100.6115 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.06895 | 100.7644 | ALVA - CHEROKEE SW 69KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07819 | 100.5881 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.07077 | 100.4493 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.0731 | 100.4217 | GREASY CREEK - WELEETKA 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.9 | 0.09968 | 101.5516 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_1 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.7 | 0.03379 | 101.4747 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 100.5726 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.4 | 0.10198 | 100.4922 | IMO TAP - MEN TAP 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07324 | 100.4544 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.06913 | 101.2391 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07103 | 100.1479 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.5 | 0.10511 | 100.4396 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.08714 | 101.0395 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07018 | 116.2394 | BASE CASE |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09608 | 116.1324 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08139 | 116.0955 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHWARD 138KV CKT 1 | 147.8 | 0.08077 | 100.7808 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08139 | 116.043 | P12:138:WFEC:MSL12 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06845 | 115.9444 | CLEO CORNER - CLEOTP 2 69.000 69KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08139 | 115.9381 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07864 | 115.8594 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07017 | 115.8542 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07247 | 115.6924 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08139 | 115.5184 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07247 | 115.2564 | BASE CASE |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07217 | 115.2329 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07217 | 115.2329 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07455 | 114.8006 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07455 | 114.8006 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07458 | 114.7513 | P12:138:WFEC:MSL15 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07857 | 114.6453 | DOVER SW - OKEENE 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0772 | 114.4491 | P12:138:WFEC:MSL15 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.3 | 0.07176 | 101.1667 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.1 | 0.14405 | 100.4209 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07132 | 114.3568 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_1 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.03301 | 101.1452 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.06923 | 100.3128 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.7 | 0.10078 | 101.4739 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 127.9 | 0.06729 | 101.8436 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.4 | 0.07317 | 100.0954 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_1 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.1 | 0.14399 | 100.3913 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.06926 | 101.2313 | BASE CASE |
| 17G | 01NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHWARD 138KV CKT 1 | 147.7 | 0.08375 | 100.4401 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHWARD 138KV CKT 1 | 147.8 | 0.0867 | 100.2977 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.09682 | 100.3763 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.5 | 0.10511 | 100.1569 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07933 | 114.3053 | P12:138:WFEC:MSL14 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHWARD 138KV CKT 1 | 180.2 | 0.06234 | 100.2597 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07132 | 114.3043 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08137 | 114.2571 | DOVER SW - OKEENE 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08225 | 114.0346 | P12:138:WFEC:MSL14 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08225 | 113.9822 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07356 | 113.6999 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07356 | 113.6474 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.0982 | 112.9684 | BASE CASE |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09509 | 112.4766 | BASE CASE |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06847 | 112.4313 | CLEO CORNER - CLEOTP 2 69.000 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07011 | 112.2361 | BASE CASE |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07241 | 111.8478 | BASE CASE |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07017 | 108.4124 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07247 | 107.9717 | BASE CASE |
| 25SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.0704 | 104.237 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|--|
| 25SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06789 | 104.1835 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 25SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06128 | 102.2842 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06353 | 102.258 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227 | 0.07368 | 100.8969 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.9 | 0.05853 | 108.9468 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 103.5 | 0.08655 | 101.6522 | BASE CASE |
| 20L | 01NR | 0 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.05865 | 105.8452 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.9 | 0.05853 | 105.753 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07953 | 100.1446 | MOREWOOD SW - NINE MILE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.07368 | 100.6761 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07103 | 100.0043 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06261 | 104.4901 | HUGO - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.9 | 0.07368 | 100.5423 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08077 | 100.2395 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.0867 | 100.0271 | P12:138:WFEC:MSL14 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.9 | 0.06249 | 104.3279 | HUGO - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | DOVER SW - OKEENE 138KV CKT 1 | 140.5 | 0.04297 | 101.348 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | DOVER SW - OKEENE 138KV CKT 1 | 140.7 | 0.04266 | 100.6624 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 104 | 0.08353 | 100.3904 | BASE CASE |
| 20SP | 00NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 183 | 0.06716 | 100.3454 | BASE CASE |
| 17G | 01NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.7 | 0.10198 | 100.1383 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.09682 | 100.2141 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.4 | 0.10213 | 100.0891 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07707 | 100.0799 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07707 | 100.0799 | P12:138:WFEC:MSL14 |
| 17G | 01NR | 2 | TO->FROM | G15_049_1 | DOVER SW - OKEENE 138KV CKT 1 | 127.7 | 0.04297 | 100.0736 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 122.7 | 0.09903 | 100.1679 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.1 | 0.09588 | 100.143 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07237 | 100.0519 | CANTON - OKEENE 69KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.5 | 0.07668 | 100.0242 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.8 | 0.05965 | 101.1331 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.05808 | 101.1005 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.05769 | 101.0923 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.07413 | 101.0069 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.07554 | 100.9527 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716.2 | 0.05451 | 100.7124 | BASE CASE |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03076 | 101.767 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03214 | 101.6248 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.04828 | 100.4661 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.04858 | 100.3887 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716.2 | 0.04248 | 100.3764 | BASE CASE |
| 25SP | 00NR | 2 | FROM->TO | G15_049_1 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 553.9 | 0.03149 | 102.4369 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 25SP | 00NR | 3 | FROM->TO | G15_049_1 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.2 | 0.03237 | 102.3737 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_049_1 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.2 | 0.03176 | 101.6366 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 16WP | 00NR | 3 | TO->FROM | G15_086 | PITTSBURG - SEMINOLE 345KV CKT 1 | 716.8 | 0.09869 | 106.06 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.05419 | 100.2446 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.05433 | 100.1606 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_1 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.8 | 0.05389 | 100.0919 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | CONTINGENCY | | |
|--------|-------|----------|-----------|-----------|---|------------|-------------|-----------|--|
| | | | | | | | TDF | LOADING % | CONTINGENCY |
| 20WP | 00NR | 3 | TO->FROM | G15_086 | PITTSBURG - SEMINOLE 345KV CKT 1 | 716.4 | 0.09842 | 102.5383 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.4 | 0.07761 | 100.5055 | BASE CASE |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.3 | 0.03474 | 100.4171 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.07362 | 100.1865 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358 | 0.03683 | 107.0855 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358.3 | 0.03711 | 107.0394 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 4 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 357.7 | 0.03033 | 101.8915 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 4 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358.1 | 0.03052 | 101.8442 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_1 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.4 | 0.03909 | 100.7026 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_1 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.4 | 0.03866 | 100.4833 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 4 | TO->FROM | G15_049_1 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358.1 | 0.03052 | 101.4812 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 25SP | 00NR | 2 | FROM->TO | G15_049_1 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.2 | 0.03149 | 101.5912 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 25SP | 00NR | 4 | FROM->TO | G15_049_1 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 553.6 | 0.03313 | 100.7092 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 25SP | 00NR | 3 | FROM->TO | G15_049_1 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 553.7 | 0.03237 | 100.3926 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.08579 | 137.84 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.19697 | 152.0257 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WPO | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.1964 | 116.3199 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WPO | 01ALL | 0 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.1964 | 116.3199 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WPO | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1160.5 | 0.1964 | 114.9284 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.08533 | 137.0914 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.198 | 145.5782 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20LO | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.3 | 0.28655 | 141.7519 | DEWEY - TALOGA 138KV CKT 1 |
| 17GO | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 146.2 | 0.28692 | 140.2048 | DEWEY - TALOGA 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | DEWEY - SOUTHARD 138KV CKT 1 | 221.1 | 0.19697 | 107.0077 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.20032 | 139.867 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 145.5 | 0.2859 | 139.7721 | DEWEY - TALOGA 138KV CKT 1 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 145.1 | 0.19883 | 138.0937 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 01ALL | 2 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1161.9 | 0.19492 | 114.8769 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 01ALL | 2 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1161.9 | 0.19492 | 114.8769 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 01ALL | 2 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1161.9 | 0.19492 | 113.5079 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WPO | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.2062 | 110.8385 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WPO | 01ALL | 0 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.2062 | 110.8385 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.21764 | 110.6665 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.21764 | 110.4355 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 01ALL | 2 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1166.6 | 0.20464 | 109.4306 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 01ALL | 2 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1166.6 | 0.20464 | 109.4306 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WPO | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1165.3 | 0.2062 | 109.4261 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.1437 | 109.4009 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08573 | 136.9729 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 145.5 | 0.19883 | 135.1095 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.20032 | 132.8793 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20LO | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.3 | 0.19978 | 132.7018 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | DEWEY - SOUTHARD 138KV CKT 1 | 221 | 0.198 | 104.0272 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP0 | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - SOUTHARD 138KV CKT 1 | 221.4 | 0.28591 | 103.3258 | DEWEY - TALOGA 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.20011 | 132.0878 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | DEWEY - SOUTHARD 138KV CKT 1 | 221.3 | 0.20032 | 102.5142 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.08714 | 130.4952 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - SOUTHARD 138KV CKT 1 | 221.3 | 0.2859 | 102.1999 | DEWEY - TALOGA 138KV CKT 1 |
| 17GO | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 146.2 | 0.20025 | 130.3691 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.29241 | 130.0961 | DEWEY - TALOGA 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.08579 | 127.9288 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.08533 | 127.1865 | GRACEMONT - MINCO 345KV CKT 1 |
| 17GO | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.9 | 0.40918 | 118.6689 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20WPO | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.5 | 0.40931 | 118.5785 | DEWEY - SOUTHARD 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 165 | 0.41214 | 118.3806 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.9 | 0.41219 | 116.0934 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20LO | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.8 | 0.40912 | 115.7551 | DEWEY - SOUTHARD 138KV CKT 1 |
| 16WPO | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.7 | 0.40973 | 114.1263 | DEWEY - SOUTHARD 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 165 | 0.41214 | 112.9867 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 17GO | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.9 | 0.40918 | 112.9684 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20SP0 | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.8 | 0.40935 | 112.307 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20WPO | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.5 | 0.40931 | 112.2563 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.9 | 0.41219 | 112.0303 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20LO | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.8 | 0.40912 | 111.4469 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 17SP0 | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.7 | 0.4094 | 110.8059 | DEWEY - SOUTHARD 138KV CKT 1 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.43975 | 124.3243 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.51244 | 124.3243 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 492.8 | 0.43975 | 124.3139 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 492.8 | 0.51244 | 124.3139 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 25SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.43071 | 118.952 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 25SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.48317 | 118.952 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.44215 | 125.0205 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.51524 | 125.0205 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 25SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 492.8 | 0.43071 | 118.9191 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 25SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 492.8 | 0.48317 | 118.9191 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 25SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 492.8 | 0.44215 | 124.9901 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 492.8 | 0.51524 | 124.9901 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 25SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.43313 | 119.6045 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 25SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.48589 | 119.6045 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 25SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 492.8 | 0.43313 | 119.5922 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 25SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 492.8 | 0.48589 | 119.5922 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 492.9 | 0.429 | 109.6626 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 492.9 | 0.50001 | 109.6626 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 492.9 | 0.43127 | 110.2451 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 492.9 | 0.50265 | 110.2451 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.2 | 0.50906 | 122.6667 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.1 | 0.50886 | 121.0686 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.2 | 0.50906 | 117.7166 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.429 | 109.5795 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.50001 | 109.5795 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.1 | 0.50886 | 116.0709 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.42906 | 107.3212 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.5002 | 107.3212 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.42906 | 107.2604 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.5002 | 107.2604 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.43127 | 110.1619 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.50265 | 110.1619 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 1 | 492.8 | 0.42731 | 106.1765 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 1 | 492.8 | 0.49828 | 106.1765 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.43133 | 107.8833 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.50284 | 107.8833 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.43133 | 107.8224 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.50284 | 107.8224 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 1 | 492.8 | 0.42956 | 106.7388 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 492.8 | 0.50092 | 106.7388 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.42731 | 106.0726 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.49828 | 106.0726 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.42956 | 106.6347 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.50092 | 106.6347 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03076 | 112.093 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03 | 112.0583 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03076 | 111.6371 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03 | 111.6025 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03144 | 111.349 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03144 | 110.9159 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.03088 | 104.7847 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.03031 | 104.7587 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.03088 | 104.3969 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.03031 | 104.3709 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | EVANS ENERGY CENTER NORTH - MAIZEW 4 138.00 138KV CKT 1 | 380.1 | 0.03169 | 100.4573 | BENTON - WICHITA 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03202 | 105.9818 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 717 | 0.06771 | 125.0965 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06361 | 124.5021 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03401 | 107.1441 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 717 | 0.04256 | 124.395 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.0583 | 124.3675 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06458 | 123.8043 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716.5 | 0.0673 | 123.665 | BASE CASE |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10656 | 140.8891 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06425 | 123.5574 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716.5 | 0.04215 | 122.963 | BASE CASE |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06313 | 122.6285 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.05783 | 122.4941 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07805 | 139.2178 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.07905 | 122.384 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04866 | 121.6137 | CIMARRON - DRAPER LAKE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10219 | 139.1481 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.07859 | 120.814 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04815 | 120.0419 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07477 | 121.1607 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0723 | 120.5333 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07477 | 116.837 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07492 | 118.866 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07245 | 118.1684 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07477 | 116.9502 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04254 | 116.6372 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0723 | 116.3228 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.4 | 0.0723 | 116.1836 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07492 | 114.7556 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07245 | 114.033 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03764 | 115.6688 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07492 | 114.6554 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04274 | 114.3495 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.07268 | 119.4342 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06771 | 118.8393 | P12:345:AEPW:PITTSB-7:VALIANT7 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06666 | 118.5719 | P12:345:AEPW:PITTSB-7:VALIANT7 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03334 | 118.437 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06958 | 118.291 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 118.2018 | LACYGNE - STILWELL 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07245 | 113.8877 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03784 | 113.3109 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07477 | 112.6016 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.04254 | 112.2096 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10055 | 113.2507 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.4 | 0.0723 | 111.8795 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 118.1384 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.07228 | 118.1174 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06958 | 118.0502 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06771 | 117.6733 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04426 | 117.6492 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06324 | 117.5346 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06771 | 117.4832 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06771 | 117.4832 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04254 | 112.4267 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.3 | 0.09721 | 111.5655 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.4 | 0.03764 | 111.2109 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 138 | 0.10055 | 110.7319 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03764 | 111.4582 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07484 | 111.1978 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07819 | 110.8337 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07492 | 110.3828 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 110.8182 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07237 | 110.5007 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 110.4674 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.04274 | 110.1419 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06771 | 117.4198 | CARTCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06771 | 117.4071 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03299 | 117.1209 | P12:138:WFEC:MSL03 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07797 | 138.8537 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.2 | 0.09382 | 116.1712 | BASE CASE |
| 17G | 01NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.3 | 0.08956 | 114.4333 | BASE CASE |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182 | 0.0694 | 114.3846 | BASE CASE |
| 17G | 01NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.8 | 0.09382 | 107.9125 | BASE CASE |
| 20L | 01NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.6 | 0.09507 | 114.2464 | BASE CASE |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182 | 0.06624 | 113.7077 | BASE CASE |
| 20L | 01NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.7 | 0.09507 | 106.8495 | BASE CASE |
| 20L | 01NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.6 | 0.09079 | 112.4085 | BASE CASE |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | | | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|----------------------------|----------------------|--------------------|------------|---------|-----------------------|--|
| 17G | 01NR | 2 | TO->FROM | G15_086 | NOEL_SW | 138.00 - ROSE VALLEY | 138.00 | 182.8 | 0.08956 | 106.2976 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T | 345.00 - SUNNYSIDE | 345KV CKT 1 | 789 | 0.04256 | 117.0357 | POCASSETT - TUTTLE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T | 345.00 - SUNNYSIDE | 345KV CKT 1 | 788.5 | 0.06911 | 117.0098 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.07482 | 138.3538 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.07474 | 138.043 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.06277 | 137.6136 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.06256 | 137.2375 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.05722 | 136.506 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 | 138.00 | 138KV CKT 1 | 141.5 | 0.10066 | 110.3406 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.3 | 0.0636 | 136.3741 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.05701 | 136.1835 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190 | 0.10568 | 135.9137 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.07805 | 135.5958 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.07797 | 135.2879 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.07482 | 134.6793 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.4 | 0.05807 | 134.5137 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G15095_T | 138.00 - ROSE VALLEY | 138.00 138KV CKT 1 | 182 | 0.04706 | 111.9297 | BASE CASE |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | G15095_T | 138.00 - ROSE VALLEY | 138.00 138KV CKT 1 | 182 | 0.04202 | 111.0462 | BASE CASE |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.07474 | 134.4247 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.1 | 0.10133 | 134.2798 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.06277 | 133.9916 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.06256 | 133.6717 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | G15095_T | 138.00 - ROSE VALLEY | 138.00 138KV CKT 1 | 182.2 | 0.04711 | 111.0439 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | G15095_T | 138.00 - ROSE VALLEY | 138.00 138KV CKT 1 | 181.8 | 0.0694 | 110.165 | BASE CASE |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.05722 | 132.8315 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.05701 | 132.5653 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.07795 | 132.1563 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190 | 0.06277 | 131.3968 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.07473 | 131.2413 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | G15095_T | 138.00 - ROSE VALLEY | 138.00 138KV CKT 1 | 181.8 | 0.06624 | 109.5423 | BASE CASE |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.06242 | 130.5268 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.1 | 0.05722 | 129.6391 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.05685 | 129.3652 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.07805 | 129.3491 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.07797 | 129.1002 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.07482 | 128.3801 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.07795 | 128.3788 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.07474 | 128.1846 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.06277 | 127.7449 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.06256 | 127.484 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.07473 | 127.4113 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CANTON - OKEENE 69KV CKT 1 | | | 64.3 | 0.05503 | 106.3857 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CANTON - OKEENE 69KV CKT 1 | | | 64.3 | 0.05503 | 105.7636 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CANTON - OKEENE 69KV CKT 1 | | | 64.3 | 0.05503 | 104.2084 | P12:138-WFEC:MSL12 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CANTON - OKEENE 69KV CKT 1 | | | 64.3 | 0.05503 | 103.8973 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CANTON - OKEENE 69KV CKT 1 | | | 64.5 | 0.05509 | 102.3535 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CANTON - OKEENE 69KV CKT 1 | | | 64.5 | 0.05509 | 101.7333 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CANTON - OKEENE 69KV CKT 1 | | | 64.3 | 0.05192 | 101.0638 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.3 | 0.0997 | 127.3988 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.07797 | 127.2791 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.07281 | 126.881 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.06242 | 126.7492 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.05722 | 126.5323 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.07474 | 126.468 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.05701 | 126.3251 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.07285 | 126.1785 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.7 | 0.06946 | 126.1626 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.4 | 0.09515 | 125.646 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.06239 | 125.6443 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.6 | 0.05685 | 125.5351 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 | 138.00 | 138KV CKT 1 | 190.5 | 0.0695 | 125.4593 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|--|
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.09871 | 125.2326 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05325 | 124.8296 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10656 | 124.8092 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10576 | 124.7252 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11223 | 124.722 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11123 | 124.6695 | P12:138:WFEC:MSL12 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03828 | 116.9019 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11167 | 124.6632 | DOVER SW - OKEENE 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11123 | 124.6169 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05681 | 124.5866 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.08141 | 124.4525 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.08141 | 124.3475 | P12:138:WFEC:MSL12 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11123 | 124.2491 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.08141 | 124.2425 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08139 | 124.1626 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 116.8456 | BRIDGECR 138.00 - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05337 | 124.1333 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08139 | 124.0577 | P12:138:WFEC:MSL12 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08139 | 124.0052 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07357 | 123.9969 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07357 | 123.9444 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04784 | 123.8951 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07355 | 123.8647 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.08141 | 123.8226 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07355 | 123.8123 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09417 | 123.637 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07797 | 123.5016 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08139 | 123.4809 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07748 | 123.3575 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.0814 | 123.3491 | DOVER SW - OKEENE 138KV CKT 1 |
| 20L | 01NR | 3 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06512 | 114.0085 | P12:345:AEPW-OKGE:PITTSB-7;SEMINOL7 |
