

Feasibility Cluster Study for Generation Interconnection Requests

Southwest Power Pool
Engineering Dept.
Tariff Studies – Generation Interconnection

(FCS-2010-002)
June 2010



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Executive Summary

Generation Interconnection customers have requested a Feasibility Study under the Large Generation Interconnection Procedures (LGIP) in the Southwest Power Pool Open Access Transmission Tariff (OATT). The Interconnection Customers' requests have been clustered together for the following Feasibility Cluster Study. This Feasibility Cluster Study analyzes the interconnecting of multiple generation interconnection requests associated with new generation totaling approximately 1,886 MW of new generation which would be located within the transmission systems of American Electric Power West (AEPW), Southwestern Public Service (SPS) Nebraska Public Power District (NPPD), Missouri Public Service (MIPU), Sunflower Electric Power Corporation (SUNC), Empire District Electric (EDE) and Western Farmers Electric Cooperative (WFEC). The various generation interconnection requests have differing proposed in-service dates¹. The generation interconnection requests included in this Feasibility Cluster Study are listed in Appendix A by their queue number, amount, area, requested interconnection point, proposed interconnection point, and the requested in-service date.

Power flow analysis has indicated that for the powerflow cases studied, 1,886 MW of nameplate generation may be interconnected with transmission system reinforcements within the SPP transmission system. The need for reactive compensation in accordance with Order No. 661-A for wind farm interconnection requests will be evaluated in the Interconnection System Impact Study based on the wind turbine manufacturer and type requested by the Customer. Dynamic stability studies performed as part of the System Impact Cluster Study will provide additional guidance as to whether the required reactive compensation can be static or a portion must be dynamic (such as a SVC).

The total estimated minimum cost for interconnecting the studied generation interconnection request is \$186,600,000. These costs are shown in Appendix E and F. 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 network constraints in the SPP transmission system that were identified are shown in Appendix H.

Network Constraints listed in Appendix G are in the local area of the new generation when this generation is injected throughout the SPP footprint for the Energy Resource (ER) Interconnection Request. 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.

Based on the SPP Tariff Attachment O, transmission facilities that are part of the SPP Transmission Expansion Plan (STEP) including Sponsored Economic Upgrades or the Balanced Portfolio that may be approved by the SPP Board of Directors will receive notifications to construct. These projects will

¹ 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.

then be considered construction pending projects and would not be assignable to the Feasibility Cluster Study Generation Interconnection Requests. The network Upgrades identified in the Base Case Upgrades will not be assigned to the Feasibility Cluster Study for Generation Interconnection Requests.

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Introduction

Generation Interconnection customers have requested a Feasibility Study under the Large Generation Interconnection Procedures (LGIP) in the Southwest Power Pool Open Access Transmission Tariff (OATT). The Interconnection Customers' requests have been clustered together for the following Feasibility Cluster Study. This Feasibility Cluster Study analyzes the interconnecting of multiple generation interconnection requests associated with new generation totaling approximately 1,886 MW of new generation which would be located within the transmission systems of American Electric Power West (AEPW), Southwestern Public Service (SPS) Nebraska Public Power District (NPPD), Missouri Public Service (MIPU), Sunflower Electric Power Corporation (SUNC), Empire District Electric (EDE) and Western Farmers Electric Cooperative (WFEC). The various generation interconnection requests have differing proposed in-service dates². The generation interconnection requests included in this Feasibility Cluster Study are listed in Appendix A by their queue number, amount, area, requested interconnection point, proposed interconnection point, and the requested in-service date.

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.

Model Development

Interconnection Requests Included in the Cluster – SPP has included the interconnection requests listed in Appendix A to be analyzed in this cluster study. These interconnection requests represent requests with an executed Feasibility Study Agreement signed by 3/31/2010.

Electrically Isolated Interconnection Requests – Electrically isolated requests are discussed in the “Regional Groupings” section.

Previous Queued Projects – The previous queued projects included in this study are listed in Appendix B. In addition to the Base Case Upgrades, the previous queued projects were assumed to be in-service and added to the Base Case models. These projects were dispatched as Energy Resources with equal distribution across the SPP footprint.

Development of Base Cases – The 2009 series Transmission Service Request (TSR) Models 2010 spring and 2014 summer and winter scenario 0 peak cases were used for this study. After the 2010 spring and the 2014 summer and winter peak cases were developed, each of the control areas' resources were then redispatched using current dispatch orders.

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.

Base Case Upgrades -The following facilities are part of the SPP Transmission Expansion Plan or the Balanced Portfolio. These facilities have been approved or are in the construction stages and were assumed to be in-service at the time of dispatch and added to the base case models. The FCS-200-002 Customers have no potential cost for the below listed projects. However, the FCS-2010-002 Customer Generation Facilities in service dated 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 FCS-2010-002 customers.

- Woodward – Northwest 345kV line and associated projects to be built by OKGE placed in service in 2010.
- Hitchland 345/230/115kV upgrades to be built by SPS for 2010/2011 in-service³.
 - Hitchland – Pringle 230kV line
 - Hitchland – Moore County 230kV line
 - Hitchland – Perryton 230kV line
 - Hitchland – Texas County 115kV line
 - Hitchland – Hansford County 115kV line
 - Hitchland – Sherman County Tap 115kV line
- Valliant – Hugo – Sunnyside 345kV – assigned to Aggregate Study AG3-2006 Customers for 2012 in-service
- Wichita – Reno County – Summit 345kV to be built by WERE for 2011 in-service⁴.
- Rose Hill – Sooner 345kV to be built by WERE/OKGE for 2012 in-service.
- Balanced Portfolio Projects:
 - Anadarko 345/138/13.2kV Autotransformer
 - Woodward– TUCO 345kV line
 - Sooner– Cleveland 345kV line
 - Iatan– Nashua 345kV line
 - Muskogee– Seminole 345kV line
 - Knoll– Axtell 345kV line
 - Spearville– Knoll 345kV line
 - Tap Stillwell – Swissvale 345kV line at West Gardner

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-2010-002 study and are assumed to be in service. The FCS-2010-002 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 LGIA or withdraw from the interconnection queue. The FCS-2010-002 Customer Generation Facilities in service dates may need to be delayed until the completion of the following upgrades.