| 20L | 01NR | 3 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06738 | 112.1278 | P12:345:AEPW:PITTSB-7;VALIANT7 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07024 | 123.3323 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07023 | 123.2543 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07748 | 123.2525 | P12:138:WFEC:MSL12 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 116.8456 | BRIDGECR 138.00 - TUTTLE 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11171 | 123.2486 | P12:138:WFEC:MSL14 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07024 | 123.2273 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.14703 | 140.2891 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07748 | 123.2 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04796 | 123.1979 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10212 | 123.1865 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07745 | 123.1725 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 116.7823 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07023 | 123.1495 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10212 | 123.134 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10576 | 123.0962 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07745 | 123.0676 | P12:138:WFEC:MSL12 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07279 | 123.063 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07745 | 122.9628 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10219 | 122.9191 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08137 | 122.7446 | DOVER SW - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07748 | 122.7276 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07474 | 122.638 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05431 | 122.6285 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06392 | 111.8494 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.1059 | 122.5735 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07723 | 122.4913 | P12:138:WFEC:MSL15 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07745 | 122.4908 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.1006 | 122.4895 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.1059 | 122.4685 | P12:138:WFEC:MSL12 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.08016 | 138.4176 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.1059 | 122.416 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10599 | 122.3204 | DOVER SW - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.04256 | 116.7696 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06911 | 116.7688 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06624 | 116.7341 | P12:345:AEPW:PITTSB-7:VALIANT7 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06295 | 116.6887 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.06324 | 116.5207 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06944 | 122.2917 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.0772 | 122.15 | P12:138:WFEC:MSL15 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07795 | 122.1354 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07722 | 122.1228 | DOVER SW - OKEENE 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.1059 | 122.1009 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10439 | 122.0589 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.0673 | 116.4185 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06387 | 111.7713 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04382 | 116.3683 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05499 | 122.0462 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.0673 | 116.1395 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.19772 | 128.2624 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.19799 | 127.9744 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.29304 | 127.2163 | DEWEY - TALOGA 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.20011 | 125.2005 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 127 | 0.18467 | 125.0661 | BASE CASE |
| 20WP0 | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 178.7 | 0.28534 | 124.6683 | DEWEY - TALOGA 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.19772 | 122.8705 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.19799 | 122.5239 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.19697 | 122.4587 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05844 | 122.041 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.13828 | 133.2758 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10088 | 122.0052 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10088 | 122.0052 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05499 | 121.9937 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.13798 | 133.1224 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.07589 | 131.5264 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.0673 | 116.1395 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06633 | 110.4162 | P12:345:AEPW:PITTSB-7:VALIANT7 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07566 | 131.3746 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.14703 | 129.9757 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.08016 | 128.1041 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04382 | 116.1273 | G15066_T 345.00 - SOONER 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 20L | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.09368 | 117.1375 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03799 | 116.0555 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.0673 | 116.0254 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.0673 | 116.0254 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03828 | 115.888 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04215 | 115.7806 | POCASSETT - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03791 | 115.7518 | P12:138:WFEC:MSL01 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.07515 | 114.2422 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128.4 | 0.08881 | 113.5997 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.06295 | 115.7121 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04215 | 115.5016 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04215 | 115.5016 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03791 | 115.4857 | ANADARKO - POCASSETT 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.04215 | 115.3875 | BRIDGECR 138.00 - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03791 | 115.3336 | POCASSETT - TUTTLE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03799 | 115.079 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13862 | 125.3742 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.1792 | 125.1385 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.08585 | 123.8973 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13642 | 123.5914 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.03791 | 115.0041 | BRIDGECR 138.00 - TUTTLE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03753 | 114.5093 | P12:138:WFEC:MSL01 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.3 | 0.04208 | 109.2244 | BASE CASE |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.6 | 0.04789 | 109.0789 | BASE CASE |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.0694 | 106.1126 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.2 | 0.06926 | 108.7552 | BASE CASE |
| 17G | 01NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.09968 | 108.1073 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.06624 | 105.4937 | BASE CASE |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.13828 | 122.9855 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03753 | 114.243 | ANADARKO - POCASSETT 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03753 | 114.0781 | POCASSETT - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13642 | 122.9057 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.13798 | 122.8293 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05844 | 121.936 | P12:138:WFEC:MSL12 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04274 | 110.1389 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 109.906 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07499 | 109.753 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07245 | 109.6633 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.03784 | 109.0745 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07477 | 109.7221 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07819 | 109.7109 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.08471 | 113.7596 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07487 | 109.666 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07487 | 109.3151 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03784 | 109.0302 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0723 | 109.0246 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05487 | 121.9056 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06239 | 121.8667 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05487 | 121.8532 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05844 | 121.831 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.03753 | 113.7357 | BRIDGECR 138.00 - TUTTLE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05832 | 121.7431 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07357 | 121.7396 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05832 | 121.6382 | P12:138:WFEC:MSL12 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07719 | 121.6245 | DOVER SW - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 0.07304 | 103.0909 | CANTON - TALOGA 69KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.06968 | 102.3001 | CANTON - TALOGA 69KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 0.07304 | 102.1981 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123 | 0.10001 | 102.1967 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05832 | 121.5857 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07355 | 121.5574 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.06349 | 121.4688 | DOVER SW - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07455 | 121.4525 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07455 | 121.4525 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05844 | 121.411 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07343 | 121.41 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10212 | 121.3999 | NSAH - RINGWOOD 69KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07639 | 121.3533 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09742 | 121.3151 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.2 | 0.06611 | 108.0253 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 181.8 | 0.0465 | 107.6458 | BASE CASE |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.07932 | 122.3431 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.7 | 0.10078 | 107.3588 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.6 | 0.04287 | 107.1599 | BASE CASE |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.07368 | 107.0581 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.0956 | 106.8689 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.7 | 0.09079 | 105.0673 | BASE CASE |
| 20L | 01NR | 2 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 128.4 | 0.06964 | 110.6137 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 127.3 | 0.09211 | 107.0086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.10011 | 105.8766 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09742 | 121.3151 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07352 | 121.2094 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.10011 | 105.4078 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04957 | 121.1622 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07455 | 121.1601 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.0734 | 121.1222 | P12:138:WFEC:MSL15 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07473 | 121.1154 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07455 | 121.1076 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04945 | 121.075 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.10011 | 104.8609 | IMO TAP - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 127.3 | 0.07468 | 104.2702 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 140.4 | 0.07468 | 103.8718 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07487 | 108.8239 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07817 | 108.7256 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 138.5 | 0.09721 | 108.839 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.7 | 0.09732 | 108.7255 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|--|
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07499 | 108.6302 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.04254 | 107.9742 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.4 | 0.03764 | 106.9067 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07817 | 108.4449 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.3 | 0.07484 | 106.891 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07477 | 107.9677 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07826 | 107.8961 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 138.8 | 0.10066 | 106.8674 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07819 | 106.3446 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07817 | 107.8835 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07496 | 107.5032 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07808 | 106.257 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.4 | 0.07237 | 106.1781 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0723 | 107.4105 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07808 | 105.8981 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 127.8 | 0.08725 | 103.5603 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 178.7 | 0.28588 | 121.8511 | DEWEY - TALOGA 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.0748 | 121.8668 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.07589 | 121.2362 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.0748 | 121.1811 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05832 | 121.0613 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04957 | 121.0572 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07024 | 121.0226 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.06502 | 121.5088 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04945 | 120.9701 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05282 | 120.9675 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06574 | 120.9481 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.1006 | 120.9139 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.06569 | 120.9123 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07023 | 120.8946 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11021 | 120.8642 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07637 | 120.8568 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06336 | 120.8558 | DOVER SW - OKEENE 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.10047 | 120.8477 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.0735 | 120.818 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11021 | 120.8116 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10466 | 120.8063 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.04892 | 120.7899 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07281 | 120.7566 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05681 | 120.7566 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07492 | 107.3572 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07496 | 107.2225 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07484 | 106.7798 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07826 | 106.7733 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0431 | 106.7461 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07506 | 106.6751 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.04274 | 105.7692 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07808 | 105.3955 | IMO TAP - MEN TAP 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|--|
| 17G | 01NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.2 | 0.09732 | 105.2184 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07496 | 106.6611 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07245 | 106.5193 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07237 | 106.0126 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03818 | 105.7055 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07506 | 105.6224 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04099 | 105.6126 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07477 | 105.2075 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.4 | 0.07499 | 105.1636 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07819 | 105.1242 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04053 | 105.5481 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04099 | 105.2618 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04254 | 105.1986 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.04279 | 105.0694 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07103 | 104.7761 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04099 | 104.7003 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.4 | 0.07487 | 105.0746 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.4 | 0.07487 | 104.7159 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07103 | 104.6358 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04053 | 104.4253 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.03784 | 104.7049 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.4 | 0.0723 | 104.419 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.07925 | 113.6433 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.08426 | 113.1386 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.07752 | 110.1887 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.9 | 0.07717 | 109.5548 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.08471 | 105.5797 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.06846 | 104.4154 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.06846 | 104.2751 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03764 | 104.16 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0781 | 104.1515 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07566 | 121.0815 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.20032 | 121.4138 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WPO | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 178.7 | 0.19815 | 120.6137 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.18136 | 193.1285 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07109 | 120.7226 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07109 | 120.7226 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05231 | 120.715 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11021 | 120.7063 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06564 | 120.6338 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05231 | 120.61 | P12:138:WFEC:MSL12 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05231 | 120.5575 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05219 | 120.5233 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06242 | 120.5058 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05337 | 120.46 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05753 | 120.4231 | P12:138:WFEC:MSL15 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05219 | 120.4185 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11021 | 120.3379 | CEDARDALE - OKEENE 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07108 | 120.3234 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07108 | 120.3234 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06272 | 120.3167 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05219 | 120.3136 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.0636 | 120.2943 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.0964 | 120.2626 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.0964 | 120.2626 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 126 | 0.18547 | 120.2333 | BASE CASE |
| 16WP0 | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 178.7 | 0.19867 | 118.4093 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 126.6 | 0.18752 | 118.4076 | BASE CASE |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 168.8 | 0.15982 | 193.1066 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171 | 0.16028 | 179.9743 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.18177 | 179.5986 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.6 | 0.16109 | 175.8077 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.06267 | 120.2278 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.18245 | 175.7071 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08134 | 120.1826 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06946 | 120.0902 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.08426 | 104.9552 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP0 | 01ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 787.9 | 0.19044 | 104.4832 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.20592 | 117.0393 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.7 | 0.28195 | 116.4759 | DEWEY - TALOGA 138KV CKT 1 |
| 20WP0 | 01ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 787.9 | 0.36081 | 104.4832 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 01ALL | 2 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 787.9 | 0.1904 | 104.345 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 140.6 | 0.07449 | 103.128 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18807 | 116.3829 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18807 | 116.18 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.198 | 116.1225 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18807 | 115.977 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | CIMARRON - MINCO 345KV CKT 1 | 955.1 | 0.08944 | 109.9139 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | CIMARRON - MINCO 345KV CKT 1 | 955.1 | 0.08687 | 109.7868 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 127.9 | 0.07469 | 103.0023 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 140.4 | 0.06738 | 102.8319 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 181.8 | 0.04145 | 106.8152 | BASE CASE |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.04706 | 103.6698 | BASE CASE |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.07065 | 106.5713 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.04202 | 102.8453 | BASE CASE |
| 16WP | 00NR | 3 | TO->FROM | G15_086 | PITTSBURG - SEMINOLE 345KV CKT 1 | 716.8 | 0.09905 | 106.2654 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05231 | 120.0851 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08134 | 120.0776 | P12:138:WFEC:MSL12 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05741 | 120.0745 | P12:138:WFEC:MSL15 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.2 | 0.07304 | 102.0357 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11041 | 120.0432 | DOVER SW - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182 | 0.06919 | 106.5044 | BASE CASE |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.8 | 0.04711 | 102.802 | BASE CASE |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08134 | 120.0252 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05701 | 120.001 | DOVER SW - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04739 | 119.978 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 20WP | 00NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.06968 | 101.3268 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.06968 | 101.2457 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123 | 0.10001 | 101.2211 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 140.6 | 0.0673 | 102.1053 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 127.9 | 0.06729 | 101.8436 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.07426 | 101.8375 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03499 | 104.1389 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07817 | 104.3971 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03542 | 104.1291 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.4 | 0.07487 | 104.2138 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.2 | 0.04711 | 106.3238 | BASE CASE |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.7 | 0.04789 | 101.6847 | BASE CASE |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06262 | 119.9496 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10102 | 119.9495 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10102 | 119.9495 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10568 | 119.9137 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05219 | 119.8416 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05499 | 119.789 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05857 | 119.7656 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.06456 | 119.712 | DOVER SW - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08134 | 119.6055 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05487 | 119.5983 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09742 | 119.5819 | NSAH - RINGWOOD 69KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0781 | 103.871 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03542 | 103.7782 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07228 | 103.6884 | CANTON - TALOGA 69KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07477 | 103.5467 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07819 | 103.533 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0411 | 103.5228 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04302 | 103.5116 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03542 | 103.287 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05529 | 119.4326 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05529 | 119.4326 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.11111 | 119.38 | P12:138:WFEC:MSL14 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05946 | 119.2811 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04961 | 119.2564 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05685 | 119.2392 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.0497 | 119.2336 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05946 | 119.2286 | P12:138:WFEC:MSL12 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05946 | 119.176 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10466 | 119.1747 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.0554 | 119.1496 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05161 | 119.1192 | P12:138:WFEC:MSL15 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.0554 | 119.0971 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0774 | 119.0346 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0774 | 118.9822 | P12:138:WFEC:MSL12 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04913 | 118.9014 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0774 | 118.8772 | CEDARDALE - PIC4 138.00 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE | CONTINGENCY | | |
|--------|-------|----------|-----------|-----------|---|--------|-------------|-----------|--|
| | | | | | | (MVA) | TDF | LOADING % | CONTINGENCY |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10489 | 118.8732 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.5 | 0.16139 | 168.301 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.18272 | 167.6428 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.11645 | 155.1958 | DEWEY - TALOGA 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.18178 | 152.2549 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147.6 | 0.16029 | 149.6328 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.18201 | 144.1129 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.14283 | 118.9009 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13489 | 118.035 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13786 | 117.7263 | CIMARRON - SARA 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.12865 | 117.6125 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12837 | 117.4553 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.07461 | 116.9916 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.12703 | 116.4455 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13616 | 116.4333 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.16815 | 116.3648 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13786 | 116.3269 | SARA - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.0734 | 116.314 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12675 | 116.3021 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.0809 | 116.2737 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.13629 | 116.2277 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.16759 | 116.1994 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.08067 | 116.1175 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13786 | 116.103 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.12697 | 116.0361 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.0736 | 115.9278 | CIMARRON - SARA 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.12714 | 115.8589 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13336 | 115.7532 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.12703 | 115.7446 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13336 | 115.7112 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.1437 | 109.1698 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.21884 | 108.6851 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.21884 | 108.4886 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 01ALL | 2 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1166.6 | 0.20464 | 108.032 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.14472 | 107.4188 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.14472 | 107.2223 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13631 | 115.6678 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.11669 | 142.217 | DEWEY - TALOGA 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.6 | 0.15982 | 123.3175 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 147 | 0.16045 | 140.8775 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.18136 | 121.367 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 163.4 | 0.08128 | 136.6316 | MOORELAND - TALOGA 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | FPL SWITCH - MOORELAND 138KV CKT 1 | 272.9 | 0.16028 | 115.9238 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.11668 | 136.4543 | DEWEY - TALOGA 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.18177 | 113.9874 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.1167 | 135.2078 | DEWEY - TALOGA 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 168.8 | 0.06155 | 132.1742 | MOORELAND - TALOGA 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.29476 | 115.8426 | DEWEY - TALOGA 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18742 | 115.2124 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.7 | 0.32973 | 115.0326 | G15_049_T 138.00 - IODINE 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.18924 | 115.0258 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.18924 | 114.9579 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18742 | 114.6712 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18686 | 114.6631 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18686 | 114.6631 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 17SP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.06502 | 114.521 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18941 | 114.1962 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18941 | 113.9256 | P12:138:WFEC:MSL14 |
| 20SP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.06485 | 113.8217 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18941 | 113.7226 | BEARCAT 138.00 - NINE MILE 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.20011 | 113.7218 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.19772 | 113.532 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.06485 | 113.4908 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.20673 | 113.3646 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.7 | 0.32973 | 113.3513 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.06511 | 113.1936 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.19799 | 113.1246 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.18467 | 112.8782 | CIMARRON - FSHRTAP7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.29466 | 111.8379 | DEWEY - TALOGA 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 127.3 | 0.18741 | 111.769 | BASE CASE |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.18881 | 111.7429 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.18881 | 111.6068 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.18881 | 111.3347 | IMO TAP - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.18819 | 111.0463 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.18764 | 111.0394 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.18764 | 111.0394 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.20876 | 110.8223 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 25SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.7 | 0.19484 | 110.5686 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.19083 | 110.4925 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.18819 | 110.434 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.19083 | 110.3569 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.19083 | 110.0176 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.21764 | 105.5313 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20LO | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 0.20956 | 105.4774 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.18924 | 109.9376 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.1903 | 109.7007 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.1903 | 109.4286 | P12:138:WFEC:MSL14 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.18717 | 109.2068 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.18717 | 109.2068 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.1902 | 109.118 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.19243 | 108.5387 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.1902 | 108.5075 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.18912 | 108.3889 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.19243 | 108.3352 | P12:138:WFEC:MSL14 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.18912 | 108.3214 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.19243 | 108.1316 | BEARCAT 138.00 - NINE MILE 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 20WP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.06485 | 108.0989 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 127 | 0.07531 | 107.8441 | BASE CASE |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.06511 | 107.743 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08573 | 107.4059 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.18701 | 107.3385 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.19243 | 107.2497 | MOREWOOD SW - NINE MILE 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.18701 | 107.1718 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.06485 | 106.9345 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.18717 | 106.693 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.18717 | 106.5261 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.29291 | 105.7154 | DEWEY - TALOGA 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.20864 | 105.5557 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.29303 | 104.7864 | DEWEY - TALOGA 138KV CKT 1 |