- Finney – Holcomb 345kV ckt #2 line assigned to GEN-2006-044 interconnection customer. This customer is currently in suspension⁵.

³ Approved 230kV upgrades are based on SPP 2007 STEP. Upgrades may need to be re-evaluated in the system impact study.

⁴ Approved based on an order of the Kansas Corporation Commission issued in Docket no. 07-WSEE-715-MIS

⁵ Based on Facility Study Posting November 2008

- Hitchland – Woodward 345kV line assigned to GEN-2006-049 interconnection customer for in service date yet to be determined
- Stevens County – Gray County 345kV line assigned to 1st Cluster Interconnection Customers
- Central Plains – Setab 115kV transmission line assigned to GEN-2007-013 interconnection customer.
- Spearville – Comanche 345kV line assigned to 1st Cluster Interconnection Customers
- Comanche – Wichita 345kV line assigned to 1st Cluster Interconnection Customers
- Comanche – Woodward 345kV line assigned to 1st Cluster Interconnection Customers
- Grassland 230/115kV autotransformer #2 assigned to 1st Cluster Interconnection Customers (100% to GEN-2008-016)

Potential Upgrades Not in the Base Case – Any potential upgrades that do not have a Notification to Construct (NTC) to construct have not been included in the base case. These upgrades include any identified in the SPP Extra-High Voltage (EHV) overlay plan, or any other SPP planning study other than the upgrades listed above in the previous section.

Regional Groupings – The interconnection requests listed in Appendix A were grouped together in six different regional groups based on geographical and electrical impacts. These groupings are shown in Appendix C. Two other interconnection requests not in close proximity to any other requests were grouped by themselves.

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

For each group, the various wind generating plants were modeled at 80% nameplate of maximum generation. The wind generating plants in the other areas were modeled at 20% nameplate of maximum generation. This process created six different scenarios with each group being studied at 80% nameplate rating. These projects were dispatched as Energy Resources with equal distribution across the SPP footprint. This method allowed for the identification of network constraints that were common to the regional groupings that could then in turn have the mitigating upgrade cost allocated throughout the entire cluster. Additionally, each wind interconnection request was studied as a stand alone project at 100% nameplate assuming no other projects in the cluster.

Peaking units were not dispatched in the 2010 spring model. To study peaking units' impacts, the 2014 summer peak model was chosen and peaking units were modeled at 100% of the nameplate rating and wind generating facilities were modeled at 10% of the nameplate rating.

Identification of Network Constraints

The initial set of network constraints were found by using PTI MUST First Contingency Incremental Transfer Capability (FCITC) analysis on the entire cluster grouping dispatched at the various levels mentioned above. These constraints were then screened to determine if any of the generation interconnection requests had at least a 20% Distribution Factor (DF) upon the constraint. Constraints that measured at least a 20% DF from at least one interconnection request were considered for mitigation.

Identification of Electrically Isolated Groups and Requests – From the FCITC analysis, it was 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 wind generation interconnection requests were determined using the 2010 spring model. Cost Allocated Network Upgrades of peaking units was determined using the 2014 summer peak model. Once a determination of the required Network Upgrades was made, a powerflow model of the 2010 spring case was developed with all cost allocated Network Upgrades in-service. A MUST FCITC analysis was performed to determine the Power Transfer Distribution Factors (PTDF), a distribution factor with no contingency that each generation interconnection request had on each new upgrade. The impact each generation interconnection request had on each upgrade project was weighted by the size of each request. Finally the costs due by each request for a particular project were then determined by allocating the portion of each request’s impact over the impact of all affecting requests.

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

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

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

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

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

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

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

- Repeat previous for each responsible GI request for each Project

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

Credits for Amounts Advanced for Network Upgrades – Interconnection Customer shall be entitled to credits in accordance with Attachment Z1 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 Facilities

The requirement to interconnect the 1,886 MW of generation into the existing and proposed transmission systems in the affected areas of the SPP transmission footprint consist of the necessary cost allocated shared facilities listed in Appendix F. Interconnection Facilities specific to each generation interconnection request are listed in Appendix E.

Other Network Constraints in the AEPW, MIDW, OKGE, SPS, MIPU, NPPD, SUNC, SWPA, MKEC, WERE, and WFEC transmission systems that were identified that may be needed to deliver to load are not listed in Appendix H. With a defined source and sink in a TSR, a list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements.

A preliminary one-line drawing for each generation interconnection request are listed in Appendix D. Figure 1 depicts the major transmission line Network Upgrades needed to support the interconnection of the generation amounts requested in this study.

Powerflow Analysis Methodology

The Southwest Power Pool (SPP) Criteria states that:

“The transmission system of the SPP region shall be planned and constructed so that the contingencies as set forth in the Criteria will meet the applicable *NERC Reliability Standards* for transmission planning. All MDWG power flow models shall be tested to verify compliance with the System Performance Standards from NERC Table 1 – Category A.”

The FCITC function of MUST was used to simulate single contingencies in portions or all of the modeled control areas of AEPW, EMDE, Grand River Dam Authority (GRDA), Kansas City Power & Light (KCPL), MIDW, MIPU, NPPD, OKGE, SPS, SUNC, WERE, WFEC and other control areas were applied and the resulting scenarios analyzed. This satisfies the “more probable” contingency testing criteria mandated by NERC and the SPP criteria.

Powerflow Analysis

A powerflow analysis was conducted for each Interconnection Customer's facility using modified versions of the 2010 spring peak and the 2014 summer peak and winter peak models. The output of the Interconnection Customer's facility was offset in each model by a reduction in output of existing online SPP generation. This method allows the request to be studied as an Energy Resource (ER) Interconnection Request. The available seasonal models used were through the 2014 Summer Peak.