| 17SP0 | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - SOUTHARD 138KV CKT 1 | 221.4 | 0.19883 | 100.8013 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.19073 | 104.4875 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.19073 | 104.2849 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.19073 | 104.0148 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.19009 | 103.6583 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.18912 | 103.3248 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.18701 | 103.2251 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.4 | 0.06502 | 103.0556 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.19009 | 102.9831 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17G0 | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - SOUTHARD 138KV CKT 1 | 221.1 | 0.28692 | 100.3073 | DEWEY - TALOGA 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 126 | 0.07648 | 102.9333 | BASE CASE |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.8 | 0.18717 | 102.6885 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.1923 | 102.5388 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.1923 | 102.3363 | P12:138:WFEC:MSL14 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.1923 | 102.1337 | BEARCAT 138.00 - NINE MILE 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08145 | 101.9553 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20L0 | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - SOUTHARD 138KV CKT 1 | 221.2 | 0.28655 | 100.1811 | DEWEY - TALOGA 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08145 | 101.7524 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 148.1 | 0.19596 | 101.6151 | CANTON - TALOGA 69KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08145 | 101.5494 | IMO TAP - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147 | 0.08714 | 101.0395 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08077 | 100.7808 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.5 | 0.20956 | 105.4774 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.1437 | 104.2657 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01ALL | 2 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1171.5 | 0.20792 | 104.2341 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01ALL | 2 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1171.5 | 0.20792 | 104.2341 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01ALL | 2 | TO->FROM | G15_049_2 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1171.5 | 0.19537 | 104.0743 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.21884 | 103.7646 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1172 | 0.20249 | 102.8016 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1172 | 0.20249 | 102.8016 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.0867 | 100.2977 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.08077 | 100.2395 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 165.5 | 0.18534 | 100.1619 | BASE CASE |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 179.9 | 0.20659 | 100.0656 | TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 165.3 | 0.18547 | 100.0569 | BASE CASE |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 20L | 01NR | 0 | TO->FROM | G15_086 | ROMAN NOSE - SOUTHARD 138KV CKT 1 | 147.8 | 0.0867 | 100.0271 | P12:138:WFEC:MSL14 |
| 16WPD | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.7 | 0.40973 | 107.9939 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20SP | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.8 | 0.40935 | 104.54 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.8 | 0.41207 | 104.2561 | DEWEY - SOUTHARD 138KV CKT 1 |
| 17SP | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.7 | 0.4094 | 103.0949 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.9 | 0.41214 | 101.5331 | DEWEY - SOUTHARD 138KV CKT 1 |
| 25SP | 01ALL | 0 | FROM->TO | G15_049_2 | DEWEY - TALOGA 138KV CKT 1 | 164.7 | 0.40606 | 101.4786 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 298.7 | 0.54012 | 113.4329 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 267.8 | 0.50737 | 111.9022 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 298.8 | 0.54043 | 111.6084 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.1 | 0.49201 | 111.1322 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.2 | 0.49212 | 110.5468 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 267.9 | 0.50765 | 110.0523 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.1 | 0.49201 | 109.9055 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.2 | 0.50906 | 109.4514 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 298.7 | 0.54012 | 109.4155 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 191.9 | 0.49534 | 109.3632 | BASE CASE |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.2 | 0.49212 | 109.2298 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 191.8 | 0.49526 | 109.1512 | BASE CASE |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 267.8 | 0.50737 | 108.0187 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.1 | 0.50886 | 107.8473 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 221.2 | 0.50766 | 107.6546 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 298.8 | 0.54043 | 107.5254 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 221.2 | 0.50712 | 107.3345 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 267.9 | 0.50765 | 106.1329 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.2 | 0.49715 | 104.7366 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.2 | 0.49715 | 104.6458 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17GO | 01ALL | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 221.6 | 0.49849 | 104.2692 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.1 | 0.49705 | 103.821 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.1 | 0.49705 | 103.7756 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 267.8 | 0.49075 | 103.1553 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 20L | 01ALL | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 221.6 | 0.49817 | 102.6726 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 267.8 | 0.49075 | 102.6326 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 298.7 | 0.54012 | 102.4185 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 298.7 | 0.51815 | 102.387 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 299.2 | 0.54211 | 102.0795 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 298.7 | 0.51815 | 101.9518 | FPL SWITCH - WOODWARD 138KV CKT 1 |
| 20WP | 01ALL | 2 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 787.9 | 0.36084 | 104.345 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.14472 | 102.4982 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17GO | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1173.5 | 0.21361 | 102.3424 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17GO | 01ALL | 0 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1173.5 | 0.21361 | 102.3424 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 01ALL | 2 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1172.9 | 0.20095 | 101.4801 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.1 | 0.07905 | 104.252 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 01ALL | 2 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1172.9 | 0.20095 | 101.4801 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.22452 | 101.4039 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.22452 | 101.4039 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 17SP | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1172 | 0.20249 | 101.3966 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17G | 01ALL | 2 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.3 | 0.21197 | 101.0949 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 17G | 01ALL | 2 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1174.3 | 0.21197 | 101.0949 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G0 | 01ALL | 0 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1173.5 | 0.21361 | 100.9313 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.18924 | 100.8037 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20L | 01NR | 0 | TO->FROM | G15_086 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1175.6 | 0.18924 | 100.8037 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17SP | 01ALL | 2 | TO->FROM | G15_037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1172.9 | 0.20095 | 100.0884 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.07925 | 103.7232 | GRACEMONT - MINCO 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.06354 | 102.8356 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 17SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.42003 | 103.4483 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 17SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.47154 | 103.4483 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 17SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.42003 | 103.3874 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 17SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.47154 | 103.3874 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 17SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.42231 | 104.0083 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.4741 | 104.0083 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.42231 | 103.9677 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.4741 | 103.9677 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.43305 | 103.5991 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.50456 | 103.5991 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.43077 | 103.0563 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.5019 | 103.0563 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.43305 | 103.5585 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.50456 | 103.5585 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.43077 | 102.9954 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20L0 | 01ALL | 0 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.5019 | 102.9954 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.42009 | 101.2295 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.47171 | 101.2295 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.42237 | 101.7895 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.47427 | 101.7895 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.42237 | 101.7286 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.47427 | 101.7286 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 492.9 | 0.42063 | 100.4021 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 492.9 | 0.47239 | 100.4021 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.42009 | 101.1686 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 20SP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 | 493 | 0.47171 | 101.1686 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 |
| 16WP | 01ALL | 2 | TO->FROM | G15_086 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.42063 | 100.3209 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 01ALL | 2 | TO->FROM | G15_049_2 | WOODWARD DISTRICT EHV (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2 | 493 | 0.47239 | 100.3209 | WOODWARD DISTRICT EHV (WWDEHV) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12675 | 115.6149 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.06258 | 102.7946 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04957 | 118.8525 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.07014 | 114.8504 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05148 | 118.8233 | P12:138:WFEC:MSL15 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | CIMARRON - MINCO 345KV CKT 1 | 955.2 | 0.08979 | 109.1351 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06991 | 114.7079 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.08005 | 114.6563 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08132 | 118.8164 | DOVER SW - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.0736 | 114.5284 | SARA - STLAKA4 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05946 | 118.8082 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.11738 | 126.3944 | DEWEY - TALOGA 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.04797 | 118.7764 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10489 | 118.768 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09952 | 118.7291 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09468 | 118.7164 | NSAH - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10489 | 118.7154 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04945 | 118.7153 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.09975 | 118.7105 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.09975 | 118.7105 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05281 | 118.6579 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0774 | 118.51 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.06757 | 114.5136 | P12:138:WFEC:MSL03 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04972 | 118.4814 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04972 | 118.4814 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04471 | 118.4279 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.05815 | 102.7228 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.07052 | 114.4562 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.0736 | 114.3045 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.07051 | 114.274 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.11682 | 126.2679 | DEWEY - TALOGA 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.07014 | 114.1495 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.07242 | 114.0476 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06991 | 114.0208 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.07123 | 113.8464 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0411 | 103.2421 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05641 | 118.3826 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.07407 | 113.7269 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07365 | 113.5647 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13159 | 113.3767 | SEMINOLE 345/20.9KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.06388 | 112.731 | ANADARKO - POCASSETT 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.06388 | 112.5071 | POCASSETT - TUTTLE 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.05813 | 102.7015 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0781 | 103.2398 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07817 | 104.1104 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.06402 | 102.1552 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | FPL SWITCH - MOORELAND 138KV CKT 1 | 281.6 | 0.18178 | 104.5298 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.7 | 0.09667 | 106.0316 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.12556 | 110.8947 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.4 | 0.07499 | 104.0158 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.07752 | 102.1134 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.3 | 0.0379 | 103.1706 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03499 | 103.0161 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 221.7 | 0.4975 | 101.9191 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0749 | 102.9313 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0723 | 102.9193 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04274 | 102.8407 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.1 | 0.49294 | 101.5393 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 103.5 | 0.08655 | 101.6522 | BASE CASE |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182 | 0.06605 | 105.6648 | BASE CASE |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.2 | 0.49303 | 101.4559 | WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|---|
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0411 | 102.6807 | IMO TAP - MEN TAP 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03336 | 106.9438 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03141 | 105.7966 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.0448 | 118.3517 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10489 | 118.3472 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05641 | 118.33 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09634 | 118.2893 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05807 | 118.2847 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 165.9 | 0.0815 | 124.5931 | MOORELAND - TALOGA 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07716 | 118.2749 | P12:138:WFEC:MSL15 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09634 | 118.2367 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.10344 | 118.2042 | DEWEY - SOUTHARD 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.13159 | 110.8757 | BASE CASE |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10133 | 118.1831 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08219 | 118.1731 | P12:138:WFEC:MSL14 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05857 | 118.1366 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04983 | 118.0924 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04983 | 118.0924 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04422 | 118.0189 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0735 | 117.9958 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0735 | 117.9433 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.10476 | 117.9127 | DOVER SW - OKEENE 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.06016 | 117.8308 | P12:138:WFEC:MSL14 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0749 | 102.6508 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.5 | 0.10343 | 105.5814 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07817 | 103.5369 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07228 | 102.6358 | CANTON - OKEENE 69KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 171 | 0.06178 | 120.4421 | MOORELAND - TALOGA 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_2 | EL RENO - ROMAN NOSE 138KV CKT 1 | 148.1 | 0.183 | 106.8197 | DARLINGTONRD4138.00 - ROMAN NOSE 138KV CKT 1 |
| 20SP0 | 01ALL | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 221.7 | 0.49739 | 101.3166 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 140.6 | 0.06915 | 101.5149 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | EVANS ENERGY CENTER NORTH - MAIZEW 4 138.00 138KV CKT 1 | 380.1 | 0.03112 | 100.0589 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12525 | 110.7488 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.06016 | 117.7782 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04739 | 117.7744 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05794 | 117.7272 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.08152 | 115.1457 | MOORELAND - TALOGA 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07448 | 117.6264 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07448 | 117.6264 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05794 | 117.6222 | P12:138:WFEC:MSL12 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07714 | 117.5908 | DOVER SW - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05794 | 117.5698 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05266 | 117.4538 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05704 | 117.3978 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05704 | 117.3978 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05808 | 117.2878 | DOVER SW - OKEENE 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07797 | 117.2581 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07017 | 117.2266 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09529 | 117.1794 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09529 | 117.1794 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07017 | 117.1742 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.2 | 0.04208 | 105.3875 | BASE CASE |
| 17G | 01NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.4 | 0.0815 | 113.8504 | MOORELAND - TALOGA 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05794 | 117.15 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04064 | 102.6161 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 267.8 | 0.50737 | 101.2972 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.0637 | 101.9506 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07336 | 117.1417 | P12:138:WFEC:MSL15 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.0982 | 117.1263 | P12:138:WFEC:MSL14 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_2 | CIMARRON - MINCO 345KV CKT 1 | 955.2 | 0.08722 | 108.9975 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 144.6 | 0.0618 | 110.8299 | MOORELAND - TALOGA 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09952 | 117.0984 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 143.5 | 0.08222 | 106.4418 | MOORELAND - TALOGA 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05334 | 117.0525 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07632 | 117.0325 | DEWEY - SOUTHARD 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.10922 | 117.031 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06575 | 117.0252 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09956 | 116.9974 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05334 | 116.9475 | P12:138:WFEC:MSL12 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05334 | 116.895 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06294 | 116.8877 | DOVER SW - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07102 | 116.7912 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07102 | 116.7912 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.09923 | 116.7346 | BASE CASE |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07345 | 116.6264 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05641 | 116.5959 | NSAH - RINGWOOD 69KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05334 | 116.5798 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0381 | 102.6105 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WPO | 01ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.19804 | 101.9017 | CIMARRON - MINCO 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06272 | 116.4449 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.05383 | 105.3107 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10526 | 102.4448 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07826 | 103.4781 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | FPL SWITCH - MOORELAND 138KV CKT 1 | 282.9 | 0.16029 | 104.5097 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 16WPO | 01ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.36719 | 101.9017 | CIMARRON - MINCO 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.4 | 0.07477 | 103.4573 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.07368 | 104.7254 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 01ALL | 2 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.19801 | 101.7629 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0431 | 102.3282 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10542 | 102.3258 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.075 | 102.3142 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.06889 | 102.3003 | CANTON - TALOGA 69KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.07819 | 102.2707 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.9 | 0.09968 | 101.5516 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07113 | 102.1937 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.04873 | 104.6417 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.2 | 0.49715 | 101.149 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 299.1 | 0.54189 | 100.5945 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128.4 | 0.09406 | 101.4112 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 298.8 | 0.54043 | 100.4973 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 267.9 | 0.4909 | 100.4031 | FPL SWITCH - MOORELAND 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CANTON - OKEENE 69KV CKT 1 | 64.3 | 0.05192 | 100.4417 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_049_2 | DEWEY - G15_049_T 138.00 138KV CKT 1 | 220.1 | 0.49705 | 100.2317 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CANTON - OKEENE 69KV CKT 1 | 64.5 | 0.05509 | 100.338 | P12:138:WFEC:MSL12 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05085 | 116.4233 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 25SP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - CZECH HALL 138KV CKT 1 | 382 | 0.06516 | 100.689 | CIMARRON - HAYMAKER 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05085 | 116.4233 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05179 | 116.3473 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07474 | 116.3421 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05179 | 116.2949 | P12:138:WFEC:MSL12 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05179 | 116.1899 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05694 | 116.1532 | P12:138:WFEC:MSL15 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08139 | 116.0955 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04668 | 116.065 | CLEO CORNER - CLEOPLT4 69.000 69KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08139 | 116.043 | P12:138:WFEC:MSL12 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05447 | 115.9989 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05447 | 115.9465 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.08164 | 105.8313 | MOORELAND - TALOGA 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08139 | 115.9381 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05266 | 115.8782 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09634 | 115.8695 | NSAH - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05753 | 115.8453 | P12:138:WFEC:MSL15 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05179 | 115.8227 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.07065 | 104.1945 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.13235 | 110.7486 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0588 | 115.7188 | P12:138:WFEC:MSL14 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.054 | 104.0897 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.13215 | 110.6619 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | FPL SWITCH - MOORELAND 138KV CKT 1 | 280.9 | 0.18201 | 100.4279 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.7 | 0.10078 | 101.4739 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.07426 | 101.3688 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.5 | 0.04274 | 102.1541 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_2 | EL RENO - ROMAN NOSE 138KV CKT 1 | 148.1 | 0.13447 | 103.6421 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.07247 | 115.6924 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06239 | 115.6233 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05483 | 115.5645 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05483 | 115.5645 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05167 | 115.5641 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05167 | 115.5641 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08139 | 115.5184 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05643 | 115.4176 | DOVER SW - OKEENE 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05844 | 115.4147 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.06277 | 115.3968 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05381 | 115.3687 | P12:138:WFEC:MSL14 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05844 | 115.3621 | P12:138:WFEC:MSL12 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05381 | 115.3162 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04919 | 115.2875 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05844 | 115.2568 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07247 | 115.2564 | BASE CASE |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.0554 | 115.1474 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.0554 | 115.1474 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_2 | FPL SWITCH - WOODWARD 138KV CKT 1 | 145.5 | 0.06194 | 101.6412 | MOORELAND - TALOGA 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182 | 0.04645 | 104.0055 | BASE CASE |
| 20L | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128.4 | 0.09406 | 100.866 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07819 | 102.0618 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.8 | 0.10488 | 103.7068 | BASE CASE |
| 17SP | 00NR | 2 | TO->FROM | G15_049_2 | EL RENO - ROMAN NOSE 138KV CKT 1 | 147.4 | 0.1861 | 101.9132 | DARLINGTONRD4138.00 - ROMAN NOSE 138KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_2 | EL RENO - ROMAN NOSE 138KV CKT 1 | 147.6 | 0.18382 | 101.3984 | DARLINGTONRD4138.00 - ROMAN NOSE 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_2 | EL RENO - ROMAN NOSE 138KV CKT 1 | 148.1 | 0.18311 | 101.3653 | P12:138:AEPW-OGE:WTH_JCT4:JENSEN4 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07496 | 103.0745 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_049_2 | EL RENO - ROMAN NOSE 138KV CKT 1 | 148.1 | 0.183 | 101.0803 | P12:138:AEPW:REDROCKRD4:DARLINNRD4 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | FPL SWITCH - MOORELAND 138KV CKT 1 | 282.4 | 0.16045 | 100.1381 | DEWEY - G15_049_T 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.1286 | 110.5173 | CIMARRON - SARA 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.2 | 0.12731 | 110.4113 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.1 | 0.127 | 110.2783 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12777 | 110.2726 | CIMARRON - SARA 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 716.1 | 0.14706 | 109.6791 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.12705 | 109.3663 | P12:138:WFEC:MSL03 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07745 | 115.1049 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06878 | 109.3027 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12661 | 109.1883 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.6 | 0.07035 | 109.1618 | BASE CASE |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.06349 | 115.1042 | DOVER SW - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06854 | 109.1583 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 716.1 | 0.12739 | 109.1297 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.1286 | 109.1294 | SARA - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06974 | 108.9931 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.2 | 0.07578 | 108.9704 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06945 | 108.9034 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07745 | 115.0525 | P12:138:WFEC:MSL12 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.1286 | 108.8911 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04903 | 115.0084 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12777 | 108.8703 | SARA - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06904 | 108.8473 | CIMARRON - SARA 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04903 | 114.9559 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07745 | 114.9475 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.09468 | 114.9349 | BASE CASE |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.06912 | 114.9207 | BASE CASE |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05844 | 114.8884 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10805 | 114.824 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07455 | 114.8006 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.03155 | 104.0397 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07455 | 114.8006 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.051 | 114.7954 | P12:138:WFEC:MSL15 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06744 | 114.7891 | CLEO CORNER - CLEOTP 2 69.000 69KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.05085 | 114.6901 | NSAH - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07745 | 114.5803 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06912 | 114.538 | BASE CASE |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.03155 | 103.6519 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 01ALL | 2 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.36723 | 101.7629 | CIMARRON - MINCO 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04427 | 114.5089 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07113 | 102.0533 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10526 | 102.0198 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07492 | 102.9276 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | PITTSBURG - SEMINOLE 345KV CKT 1 | 716.9 | 0.09578 | 103.3695 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.1 | 0.07555 | 108.8393 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.7 | 0.05461 | 103.3035 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.5 | 0.0723 | 102.8185 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.0749 | 102.0196 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03553 | 101.9691 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.06855 | 101.7614 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07103 | 101.7586 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03553 | 101.6884 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10526 | 101.6657 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.9 | 0.07717 | 101.4891 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.05383 | 102.978 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07496 | 102.788 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.3 | 0.07484 | 102.4719 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.5 | 0.07826 | 102.4029 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 140.3 | 0.0431 | 102.3663 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 138 | 0.04279 | 102.3609 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - TALOGA 138KV CKT 1 | 143 | 0.09014 | 103.0965 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03784 | 101.6618 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.06855 | 101.6211 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07506 | 102.3009 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 140.8 | 0.06896 | 100.8466 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.06926 | 101.2313 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12777 | 108.6459 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04924 | 114.5058 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04924 | 114.5058 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05681 | 114.4606 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0772 | 114.4491 | P12:138:WFEC:MSL15 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08137 | 114.2571 | DOVER SW - OKEENE 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05753 | 114.2137 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05603 | 114.1084 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05603 | 114.1084 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.11655 | 114.0735 | P12:138:WFEC:MSL15 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07109 | 114.0703 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07109 | 114.0703 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08225 | 114.0346 | P12:138:WFEC:MSL14 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08225 | 113.9822 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05924 | 113.92 | P12:138:WFEC:MSL14 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05924 | 113.8674 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.03811 | 113.8173 | MOORELAND - TALOGA 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05397 | 113.7501 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07356 | 113.6999 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07953 | 101.6182 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182 | 0.04141 | 102.9571 | BASE CASE |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07496 | 102.2865 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07953 | 101.6182 | P12:138:WFEC:MSL14 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 101.5551 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.04064 | 101.4933 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.06846 | 101.3277 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.06889 | 101.3179 | CANTON - OKEENE 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07245 | 102.1418 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.03818 | 101.2174 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05161 | 113.6886 | P12:138:WFEC:MSL15 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07356 | 113.6474 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05795 | 113.6359 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05795 | 113.5834 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05722 | 113.5423 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05795 | 113.4785 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0734 | 113.4732 | P12:138:WFEC:MSL15 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.04983 | 113.3961 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.03245 | 113.3806 | MOORELAND - TALOGA 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.12292 | 113.3774 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.04983 | 113.3435 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05231 | 113.3414 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.12292 | 113.3249 | P12:138:WFEC:MSL12 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.03799 | 113.3183 | MOORELAND - TALOGA 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05387 | 113.3057 | BASE CASE |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07719 | 113.2413 | DOVER SW - OKEENE 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05231 | 113.2362 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.04891 | 102.7625 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.12292 | 113.22 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 101.2042 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.2 | 0.10542 | 101.1926 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 140.4 | 0.07237 | 101.6197 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.5 | 0.10523 | 101.1632 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.07362 | 102.5611 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.03553 | 101.127 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0351 | 101.0667 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03076 | 101.767 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_049_2 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03 | 101.7324 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05231 | 113.1836 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07023 | 113.0881 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05795 | 113.0588 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07023 | 113.0357 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|---|