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 additional criteria violations will occur on the AEPW, MIDW, MIPU, NPPD, OKGE, SPS, SUNC, SWPA, MKEC, WERE, and WFEC transmission systems 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

Woodward Area – The Woodward area contained one interconnection request of 99 MW. The interconnection request was at the WFEC Iodine 138kV bus. There were constraints identified at Fort Supply and the underlying 69kV system served out of Fort Supply. To mitigate these constraints a new 138kV transmission circuit from WFEC Iodine – Woodward will be required.

Hitchland Area – This study area contained 400 MW of interconnection requests. With previously allocated network upgrades to higher queued customers in the models, no new constraints were found in this area. The withdrawal of higher queued projects will change the requirements for interconnection

Spearville Area – This study area contained 900 MW of interconnection requests. . With previously allocated network upgrades to higher queued customers in the models, no new constraints were found in this area. The withdrawal of higher queued projects will change the requirements for interconnection

New Mexico/West Texas Area – This group had 40 MW of requested generation. All of this generation was solar based generation. No new constraints were found in this area.

Southwestern Oklahoma – This group had 153 MW of interconnection requested in the area. One interconnection request was at the WFEC Eric 138kV bus. Due to higher queued customers, the 138kV transmission loop from Elk City to Moorewood will need to be rebuilt. In addition, terminal equipment at Carter Jct will need to be replaced.

Northeast Nebraska – This group had 99 MW of interconnection requested in the area. No new constraints were found in this area.

North Nebraska – This group had 100 MW of interconnection requested in the area. The major constraints in the area were on the Mission – St. Francis 115kV line, the Harmony – Valentine 115kV line, and the GEN-2010-024 – Harmony 115kV line. In order to mitigate the constraints in the area a Stuart – O’neill 115kV line and a Valentine – GEN-2010-024 were modeled.

Northwest Arkansas – This group had 20 MW of interconnection requested in the area. No new constraints were found in this area.

Northwest Missouri – This group had 75 MW of interconnection requested in the area. No new constraints were found in this area.

Conclusion

The minimum cost of interconnecting all of the interconnection requests included in the Feasibility Cluster Study is estimated at \$186,600,000 for the Allocated Network Upgrades and Transmission Owner Interconnection Facilities are listed in Appendix E and F. These costs do not include the cost of upgrades of other transmission facilities listed in Appendix H which are Network Constraints.

These interconnection costs do not include any cost of Network Upgrades determined to be required by AC powerflow, 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: Generation Interconnection Requests Considered for Feasibility Study

| Request | Amount | Area | Requested Point of Interconnection | Proposed Point of Interconnection | Requested In-Service Date |
|----------------------|---------------|-------------|---|--|----------------------------------|
| GEN-2009-069 | 400 | SPS | Tap Hitchland - Woodward 345kV | Tap Hitchland - Woodward 345kV | 12/31/2014 |
| GEN-2010-018 | 100.8 | WFEC | Erick 138kV | Erick 138kV | 12/31/2011 |
| GEN-2010-019 | 52.2 | WFEC | Carter Junction 69kV | Carter Junction 69kV | 12/31/2011 |
| GEN-2010-020 | 20 | SPS | Roswell 69kV | Roswell 69kV | 3/1/2011 |
| GEN-2010-021 | 20 | SPS | Atoka 69kV | Atoka 69kV | 3/1/2011 |
| GEN-2010-022 | 75 | MIPU | Archie 161kV | Archie 161kV | 12/3/2012 |
| GEN-2010-023 | 99 | WFEC | Iodine 138kV | Iodine 138kV | 1/0/1900 |
| GEN-2010-024 | 100 | NPPD | Tap Valentine - Mission 115kV | Tap Valentine - Mission 115kV | 12/31/2011 |
| GEN-2010-025 | 20 | EMDE | Decatur South 161kV | Decatur South 161kV | 9/16/2010 |
| GEN-2010-026 | 99 | NPPD | Hoskins 230kV | Hoskins 230kV | 10/1/2012 |
| GEN-2010-027 | 900 | SUNC | Spearville 345kV | Spearville 345kV | 12/31/2012 |
| Grouped Total | 1,886 | | | | |

* Planned Facility

^ Proposed Facility

** Alternate requests - counted as one request for study purpose

*** Electrically Remote Interconnection Requests

****Portions of this request are alternates for other interconnection requests listed as prior queued generators

B: Prior Queued Interconnection Requests

| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|----------------|---------------|-------------|--|----------------------------------|
| GEN-2001-014 | 96 | WFEC | Fort Supply 138kV | On-Line |
| GEN-2001-026 | 74 | WFEC | Washita 138kV | On-Line |
| GEN-2001-033 | 180 | SPS | San Juan Mesa Tap 230kV | On-Line |
| GEN-2001-036 | 80 | SPS | NORTON 115kV | On-Line |
| GEN-2001-037 | 100 | OKGE | Windfarm Switching 138kV | On-Line |
| GEN-2001-039A | 105 | WPEK | Greensburg - Judson-Large 115kV | On Schedule for 2011 in service |
| GEN-2001-039M | 100 | SUNC | Central Plains Tap 115kV | On-Line |
| GEN-2002-004 | 200 | WERE | Latham 345kV | On-Line (150 MW) |
| GEN-2002-005 | 120 | WFEC | RED HILLS TAP 138kV | On-Line |
| GEN-2002-006 | 150 | SPS | Texas County 115kV | On Schedule for 12/31/2010 |
| GEN-2002-008 | 240 | SPS | *Hitchland 345kV | On-Line (120MW) |
| GEN-2002-009 | 80 | SPS | Hansford County 115kV | On-Line |
| GEN-2002-022 | 240 | SPS | Bushland 230kV | On-Line (160MW) |
| GEN-2002-025A | 150 | WPEK | Spearville 230kV | On-Line (100.5 MW) |
| GEN-2003-005 | 100 | WFEC | Tap Anadarko - Paradise 138kV | On-Line |
| GEN-2003-006A | 200 | MKEC | Elm Creek 230kV | On-Line |
| GEN-2003-013** | 198 | SPS | Tap Finney - *Hitchland 345kV | On Schedule for 2012 |
| GEN-2003-019 | 250 | MIDW | Smoky Hills 230kV | On-Line |
| GEN-2003-020 | 160 | SPS | MARTIN 115kV | On-Line (80MW) |
| GEN-2003-021N | 75 | NPPD | Ainsworth Wind Tap 115kV | On-Line (60MW) |
| GEN-2003-022 | 120 | AEPW | Washita 138kV | On-Line |
| GEN-2004-005N | 30 | NPPD | St. Francis 115kV | IA Pending |
| GEN-2004-010 | 300 | WERE | Latham 345kV | On Suspension |
| GEN-2004-014 | 155 | MIDW | Spearville 230kV | On Schedule for 2010 |
| GEN-2004-020 | 27 | AEPW | Washita 138kV | On-Line |
| GEN-2005-005 | 18 | OKGE | Windfarm Switching 138kV | IA Pending |
| GEN-2005-008 | 120 | OKGE | Woodward 138kV | On-Line |
| GEN-2005-010 | 160 | SPS | Tap Roosevelt County North - Tolk West 230kV | On Suspension |
| GEN-2005-012 | 250 | WPEK | Spearville 345kV | On Suspension |
| GEN-2005-013 | 201 | WERE | Tap Latham-Neosho 345kV | On Schedule for 2012 |
| GEN-2005-015 | 150 | SPS | TUCO - Oklaunion 345kV | On Suspension |
| GEN-2005-016 | 150 | WERE | Tap Latham-Neosho 345kV | On Scheudle for 2012 |
| GEN-2005-017 | 340 | SPS | Tap *Hitchland - Potter County 345kV | On Suspension |
| GEN-2005-021 | 86 | SPS | Kirby 115kV | On Suspension |

Appendix B: Prior Queued Interconnection Requests



| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|------------------|--------|------|--|------------------------------|
| GEN-2006-002 | 150 | AEPW | Grapevine - Elk City 230kV | On Suspension |
| GEN-2006-006 | 206 | MKEC | Spearville 230kV | Under Study (ICS-2008-001) |
| GEN-2006-014 | 300 | MIPU | Tap Maryville-Clarinda and tie to Midway (WFARMS) 161kV | On Suspension |
| GEN-2006-017 | 300 | MIPU | Tap Maryville-Clarinda and tie to Midway (WFARMS) 161kV | On Suspension |
| GEN-2006-018 | 170 | SPS | Tuco 230kV | |
| GEN-2006-020S | 18.9 | SPS | *DWS FRISCO TAP 115kV | On Schedule for 12/31/2010 |
| GEN-2006-020N | 42 | NPPD | BloomField 115kV | 1/1/2009 |
| GEN-2006-021 | 101 | WPEK | Flat Ridge Wind Farm Tap 138kV | On-Line (100MW) |
| GEN-2006-022 | 150 | WEPL | Ninnescah Tap 115kV | On Suspension |
| GEN-2006-024S | 20 | WFEC | SOUTH BUFFALO TAP 69kV | On-Line |
| GEN-2006-031 | 75 | MIDW | Knoll 115kV | On-Line |
| GEN-2006-032 | 200 | MIDW | South Hays 230kV | On Suspension |
| GEN-2006-034 | 81 | SUNC | Kanarado - Sharon Springs 115kV | On Suspension |
| GEN-2006-035 | 225 | AEPW | Grapevine - Elk City 230kV | 10/1/2010 |
| GEN-2006-037N1 | 75 | NPPD | Broken Bow 115kV | Under Study (DISIS-2009-001) |
| GEN-2006-038 | 750 | WFEC | Hugo 345kV | On Suspension |
| GEN-2006-038N005 | 80 | NPPD | Broken Bow 115kV | IA Pending |
| GEN-2006-038N019 | 80 | NPPD | Petersburg 115kV | 5/1/2011 |
| GEN-2006-039 | 400 | SPS | Tap and Tie both Potter County - Plant X 230kV and Bushland - Deaf Smith 230kV | On Suspension |
| GEN-2006-040 | 108 | SUNC | Mingo 115kV | 6/30/2010 |
| GEN-2006-043 | 99 | AEPW | Grapevine - Elk City 230kV | On Line |
| GEN-2006-044 | 370 | SPS | *Hitchland 345kV | On Suspension |
| GEN-2006-044N | 40.5 | NPPD | Tap Neligh-Petersburg 115kV | Under Study (DISIS-2009-001) |
| GEN-2006-044N02 | 100.5 | NPPD | GEN-2008-086N02 230kV | Under Study (DISIS-2010-001) |
| GEN-2006-045 | 240 | SPS | Tap and Tie both Potter County - Plant X 230kV and Bushland - Deaf Smith 230kV | On Suspension |
| GEN-2006-046 | 131 | OKGE | Dewey 138kV | On Schedule for 12/31/2010 |
| GEN-2006-047 | 240 | SPS | TAP & TIE POTTER-PLANT X & BUSHLAND-DEAF SMITH (GEN-2006-039 TAP & TIE) | 12/31/2013 |
| GEN-2006-049 | 400 | SPS | Tap Finney - *Hitchland 345kV | IA Pending |
| GEN-2007-002 | 160 | SPS | Grapevine 115kV | On Suspension |
| GEN-2007-005 | 200 | SPS | Pringle 115kV | Under Study (ICS-2008-001) |
| GEN-2007-006 | 160 | OKGE | Roman Nose 138kV | On Suspension |
| GEN-2007-011 | 135 | SUNC | Syracuse 115kV | 12/31/2010 |
| GEN-2007-011N06 | 75 | NPPD | Tap Neligh-Petersburg 115kV | Under Study (DISIS-2009-001) |
| GEN-2007-011N08 | 81 | NPPD | Bloomfield 115kV | On-Line |