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.12292 | 113.01 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.0982 | 112.9684 | BASE CASE |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.03233 | 112.9345 | MOORELAND - TALOGA 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05701 | 112.889 | DOVER SW - OKEENE 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05231 | 112.8154 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.12243 | 112.801 | DOVER SW - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04856 | 112.7622 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05485 | 112.7335 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05485 | 112.7335 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04627 | 112.5677 | CLEO CORNER - CLEOTP 2 69.000 69KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.07974 | 112.5514 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0735 | 112.5394 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05064 | 112.4818 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(1) |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07953 | 101.0568 | BEARCAT 138.00 - NINE MILE 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05064 | 112.4818 | P12:345:OKGE-PRAIRIEWIND:WOODWARD-THISTLE::515375-539801(2) |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.04873 | 102.265 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.6 | 0.075 | 101.0519 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 140.4 | 0.03818 | 101.3077 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.6 | 0.07506 | 101.2264 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.0706 | 101.9877 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.9 | 0.06214 | 101.2897 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07237 | 101.0344 | CANTON - TALOGA 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07499 | 100.981 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.05152 | 100.7747 | CANTON - TALOGA 69KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07819 | 100.5881 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07611 | 100.5768 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07611 | 100.5768 | P12:138:WFEC:MSL14 |
| 17G | 01NR | 2 | TO->FROM | G15_049_2 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.8 | 0.04208 | 101.1028 | BASE CASE |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.03144 | 101.0686 | G14-074T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.7 | 0.04953 | 101.8911 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.04053 | 100.9375 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.04099 | 100.9318 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07808 | 100.5726 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07487 | 100.473 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.04254 | 100.58 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.04099 | 100.5729 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 138.5 | 0.0379 | 100.2744 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07103 | 100.1479 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - TALOGA 138KV CKT 1 | 143 | 0.09029 | 102.4182 | IODINE - WOODWARD EHV 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.5 | 0.10511 | 100.4396 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123 | 0.10001 | 101.0585 | CLEO CORNER - G15048_1 138.00 138KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.7 | 0.03784 | 100.3303 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 141.5 | 0.10511 | 100.1569 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 123.3 | 0.0731 | 100.4217 | GREASY CREEK - WEELETKA 138KV CKT 1 |
| 17G | 01NR | 0 | TO->FROM | G15_086 | GLASS MOUNTAIN - MOORELAND 138KV CKT 1 | 122.7 | 0.09903 | 100.1679 | G15048_1 138.00 138/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07953 | 100.1446 | MOREWOOD SW - NINE MILE 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07487 | 100.1221 | CLEOPLT4 138.00 - MEN TAP 138KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 128 | 0.07426 | 100.8219 | IMO TAP - MEN TAP 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 20SP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227 | 0.07368 | 100.8969 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.9 | 0.07368 | 100.5423 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07611 | 100.0856 | BEARCAT 138.00 - NINE MILE 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05397 | 112.4705 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.11183 | 112.4231 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.11183 | 112.4231 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0518 | 112.4134 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.11655 | 112.3937 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04846 | 112.3713 | BASE CASE |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0518 | 112.361 | P12:138:WFEC:MSL12 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05695 | 112.3242 | P12:138:WFEC:MSL15 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06294 | 112.3232 | DOVER SW - OKEENE 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0518 | 112.256 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07975 | 112.0934 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05496 | 112.082 | BASE CASE |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05161 | 112.0579 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.12378 | 111.8929 | P12:138:WFEC:MSL14 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0518 | 111.8888 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07241 | 111.8478 | BASE CASE |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04925 | 111.7786 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04925 | 111.7786 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.054 | 100.8355 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06863 | 108.6139 | CIMARRON - SARA 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05448 | 111.6978 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.07368 | 100.6761 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 182.9 | 0.06611 | 100.5041 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.07237 | 100.0519 | CANTON - OKEENE 69KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_049_2 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.04099 | 100.0703 | IMO TAP - MEN TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.11785 | 108.564 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 140.6 | 0.06377 | 100.7496 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.9 | 0.0956 | 100.4037 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.05287 | 111.6644 | P12:138:WFEC:MSL14 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05448 | 111.6453 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05882 | 111.5761 | P12:138:WFEC:MSL14 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05882 | 111.5236 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.11006 | 111.3974 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 2 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.11006 | 111.3974 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.09367 | 111.3277 | BASE CASE |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06745 | 111.3274 | CLEO CORNER - CLEOPTP 2 69.000 69KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.11468 | 111.305 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.051 | 111.1228 | P12:138:WFEC:MSL15 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05643 | 111.063 | DOVER SW - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06906 | 111.0241 | BASE CASE |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.04983 | 110.9763 | NSAH - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04904 | 110.8646 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04904 | 110.8122 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04792 | 110.5953 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07969 | 110.3503 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 20L | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.4 | 0.04957 | 110.1964 | BASE CASE |
| 20L | 01NR | 3 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.05958 | 110.3807 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227 | 0.07066 | 100.3665 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06629 | 110.3395 | P12:345:AEPW:PITTSB-7:VALIANT7 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.05867 | 109.1861 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 01NR | 2 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 127.8 | 0.06915 | 100.7277 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | MOORELAND - PIC4 138.00 138KV CKT 1 | 142.5 | 0.0351 | 100.014 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.4 | 0.07362 | 100.1865 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.05865 | 109.0412 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_086 | CEDARDALE - OKEENE 138KV CKT 1 | 139.3 | 0.07103 | 100.0043 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.8 | 0.09667 | 100.1466 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 3 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.05958 | 107.1847 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_049_2 | DOVER SW - OKEENE 138KV CKT 1 | 128.1 | 0.06913 | 100.4106 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 128.4 | 0.09406 | 100.3988 | IMO TAP - MEN TAP 138KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | DOVER SW - OKEENE 138KV CKT 1 | 140.8 | 0.0637 | 100.0994 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_086 | NOEL_SW 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.9 | 0.07065 | 100.1009 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.12714 | 108.5557 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.11723 | 108.4882 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.11801 | 108.4002 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.06306 | 101.2779 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.11743 | 108.3395 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12637 | 108.3262 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.12714 | 108.1632 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.12714 | 108.1352 | MORGAN - XEROX 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.12714 | 107.9949 | MORGAN - MUSTANG 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12637 | 107.9335 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12637 | 107.9055 | MORGAN - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12637 | 107.7653 | MORGAN - MUSTANG 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06321 | 107.5763 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06904 | 107.4594 | SARA - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06293 | 107.4023 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06904 | 107.2211 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06863 | 107.2116 | SARA - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06613 | 107.1134 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06615 | 107.0559 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06863 | 106.9873 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.05768 | 101.1653 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05242 | 110.17 | P12:138:WFEC:MSL14 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.07779 | 101.1148 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11526 | 110.1167 | P12:138:WFEC:MSL15 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.03765 | 110.0892 | MOORELAND - TALOGA 138KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05345 | 109.8583 | BASE CASE |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.03199 | 109.5477 | MOORELAND - TALOGA 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.12171 | 109.4808 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.12171 | 109.4283 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.12171 | 109.3757 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11056 | 109.2023 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.07881 | 101.0734 | CIMARRON - DRAPER LAKE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|--|
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11056 | 109.2023 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04627 | 109.1049 | CLEO CORNER - CLEOTP 2 69.000 69KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.04685 | 109.1038 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.12171 | 109.0604 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07182 | 109.053 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716.2 | 0.05975 | 100.8587 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06611 | 106.9446 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06614 | 106.9014 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06675 | 106.8625 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0899 | 108.8562 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04802 | 108.8164 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06636 | 106.6431 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06675 | 106.4699 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06675 | 106.4419 | MORGAN - XEROX 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0899 | 108.8038 | P12:138:WFEC:MSL12 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0899 | 108.6988 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04693 | 108.6495 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.11526 | 108.4351 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.04693 | 108.4004 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0899 | 108.384 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.08991 | 108.3763 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.08991 | 108.3239 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190 | 0.05397 | 108.3126 | BASE CASE |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07974 | 108.258 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.08991 | 108.2191 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.12098 | 108.1429 | DOVER SW - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07187 | 108.1186 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.04823 | 100.4964 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.12304 | 108.0441 | P12:138:WFEC:MSL14 |
| 20SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07247 | 107.9717 | BASE CASE |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.0485 | 100.4393 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_086 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716.2 | 0.04248 | 100.3764 | BASE CASE |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.07194 | 107.9602 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.12304 | 107.939 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.08991 | 107.8522 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08504 | 107.6118 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05202 | 107.2987 | P12:138:WFEC:MSL15 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10889 | 107.2927 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 2 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10889 | 107.2927 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06912 | 107.2529 | BASE CASE |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08918 | 107.2067 | DOVER SW - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.08505 | 107.1331 | P12:138:WFEC:MSL15 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08037 | 106.9118 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 2 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08037 | 106.9118 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 3 | TO->FROM | G15_049_2 | CIMARRON - MINCO 345KV CKT 1 | 954.3 | 0.07046 | 100.7117 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 956 | 0.05896 | 100.3443 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 25SP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - CZECH HALL 138KV CKT 1 | 382 | 0.06535 | 100.4372 | CIMARRON - HAYMAKER 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 716.1 | 0.14706 | 106.3416 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|--|
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04625 | 106.8432 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06636 | 106.2505 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06636 | 106.2224 | MORGAN - XEROX 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.08161 | 106.6677 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.08161 | 106.6677 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.1 | 0.04856 | 106.5818 | BASE CASE |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08387 | 106.5446 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08158 | 106.5142 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.08158 | 106.5142 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.08919 | 106.4665 | DOVER SW - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.08038 | 106.3291 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 2 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.08038 | 106.3291 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08984 | 106.171 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07977 | 106.1668 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08984 | 106.1185 | P12:138:WFEC:MSL12 |
| 20L | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.10854 | 106.0934 | BASE CASE |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08984 | 106.0661 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04326 | 106.0577 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05255 | 105.9895 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05346 | 105.9769 | BASE CASE |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05742 | 105.9758 | DOVER SW - OKEENE 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05255 | 105.937 | P12:138:WFEC:MSL12 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04978 | 105.9087 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.04978 | 105.9087 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.06272 | 105.8499 | ROMAN NOSE - SOUTHARD 138KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05255 | 105.832 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.07979 | 105.7956 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08984 | 105.699 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.07979 | 105.6908 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05255 | 105.622 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.05957 | 105.8621 | ANADARKO - POCASSETT 138KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.13629 | 105.8477 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 716.1 | 0.12739 | 105.7922 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.05933 | 105.7448 | ANADARKO - POCASSETT 138KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.12687 | 105.0536 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.7 | 0.13831 | 105.0108 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.13802 | 104.8496 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.7 | 0.12164 | 104.5449 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.12133 | 104.3832 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.12687 | 104.3691 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.08005 | 104.2763 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 716.1 | 0.13865 | 103.9003 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.12247 | 103.7704 | BASE CASE |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 716.1 | 0.12963 | 103.6484 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.12211 | 103.6211 | BASE CASE |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.07471 | 103.5963 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.12822 | 103.4848 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.16251 | 103.2414 | ARCADIA - NORTHWEST 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|---|------------|---------|-----------------------|--|
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.07471 | 102.9117 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_086 | PITTSBURG - SEMINOLE 345KV CKT 1 | 716.9 | 0.09563 | 103.17 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.05884 | 100.275 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05202 | 105.6189 | NOEL_SW 138.00 - SALT_PLAINS 138.00 138KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.07194 | 105.6046 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04393 | 105.1868 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05047 | 105.1412 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 2 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05047 | 105.1412 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04803 | 105.0399 | BASE CASE |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.04386 | 105.0168 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08498 | 104.9271 | P12:138:WFEC:MSL15 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05148 | 104.8248 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05148 | 104.7723 | P12:138:WFEC:MSL12 |
| 20SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04627 | 104.7478 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05148 | 104.6674 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08152 | 104.5118 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08152 | 104.5118 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.9 | 0.0587 | 100.1716 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20L | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.5 | 0.05341 | 104.505 | P12:138:WFEC:MSL14 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.08575 | 102.2981 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.3 | 0.06596 | 102.1859 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06568 | 102.0384 | BASE CASE |
| 17G | 01NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.7 | 0.13831 | 101.6853 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05148 | 104.3526 | CEDARDALE - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.0514 | 104.3396 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 0 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.13802 | 101.5377 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08912 | 104.3125 | DOVER SW - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.0514 | 104.2872 | P12:138:WFEC:MSL12 |
| 25SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.0704 | 104.237 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.06173 | 104.2214 | ROMAN NOSE - SOUTHWARD 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.0514 | 104.1824 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.09104 | 104.0944 | P12:138:WFEC:MSL14 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.09104 | 104.0419 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.05093 | 104.0325 | P12:138:WFEC:MSL15 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.0514 | 103.8155 | CEDARDALE - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.0563 | 103.7565 | DOVER SW - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04946 | 103.6684 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 2 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04946 | 103.6684 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 01NR | 2 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.7 | 0.12164 | 101.2195 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08031 | 103.6508 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 2 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08031 | 103.6508 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.05085 | 103.5482 | P12:138:WFEC:MSL15 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.06167 | 103.5293 | ROMAN NOSE - SOUTHWARD 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05093 | 103.3558 | P12:138:WFEC:MSL15 |
| 25SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.06696 | 103.3501 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.04866 | 103.2138 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.04866 | 103.2138 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.04938 | 103.0797 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 2 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|------------|---------|-----------------------|--|
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.04938 | 103.0797 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04873 | 103.0671 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04873 | 103.0671 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.05621 | 103.0094 | DOVER SW - OKEENE 138KV CKT 1 |
| 20WP | 00NR | 3 | TO->FROM | G15_086 | PITTSBURG - SEMINOLE 345KV CKT 1 | 716.4 | 0.09877 | 102.7155 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.04788 | 102.8206 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.04873 | 102.7041 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.04873 | 102.7041 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04331 | 102.602 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.04781 | 102.4434 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08991 | 102.3503 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08991 | 102.2979 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.10735 | 102.2964 | BASE CASE |
| 25SP | 00NR | 0 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06353 | 102.258 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08991 | 102.193 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05148 | 102.0998 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05085 | 102.0818 | MOORELAND - PIC4 138.00 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05148 | 102.0473 | P12:138:WFEC:MSL12 |
| 17G | 01NR | 0 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.6 | 0.12133 | 101.0713 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_086 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.8 | 0.07922 | 100.9142 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05085 | 102.0294 | P12:138:WFEC:MSL12 |
| 17SP | 00NR | 2 | FROM->TO | G15_049_2 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.2 | 0.12731 | 100.0786 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05148 | 101.9948 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04899 | 101.9916 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05085 | 101.9769 | CEDARDALE - PIC4 138.00 138KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08161 | 101.8993 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08161 | 101.8993 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08991 | 101.8783 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.06174 | 101.8119 | ROMAN NOSE - SOUTHWEST 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05148 | 101.6795 | CEDARDALE - OKEENE 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05093 | 101.6742 | NOEL_SW 138.00 - SALT PLAINS 138.00 138KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05085 | 101.6099 | CEDARDALE - OKEENE 138KV CKT 1 |
| 25SP | 00NR | 2 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.06043 | 101.5126 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.08505 | 101.3686 | P12:138:WFEC:MSL15 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05631 | 101.3463 | DOVER SW - OKEENE 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_049_2 | G15095_T 138.00 - ROSE VALLEY 138.00 138KV CKT 1 | 227.4 | 0.04891 | 100.08 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.6 | 0.07922 | 101.2823 | BASE CASE |
| 20L | 01NR | 3 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06363 | 106.0554 | HUGO - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.0502 | 101.2795 | P12:138:WFEC:MSL15 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.05867 | 105.919 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.05865 | 105.8452 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.06124 | 101.1788 | ROMAN NOSE - SOUTHWEST 138KV CKT 1 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.04946 | 101.0468 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 2 |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.04946 | 101.0468 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04803 | 100.9995 | CLEO CORNER - CLEO JCT 69KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04803 | 100.9995 | CLEO JCT - RINGWOOD 69KV CKT 1 |
| 25SP | 00NR | 2 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.04358 | 100.8994 | CLEO CORNER (CLEOCOR1) 138/69/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.05561 | 100.7981 | DOVER SW - OKEENE 138KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE | CONTINGENCY | | CONTINGENCY |
|--------|-------|----------|-----------|-----------|--|-------|-------------|-----------|--|
| | | | | | | (MVA) | TDF | LOADING % | |
| 20WP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.8 | 0.07924 | 100.6541 | BASE CASE |
| 17G | 01NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.3 | 0.05246 | 100.6264 | P12:138:WFEC:MSL14 |
| 25SP | 00NR | 0 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04572 | 100.3902 | WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04886 | 100.3524 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 2 |
| 17SP | 00NR | 3 | FROM->TO | G15_049_2 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.04886 | 100.3524 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.09112 | 100.2223 | P12:138:WFEC:MSL14 |
| 20L | 01NR | 2 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06264 | 104.5653 | HUGO - SUNNYSIDE 345KV CKT 1 |
| 20L | 01NR | 0 | TO->FROM | G15_086 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.8 | 0.06261 | 104.4901 | HUGO - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_086 | CLEO CORNER - CLEOPLT4 138.00 138KV CKT 1 | 190.7 | 0.09112 | 100.1699 | BEARCAT 138.00 - MOORELAND 138KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_086 | G15095_T 138.00 - ROSE_VALLEY 138.00 138KV CKT 1 | 227.2 | 0.07065 | 100.0572 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.19118 | 103.5699 | BASE CASE |
| 20SPD | 06ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.19369 | 131.3309 | CIMARRON - MINCO 345KV CKT 1 |
| 20SPD | 06ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.19369 | 126.4103 | GRACEMONT - MINCO 345KV CKT 1 |
| 20SPD | 06ALL | 0 | TO->FROM | G15_037 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 779.6 | 0.19369 | 119.1901 | CIMARRON - MINCO 345KV CKT 1 |
| 20SPD | 06ALL | 0 | TO->FROM | G15_037 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 779.6 | 0.19369 | 114.2645 | GRACEMONT - MINCO 345KV CKT 1 |
| 17SPD | 06ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.19422 | 137.2988 | CIMARRON - MINCO 345KV CKT 1 |
| 17SPD | 06ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.19422 | 132.3605 | GRACEMONT - MINCO 345KV CKT 1 |
| 17SPD | 06ALL | 0 | TO->FROM | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.5 | 0.19422 | 124.9628 | CIMARRON - MINCO 345KV CKT 1 |
| 17SPD | 06ALL | 0 | TO->FROM | G15_037 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 778.5 | 0.19422 | 120.0174 | GRACEMONT - MINCO 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.19443 | 148.775 | CIMARRON - MINCO 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.19443 | 143.8277 | GRACEMONT - MINCO 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.19443 | 136.2 | CIMARRON - MINCO 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.19443 | 131.2858 | GRACEMONT - MINCO 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.19541 | 106.4736 | BASE CASE |
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.19596 | 109.5002 | ANADARKO - POCASSETT 138KV CKT 1 |
| 16WPD | 06ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.19838 | 145.4457 | CIMARRON - MINCO 345KV CKT 1 |
| 16WPD | 06ALL | 0 | FROM->TO | G15_037 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.19838 | 140.5378 | GRACEMONT - MINCO 345KV CKT 1 |
| 16WPD | 06ALL | 0 | TO->FROM | G15_037 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.19838 | 133.1337 | CIMARRON - MINCO 345KV CKT 1 |
| 16WPD | 06ALL | 0 | TO->FROM | G15_037 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.19838 | 128.2248 | GRACEMONT - MINCO 345KV CKT 1 |
| 20SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.19858 | 103.0709 | BASE CASE |
| 17SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.19894 | 103.0838 | BASE CASE |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.2003 | 111.6781 | ANADARKO - POCASSETT 138KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1179.8 | 0.20144 | 115.195 | BASE CASE |
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.2017 | 110.1163 | GRACEMONT (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.20235 | 111.1576 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.20235 | 110.7869 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.20235 | 110.3422 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.20235 | 110.3422 | P13:230-345:SPS:POTTER_CO.1 |
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.20333 | 110.9533 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.20333 | 110.9533 | P12:345:SPS:FINNEY-HITCHLAND |
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.20333 | 110.9533 | P12:345:SPS:J07.1.FINN.HITCH |
| 20SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.20371 | 109.4362 | ANADARKO - POCASSETT 138KV CKT 1 |
| 20SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.20371 | 109.2774 | P12:138:WFEC:MSL01 |
| 20SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.20371 | 109.1398 | POCASSETT - TUTTLE 138KV CKT 1 |
| 17SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.20402 | 109.3507 | ANADARKO - POCASSETT 138KV CKT 1 |
| 17SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.20402 | 109.2121 | P12:138:WFEC:MSL01 |
| 17SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.20402 | 109.0948 | POCASSETT - TUTTLE 138KV CKT 1 |
| 16WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.20466 | 105.3023 | ANADARKO - POCASSETT 138KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.20608 | 111.9415 | GRACEMONT (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.20624 | 108.0954 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.20624 | 106.7521 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.20636 | 114.1663 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.20636 | 113.7936 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.20636 | 112.9418 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.20636 | 112.9418 | P13:230-345:SPS:POTTER_CO.1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.20658 | 107.3709 | P12:230:AEPW:ELKCITY6:SWEETW6 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.20666 | 114.1122 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.20666 | 113.846 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 20WPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.20671 | 115.2793 | P12:138:WFEC:MSL03 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.20795 | 107.2274 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.20795 | 107.2199 | P12:345:SPS:FINNEY-HITCHLAND |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.20795 | 107.2199 | P12:345:SPS:J07.1.FINN.HITCH |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.20947 | 108.6947 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.20947 | 108.4215 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.20947 | 107.7081 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.20947 | 107.7081 | P13:230-345:SPS:POTTER_CO.1 |