Appendix B: Prior Queued Interconnection Requests



| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|-----------------|--------|------|--|------------------------------|
| GEN-2007-011N09 | 75 | NPPD | Bloomfield 115kV | Under Study (DISIS-2009-001) |
| GEN-2007-013 | 99 | SUNC | Selkirk 115kV | On Schedule for 2011 |
| GEN-2007-015 | 135 | WERE | Tap Humboldt - Kelly 161kV | On Schedule for 2011 |
| GEN-2007-017 | 101 | MIPU | Tap Maryville-Clarinda and tie to Midway (WFARMS) 161kV | On Schedule for 2012 |
| GEN-2007-021 | 201 | OKGE | TATONGA EHV 345kV | Under Study (ICS-2008-001) |
| GEN-2007-025 | 300 | WERE | Wichita – Woodring 345kV | Under Study (ICS-2008-001) |
| GEN-2007-032 | 150 | WFEC | Tap Clinton Junction - Clinton 138kV | Under Study (ICS-2008-001) |
| GEN-2007-034 | 150 | SPS | Tap Tolk - Eddy County 345kV | Under Study (ICS-2008-001) |
| GEN-2007-038 | 200 | SUNC | Spearville 345kV | Under Study (ICS-2008-001) |
| GEN-2007-040 | 200 | SUNC | Tap Holcomb - Spearville 345kV | Under Study (DISIS-2009-001) |
| GEN-2007-043 | 300 | AEPW | Lawton Eastside - Cimarron 345kV | Under Study (ICS-2008-001) |
| GEN-2007-044 | 300 | OKGE | ^TATONGA EHV 345kV | Under Study (ICS-2008-001) |
| GEN-2007-046 | 200 | SPS | TAP & TIE TEXAS COUNTY-HITCHLAND & DWS FRISCO TAP-HITCHLAND 115kV | Under Study (ICS-2008-001) |
| GEN-2007-048 | 400 | SPS | Amarillo South - Swisher County 230kV | Under Study (ICS-2008-001) |
| GEN-2007-050 | 170 | OKGE | Woodward EHV 138kV | Under Study (ICS-2008-001) |
| GEN-2007-051 | 200 | WFEC | Mooreland 138kV | Under Study (ICS-2008-001) |
| GEN-2007-052 | 150 | WFEC | Anadarko 138kV | Under Study (ICS-2008-001) |
| GEN-2007-053*** | 110 | MIPU | Maryville 161kV | Under Study (ICS-2008-001) |
| GEN-2007-057 | 35 | SPS | MOORE EAST 115kV | Under Study (ICS-2008-001) |
| GEN-2007-062** | 765 | OKGE | *Woodward EHV 345kV | Under Study (ICS-2008-001) |
| GEN-2008-003 | 101 | OKGE | Woodward 138kV | Under Study (ICS-2008-001) |
| GEN-2008-008 | 60 | SPS | Graham 115kV | Under Study (ICS-2008-001) |
| GEN-2008-009 | 60 | SPS | San Juan Mesa 230kV | Under Study (ICS-2008-001) |
| GEN-2008-013 | 300 | OKGE | Wichita - Woodring 345kV | Under Study (ICS-2008-001) |
| GEN-2008-014 | 150 | SPS | Tap TUCO - Oklaunion 345kV | Under Study (ICS-2008-001) |
| GEN-2008-016 | 248 | SPS | Grassland 230kV | Under Study (ICS-2008-001) |
| GEN-2008-017 | 300 | SUNC | Setab 345kV | Under Study (ICS-2008-001) |
| GEN-2008-018 | 405 | SUNC | FINNEY 345kV | Under Study (ICS-2008-001) |
| GEN-2008-019** | 300 | OKGE | TATONGA EHV 345kV | Under Study (ICS-2008-001) |
| GEN-2008-021 | 42 | WERE | Wolf Creek 25kV | Under Study (DISIS-2009-001) |
| GEN-2008-022 | 300 | SPS | Tap Eddy – GEN-2007-034 345kV | Under Study (DISIS-2010-001) |

| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|-----------------|---------|------|--|------------------------------|
| GEN-2008-023 | 150 | AEPW | Hobart Junction 138kV | Under Study (DISIS-2009-001) |
| GEN-2008-025 | 101.2 | SUNC | Ruleton 115kV | Under Study (DISIS-2009-001) |
| GEN-2008-028 | 360 | SPS | Hitchland 345kV | Under Study (DISIS-2010-001) |
| GEN-2008-029 | 205.5 | OKGE | Woodward EHV 138kV | Under Study (DISIS-2009-001) |
| GEN-2008-037 | 100.8 | WFEC | Tap Washita – Blue Canyon 138kV | Under Study (DISIS-2010-001) |
| GEN-2008-038 | 144 | AEPW | Tap Shidler-West Pawhuska 138kV | Under Study (DISIS-2009-001) |
| GEN-2008-044 | 197.8 | OKGE | Tatonga 345kV | Under Study (DISIS-2010-001) |
| GEN-2008-046 | 200 | OKGE | Sunnyside 345kV | Under Study (DISIS-2010-001) |
| GEN-2008-047 | 300 | SPS | Tap Hitchland – Woodward 345kV | Under Study (DISIS-2010-001) |
| GEN-2008-051 | 322 | SPS | Potter 345kV | Under Study (DISIS-2009-001) |
| GEN-2008-071 | 76.8 | OKGE | Newkirk 138kV | Under Study (DISIS-2010-001) |
| GEN-2008-079 | 100.5 | MKEC | TAP JUDSON LARGE-CUDAHY 115kV | Under Study (DISIS-2009-001) |
| GEN-2008-086N02 | 99 | NPPD | TAP FT RANDALL-COLUMBUS 230kV | Under Study (DISIS-2009-001) |
| GEN-2008-088 | 50.6 | SPS | Vega 69kV | Under Study (DISIS-2010-001) |
| GEN-2008-092 | 201 | MIDW | KNOLL 115kV | Under Study (DISIS-2009-001) |
| GEN-2008-098 | 100.8 | WERE | Tap Wolf Creek – LaCygne 345kV | Under Study (DISIS-2010-001) |
| GEN-2008-110 | 299.2 | SPS | Hitchland 345kV | Under Study (DISIS-2010-001) |
| GEN-2008-119O | 60 | OPPD | TAP HUMBOLDT-KELLY (NORTH OF GEN-2007-015) 161kV | Under Study (DISIS-2009-001) |
| GEN-2008-123N | 89.7 | NPPD | Tap Guide – Pauline 115kV | Under Study (DISIS-2010-001) |
| GEN-2008-124 | 200.1 | MKEC | SPEARVILLE 230kV | Under Study (DISIS-2009-001) |
| GEN-2008-127 | 200.1 | WERE | TAP SOONER-ROSE HILL 345kV | Under Study (DISIS-2009-001) |
| GEN-2008-129 | 46S/80W | MIPU | PLEASANT HILL 161kV | Under Study (DISIS-2009-001) |
| GEN-2009-008 | 200 | SUNC | South Hays 230kV | Under Study (DISIS-2010-001) |
| GEN-2009-011 | 50 | MKEC | TAP PLAINVILLE-PHILLIPSBURG 115kV | Under Study (DISIS-2009-001) |
| GEN-2009-016 | 140.3 | AEPW | FALCON ROAD 138kV | Under Study (DISIS-2009-001) |
| GEN-2009-017 | 60 | SPS | TAP PEMBROOK-STILES 138kV | Under Study (DISIS-2009-001) |
| GEN-2009-020 | 48.6 | MIDW | Tap Bazine – Nekoma 69kV | Under Study (DISIS-2010-001) |
| GEN-2009-025 | 60 | OKGE | Tap Deer Creek – Sinclair 69kV | Under Study (DISIS-2009-001) |
| GEN-2009-030 | 100.8 | WFEC | Weatherford 138kV | Under Study (DISIS-2010-001) |
| GEN-2009-032S | 6.4 | OKGE | Foster 138kV | Under Study (DISIS-2010-001) |
| GEN-2009-040 | 73.8 | WERE | Tap Smittyville – Knob Hill 115kV | Under Study (DISIS-2010-001) |

Appendix B: Prior Queued Interconnection Requests



| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|---------------|--------|------|---|------------------------------|
| GEN-2009-059 | 100.5 | SUNC | Tap GEN-2008-079 – Cudahy 115kV | Under Study (DISIS-2010-001) |
| GEN-2009-060 | 84 | WFEC | Gotebo 69kV | Under Study (DISIS-2010-001) |
| GEN-2009-062 | 115 | SUNC | Hugoton 115kV | Under Study (DISIS-2010-001) |
| GEN-2009-067S | 20 | SPS | 7 Rivers 69kV | Under Study (DISIS-2010-001) |
| GEN-2010-003 | 100.8 | WERE | GEN-2008-098 345kV | Under Study (DISIS-2010-001) |
| GEN-2010-005 | 300 | MKEC | GEN-2007-025 345kV | Under Study (DISIS-2010-001) |
| GEN-2010-006 | 205 | SPS | Jones 230kV | Under Study (DISIS-2010-001) |
| GEN-2010-007 | 73.8 | SPS | Tap Pringle – Riverview 115kV | Under Study (DISIS-2010-001) |
| GEN-2010-008 | 64.4 | WFEC | Tap Woodward - Fargo Junction 69kV | Under Study (DISIS-2010-001) |
| GEN-2010-009 | 165.6 | SUNC | Gray County 345kV | Under Study (DISIS-2010-001) |
| GEN-2010-010 | 100.5 | NPPD | Tap GEN-2008-086N02 – Columbus 230kV | Under Study (DISIS-2010-001) |
| GEN-2010-011 | 29.7 | OKGE | GEN-2008-044 345kV | Under Study (DISIS-2010-001) |
| GEN-2010-013 | 50.4 | WERE | GEN-2005-013 345kV | Under Study (DISIS-2010-001) |
| GEN-2010-014 | 358.8 | SPS | Hitchland 345kV | Under Study (DISIS-2010-001) |
| GEN-2010-015 | 200.1 | SUNC | Spearville 345kV | Under Study (DISIS-2010-001) |
| GEN-2010-016 | 199.8 | SUNC | Tap Spearville – Knoll 345kV | Under Study (DISIS-2010-001) |
| ASGI-2010-003 | 300 | AECI | Maryville 161kV | AECI queue Affected Study |
| ASGI-2010-004 | 50 | AECI | Tap Queen City – Lancaster 69kV | AECI queue Affected Study |
| ASGI-2010-005 | 99 | AECI | Lathrop 161kV | AECI queue Affected Study |
| ASGI-2010-006 | 150 | AECI | Tap Fairfax – Fairfax Tap 138kV | AECI queue Affected Study |
| ASGI-2010-007 | 150 | AECI | Tap Fairfax – Fairfax Tap 138kV | AECI queue Affected Study |
| ASGI-2010-008 | 100 | AECI | Maryville 161kV | AECI queue Affected Study |
| ASGI-2010-009 | 201 | AECI | Osborn 161kV | AECI queue Affected Study |
| ASGI-2010-010 | 42 | SPS | Lovington 115kV | LCED Affected Study |
| Genoa | 4 | NPPD | Genoa 115kV | On-Line |
| Ord | 13.9 | NPPD | Bloomfield 115kV | On-Line |
| Stuart | 2.1 | NPPD | Petersburg 115kV | On-Line |
| Llanoest | 80 | SPS | Llano Wind Farm Tap 115kV | On-Line |
| SPSDISTR | 90 | SPS | Dumas_19ST 115kV | On-Line |
| | | | Etter 115kV | On-Line |
| | | | Sherman 115kV | On-Line |
| | | | Spearman 115kV | On-Line |
| | | | Texas County 115kV | On-Line |