| 20SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.21038 | 109.5352 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.21038 | 109.154 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.21038 | 108.614 | P13:230-345:SPS:POTTER_CO.1 |
| 20SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.21038 | 108.614 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 17SPD | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.21083 | 109.8101 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|---|
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.21083 | 109.4264 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.21083 | 108.904 | P13:230-345:SPS:POTTER_CO.1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.21083 | 108.904 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.21088 | 105.5816 | GRACEMONT (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.21128 | 109.3461 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.21128 | 109.3355 | P12:345:SPS:J07.1.FINN.HITCH |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.21128 | 109.3355 | P12:345:SPS:FINNEY-HITCHLAND |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.21113 | 118.0604 | P12:138:WFEC:MSL03 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.21152 | 106.5346 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.21152 | 106.1651 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.21152 | 105.6795 | P13:230-345:SPS:POTTER_CO.1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.21152 | 105.6795 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.21181 | 109.8683 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.21181 | 109.8683 | P12:345:SPS:FINNEY-HITCHLAND |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.21181 | 109.8683 | P12:345:SPS:J07.1.FINN.HITCH |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.21195 | 106.7852 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.21195 | 106.4685 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.2123 | 126.3674 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.2123 | 121.5702 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.2123 | 118.9065 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.21488 | 116.3229 | P12:138:WFEC:MSL03 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.21522 | 116.4555 | P12:138:WFEC:MSL03 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.21585 | 111.0411 | P12:138:WFEC:MSL03 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.21771 | 128.823 | P12:345:AEPW-OKGE:PITTSB-7;SEMINOL7 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.21771 | 116.8212 | P12:345:AEPW-OKGE:PITTSB-7;SEMINOL7 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.21847 | 128.6993 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.21847 | 123.226 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.21847 | 120.5209 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.22092 | 121.8909 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.22092 | 116.9883 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.22092 | 114.2931 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22102 | 125.508 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22102 | 113.5154 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.22129 | 123.0089 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.22129 | 118.084 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.22129 | 115.3674 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22154 | 125.3243 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22154 | 125.1081 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22154 | 113.3323 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 714 | 0.22181 | 133.1808 | BASE CASE |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22181 | 125.3861 | P12:138:WFEC:MSL03 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22181 | 125.3861 | P12:138:WFEC:MSL03 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22181 | 125.1826 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 716.5 | 0.22181 | 119.9038 | BASE CASE |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22181 | 115.7021 | G14-057T 345.00 - G14571545159345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22181 | 113.3939 | BASE CASE |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22181 | 113.3812 | BASE CASE |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22181 | 113.191 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22221 | 125.2127 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22221 | 124.9584 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22221 | 113.221 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.22258 | 121.5156 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.22258 | 116.6702 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.22258 | 113.9885 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.22397 | 154.1421 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.22397 | 149.4094 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | GRACEMONT - MINCO 345KV CKT 1 | 1181.2 | 0.22397 | 112.0902 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | GRACEMONT - MINCO 345KV CKT 1 | 1181.2 | 0.22397 | 108.3059 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22406 | 128.1882 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22406 | 116.1882 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22412 | 127.1562 | P12:345:SPS:WALKEMEYER-HITCHLAND |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22412 | 127.1435 | P12:345:SPS:FINNEY-HITCHLAND |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.22412 | 127.1435 | P12:345:SPS:J07.1.FINN.HITCH |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22412 | 115.1463 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22412 | 115.1337 | P12:345:SPS:J07.1.FINN.HITCH |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.22412 | 115.1337 | P12:345:SPS:FINNEY-HITCHLAND |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.22717 | 115.5167 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 25SP0 | 06ALL | 0 | TO->FROM | G15_037 | SWISHER COUNTY INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 349.6 | 0.22969 | 127.8224 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 25SP0 | 06ALL | 0 | TO->FROM | G15_070 | SWISHER COUNTY INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 349.6 | 0.22969 | 127.8224 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 25SP0 | 06ALL | 0 | TO->FROM | G15_037 | SWISHER COUNTY INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 349.6 | 0.22969 | 107.8285 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.23197 | 128.1263 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.23197 | 116.1265 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.23376 | 126.9346 | P12:138:WFEC:MSL03 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.23376 | 114.938 | P12:138:WFEC:MSL03 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.23395 | 124.8996 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1183.6 | 0.23537 | 108.6472 | BASE CASE |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1183.7 | 0.23885 | 109.8937 | BASE CASE |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24123 | 101.8709 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24123 | 100.917 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 999.9 | 0.24181 | 119.8844 | BASE CASE |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.24205 | 114.3662 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.24205 | 114.3662 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 994.9 | 0.24221 | 119.9602 | BASE CASE |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24286 | 102.0276 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24394 | 101.0682 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24394 | 101.0682 | P12:345:SPS:FINNEY-HITCHLAND |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24394 | 101.0682 | P12:345:SPS:J07.1.FINN.HITCH |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1184.1 | 0.24488 | 105.7029 | BASE CASE |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24529 | 102.8776 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24529 | 101.7951 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24635 | 102.9196 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.2468 | 102.3037 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.2468 | 102.1675 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.24698 | 117.4038 | P12:345:AEPW:OKGE:PITTSB-7;SEMINOL7 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.24698 | 105.0189 | P12:345:AEPW:OKGE:PITTSB-7;SEMINOL7 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24707 | 103.0251 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24707 | 102.7526 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24707 | 102.4196 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.24707 | 102.4196 | P13:230-345:SPS:POTTER_CO.1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 706.5 | 0.2478 | 122.9954 | BASE CASE |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.2478 | 119.3923 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.2478 | 117.7195 | HUGO POWER PLANT 138/23.4KV TRANSFORMER CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.2478 | 116.5956 | P12:345:SPS:FINNEY-HITCHLAND |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.2478 | 116.5956 | P12:345:SPS:FINNEY-HITCHLAND |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.2478 | 116.1979 | P13:138-24:AEPW:TURK 4 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 709.6 | 0.2478 | 109.2676 | BASE CASE |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.2478 | 105.9265 | G14-057T 345.00 - G14571545159345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.2478 | 105.7731 | P12:138:WFEC:MSL03 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.2478 | 105.3462 | HUGO POWER PLANT 138/23.4KV TRANSFORMER CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.2478 | 105.0189 | P12:69:AEPW:OMPA:WALTRS-2;OMWALTR2 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.2478 | 104.2136 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.24797 | 110.5692 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.24801 | 106.9958 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.24837 | 105.9923 | CHISHOLM6 230.00 - ELK CITY 230KV 230KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.24842 | 107.1645 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.24842 | 106.0545 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.24972 | 107.2034 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 707.5 | 0.24984 | 105.7603 | BASE CASE |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.24984 | 103.3001 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.24984 | 102.5184 | STLN-DEMARC6 - SWEETWATER 230KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.24984 | 100.9423 | P13:138-24:AEPW:TURK 4 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.24984 | 100.5451 | P12:345:SPS:J07.1.FINN.HITCH |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.25012 | 107.1668 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 704.4 | 0.25017 | 112.5205 | BASE CASE |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25017 | 109.4514 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25017 | 108.6799 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25017 | 107.934 | P12:69:WFEC-AEPW:COMANCH2:WALTRS-2 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25017 | 107.7282 | P12:230:SPS:K73.1.GRAPE.WEELR |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25017 | 107.7282 | P12:230:SPS:K73.1.GRAPE.WEELR |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25017 | 106.9566 | P13:138-24:AEPW:TURK 4 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25017 | 106.5451 | DUNCAN EASTSIDE - OMPA-DUNCAN 821 138KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.25036 | 104.2108 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.25036 | 103.9383 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.25036 | 103.3024 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.25036 | 103.3024 | P13:230-345:SPS:POTTER_CO.1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25066 | 118.2199 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.25076 | 106.3381 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.25076 | 106.3381 | P12:345:SPS:J07.1.FINN.HITCH |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.25076 | 106.3381 | P12:345:SPS:FINNEY-HITCHLAND |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 705.1 | 0.25113 | 123.8348 | BASE CASE |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25113 | 120.2852 | FLETCHER - GEORGIA 138KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25113 | 118.9102 | P12:230:SPS:K59.1.POTTER.BSHLND |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25113 | 118.3657 | HUGO POWER PLANT 138/23.4KV TRANSFORMER CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25113 | 117.3553 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25113 | 117.3553 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25113 | 116.7642 | P13:138-24:AEPW:TURK 4 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 708.6 | 0.25113 | 110.0281 | BASE CASE |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.25113 | 107.8269 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.25113 | 106.5727 | G14-057T 345.00 - G14571545159345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.25113 | 105.9153 | HUGO POWER PLANT 138/23.4KV TRANSFORMER CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.25113 | 105.7537 | BASE CASE |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.25113 | 104.9218 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.25113 | 104.9218 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.25128 | 106.5523 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.25128 | 106.5523 | P12:345:SPS:J07.1.FINN.HITCH |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.25128 | 106.5523 | P12:345:SPS:FINNEY-HITCHLAND |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.2516 | 117.6494 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.2516 | 105.2636 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.25199 | 117.2252 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.25199 | 117.2124 | P12:345:SPS:J07.1.FINN.HITCH |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.25199 | 117.2124 | P12:345:SPS:FINNEY-HITCHLAND |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.25199 | 104.8409 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.25199 | 104.8282 | P12:345:SPS:J07.1.FINN.HITCH |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.25199 | 104.8282 | P12:345:SPS:FINNEY-HITCHLAND |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25252 | 116.7838 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25357 | 117.3726 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25357 | 105.1158 | P12:345:AEPW-OKGE:PITTSB-7:SEMINOL7 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 709.7 | 0.25386 | 122.5139 | BASE CASE |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25386 | 118.1468 | G15039_T 230.00 - PLANT X STATION 230KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25386 | 117.2861 | HUGO POWER PLANT 138/23.4KV TRANSFORMER CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25386 | 117.4183 | HUGO POWER PLANT 138/23.4KV TRANSFORMER CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25386 | 116.5236 | P12:138:WFEC:MSL02 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25386 | 116.5236 | P12:138:WFEC:MSL02 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25386 | 115.8207 | P13:138-24:AEPW:TURK 4 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25386 | 115.335 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 711.8 | 0.25386 | 108.9605 | BASE CASE |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25386 | 107.0229 | NEWHART 230 - POTTER COUNTY INTERCHANGE 230KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25386 | 105.8882 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25386 | 105.6587 | G14-057T 345.00 - G14571545159345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25386 | 105.1614 | ANADARKO - POCASSETT 138KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25386 | 105.0295 | HUGO POWER PLANT 138/23.4KV TRANSFORMER CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25386 | 104.2816 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25386 | 104.2816 | P12:345:SPS:J04.1.FINN.HOLC(534) |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.25389 | 100.4006 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25405 | 107.3781 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.25418 | 108.2437 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.25418 | 107.9118 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.25418 | 107.4636 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.25418 | 107.4636 | P13:230-345:SPS:POTTER_CO.1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.25438 | 100.7539 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.25438 | 100.7411 | P12:345:SPS:FINNEY-HITCHLAND |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.25438 | 100.7411 | P12:345:SPS:J07.1.FINN.HITCH |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.25447 | 130.006 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.25447 | 123.2661 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.25447 | 120.6095 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.25467 | 108.3778 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.25467 | 108.0508 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.25467 | 107.612 | P13:230-345:SPS:POTTER_CO.1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.25467 | 107.612 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25476 | 107.1582 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25476 | 107.1453 | P12:345:SPS:J07.1.FINN.HITCH |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.25476 | 107.1453 | P12:345:SPS:FINNEY-HITCHLAND |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25488 | 118.0987 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25488 | 117.8931 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.25488 | 105.4446 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.25516 | 118.2385 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.25516 | 105.8013 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.25703 | 148.3889 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.25703 | 143.5705 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | GRACEMONT - MINCO 345KV CKT 1 | 1178.8 | 0.25703 | 107.4174 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | GRACEMONT - MINCO 345KV CKT 1 | 1178.8 | 0.25703 | 103.5491 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25787 | 117.4132 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25787 | 105.1691 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25824 | 116.7005 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.25824 | 116.4449 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25824 | 104.4454 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.25824 | 104.2031 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.25908 | 112.5747 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.25908 | 112.205 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.25908 | 111.2648 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.25908 | 111.2648 | P13:230-345:SPS:POTTER_CO.1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.25962 | 105.2079 | BASE CASE |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.26046 | 118.4966 | P12:138:WFEC:MSL03 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.26046 | 106.1078 | P12:138:WFEC:MSL03 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.26082 | 118.8607 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.26082 | 106.4834 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.26285 | 103.2804 | P12:138:WFEC:MSL03 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.26311 | 151.8105 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.26311 | 146.9654 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | GRACEMONT - MINCO 345KV CKT 1 | 1173.4 | 0.26311 | 109.9925 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | GRACEMONT - MINCO 345KV CKT 1 | 1173.4 | 0.26311 | 106.1064 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.26317 | 109.4437 | P12:138:WFEC:MSL03 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.26322 | 113.2542 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.26322 | 113.2436 | P12:345:SPS:FINNEY-HITCHLAND |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.26322 | 113.2436 | P12:345:SPS:J07.1.FINN.HITCH |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.26338 | 103.4649 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.26378 | 123.6763 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | CONTINGENCY | | |
|--------|-------|----------|-----------|---------|--|------------|-------------|-----------|---|
| | | | | | | | TDF | LOADING % | CONTINGENCY |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.2638 | 109.3139 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.26392 | 120.3243 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.26392 | 107.8659 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.26399 | 118.9794 | P12:138:WFEC:MSL03 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.26399 | 106.5265 | P12:138:WFEC:MSL03 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.26544 | 141.6618 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.26544 | 136.7274 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | GRACEMONT - MINCO 345KV CKT 1 | 1178.8 | 0.26544 | 102.032 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.26592 | 112.1232 | GRACEMONT (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.26602 | 144.2626 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.26602 | 139.3377 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | GRACEMONT - MINCO 345KV CKT 1 | 1172.3 | 0.26602 | 103.9177 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 555.3 | 0.26677 | 209.7242 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 558.6 | 0.26677 | 208.3957 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.2668 | 109.1925 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.26685 | 117.9962 | P12:138:WFEC:MSL03 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.26685 | 105.7506 | P12:138:WFEC:MSL03 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.2673 | 128.688 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.26761 | 118.1485 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.26761 | 105.9025 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.26875 | 144.3607 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.26875 | 139.5259 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_037 | GRACEMONT - MINCO 345KV CKT 1 | 1181.9 | 0.26875 | 104.2837 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_037 | GRACEMONT - MINCO 345KV CKT 1 | 1181.9 | 0.26875 | 100.4085 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.26986 | 111.3817 | HUGO - SUNNYSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.27152 | 110.0411 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.27289 | 123.7232 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.27351 | 123.2889 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.27445 | 113.2941 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.27476 | 118.7506 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.27488 | 113.6066 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321.4 | 0.2782 | 106.0525 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.27871 | 126.3674 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.27871 | 121.5702 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.27871 | 118.9065 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.28002 | 103.5699 | BASE CASE |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.28183 | 108.8774 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.28183 | 108.8774 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.28298 | 111.1576 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.28298 | 110.7869 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.28298 | 110.3422 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.28298 | 110.3422 | P13:230-345:SPS:POTTER_CO.1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.28317 | 115.0866 | P12:138:WFEC:MSL03 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.284 | 106.4736 | BASE CASE |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.28433 | 128.6993 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.28433 | 123.226 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.28433 | 120.5209 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.28532 | 105.0721 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.28573 | 109.9592 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.28573 | 109.9592 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.28654 | 110.9533 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.28654 | 110.9533 | P12:345:SPS:FINNEY-HITCHLAND |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.28654 | 110.9533 | P12:345:SPS:J07.1.FINN.HITCH |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.28683 | 114.1663 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.28683 | 113.7936 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.28683 | 112.9418 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.28683 | 112.9418 | P13:230-345:SPS:POTTER_CO.1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.28709 | 109.5002 | ANADARKO - POCASSETT 138KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.28733 | 121.8909 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.28733 | 116.9883 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.28733 | 114.2931 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.28742 | 103.0709 | BASE CASE |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.28757 | 123.0089 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.28757 | 118.084 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.28757 | 115.3674 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.28778 | 103.0838 | BASE CASE |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.28844 | 121.5156 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.28844 | 116.6702 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.28844 | 113.9885 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.28852 | 106.6831 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.28945 | 114.7782 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.28945 | 114.7782 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.28957 | 110.1163 | GRACEMONT (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.28986 | 114.1122 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.28986 | 113.846 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.28993 | 114.6025 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.28993 | 114.6025 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.29102 | 109.5352 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.29102 | 109.154 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.29102 | 108.614 | P13:230-345:SPS:POTTER_CO.1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.29102 | 108.614 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.2912 | 111.6781 | ANADARKO - POCASSETT 138KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.29145 | 109.8101 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.29145 | 109.4264 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.29145 | 108.904 | P13:230-345:SPS:POTTER_CO.1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.29145 | 108.904 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.29199 | 106.5346 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.29199 | 106.1651 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.29199 | 105.6795 | P13:230-345:SPS:POTTER_CO.1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.29199 | 105.6795 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.29242 | 112.01 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.29256 | 111.9492 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321.4 | 0.29306 | 105.691 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321.4 | 0.29306 | 105.691 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.29311 | 124.8996 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.29349 | 111.9415 | GRACEMONT (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|--|
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.29449 | 109.3461 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.29449 | 109.3355 | P12:345:SPS:J07.1.FINN.HITCH |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.29449 | 109.3355 | P12:345:SPS:FINNEY-HITCHLAND |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.29485 | 109.4362 | ANADARKO - POCASSETT 138KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.29485 | 109.2774 | P12:138:WFEC:MSL01 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.29485 | 109.1398 | POCASSETT - TUTTLE 138KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.29497 | 109.8683 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.29497 | 109.8683 | P12:345:SPS:FINNEY-HITCHLAND |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.29497 | 109.8683 | P12:345:SPS:J07.1.FINN.HITCH |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.29515 | 106.7852 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.29515 | 106.4685 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.29515 | 109.3507 | ANADARKO - POCASSETT 138KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.29515 | 109.2121 | P12:138:WFEC:MSL01 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.29515 | 109.0948 | POCASSETT - TUTTLE 138KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321.4 | 0.29538 | 102.1058 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.29556 | 105.3023 | ANADARKO - POCASSETT 138KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.29559 | 156.932 | CIMARRON - MINCO 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.29559 | 152.0484 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.29559 | 144.8391 | CIMARRON - MINCO 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.29559 | 139.9818 | GRACEMONT - MINCO 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.29828 | 105.5816 | GRACEMONT (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.30477 | 115.2793 | P12:138:WFEC:MSL03 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.30918 | 118.0604 | P12:138:WFEC:MSL03 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 544.8 | 0.31057 | 221.0385 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 552.1 | 0.31057 | 218.0072 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.31294 | 116.3229 | P12:138:WFEC:MSL03 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.31327 | 116.4555 | P12:138:WFEC:MSL03 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 540.4 | 0.31372 | 219.9025 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 546.9 | 0.31372 | 217.2158 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.31373 | 111.0411 | P12:138:WFEC:MSL03 |
| 25SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1007.9 | 0.31436 | 105.9704 | BASE CASE |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 552.8 | 0.31938 | 193.9559 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 554.5 | 0.31938 | 193.3071 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 547.6 | 0.32034 | 193.4239 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 549.9 | 0.32034 | 192.5785 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.32293 | 123.6763 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 547.1 | 0.3233 | 207.68 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_037 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 552.9 | 0.3233 | 205.411 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.32622 | 128.688 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.32738 | 147.1293 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.32738 | 142.2031 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.32738 | 134.6508 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.32738 | 129.7422 | GRACEMONT - MINCO 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.33153 | 131.3309 | CIMARRON - MINCO 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.33153 | 126.4103 | GRACEMONT - MINCO 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 779.6 | 0.33153 | 119.1901 | CIMARRON - MINCO 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 779.6 | 0.33153 | 114.2645 | GRACEMONT - MINCO 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.33196 | 148.775 | CIMARRON - MINCO 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|--|
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.33196 | 143.8277 | GRACEMONT - MINCO 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.33196 | 136.2 | CIMARRON - MINCO 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.33196 | 131.2858 | GRACEMONT - MINCO 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.33201 | 137.2988 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.33201 | 132.3605 | GRACEMONT - MINCO 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 778.5 | 0.33201 | 124.9628 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 778.5 | 0.33201 | 120.0174 | GRACEMONT - MINCO 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.33204 | 123.7232 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.33277 | 123.2889 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WPO | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.33367 | 118.7506 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WPO | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.33593 | 145.4457 | CIMARRON - MINCO 345KV CKT 1 |
| 16WPO | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.33593 | 140.5378 | GRACEMONT - MINCO 345KV CKT 1 |
| 16WPO | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.33593 | 133.1337 | CIMARRON - MINCO 345KV CKT 1 |
| 16WPO | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.33593 | 128.2248 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.5 | 0.3636 | 119.6767 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 25SP0 | 06ALL | 0 | FROM->TO | G15_037 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 349.6 | 0.36531 | 174.6319 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.36766 | 154.1421 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 946.6 | 0.36766 | 149.4094 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | GRACEMONT - MINCO 345KV CKT 1 | 1181.2 | 0.36766 | 112.0902 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | GRACEMONT - MINCO 345KV CKT 1 | 1181.2 | 0.36766 | 108.3059 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_037 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 542.2 | 0.38881 | 202.6191 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20WPO | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 779.5 | 0.38963 | 122.5564 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20WPO | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.38963 | 110.1531 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20WPO | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 782.3 | 0.38963 | 107.686 | G15093_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 778.2 | 0.39272 | 124.2053 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.39272 | 111.7309 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 781.4 | 0.39272 | 109.261 | G15093_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.39278 | 107.5382 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.4 | 0.39278 | 105.0779 | G15093_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.39315 | 112.3689 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 777.6 | 0.39315 | 109.8869 | G15093_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 778.5 | 0.39315 | 100.0489 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 16WPO | 06ALL | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 782.4 | 0.39632 | 121.6187 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 16WPO | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.39632 | 109.3643 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 16WPO | 06ALL | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 784.3 | 0.39632 | 106.9035 | G15093_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WPO | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.40071 | 148.3889 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WPO | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.3 | 0.40071 | 143.5705 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WPO | 06ALL | 0 | FROM->TO | G15_070 | GRACEMONT - MINCO 345KV CKT 1 | 1178.8 | 0.40072 | 107.4174 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WPO | 06ALL | 0 | FROM->TO | G15_070 | GRACEMONT - MINCO 345KV CKT 1 | 1178.8 | 0.40072 | 103.5491 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.40648 | 151.8105 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 939.1 | 0.40648 | 146.9654 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | GRACEMONT - MINCO 345KV CKT 1 | 1173.4 | 0.40648 | 109.9925 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | GRACEMONT - MINCO 345KV CKT 1 | 1173.4 | 0.40648 | 106.1064 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.40912 | 141.6618 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 944.4 | 0.40912 | 136.7274 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | GRACEMONT - MINCO 345KV CKT 1 | 1178.8 | 0.40912 | 102.032 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.4097 | 144.2626 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 938.1 | 0.4097 | 139.3377 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | GRACEMONT - MINCO 345KV CKT 1 | 1172.3 | 0.4097 | 103.9177 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.41212 | 144.3607 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 947.3 | 0.41212 | 139.5259 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | GRACEMONT - MINCO 345KV CKT 1 | 1181.9 | 0.41212 | 104.2837 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | GRACEMONT - MINCO 345KV CKT 1 | 1181.9 | 0.41212 | 100.4085 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 25SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1173.4 | 0.42113 | 109.3617 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 25SP0 | 06ALL | 0 | FROM->TO | G15_037 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1173.4 | 0.42113 | 107.4357 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_037 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 598.3 | 0.42701 | 189.6488 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 530.9 | 0.42986 | 221.8854 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_037 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 535.6 | 0.43506 | 210.1117 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_037 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 532.5 | 0.43587 | 206.8305 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_037 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 598.6 | 0.43966 | 181.5568 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 | 789 | 0.50535 | 103.3812 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 | 788.2 | 0.52325 | 100.1597 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_037 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 | 1955.5 | 0.65272 | 101.2402 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 | 1955.5 | 0.65272 | 101.2402 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.70897 | 115.5167 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72393 | 107.3709 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72557 | 108.0954 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72557 | 106.7521 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72643 | 108.6947 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72643 | 108.4215 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72643 | 107.7081 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72643 | 107.7081 | P13:230-345:SPS:POTTER_CO.1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1179.8 | 0.727 | 115.195 | BASE CASE |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72919 | 114.3662 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72919 | 114.3662 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72954 | 107.2274 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72954 | 107.2199 | P12:345:SPS:FINNEY-HITCHLAND |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.72954 | 107.2199 | P12:345:SPS:J07.1.FINN.HITCH |
| 20L0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1317.6 | 0.73492 | 110.5692 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.74861 | 109.1925 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.75249 | 110.0411 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.75625 | 113.2941 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.7566 | 113.6066 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321.4 | 0.75919 | 106.0525 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76021 | 102.0276 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76056 | 101.8709 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76056 | 100.917 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1183.6 | 0.76093 | 108.6472 | BASE CASE |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76333 | 102.9196 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1183.7 | 0.76399 | 109.8937 | BASE CASE |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76403 | 103.0251 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76403 | 102.7526 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76403 | 102.4196 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76403 | 102.4196 | P13:230-345:SPS:POTTER_CO.1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76409 | 102.8776 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76409 | 101.7951 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76553 | 101.0682 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76553 | 101.0682 | P12:345:SPS:FINNEY-HITCHLAND |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76553 | 101.0682 | P12:345:SPS:J07.1.FINN.HITCH |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76696 | 104.2108 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76696 | 103.9383 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76696 | 103.3024 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76696 | 103.3024 | P13:230-345:SPS:POTTER_CO.1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.76707 | 107.2034 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.76734 | 106.9958 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 999.9 | 0.76737 | 119.8844 | BASE CASE |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.76747 | 107.1668 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.76762 | 105.9923 | CHISHOLM6 230.00 - ELK CITY 230KV 230KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.76769 | 107.1645 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.76769 | 106.0545 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 994.9 | 0.76775 | 119.9602 | BASE CASE |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76813 | 102.3037 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76813 | 102.1675 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76897 | 108.8774 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.76897 | 108.8774 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1184.1 | 0.77003 | 105.7029 | BASE CASE |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.77114 | 108.2437 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.77114 | 107.918 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.77114 | 107.4636 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.77114 | 107.4636 | P13:230-345:SPS:POTTER_CO.1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.7716 | 108.3778 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.7716 | 108.0508 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.7716 | 107.612 | P13:230-345:SPS:POTTER_CO.1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.7716 | 107.612 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 20WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.77227 | 105.0721 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.77235 | 106.3381 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.77235 | 106.3381 | P12:345:SPS:J07.1.FINN.HITCH |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.77235 | 106.3381 | P12:345:SPS:FINNEY-HITCHLAND |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.77238 | 109.9592 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.77238 | 109.9592 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.77282 | 106.5523 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.77282 | 106.5523 | P12:345:SPS:J07.1.FINN.HITCH |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.77282 | 106.5523 | P12:345:SPS:FINNEY-HITCHLAND |
| 17G0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321 | 0.77529 | 106.6831 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.77659 | 114.7782 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.77659 | 114.7782 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.77708 | 114.6025 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.77708 | 114.6025 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 25SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1007.9 | 0.77919 | 105.9704 | BASE CASE |
| 20SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1166.5 | 0.77936 | 112.01 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1162.2 | 0.7797 | 111.9492 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321.4 | 0.77971 | 105.691 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321.4 | 0.77971 | 105.691 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 16WP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1321.4 | 0.78215 | 102.1058 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|--|
| 25SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1173.4 | 0.81025 | 109.3617 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 25SP0 | 06ALL | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1173.4 | 0.81025 | 107.4357 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.02967 | 101.5029 | EMPIRE - FLETCHER 138KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.02975 | 102.8791 | ANADARKO - GEORGIA 138KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.02975 | 102.593 | FLETCHER - GEORGIA 138KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 141 | 0.02989 | 114.9411 | TUTTLE - TUTTLE CONOCO TAP 138KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 141 | 0.02989 | 114.0191 | CIMARRON - TUTTLE CONOCO TAP 138KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 139.3 | 0.02989 | 111.4623 | TUTTLE - TUTTLE CONOCO TAP 138KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 139.3 | 0.02989 | 110.5291 | CIMARRON - TUTTLE CONOCO TAP 138KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.02995 | 103.7804 | P12:138:WFEC:MSL02 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 138 | 0.02995 | 100.5688 | P12:138:WFEC:MSL02 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | BLANCHARD - MAUD 138KV CKT 1 | 71.4 | 0.03006 | 107.8683 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.2 | 0.03056 | 133.1926 | TUTTLE - TUTTLE CONOCO TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.5 | 0.03064 | 136.4154 | TUTTLE - TUTTLE CONOCO TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 140.8 | 0.03064 | 132.4517 | TUTTLE - TUTTLE CONOCO TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | BLANCHARD - MAUD 138KV CKT 1 | 90.9 | 0.03078 | 101.0275 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03103 | 106.3012 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 138 | 0.03103 | 103.05 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03115 | 106.3937 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03115 | 100.1884 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.3 | 0.03131 | 123.9437 | P12:345:AEPW:PITTSB-7:VALIANT7 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03149 | 103.0379 | ANADARKO - POCASSETT 138KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03149 | 102.7518 | POCASSETT - TUTTLE 138KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03149 | 102.6087 | P12:138:WFEC:MSL01 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03149 | 102.0365 | BRIDGECR 138.00 - TUTTLE 138KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03149 | 101.5358 | BRIDGECR 138.00 - SUNSHINE CANYON 138KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_070 | CORN TAP - SEQUOYAHJ4 138.00 138KV CKT 1 | 143 | 0.03153 | 107.3839 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_070 | CORN TAP - SEQUOYAHJ4 138.00 138KV CKT 1 | 142.9 | 0.03183 | 111.2309 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_070 | CORN TAP - SEQUOYAHJ4 138.00 138KV CKT 1 | 142.9 | 0.03183 | 100.874 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.3 | 0.03196 | 119.9487 | P12:345:AEPW:PITTSB-7:VALIANT7 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03227 | 106.2811 | COMANCHE - LOCO 138KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 138 | 0.03227 | 103.0297 | COMANCHE - LOCO 138KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03238 | 101.7268 | BLANCHARD - CORNVILLE 138KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03238 | 101.6552 | P12:138:AEPW-OGC:CORNVIL4:MAUD 4 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1 | 308.1 | 0.03265 | 124.049 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1 | 313 | 0.03265 | 122.2029 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | CORN TAP - SEQUOYAHJ4 138.00 138KV CKT 1 | 143 | 0.03297 | 106.8469 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | CORN TAP - SEQUOYAHJ4 138.00 138KV CKT 1 | 143 | 0.03298 | 105.8699 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.3 | 0.03305 | 117.2594 | HUGO - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.03323 | 107.5878 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.3 | 0.03347 | 114.4982 | HUGO - SUNNYSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1 | 310.5 | 0.03416 | 131.03 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1 | 314.5 | 0.03416 | 129.5224 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03442 | 102.3076 | TUTTLE - TUTTLE CONOCO TAP 138KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.03442 | 101.4492 | CIMARRON - TUTTLE CONOCO TAP 138KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.3 | 0.03855 | 127.6301 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.3 | 0.03855 | 117.6515 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.3 | 0.03883 | 125.8368 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|--|
| 20WP | 00NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.3 | 0.03883 | 115.8582 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.6 | 0.03884 | 100.1792 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_070 | CLEAVELAND - CLEVELND 4 138.00 138KV CKT Z1 | 353.7 | 0.03912 | 121.4973 | P12:345:AEPW-GRDA:T.NO.-7:CLEVELND7 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 141 | 0.03975 | 138.4575 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 139.3 | 0.03975 | 135.2656 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 141 | 0.03975 | 133.2802 | GRACEMONT - MINCO 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 139.3 | 0.03975 | 130.0251 | GRACEMONT - MINCO 345KV CKT 1 |
| 25SP | 00NR | 0 | TO->FROM | G15_070 | CLEAVELAND - CLEVELND 4 138.00 138KV CKT Z1 | 353.1 | 0.03983 | 105.8479 | P12:345:AEPW-GRDA:T.NO.-7:CLEVELND7 |
| 17SP | 00NR | 0 | TO->FROM | G15_070 | CLEAVELAND - CLEVELND 4 138.00 138KV CKT Z1 | 354.4 | 0.04041 | 122.3541 | P12:345:AEPW-GRDA:T.NO.-7:CLEVELND7 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | CLEAVELAND - CLEVELND 4 138.00 138KV CKT Z1 | 413.1 | 0.04058 | 102.1966 | P12:345:AEPW-GRDA:T.NO.-7:CLEVELND7 |
| 20SP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.6 | 0.04163 | 135.1255 | CIMARRON - MINCO 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.4 | 0.04163 | 131.2511 | CIMARRON - MINCO 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.6 | 0.04171 | 100.7104 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.2 | 0.04233 | 137.9037 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 140.7 | 0.04233 | 134.2566 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CLINTON JUNCTION - ELK CITY 138KV CKT 1 | 184.6 | 0.0428 | 111.3434 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.6 | 0.04305 | 143.629 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.4 | 0.04305 | 139.756 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.4 | 0.04305 | 125.1874 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 141 | 0.04327 | 142.8234 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 139.3 | 0.04327 | 139.6849 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 141 | 0.04327 | 138.4262 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 139.3 | 0.04327 | 135.234 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.6 | 0.04328 | 111.3492 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 142.1 | 0.04328 | 107.4483 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.7 | 0.04363 | 154.0918 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.2 | 0.04363 | 150.063 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.2 | 0.0437 | 148.6709 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 140.7 | 0.0437 | 145.1386 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.2 | 0.0437 | 134.1842 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 140.7 | 0.0437 | 130.4975 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.5 | 0.04379 | 152.447 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 140.8 | 0.04379 | 148.6768 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CLINTON JUNCTION - ELK CITY 138KV CKT 1 | 184.4 | 0.04408 | 112.3232 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.0441 | 126.774 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 138 | 0.0441 | 123.7899 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.0441 | 121.5522 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 138 | 0.0441 | 118.5725 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.2 | 0.04469 | 104.9979 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 140.2 | 0.04469 | 102.0021 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.5 | 0.0447 | 168.779 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 140.8 | 0.0447 | 165.206 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.5 | 0.0447 | 154.4632 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 140.8 | 0.0447 | 150.6463 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.7 | 0.04476 | 169.3259 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.2 | 0.04476 | 165.4589 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.2 | 0.04476 | 151.0113 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.2 | 0.04834 | 102.4682 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|--|
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.5 | 0.04834 | 102.2881 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.04854 | 104.4105 | BASE CASE |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.04854 | 104.2489 | SPNSPUR_WND7345.00 345/34.5KV TRANSFORMER CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.04854 | 104.213 | POTTER COUNTY INTERCHANGE - SPNSPUR_WND7345.00 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.04854 | 103.5111 | SPNSPUR_WND7345.00 345/34.5KV TRANSFORMER CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.04854 | 103.4754 | POTTER COUNTY INTERCHANGE - SPNSPUR_WND7345.00 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.2 | 0.04859 | 103.3936 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.5 | 0.04859 | 103.1952 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.04904 | 133.5565 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 138 | 0.04904 | 130.6609 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 139.8 | 0.04904 | 129.1931 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 138 | 0.04904 | 126.2406 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.0491 | 104.0276 | P12:230:SPS:K53.1.NICHL.S.GRAPE |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.0491 | 103.2911 | P12:230:SPS:K53.1.NICHL.S.GRAPE |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.04922 | 102.5796 | P12:230:SPS:K73.1.GRAPE.WEELR |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.04922 | 101.8511 | P12:230:SPS:K73.1.GRAPE.WEELR |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.04968 | 109.8409 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.04968 | 109.0722 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.04968 | 106.1957 | STLN-DEMARC6 - SWEETWATER 230KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.04968 | 106.1957 | STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.04968 | 106.1957 | P12:230:SPS:K74.1.WEELR.SWT(520) |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.04968 | 106.1957 | P12:230:AEPW-SPS:SWEETWT6:WHEELER 6 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.04968 | 105.465 | STLN-DEMARC6 - SWEETWATER 230KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.04968 | 105.465 | STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.04968 | 105.465 | P12:230:SPS:K74.1.WEELR.SWT(520) |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.04968 | 105.465 | P12:230:AEPW-SPS:SWEETWT6:WHEELER 6 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.04989 | 110.6962 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.04989 | 109.9227 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.2 | 0.05187 | 100.2255 | P12:230:SPS:K31.1.MOORE.POTTER |
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.5 | 0.05187 | 100.0288 | P12:230:SPS:K31.1.MOORE.POTTER |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | DUNCAN - OMPA-DUNCAN 840 138KV CKT 1 | 156 | 0.05196 | 100.8256 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.05351 | 106.7432 | P12:230:SPS:K31.1.MOORE.POTTER |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.05351 | 105.9916 | P12:230:SPS:K31.1.MOORE.POTTER |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.05446 | 104.3523 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.05446 | 104.3523 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.05446 | 103.6139 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.05446 | 103.6139 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.2 | 0.05488 | 102.0679 | P12:230:SPS:K75.1.HITCH.MOORE |
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.5 | 0.05488 | 101.8702 | P12:230:SPS:K75.1.HITCH.MOORE |
| 20L | 06NR | 0 | TO->FROM | G15_070 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 349.4 | 0.05637 | 109.6769 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.05662 | 110.0532 | P12:230:SPS:K75.1.HITCH.MOORE |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.05662 | 109.2832 | P12:230:SPS:K75.1.HITCH.MOORE |
| 17G | 06NR | 0 | TO->FROM | G15_070 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 347.7 | 0.05705 | 110.4731 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | FPL SWITCH - MOORELAND 138KV CKT 1 | 265.7 | 0.06065 | 115.6172 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_070 | FPL SWITCH - WOODWARD 138KV CKT 1 | 140 | 0.06098 | 157.4243 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_070 | FPL SWITCH - WOODWARD 138KV CKT 1 | 141.1 | 0.06151 | 151.4904 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | FPL SWITCH - MOORELAND 138KV CKT 1 | 269.2 | 0.06169 | 108.3235 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | STLN-DEMARC6 - SWEETWATER 230KV CKT 1 | 342.2 | 0.06219 | 104.6338 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|--|
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.2 | 0.06531 | 100.5889 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.5 | 0.06531 | 100.392 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.06605 | 106.7473 | G15_070_T 345.00 - OKLAUNION 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.06738 | 105.8384 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.06738 | 105.0918 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | ANADARKO - GRACMNT4 138.00 138KV CKT 1 | 224.1 | 0.0681 | 114.9174 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | ANADARKO - GRACMNT4 138.00 138KV CKT 1 | 224.1 | 0.0681 | 105.6359 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | ANADARKO - GRACMNT4 138.00 138KV CKT 1 | 272 | 0.06878 | 107.7699 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07278 | 103.2582 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07321 | 108.1704 | CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07322 | 108.3391 | CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07413 | 116.9736 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07476 | 109.8342 | CIMARRON - SARA 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07476 | 108.4319 | SARA - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07476 | 108.2076 | MCCLAIN - STHLAKE4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.075 | 107.9372 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.075 | 107.5445 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.075 | 107.5165 | MORGAN - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07718 | 110.2025 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.07876 | 108.9508 | P12:138:WFEC:MSL03 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.08174 | 110.6748 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 549.4 | 0.0853 | 180.7044 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 553.4 | 0.0853 | 179.326 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.0855 | 116.3441 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.0855 | 115.657 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 552.9 | 0.08589 | 178.236 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 555.3 | 0.08589 | 177.4117 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.09432 | 115.4671 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | BUSHLAND INTERCHANGE - POTTER COUNTY INTERCHANGE 230KV CKT 1 | 350.6 | 0.10006 | 106.6509 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | CHISHOLM6 230.00 - ELK CITY 230KV 230KV CKT 1 | 436.8 | 0.1036 | 101.2546 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | CHISHOLM6 230.00 - ELK CITY 230KV 230KV CKT 1 | 437.9 | 0.10531 | 106.2555 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 540.8 | 0.12028 | 167.8965 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 538.8 | 0.12064 | 171.732 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | PITTSBURG - SEMINOLE 345KV CKT 1 | 716.9 | 0.14086 | 106.3967 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358.3 | 0.14115 | 116.9816 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1 | 358 | 0.14216 | 127.0804 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14271 | 135.2563 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 713.1 | 0.14271 | 124.9633 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.1 | 0.14342 | 112.7431 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 715.1 | 0.14342 | 102.4089 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | PITTSBURG - SEMINOLE 345KV CKT 1 | 716.6 | 0.14401 | 102.8751 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.4 | 0.14597 | 110.7397 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | GRAPEVINE INTERCHANGE - STATELINE INTERCHANGE 230KV CKT 1 | 358.7 | 0.14698 | 119.3738 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.2 | 0.17038 | 121.0862 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 559.5 | 0.17038 | 120.8783 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 556.9 | 0.17228 | 126.3214 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.17228 | 125.4614 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.4 | 0.17253 | 114.7945 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 20WP | 00NR | 0 | TO->FROM | G15_070 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 | 438.7 | 0.17372 | 122.1144 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | STLN-DEMARC6 - SWEETWATER 230KV CKT 1 | 433.7 | 0.17372 | 104.6152 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | STATELINE INTERCHANGE - STLN-DEMARC6 230KV CKT 1 | 452.6 | 0.17372 | 100.2466 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1168.4 | 0.24708 | 113.0541 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 | 1170.6 | 0.25064 | 111.1731 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 714 | 0.29386 | 117.235 | BASE CASE |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.29386 | 114.4548 | P12:230:AEPW:ELKCITY6:SWEETWT6 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.29386 | 113.0686 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.29386 | 112.8015 | HUGO POWER PLANT 138/23.4KV TRANSFORMER CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.29386 | 112.3691 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.29386 | 111.5424 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.29386 | 111.5424 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.29386 | 110.9447 | P13:138-24:AEPW:TURK 4 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.29386 | 110.6013 | CHISHOLM6 230.00 - SWEETWATER 230KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 714.8 | 0.29386 | 103.3377 | BASE CASE |
| 17G | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787 | 0.29386 | 101.8498 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787 | 0.29386 | 100.8714 | G14-057T 345.00 - G14571545159345.00 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787 | 0.29386 | 100.198 | HUGO POWER PLANT 138/23.4KV TRANSFORMER CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.29592 | 101.309 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.29592 | 100.9313 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.29592 | 100.008 | P13:230-345:SPS:POTTER_CO.1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.29592 | 100.008 | POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13.2KV TRANSFORMER CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.29674 | 101.1355 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.29674 | 100.7892 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.2974 | 111.3341 | P12:345:SPS:J04.1.FINN.HOLC(534) |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.2974 | 111.0543 | FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716 | 0.2975 | 102.2416 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 717 | 0.29828 | 135.6882 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.29828 | 128.4644 | CIMARRON - CZECH HALL 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.29828 | 127.2984 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.29828 | 127.1082 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.29828 | 127.1082 | CZECH HALL - XEROX 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.29828 | 127.0449 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.29828 | 127.0322 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.29828 | 126.652 | P13:138-24:AEPW:TURK 4 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.6 | 0.29828 | 104.8547 | G14-057T 345.00 - G14571545159345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.6 | 0.29828 | 101.5957 | G15092_1 345.00 345/34.5KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.6 | 0.29828 | 101.5323 | G14571545159345.00 - G15092_1 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716.2 | 0.29908 | 111.7179 | BASE CASE |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.29908 | 107.8173 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.29908 | 107.2338 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.29908 | 106.3839 | P12:138:WFEC:MSL03 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.29908 | 106.3839 | P12:138:WFEC:MSL03 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.29908 | 105.6735 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.29908 | 105.4324 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.29908 | 105.3437 | P13:138-24:AEPW:TURK 4 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.29908 | 105.2422 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 716.5 | 0.29947 | 134.3253 | BASE CASE |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|---|
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.29947 | 126.1054 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.29947 | 125.8264 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.29947 | 125.8264 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.29947 | 125.7122 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.29947 | 125.7122 | CARTRCO4 138.00 - ORIGINW4 138.00 138KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787.7 | 0.29947 | 103.6995 | G14-057T 345.00 - G14571545159345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787.7 | 0.29947 | 100.4241 | G15092_1 345.00 345/34.5KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787.7 | 0.29947 | 100.3607 | G14571545159345.00 - G15092_1 345.00 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.30021 | 114.769 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.30021 | 109.2396 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.30021 | 107.6868 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.30066 | 112.1707 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.3034 | 128.0634 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.3034 | 127.8226 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.30367 | 112.5272 | P12:345:AEPW-OKGE-PITTSB-7:SEMINOL7 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.30395 | 106.1506 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.30395 | 105.8969 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.30407 | 100.7782 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.30407 | 100.3956 | G14_038T 345.00 - POTTER COUNTY INTERCHANGE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.30435 | 126.8364 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.30435 | 126.5954 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.30479 | 128.4711 | P12:345:AEPW-PITTSB-7:VALIANT7 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.30504 | 131.9787 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.30531 | 101.1473 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.30531 | 101.1367 | P12:345:SPS:J07.1.FINN.HITCH |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.30531 | 101.1367 | P12:345:SPS:FINNEY-HITCHLAND |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.30589 | 108.7869 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.30629 | 130.4739 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.30634 | 126.7092 | P12:345:AEPW-PITTSB-7:VALIANT7 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.30667 | 112.9468 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787 | 0.30667 | 100.3432 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.30711 | 112.7601 | P12:138:WFEC:MSL03 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787 | 0.30711 | 100.1567 | P12:138:WFEC:MSL03 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.30771 | 117.4777 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.30771 | 110.5786 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.30771 | 109.0372 | G11_051T 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.30785 | 100.0696 | GRACEMONT (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.3079 | 134.597 | P12:345:AEPW-OKGE-PITTSB-7:SEMINOL7 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.30925 | 127.6901 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.30949 | 108.4165 | P12:345:AEPW-OKGE-PITTSB-7:SEMINOL7 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.30964 | 132.8081 | P12:345:AEPW-OKGE-PITTSB-7:SEMINOL7 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.31006 | 126.8888 | BORDER 7345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.31231 | 129.4668 | P12:138:WFEC:MSL03 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.31254 | 107.3274 | P12:138:WFEC:MSL03 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.31343 | 128.2091 | P12:138:WFEC:MSL03 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.31676 | 105.5533 | P12:138:WFEC:MSL03 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 707.3 | 0.32273 | 123.2036 | BASE CASE |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32273 | 116.2034 | P12:138:WFEC:MSL03 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|--|