Appendix B: Prior Queued Interconnection Requests



| Request | Amount | Area | Requested/Proposed Point of Interconnection | Status or In-Service Date |
|----------------------|-----------------|------|---|---------------------------|
| BLUCAN2 | 151.2 | WFEC | Washita 138kV (GEN-2003-004) | On-Line |
| | | | Washita 138kV (GEN-2004-023) | On-Line |
| | | | Washita 138kV (GEN-2005-003) | On-Line |
| Monte | 110 | MKEC | Haggard 115kV | On-Line |
| GROUPED TOTAL | 27,386.6 | | | |

- * Planned Facility
- ^ Proposed Facility
- ** Alternate requests - counted as one request for study purpose
- *** Electrically Remote Interconnection Requests

C: Study Groupings

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|------------------------------|----------------|----------------|--------------------|------------------------------------|
| Prior Queued | GEN-2001-014 | 96 | WFEC | Fort Supply 138kV |
| | GEN-2001-037 | 100 | OKGE | Windfarm Switching 138kV |
| | GEN-2002-005 | 120 | WFEC | Morewood - Elk City 138kV |
| | GEN-2005-005 | 18 | OKGE | Windfarm Switching 138kV |
| | GEN-2005-008 | 120 | OKGE | Woodward 138kV |
| | GEN-2006-024 | 20 | WFEC | South Buffalo Tap 69kV |
| | GEN-2006-046 | 131 | OKGE | Dewey 138kV |
| | GEN-2007-006 | 160 | OKGE | Roman Nose 138kV |
| | GEN-2007-021 | 201 | OKGE | *Tatonga 345kV |
| | GEN-2007-044 | 300 | OKGE | *Tatonga 345kV |
| | GEN-2007-050 | 170 | OKGE | *Woodward 345kV |
| | GEN-2007-051 | 200 | WFEC | Mooreland 138kV |
| | GEN-2007-062** | 765 | OKGE | *Woodward 345kV |
| | GEN-2008-003 | 101 | OKGE | *Woodward EHV 138kV |
| | GEN-2008-019** | 300 | OKGE | *Tatonga 345kV |
| | GEN-2008-029 | 250.5 | OKGE | Woodward 345kV |
| | GEN-2008-044 | 197.8 | OKGE | Tatonga 345kV |
| | GEN-2010-008 | 64.4 | WFEC | Tap Woodward - Fargo Junction 69kV |
| GEN-2010-011 | 29.7 | OKGE | GEN-2008-044 345kV | |
| PRIOR QUEUED SUBTOTAL | | 3,344.4 | | |
| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
| Woodward | GEN-2010-023 | 99 | OKGE | WFEC Iodine 138kV |
| WOODWARD SUBTOTAL | | 99 | | |
| AREA SUBTOTAL | | 3,443.4 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|------------------------------|------------------|----------------|-------------------------------|---|
| Prior Queued | SPS Distribution | 90 | SPS | Various |
| | GEN-2002-006 | 150 | SPS | Texas County 115kV |
| | GEN-2002-008 | 240 | SPS | Hitchland 345kV |
| | GEN-2002-009 | 80 | SPS | Hansford County 115kV |
| | GEN-2003-013 | 198 | SPS | Hitchland - Finney 345kV |
| | GEN-2003-020 | 160 | SPS | Carson County 115kV |
| | GEN-2005-017 | 340 | SPS | Hitchland - Potter County 345kV |
| | GEN-2006-020 | 18.9 | SPS | Hitchland - Sherman County Tap 115kV |
| | GEN-2006-044 | 370 | SPS | Hitchland 345kV |
| | GEN-2006-049 | 400 | SPS | Hitchland - Finney 345kV |
| | GEN-2007-005 | 200 | SPS | Pringle 115kV |
| | GEN-2007-046 | 200 | SPS | TAP & TIE TEXAS COUNTY-HITCHLAND & DWS FRISCO TAP-HITCHLAND 115kV |
| | GEN-2007-057 | 35 | SPS | Moore County East 115kV |
| | GEN-2008-028 | 360 | SPS | Hitchland 345kV |
| | GEN-2008-047 | 300 | SPS | Tap Hitchland – Woodward 345kV |
| | GEN-2008-110 | 299.2 | SPS | Hitchland 345kV |
| GEN-2010-007 | 73.8 | SPS | Tap Pringle – Riverview 115kV | |
| GEN-2010-014 | 358.8 | SPS | Hitchland 345kV | |
| PRIOR QUEUED SUBTOTAL | | 3,873.7 | | |
| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
| Hitchland | GEN-2009-069 | 400 | SPS | Hitchland – Woodward 345kV |
| HITCHLAND SUBTOTAL | | 400 | | |
| AREA SUBTOTAL | | 4,273.7 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|------------------------------|---------------|----------------|------------------------------|-----------------------------------|
| Prior Queued | Montezuma | 110 | MKEC | Haggard 115kV |
| | GEN-2001-039A | 105 | WPEK | Greensburg - Judson-Large 115kV |
| | GEN-2002-025A | 150 | WPEK | Spearville 230kV |
| | GEN-2004-014 | 155 | MIDW | Spearville 230kV |
| | GEN-2005-012 | 250 | WPEK | Spearville 345kV |
| | GEN-2006-006 | 206 | MKEC | Spearville 230kV |
| | GEN-2006-021 | 101 | WPEK | Flat Ridge Tap 138kV |
| | GEN-2006-022 | 150 | WPEK | Ninnescah Tap 115kV |
| | GEN-2007-038 | 200 | SUNC | Spearville 345kV |
| | GEN-2007-040 | 200 | SUNC | Tap Holcomb – Spearville 345kV |