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32273 | 116.0112 | P12:138:WFEC:MSL03 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32273 | 115.7933 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32273 | 115.7163 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32273 | 115.6138 | DOLET HILLS 345/24.0KV TRANSFORMER CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 711.2 | 0.32273 | 108.8891 | BASE CASE |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.32273 | 105.8848 | G14-057T 345.00 - G14571545159345.00 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.32273 | 103.3073 | P12:138:WFEC:MSL03 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.32273 | 103.1159 | P12:115:SPS:W29.1.OCLTRE.SPRMN |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32404 | 116.0743 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.32404 | 103.1788 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32516 | 115.8611 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.32516 | 102.9664 | G14_038T 345.00 - Hitchland Interchange 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32667 | 117.3803 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32667 | 117.3675 | P12:345:SPS:J07.1.FINN.HITCH |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32667 | 117.3675 | P12:345:SPS:FINNEY-HITCHLAND |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.32667 | 104.4789 | P12:345:SPS:WALKEMEYER-HITCHLAND |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.32667 | 104.4661 | P12:345:SPS:J07.1.FINN.HITCH |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.32667 | 104.4661 | P12:345:SPS:FINNEY-HITCHLAND |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.32743 | 115.9868 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.32743 | 103.0916 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.32808 | 102.8515 | P12:138:WFEC:MSL03 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.33051 | 118.7712 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.33051 | 105.8508 | CIMARRON - DRAPER LAKE 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.3335 | 112.5328 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.33598 | 117.7383 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.33598 | 104.8225 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.33758 | 117.1846 | P12:138:WFEC:MSL03 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.33758 | 104.284 | P12:138:WFEC:MSL03 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.33814 | 119.9234 | P12:345:AEPW-OKGE:PITTSB-7;SEMINOL7 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.33814 | 107.0106 | P12:345:AEPW-OKGE:PITTSB-7;SEMINOL7 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.34285 | 110.3067 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.37674 | 139.1736 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.37674 | 134.0865 | GRACEMONT - MINCO 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787 | 0.37674 | 126.5466 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787 | 0.37674 | 121.464 | GRACEMONT - MINCO 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.1 | 0.39426 | 117.2539 | CIMARRON - MINCO 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.1 | 0.39426 | 107.3313 | GRACEMONT - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.39686 | 126.7358 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.39686 | 116.8157 | GRACEMONT - MINCO 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.39823 | 150.8072 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.39823 | 140.8959 | GRACEMONT - MINCO 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.6 | 0.39823 | 111.2312 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.6 | 0.39823 | 101.3149 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.39853 | 150.0899 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.39853 | 140.185 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787.7 | 0.39853 | 110.5318 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787.7 | 0.39853 | 100.6169 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.40775 | 143.8381 | CIMARRON - MINCO 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 20L | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 780.2 | 0.40775 | 138.7112 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.40775 | 130.8058 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.40775 | 125.7146 | GRACEMONT - MINCO 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 786.3 | 0.42666 | 116.8381 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787 | 0.42666 | 104.231 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 787 | 0.42666 | 101.7786 | G15093_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.1 | 0.43406 | 107.2095 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.43451 | 137.6826 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.1 | 0.43451 | 132.6464 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.5 | 0.43574 | 138.5063 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.3 | 0.43605 | 115.3768 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 954.6 | 0.44688 | 100.6457 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 954.6 | 0.45061 | 106.535 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955.1 | 0.45482 | 122.3271 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955.1 | 0.45482 | 105.2399 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.45501 | 106.5462 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 783.7 | 0.45501 | 104.0836 | G15093_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.45636 | 138.9187 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 940.7 | 0.45636 | 133.8905 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955.2 | 0.45666 | 121.5974 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955.2 | 0.45666 | 104.491 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_070 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 | 781.8 | 0.5309 | 118.3385 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_070 | G15093_T 345.00 - GRACEMONT 345KV CKT 1 | 782.3 | 0.53252 | 116.5098 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1323.7 | 0.79664 | 102.0165 | CHISHOLM7 345.00 - GRACEMONT 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1186.7 | 0.80014 | 102.422 | BASE CASE |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1323.7 | 0.81296 | 101.4043 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 1 |
| 17G | 06NR | 0 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1323.7 | 0.81296 | 101.4043 | BORDER 7345.00 - TUCO_2 345.00 345KV CKT 2 |
| 20WP | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 955.4 | 0.19677 | 108.2324 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 955.4 | 0.19677 | 103.4909 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 955 | 0.20277 | 109.7121 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 955 | 0.20277 | 104.3403 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 955.4 | 0.20286 | 101.9433 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20SP | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 954.8 | 0.20443 | 104.8388 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 954.8 | 0.20443 | 100.0211 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 953.7 | 0.20481 | 105.3429 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 953.7 | 0.20481 | 100.5196 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 06ALL | 2 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 789 | 0.20544 | 118.6957 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 20L | 06ALL | 2 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 788.6 | 0.20544 | 106.4049 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 16WP | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 955.5 | 0.20614 | 103.7443 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 955 | 0.20785 | 104.2812 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 955 | 0.20785 | 100.9723 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 06ALL | 2 | TO->FROM | G15_037 | CIMARRON - MINCO 345KV CKT 1 | 953.7 | 0.2101 | 100.3853 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 954.7 | 0.21907 | 110.5935 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 954.7 | 0.21907 | 103.9422 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 06ALL | 2 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.9 | 0.23326 | 109.3817 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 17G | 06ALL | 2 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.9 | 0.23701 | 110.014 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 20WP | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955.4 | 0.239 | 108.2324 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955.4 | 0.239 | 103.4909 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|--|
| 16WP | 06ALL | 2 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 788.9 | 0.23994 | 108.7272 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 17G | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955 | 0.24461 | 109.7121 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17G | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955 | 0.24461 | 104.3403 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 954.8 | 0.24665 | 104.8388 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20SP | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 954.8 | 0.24665 | 100.0211 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.7 | 0.24694 | 105.3429 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 17SP | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.7 | 0.24694 | 100.5196 | G11_051T 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 16WP | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955.5 | 0.24798 | 103.7443 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20L | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 954.7 | 0.25948 | 103.9382 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 954.7 | 0.25948 | 100.6597 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 20WP | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955.4 | 0.28124 | 101.9433 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955 | 0.28603 | 104.2812 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 17G | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 955 | 0.28603 | 100.9723 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17SP | 06ALL | 2 | TO->FROM | G15_070 | CIMARRON - MINCO 345KV CKT 1 | 953.7 | 0.28847 | 100.3853 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.5 | 0.03418 | 142.2133 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141 | 0.03418 | 138.4071 | CIMARRON - MINCO 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.04907 | 106.6771 | ARCADIA - SEMINOLE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.07443 | 108.679 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.06291 | 107.244 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.06291 | 106.5724 | G15066_T 345.00 - SOONER 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 141 | 0.03045 | 114.2092 | HUGO - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.06933 | 105.5406 | ARCADIA - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.07445 | 103.363 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.05946 | 101.8103 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.07443 | 102.1868 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.3 | 0.28612 | 106.0542 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.05489 | 101.2406 | MATHWSN7 345.00 - NORTHWEST 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.05246 | 101.0267 | CIMARRON - SARA 138KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_070 | CIMARRON - DRAPER LAKE 345KV CKT 1 | 714.7 | 0.06829 | 101.2295 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_070 | CLEVELAND - CLEVLND 4 138.00 138KV CKT Z1 | 354.3 | 0.03766 | 120.3777 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 17SP | 00NR | 2 | FROM->TO | G15_070 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714.1 | 0.0307 | 105.995 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.1 | 0.03273 | 128.3737 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 140.8 | 0.03273 | 124.6584 | CIMARRON - MINCO 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 140.8 | 0.03273 | 114.8572 | GRACEMONT - MINCO 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_070 | CLEVELAND - CLEVLND 4 138.00 138KV CKT Z1 | 353.6 | 0.03641 | 119.718 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 20SP | 00NR | 2 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.6 | 0.03206 | 126.1697 | CIMARRON - MINCO 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.6 | 0.03206 | 122.1878 | CIMARRON - MINCO 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.6 | 0.03206 | 112.4421 | GRACEMONT - MINCO 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 142.7 | 0.03402 | 144.2228 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 141.4 | 0.03402 | 140.174 | CIMARRON - MINCO 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_070 | TUPELO - TUPELO TAP 138KV CKT 1 | 141.1 | 0.03088 | 111.5974 | HUGO - SUNNYSIDE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_070 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 | 955.6 | 0.28711 | 105.3195 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 25SP | 00NR | 2 | TO->FROM | G15_070 | CLEVELAND - CLEVLND 4 138.00 138KV CKT Z1 | 353.1 | 0.03712 | 105.3911 | P12:345:AEPW-GRDA:T.NO.-7:CLEVLND7 |
| 17G | 06NR | 2 | TO->FROM | G15_070 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 558.7 | 0.08018 | 139.7627 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17G | 06NR | 2 | TO->FROM | G15_070 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 559.7 | 0.08018 | 139.4415 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17G | 06NR | 2 | FROM->TO | G15_070 | ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1 | 314.9 | 0.03137 | 112.3249 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 2 | FROM->TO | G15_070 | ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1 | 316 | 0.03137 | 112.0288 | CHISHOLM7 345.00 - WOODWARD DISTRICT EHV 345KV CKT 1 |
| 17G | 06NR | 2 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 141.2 | 0.03113 | 125.5234 | CIMARRON - MINCO 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|--|
| 17G | 06NR | 2 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 139.8 | 0.03113 | 122.1309 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 06NR | 2 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 141.2 | 0.03113 | 120.5659 | GRACEMONT - MINCO 345KV CKT 1 |
| 17G | 06NR | 2 | FROM->TO | G15_070 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 543.2 | 0.11214 | 119.0063 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 17G | 06NR | 2 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 139.8 | 0.03113 | 117.1953 | GRACEMONT - MINCO 345KV CKT 1 |
| 17G | 06NR | 2 | FROM->TO | G15_070 | ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1 | 314.9 | 0.04401 | 106.9238 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 06NR | 2 | FROM->TO | G15_070 | ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1 | 316 | 0.04401 | 106.6465 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 |
| 17G | 06NR | 2 | TO->FROM | G15_070 | ANADARKO - GRACMNT4 138.00 138KV CKT 1 | 226.6 | 0.05602 | 103.842 | CIMARRON - MINCO 345KV CKT 1 |
| 17G | 06NR | 2 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1323.9 | 0.74063 | 103.7985 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 2 | TO->FROM | G15_070 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 558.9 | 0.07842 | 138.2226 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20L | 06NR | 2 | TO->FROM | G15_070 | TUCO_2 345.00 (TUCO_2 XFMR) 345/230/13.2KV TRANSFORMER CKT 1 | 559.9 | 0.07842 | 137.9043 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20L | 06NR | 2 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 140.8 | 0.03518 | 115.0241 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 06NR | 2 | FROM->TO | G15_070 | TUCO INTERCHANGE - TUCO_2 230.00 230KV CKT 1 | 545.6 | 0.11024 | 110.0022 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 20L | 06NR | 2 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 139.6 | 0.03518 | 111.7149 | CIMARRON - MINCO 345KV CKT 1 |
| 20L | 06NR | 2 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 140.8 | 0.03518 | 110.1236 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L | 06NR | 2 | FROM->TO | G15_070 | NAPLESTP 138.00 - PAYNE 138.00 138KV CKT 1 | 139.6 | 0.03518 | 106.7722 | GRACEMONT - MINCO 345KV CKT 1 |
| 20L | 06NR | 2 | FROM->TO | G15_070 | CORN TAP - NAPLESTP 138.00 138KV CKT 1 | 140.8 | 0.03013 | 102.0163 | G14-057T 345.00 - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 2 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1322.6 | 0.73913 | 103.9195 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 187.5 | 0.03069 | 122.3504 | ROCKY POINT - SUNNYSIDE 138KV CKT 1 |
| 16WP | 00NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 187.5 | 0.04175 | 119.96 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 187.6 | 0.03052 | 128.3881 | ROCKY POINT - SUNNYSIDE 138KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 187.6 | 0.04149 | 118.3619 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 3 | TO->FROM | G15_070 | ARDMORE WEST - UNIROYAL 138KV CKT 1 | 220 | 0.06891 | 106.9877 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 17SP | 00NR | 3 | TO->FROM | G15_070 | ARDMORE WEST - UNIROYAL 138KV CKT 1 | 220 | 0.04714 | 103.61 | ROCKY POINT - SUNNYSIDE 138KV CKT 1 |
| 17SP | 00NR | 3 | FROM->TO | G15_070 | ARDMORE WEST - CARTER 138KV CKT 1 | 219 | 0.06891 | 101.1292 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 188.2 | 0.03039 | 127.5861 | ROCKY POINT - SUNNYSIDE 138KV CKT 1 |
| 20SP | 00NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 188.2 | 0.04124 | 115.9787 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 3 | TO->FROM | G15_070 | ARDMORE WEST - UNIROYAL 138KV CKT 1 | 220.8 | 0.06851 | 102.1526 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 20SP | 00NR | 3 | TO->FROM | G15_070 | ARDMORE WEST - UNIROYAL 138KV CKT 1 | 220.8 | 0.04694 | 100.9429 | ROCKY POINT - SUNNYSIDE 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 187.7 | 0.03054 | 127.2041 | ROCKY POINT - SUNNYSIDE 138KV CKT 1 |
| 20WP | 00NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 187.7 | 0.04155 | 123.6894 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 25SP | 00NR | 3 | FROM->TO | G15_070 | TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1 | 559.9 | 0.08709 | 110.5603 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 25SP | 00NR | 3 | FROM->TO | G15_070 | TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1 | 559.8 | 0.08709 | 110.5086 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 25SP | 00NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 189.1 | 0.03051 | 110.8689 | ROCKY POINT - SUNNYSIDE 138KV CKT 1 |
| 17G | 06NR | 3 | TO->FROM | G15_070 | ARDMORE WEST - UNIROYAL 138KV CKT 1 | 218.9 | 0.06796 | 112.603 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 17G | 06NR | 3 | FROM->TO | G15_070 | ARDMORE WEST - CARTER 138KV CKT 1 | 218 | 0.06796 | 108.9853 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 17G | 06NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 188 | 0.03003 | 103.3027 | ROCKY POINT - SUNNYSIDE 138KV CKT 1 |
| 17G | 06NR | 3 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1323.8 | 0.74655 | 105.2172 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 17G | 06NR | 3 | FROM->TO | G15_070 | CARTER - CHICKASAW 138KV CKT 1 | 188 | 0.04082 | 101.2479 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 17G | 06NR | 3 | TO->FROM | G15_070 | ARDMORE WEST - UNIROYAL 138KV CKT 1 | 218.9 | 0.04656 | 101.1275 | ROCKY POINT - SUNNYSIDE 138KV CKT 1 |
| 20L | 06NR | 3 | TO->FROM | G15_070 | ARDMORE WEST - UNIROYAL 138KV CKT 1 | 219.3 | 0.06851 | 103.5809 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 3 | FROM->TO | G15_070 | G15_070_T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 1322.8 | 0.74564 | 105.6616 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 3 | TO->FROM | G15_070 | G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1 | 954.4 | 0.35474 | 102.9989 | OKLAUNION - SUNNYSIDE 345KV CKT 1 |
| 20L | 06NR | 3 | FROM->TO | G15_070 | ARDMORE WEST - CARTER 138KV CKT 1 | 218.8 | 0.06851 | 101.8524 | JOHNSON COUNTY - SUNNYSIDE 345KV CKT 1 |
| 25SP | 00NR | 4 | FROM->TO | G15_070 | TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1 | 560 | 0.07038 | 109.6811 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |
| 25SP | 00NR | 4 | FROM->TO | G15_070 | TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1 | 559.8 | 0.07038 | 109.6488 | TUCO INTERCHANGE - TUCO_2 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|--|
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.27277 | 102.6124 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.27277 | 101.3425 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.27406 | 103.9862 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.27406 | 100.046 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.27741 | 103.4485 | 87th STREET - CRAIG 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.27964 | 101.0325 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.7 | 0.30109 | 110.001 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.7 | 0.30109 | 108.829 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.3017 | 119.335 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.3017 | 118.1768 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.30375 | 107.3763 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.30375 | 106.2046 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.30874 | 111.3135 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.30874 | 110.1417 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.7 | 0.31523 | 110.3845 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.3155 | 120.7752 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.31834 | 109.1138 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.32323 | 113.4708 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.33771 | 103.2608 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.34192 | 100.9791 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34211 | 106.3021 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.34288 | 102.0903 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.34288 | 101.114 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34312 | 108.1483 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34312 | 107.1718 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34411 | 104.0556 | 87th STREET - CRAIG 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34411 | 103.9161 | 87th STREET - CRAIG 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34411 | 103.3577 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34411 | 103.3163 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34411 | 103.2605 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.34521 | 100.7514 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.35586 | 103.1469 | BENTON - WICHITA 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36231 | 103.4766 | P13:115-345:WERE:LANG_TX-1:: |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36231 | 103.4766 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36231 | 103.4766 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.3624 | 108.5766 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.3624 | 108.5766 | P13:115-345:WERE:LANG_TX-1:: |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.3624 | 108.5766 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.36413 | 113.2132 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36427 | 106.7742 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36627 | 100.9018 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.36833 | 124.2126 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.36833 | 123.1944 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36851 | 117.7768 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36851 | 116.7586 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 25SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36854 | 109.3665 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 25SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36854 | 108.3344 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36955 | 104.2966 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.36964 | 109.4229 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.37046 | 111.7726 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.37046 | 110.7405 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20WP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.37107 | 107.7073 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20WP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.37107 | 106.6752 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.7 | 0.40757 | 103.6143 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.7 | 0.40757 | 101.5074 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.40894 | 111.0246 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.40894 | 108.9035 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.48441 | 113.64 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 25SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.48465 | 100.3561 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.48466 | 107.9606 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 25SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.52042 | 121.0462 | G14_001T 345.00 - WICHITA 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|---|
| 25SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.52042 | 118.2846 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.52083 | 122.0701 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.52083 | 119.2947 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.52093 | 126.2379 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.52093 | 123.4481 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03576 | 107.4523 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 25SP | 00NR | 0 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 92 | 0.03576 | 100.7132 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03616 | 116.8723 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.9 | 0.03616 | 111.0147 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJ53 115.00 115KV CKT 1 | 91.8 | 0.03616 | 101.2228 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03635 | 115.8659 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.9 | 0.03635 | 109.5719 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 91.6 | 0.04446 | 116.7307 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.5 | 0.04446 | 112.4867 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJ53 115.00 115KV CKT 1 | 91.4 | 0.04446 | 105.3888 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | FOUR CORNERS - SCRNTJ3 115.00 115KV CKT 1 | 91.4 | 0.04446 | 101.5595 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 91.5 | 0.04467 | 120.4565 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.4 | 0.04467 | 116.4308 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJ53 115.00 115KV CKT 1 | 91.4 | 0.04467 | 109.6474 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | FOUR CORNERS - SCRNTJ3 115.00 115KV CKT 1 | 91.4 | 0.04467 | 105.8181 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | CARB-KW 3 - FOUR CORNERS 115KV CKT 1 | 91.3 | 0.04467 | 101.6623 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.05072 | 101.8854 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.05423 | 100.4167 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714.6 | 0.08076 | 105.0065 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714.6 | 0.08358 | 105.5779 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08635 | 117.2709 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08874 | 116.4709 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08874 | 110.2656 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.09277 | 109.0737 | 87th STREET - CRAIG 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.09821 | 109.6317 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.10548 | 109.1357 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.10548 | 107.805 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.10748 | 100.5815 | P12:138:WERE:GECT-HOOV_138:: |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.1113 | 108.4116 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.1113 | 107.123 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714 | 0.11196 | 103.5372 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714 | 0.11196 | 102.2346 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.114 | 102.5527 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 | 355.5 | 0.12322 | 104.1827 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | BALDWIN6 230.00 - SWISSVALE 230KV CKT 1 | 357.6 | 0.12397 | 100.5192 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.20625 | 104.71 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.20625 | 102.5249 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24365 | 124.0596 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24365 | 118.6614 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.24503 | 129.9313 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.24503 | 124.5044 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24672 | 113.4043 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24672 | 108.0061 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24885 | 110.5798 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2495 | 115.1565 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.25016 | 115.0853 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.25051 | 101.2508 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25125 | 120.9745 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.25271 | 104.1822 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.25779 | 110.5085 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2581 | 115.2511 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.259 | 100.9965 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25992 | 121.7336 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25992 | 120.7152 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26015 | 104.2262 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26015 | 103.2079 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|--|
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26046 | 116.6245 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26046 | 115.6063 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26115 | 109.7522 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26115 | 109.3895 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26115 | 109.3058 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26115 | 104.6887 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26126 | 109.1664 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26129 | 113.7893 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26145 | 114.3259 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26145 | 113.7121 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26145 | 113.6423 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26145 | 109.0943 | BASE CASE |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2621 | 100.193 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2621 | 100.1233 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2621 | 100.0814 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26607 | 111.6083 | BENTON - WICHITA 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26618 | 100.0866 | BENTON - WICHITA 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26693 | 117.4258 | BENTON - WICHITA 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26813 | 100.8937 | MORRIS COUNTY - SWISSVALE 230KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26834 | 111.4799 | MORRIS COUNTY - SWISSVALE 230KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26853 | 116.2631 | MORRIS COUNTY - SWISSVALE 230KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2775 | 114.8961 | P13:115-345:WERE:LANG_TX-1:: |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2775 | 114.8961 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2775 | 114.8821 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 119.0369 | P13:115-345:WERE:LANG_TX-1:: |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 119.0369 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 119.0369 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.27842 | 111.373 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.27904 | 115.5693 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.27913 | 105.5912 | P13:115-345:WERE:LANG_TX-1:: |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.27913 | 105.5912 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.27913 | 105.5912 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2816 | 102.559 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.28238 | 128.2908 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.28238 | 122.8352 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.28346 | 122.3206 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.28346 | 116.9201 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.30055 | 121.1809 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.30059 | 115.635 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.30113 | 115.0042 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.30141 | 110.2695 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.31944 | 110.8997 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.31967 | 115.4064 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32559 | 110.8066 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32559 | 106.5923 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.3264 | 110.9645 | BASE CASE |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32643 | 112.0164 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32652 | 115.1517 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32664 | 111.3316 | LACYGNE - STILLWELL 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32714 | 112.3724 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32714 | 112.0095 | CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32714 | 111.242 | LATHAMS7 345.00 - ROSE HILL 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32742 | 116.4946 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32752 | 115.8376 | LACYGNE - STILLWELL 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32803 | 116.7958 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32803 | 116.433 | CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32803 | 115.6656 | LATHAMS7 345.00 - ROSE HILL 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.33019 | 126.9682 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.33019 | 125.9774 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.33105 | 112.7605 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33139 | 132.3501 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33139 | 131.3595 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33188 | 117.7344 | BENTON - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.3328 | 115.2867 | MORRIS COUNTY - SWISSVALE 230KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33426 | 120.0059 | MORRIS COUNTY - SWISSVALE 230KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.34557 | 113.5002 | P13:115-345:WERE:LANG_TX-1:: |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.34557 | 113.5002 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.34557 | 113.5002 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.34627 | 117.7736 | P13:115-345:WERE:LANG_TX-1:: |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.34627 | 117.7736 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.34627 | 117.7736 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.38669 | 121.2175 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.38669 | 118.3858 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.39093 | 124.8873 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.39093 | 122.0552 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.39587 | 119.7541 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.39587 | 116.9085 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.41435 | 128.0196 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.41509 | 124.2324 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.41611 | 112.3946 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.44517 | 117.9425 | JEFFREY ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.45065 | 122.003 | JEFFREY ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.45473 | 128.5639 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.54809 | 133.1032 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7659 | 101.7654 | MORRIS COUNTY - UNIONRG6 230.00 230KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.76724 | 100.1539 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.76724 | 99.9992 | EMPORIA ENERGY CENTER - G15073_1 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 103.2278 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 103.0925 | EMPORIA ENERGY CENTER - G15073_1 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 102.0196 | IATAN 345/25.0KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.9036 | IATAN 345/25.0KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.1497 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.1497 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.14 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77088 | 101.201 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77128 | 101.4201 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77174 | 102.1084 | LACYGNE - STILWELL 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 102.6694 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 102.3698 | CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 101.7222 | LATHAMS7 345.00 - ROSE HILL 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77237 | 110.4583 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77237 | 109.6946 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77404 | 100.031 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77588 | 114.3153 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77588 | 113.5517 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77714 | 103.6111 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.78968 | 101.377 | JEFFREY ENERGY CENTER - SUMMIT 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.78986 | 101.1223 | RENO COUNTY - SUMMIT 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.79176 | 100.643 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.79605 | 103.8741 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 91.5 | 0.04467 | 120.4565 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.4 | 0.04467 | 116.4308 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTU3 115.00 115KV CKT 1 | 91.4 | 0.04467 | 109.6474 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77588 | 114.3153 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77588 | 113.5517 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 | 355.5 | 0.12322 | 104.1827 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | FOUR CORNERS - SCRNTJN3 115.00 115KV CKT 1 | 91.4 | 0.04467 | 105.8181 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.79605 | 103.8741 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77714 | 103.6111 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 103.2278 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 103.0925 | EMPORIA ENERGY CENTER - G15073_1 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 102.6694 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 16WP | 00NR | 2 | TO->FROM | G15_051 | CARB-KW 3 - FOUR CORNERS 115KV CKT 1 | 91.3 | 0.04467 | 101.6623 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 102.3698 | CANEYRV7 345.00 - LATHAM57 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77174 | 102.1084 | LACYGNE - STILWELL 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 102.0196 | IATAN 345/25.0KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.9036 | IATAN 345/25.0KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7659 | 101.7654 | MORRIS COUNTY - UNIONRG6 230.00 230KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 101.7222 | LATHAM57 345.00 - ROSE HILL 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77128 | 101.4201 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.78968 | 101.377 | JEFFREY ENERGY CENTER - SUMMIT 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77088 | 101.201 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.1497 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.1497 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.14 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.14 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.78986 | 101.1223 | RENO COUNTY - SUMMIT 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03616 | 116.8723 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.9 | 0.03616 | 111.0147 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJ3 115.00 115KV CKT 1 | 91.8 | 0.03616 | 101.2228 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03635 | 115.8659 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.9 | 0.03635 | 109.5719 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 91.6 | 0.04446 | 116.7307 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.5 | 0.04446 | 112.4867 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77237 | 110.4583 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77237 | 109.6946 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJ3 115.00 115KV CKT 1 | 91.4 | 0.04446 | 105.3888 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | FOUR CORNERS - SCRNTJ3 115.00 115KV CKT 1 | 91.4 | 0.04446 | 101.5595 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | BALDWIN6 230.00 - SWISSVALE 230KV CKT 1 | 357.6 | 0.12397 | 100.5192 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.79176 | 100.643 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.76724 | 100.1539 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77404 | 100.031 | BENTON - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.76724 | 99.9992 | EMPORIA ENERGY CENTER - G15073_1 345.00 345KV CKT 1 |
| 25SP | 00NR | 2 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03576 | 107.4523 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 25SP | 00NR | 2 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 92 | 0.03576 | 100.7132 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 3 | TO->FROM | G15_051 | STULL SWITCHING STATION - TECUMSEH HILL 115KV CKT 1 | 90.2 | 0.02953 | 122.6713 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 |
| 16WP | 00NR | 3 | TO->FROM | G15_051 | MOCKINGBIRD HILL SWITCHING STATION - STULL SWITCHING STATION 115KV CKT 1 | 89.8 | 0.02953 | 118.7633 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|--|
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.27277 | 102.6139 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.27277 | 101.344 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.27406 | 103.9862 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.27406 | 100.0476 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.27741 | 103.4485 | 87th STREET - CRAIG 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.27964 | 101.0341 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.7 | 0.30109 | 110.001 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.7 | 0.30109 | 108.829 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.3017 | 119.335 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.3017 | 118.1768 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.30874 | 111.315 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.30874 | 110.1433 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.7 | 0.31523 | 110.3845 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.3155 | 120.7768 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.9 | 0.32323 | 113.4723 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.33771 | 103.2623 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.34192 | 100.9806 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34211 | 106.3021 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.34288 | 102.0919 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.34288 | 101.1156 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34312 | 108.1498 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34312 | 107.1734 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34411 | 104.0572 | 87th STREET - CRAIG 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34411 | 103.9177 | 87th STREET - CRAIG 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34411 | 103.3577 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34411 | 103.3179 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.34411 | 103.2621 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.34521 | 100.753 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.35586 | 103.1469 | BENTON - WICHITA 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36231 | 103.4766 | P13:115-345:WERE:LANG_TX-1:: |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36231 | 103.4766 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36231 | 103.4766 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.3624 | 108.5766 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.3624 | 108.5766 | P13:115-345:WERE:LANG_TX-1:: |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.3624 | 108.5766 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.36413 | 113.2132 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36427 | 106.7757 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36627 | 100.9018 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.36833 | 124.2126 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.36833 | 123.1944 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36851 | 117.7783 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36851 | 116.7602 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 25SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36854 | 109.3681 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 25SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36854 | 108.336 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.36955 | 104.2966 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.36964 | 109.4229 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.37046 | 111.7741 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.37046 | 110.7421 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.7 | 0.40757 | 103.6159 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.7 | 0.40757 | 101.509 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.40894 | 111.0246 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.40894 | 108.9035 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.48441 | 113.6416 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 25SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.48465 | 100.3561 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.48466 | 107.9622 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 25SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.52042 | 121.0462 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 25SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.52042 | 118.2846 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.52083 | 122.0701 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 20SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 717 | 0.52083 | 119.2947 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.52093 | 126.2379 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.52093 | 123.4481 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 25SP | 00NR | 0 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03576 | 107.4523 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 25SP | 00NR | 0 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 92 | 0.03576 | 100.7132 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03616 | 116.8723 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 17SP | 00NR | 0 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.9 | 0.03616 | 111.0147 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJ3 115.00 115KV CKT 1 | 91.8 | 0.03616 | 101.2228 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03635 | 115.8659 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20SP | 00NR | 0 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.9 | 0.03635 | 109.5719 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 91.6 | 0.04446 | 116.7307 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.5 | 0.04446 | 112.4867 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJ3 115.00 115KV CKT 1 | 91.4 | 0.04446 | 105.3888 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | FOUR CORNERS - SCRNTJ3 115.00 115KV CKT 1 | 91.4 | 0.04446 | 101.5595 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 91.5 | 0.04467 | 120.4565 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.4 | 0.04467 | 116.4308 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJ3 115.00 115KV CKT 1 | 91.4 | 0.04467 | 109.6474 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | FOUR CORNERS - SCRNTJ3 115.00 115KV CKT 1 | 91.4 | 0.04467 | 105.8181 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | CARB-KW 3 - FOUR CORNERS 115KV CKT 1 | 91.3 | 0.04467 | 101.6623 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.05072 | 101.8854 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.05423 | 100.4167 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714.6 | 0.08076 | 105.0065 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714.6 | 0.08358 | 105.5779 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08635 | 117.2709 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08874 | 116.4709 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08874 | 110.2656 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.09277 | 109.0737 | 87th STREET - CRAIG 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.09821 | 109.6317 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.10548 | 109.1357 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.10548 | 107.805 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.10748 | 100.5815 | P12:138:WERE:GECT-HOOV_138:: |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.1113 | 108.4116 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.1113 | 107.123 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714 | 0.11196 | 103.5372 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714 | 0.11196 | 102.2346 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.114 | 102.5527 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 | 355.5 | 0.12322 | 104.1827 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | BALDWIN6 230.00 - SWISSVALE 230KV CKT 1 | 357.6 | 0.12397 | 100.5192 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.20625 | 104.71 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.20625 | 102.5249 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24365 | 124.0596 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24365 | 118.6614 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.24503 | 129.9313 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.24503 | 124.5044 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24672 | 113.4043 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24672 | 108.0061 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24885 | 110.5798 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2495 | 115.1565 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.25016 | 115.0853 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.25051 | 101.2508 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25125 | 120.9745 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.25271 | 104.1822 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.25779 | 110.5085 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2581 | 115.2511 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.259 | 100.9965 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25992 | 121.7336 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25992 | 120.7152 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26015 | 104.2262 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26015 | 103.2079 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26046 | 116.6245 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26046 | 115.6063 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26115 | 109.7522 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26115 | 109.3895 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26115 | 109.3058 | 87th STREET - STRANGER CREEK 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|--|
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26115 | 104.6887 | BASE CASE |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26126 | 109.1664 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26129 | 113.7893 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26145 | 114.3259 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26145 | 113.7121 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26145 | 113.6423 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26145 | 109.0943 | BASE CASE |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26221 | 100.193 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26221 | 100.1233 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26221 | 100.0814 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26607 | 111.6083 | BENTON - WICHITA 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26618 | 100.0866 | BENTON - WICHITA 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26693 | 117.4258 | BENTON - WICHITA 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26813 | 100.8937 | MORRIS COUNTY - SWISSVALE 230KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.26834 | 111.4799 | MORRIS COUNTY - SWISSVALE 230KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26853 | 116.2631 | MORRIS COUNTY - SWISSVALE 230KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2775 | 114.8961 | P13:115-345:WERE:LANG_TX-1:: |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2775 | 114.8961 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2775 | 114.8821 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 119.0369 | P13:115-345:WERE:LANG_TX-1:: |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 119.0369 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 119.0369 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.27842 | 111.373 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.27904 | 115.5693 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.27913 | 105.5912 | P13:115-345:WERE:LANG_TX-1:: |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.27913 | 105.5912 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.27913 | 105.5912 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.2816 | 102.559 | MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.28238 | 128.2908 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.28238 | 122.8352 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.28346 | 122.3206 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.28346 | 116.9201 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.30055 | 121.1809 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.30059 | 115.635 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.30113 | 115.0042 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.30141 | 110.2695 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.31944 | 110.8997 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.31967 | 115.4064 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32559 | 110.8066 | AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32559 | 106.5923 | BASE CASE |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.3264 | 110.9645 | BASE CASE |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32643 | 112.0164 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32652 | 115.1517 | MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32664 | 111.3316 | LACYGNE - STILWELL 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32714 | 112.3724 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32714 | 112.0095 | CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.32714 | 111.242 | LATHAMS7 345.00 - ROSE HILL 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32742 | 116.4946 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32752 | 115.8376 | LACYGNE - STILWELL 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32803 | 116.7958 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32803 | 116.433 | CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.32803 | 115.6656 | LATHAMS7 345.00 - ROSE HILL 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.33019 | 126.9682 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.33019 | 125.9774 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.33105 | 112.7605 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33139 | 132.3501 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33139 | 131.3595 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33188 | 117.7344 | BENTON - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.3328 | 115.2867 | MORRIS COUNTY - SWISSVALE 230KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33426 | 120.0059 | MORRIS COUNTY - SWISSVALE 230KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.34557 | 113.5002 | P13:115-345:WERE:LANG_TX-1:: |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|------------|---------|-----------------------|---|
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.34557 | 113.5002 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.34557 | 113.5002 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.34627 | 117.7736 | P13:115-345:WERE:LANG_TX-1:: |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.34627 | 117.7736 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.34627 | 117.7736 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.38669 | 121.2175 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.38669 | 118.3858 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.39093 | 124.8873 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.39093 | 122.0552 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.39587 | 119.7541 | G14_001T 345.00 - WICHITA 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.39587 | 116.9085 | G14_001T 345.00 - G15_050_051_345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.41435 | 128.0196 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.41509 | 124.2324 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 25SP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.41611 | 112.3946 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.44517 | 117.9425 | JEFFREY ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.45065 | 122.003 | JEFFREY ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.54573 | 128.5639 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_051 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.54809 | 133.1032 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7659 | 101.7654 | MORRIS COUNTY - UNIONRG6 230.00 230KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.76724 | 100.1539 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.76724 | 99.9992 | EMPORIA ENERGY CENTER - G15073_1 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 103.2278 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 103.0925 | EMPORIA ENERGY CENTER - G15073_1 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 102.0196 | IATAN 345/25.0KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.9036 | IATAN 345/25.0KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.1497 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.1497 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.1497 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.1497 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77088 | 101.201 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77128 | 101.4201 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77174 | 102.1084 | LACYGNE - STILLWELL 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 102.6694 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 102.3698 | CANEYRV7 345.00 - LATHAM57 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 101.7222 | LATHAM57 345.00 - ROSE HILL 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77237 | 110.4583 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77237 | 109.6946 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77404 | 100.031 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77588 | 114.3153 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77588 | 113.5517 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77714 | 103.6111 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.78968 | 101.377 | JEFFREY ENERGY CENTER - SUMMIT 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.78986 | 101.1223 | RENO COUNTY - SUMMIT 345KV CKT 1 |
| 20WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.79176 | 100.643 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 0 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.79605 | 103.8741 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 91.5 | 0.04467 | 120.4565 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.4 | 0.04467 | 116.4308 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 2 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJ3 115.00 115KV CKT 1 | 91.4 | 0.04467 | 109.6474 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77588 | 114.3153 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77588 | 113.5517 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 | 355.5 | 0.12322 | 104.1827 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | FOUR CORNERS - SCRNTJ3 115.00 115KV CKT 1 | 91.4 | 0.04467 | 105.8181 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.79605 | 103.8741 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77714 | 103.6111 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 103.2278 | BENTON - WICHITA 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 103.0925 | EMPORIA ENERGY CENTER - G15073_1 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 102.6694 | CANEYRV7 345.00 - NEOSHO 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | CARB-KW 3 - FOUR CORNERS 115KV CKT 1 | 91.3 | 0.04467 | 101.6623 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 102.3698 | CANEYRV7 345.00 - LATHAM57 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77174 | 102.1084 | LACYGNE - STILLWELL 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 102.0196 | IATAN 345/25.0KV TRANSFORMER CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.9036 | IATAN 345/25.0KV TRANSFORMER CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE | CONTINGENCY | | CONTINGENCY |
|--------|-------|----------|-----------|---------|--|--------|-------------|-----------|---|
| | | | | | | (MVA) | TDF | LOADING % | |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7659 | 101.7654 | MORRIS COUNTY - UNIONRG6 230.00 230KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77229 | 101.7222 | LATHAMS7 345.00 - ROSE HILL 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77128 | 101.4201 | LACYGNE - WEST GARDNER 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.78968 | 101.377 | JEFFREY ENERGY CENTER - SUMMIT 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.77088 | 101.201 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.1497 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.1497 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.7703 | 101.14 | CLEVELAND - G15066_T 345.00 345KV CKT 1 |
| 16WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.6 | 0.78986 | 101.1223 | RENO COUNTY - SUMMIT 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03616 | 116.8723 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 17SP | 00NR | 2 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.9 | 0.03616 | 111.0147 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 17SP | 00NR | 2 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJS3 115.00 115KV CKT 1 | 91.8 | 0.03616 | 101.2228 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20SP | 00NR | 2 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03635 | 115.8659 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20SP | 00NR | 2 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.9 | 0.03635 | 109.5719 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 91.6 | 0.04446 | 116.7307 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 91.5 | 0.04446 | 112.4867 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77237 | 110.4583 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77237 | 109.6946 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 20WP | 00NR | 2 | FROM->TO | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJS3 115.00 115KV CKT 1 | 91.4 | 0.04446 | 105.3888 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | FOUR CORNERS - SCRNTJN3 115.00 115KV CKT 1 | 91.4 | 0.04446 | 101.5595 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | BALDWIN6 230.00 - SWISSVALE 230KV CKT 1 | 357.6 | 0.12397 | 100.5192 | SWISSVALE - WEST GARDNER 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.79176 | 100.643 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.76724 | 100.1539 | RENO COUNTY - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.77404 | 100.031 | BENTON - WICHITA 345KV CKT 1 |
| 20WP | 00NR | 2 | TO->FROM | G15_051 | EMPORIA ENERGY CENTER - G15_050_051_345.00 345KV CKT 1 | 1034.5 | 0.76724 | 99.9992 | EMPORIA ENERGY CENTER - G15073_1 345.00 345KV CKT 1 |
| 25SP | 00NR | 2 | FROM->TO | G15_051 | LANG - READING LAKE 115KV CKT 1 | 92 | 0.03576 | 107.4523 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 25SP | 00NR | 2 | TO->FROM | G15_051 | OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1 | 92 | 0.03576 | 100.7132 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 |
| 16WP | 00NR | 3 | TO->FROM | G15_051 | STULL SWITCHING STATION - TECUMSEH HILL 115KV CKT 1 | 90.2 | 0.02953 | 122.6713 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 |
| 16WP | 00NR | 3 | TO->FROM | G15_051 | MOCKINGBIRD HILL SWITCHING STATION - STULL SWITCHING STATION 115KV CKT 1 | 89.8 | 0.02953 | 118.7633 | LAWRENCE HILL - SWISSVALE 230KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | CONTINGENCY | | |
|--------|-------|----------|-----------|---------|---|------------|-------------|-----------|---|
| | | | | | | | TDF | LOADING % | CONTINGENCY |
| 17SP | 0 | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.3017 | 100.0523 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.3155 | 100.6111 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.36833 | 100.681 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714.6 | 0.08358 | 100.2211 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08635 | 111.7311 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08874 | 110.7778 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08874 | 104.5725 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.09277 | 103.1221 | 87th STREET - CRAIG 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.09821 | 103.331 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.10548 | 102.3687 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.10548 | 101.0379 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.1113 | 101.2712 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24365 | 108.4938 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24365 | 103.0955 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.24503 | 114.2751 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.24503 | 108.8482 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25125 | 104.9208 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25992 | 105.126 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25992 | 104.1076 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26693 | 100.3703 | BENTON - WICHITA 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 101.2804 | P13:115-345:WERE:LANG_TX-1:: |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 101.2804 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 101.2804 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.28238 | 110.2456 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.28238 | 104.79 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.28346 | 104.2038 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.30055 | 101.9746 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.33019 | 105.8648 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.33019 | 104.874 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33139 | 111.173 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33139 | 110.1823 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.41435 | 101.5447 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |

| SEASON | GROUP | SCENARIO | DIRECTION | SOURCE | MONITORED ELEMENT | RATE (MVA) | TDF | CONTINGENCY LOADING % | CONTINGENCY |
|--------|-------|----------|-----------|---------|---|------------|---------|-----------------------|---|
| 17SP | 0 | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.3155 | 100.6121 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.36833 | 100.6819 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 0 | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 716.6 | 0.3017 | 100.0532 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 714.6 | 0.08358 | 100.2211 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08635 | 111.7311 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08874 | 110.7778 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.08874 | 104.5725 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.09277 | 103.1221 | 87th STREET - CRAIG 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.09821 | 103.331 | 87th STREET - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.10548 | 102.3687 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.10548 | 101.0379 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | SWISSVALE - WEST GARDNER 345KV CKT 1 | 713.9 | 0.1113 | 101.2712 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24365 | 108.4938 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 20SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.9 | 0.24365 | 103.0955 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.24503 | 114.2751 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.24503 | 108.8482 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25125 | 104.9208 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25992 | 105.126 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.25992 | 104.1076 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.26693 | 100.3703 | BENTON - WICHITA 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 101.2804 | P13:115-345:WERE:LANG_TX-1:: |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 101.2804 | LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.2779 | 101.2804 | EMPORIA ENERGY CENTER - LANG 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.28238 | 110.2456 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.28238 | 104.79 | G15074_T 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.28346 | 104.2038 | G15074_T 345.00 - HOYT 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.30055 | 101.9746 | HOYT - STRANGER CREEK 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.33019 | 105.8648 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 20WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.6 | 0.33019 | 104.874 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33139 | 111.173 | LACYGNE - WAVERLY7 345.00 345KV CKT 1 |
| 16WP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.7 | 0.33139 | 110.1823 | WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1 |
| 17SP | 00NR | 0 | FROM->TO | G15_050 | EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1 | 716.8 | 0.41435 | 101.5447 | EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1 |

H: FCITC Analysis Constraints Not Requiring Transmission Reinforcement Mitigations

Available upon request