| | GEN-2008-018 | 405 | SUNC | Finney 345kV |
| | GEN-2008-079 | 100.5 | MKEC | Tap Judson Large – Cudahy 115kV |
| | GEN-2008-124 | 200.1 | MKEC | Spearville 230kV |
| | GEN-2009-059 | 100.5 | SUNC | Tap GEN-2008-079 – Cudahy 115kV |
| | GEN-2009-062 | 115 | SUNC | Hugoton 115kV |
| | GEN-2010-009 | 165.6 | SUNC | Gray County 345kV |
| GEN-2010-015 | 200.1 | SUNC | Spearville 345kV | |
| GEN-2010-016 | 199.8 | SUNC | Tap Spearville – Knoll 345kV | |
| PRIOR QUEUED SUBTOTAL | | 3,113.6 | | |
| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
| Spearville | GEN-2010-027 | 900 | SUNC | Spearville 345kV |
| SPEARVILLE SUBTOTAL | | 900 | | |
| AREA SUBTOTAL | | 4,013.6 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|---------------------------------|---------------|--------------|------|-------------------------------------|
| Prior Queued | GEN-2001-039M | 100 | SUNC | Tap Leoti - City Services 115kV |
| | GEN-2006-034 | 81 | SUNC | Tap Kanarado - Sharon Springs 115kV |
| | GEN-2006-040 | 108 | SUNC | Mingo 115kV |
| | GEN-2007-011 | 135 | SUNC | Syracuse 115kV |
| | GEN-2007-013 | 99 | SUNC | Selkirk 115kV |
| | GEN-2008-017 | 300 | SUNC | Setab 345kV |
| | GEN-2008-025 | 101.2 | SUNC | Ruleton 115kV |
| PRIOR QUEUED SUBTOTAL | | 924.2 | | |
| MINGO/NW KANSAS SUBTOTAL | | 924.2 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|------------------------------|----------------|----------------|------|--|
| Prior Queued | Llano Estacado | 80 | SPS | Llano Estacado Tap 115kV |
| | GEN-2002-022 | 240 | SPS | Bushland 230kV |
| | GEN-2005-021 | 86 | SPS | Kirby 115kV |
| | GEN-2006-039 | 400 | SPS | Tap and Tie both Potter County - Plant X 230kV and Bushland - Deaf Smith 230kV |
| | GEN-2006-045 | 240 | SPS | Tap and Tie both Potter County - Plant X 230kV and Bushland - Deaf Smith 230kV |
| | GEN-2006-047 | 240 | SPS | Tap and Tie both Potter County - Plant X 230kV and Bushland - Deaf Smith 230kV |
| | GEN-2007-002 | 160 | SPS | Grapevine 115kV |
| | GEN-2007-048 | 400 | SPS | Tap Amarillo South – Swisher 230kV |
| | GEN-2008-051 | 322 | SPS | Potter 345kV |
| | GEN-2008-088 | 50.6 | SPS | Vega 69kV |
| PRIOR QUEUED SUBTOTAL | | 2,218.6 | | |
| AMARILLO SUBTOTAL | | 2,218.6 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|--|---------------|--------------|-----------------|---|
| Prior Queued | GEN-2001-033 | 180 | SPS | San Juan Mesa Tap 230kV |
| | GEN-2001-036 | 80 | SPS | Caprock Tap 115kV |
| | GEN-2005-010 | 160 | SPS | Roosevelt County - Tolk West 230kV (Single Ckt Tap) |
| | GEN-2005-015 | 150 | SPS | Tuco - Oklaunion 345kV |
| | GEN-2006-018 | 170 | SPS | Tuco 230kV |
| | GEN-2007-034 | 150 | SPS | Tolk - Eddy County 345kV |
| | GEN-2008-008 | 60 | SPS | Graham 115kV |
| | GEN-2008-009 | 60 | SPS | San Juan Mesa 230kV |
| | GEN-2008-014 | 150 | SPS | Tuco - Oklaunion 345kV |
| | GEN-2008-016 | 248 | SPS | Grassland 230kV |
| | GEN-2008-022 | 300 | SPS | Tap Eddy – GEN-2007-034 345kV |
| | GEN-2009-017 | 60 | SPS | Pembrook – Stiles 138kV |
| | GEN-2009-067S | 20 | SPS | 7 Rivers 69kV |
| | GEN-2010-006 | 205 | SPS | Jones 345kV |
| ASGI-2010-010 | 42 | SPS | Lovington 115kV | |
| PRIOR QUEUED SUBTOTAL | | 2,035 | | |
| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
| New Mexico & West Texas | GEN-2010-020 | 20 | SPS | Roswell 69kV |
| | GEN-2010-021 | 20 | SPS | Atoka 69kV |
| NEW MEXICO & WEST TEXAS AREA SUBTOTAL | | 40 | | |
| AREA SUBTOTAL | | 2,075 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|------------------------------|--------------|----------------|-------------|--------------------------------------|
| Prior Queued | GEN-2001-026 | 74 | WFEC | Washita 138kV |
| | GEN-2003-004 | 101 | WFEC | Washita 138kV |
| | GEN-2003-005 | 100 | WFEC | Tap Anadarko - Paradise 138kV |
| | GEN-2003-022 | 120 | AEPW | Washita 138kV |
| | GEN-2004-020 | 27 | AEPW | Washita 138kV |
| | GEN-2004-023 | 21 | WFEC | Washita 138kV |
| | GEN-2005-003 | 31 | WFEC | Washita 138kV |
| | GEN-2006-002 | 150 | AEPW | Tap Grapevine - Elk City 230kV |
| | GEN-2006-035 | 225 | AEPW | Tap Grapevine - Elk City 230kV |
| | GEN-2006-043 | 99 | AEPW | Tap Grapevine - Elk City 230kV |
| | GEN-2007-032 | 150 | WFEC | Tap Clinton Junction - Clinton 138kV |
| | GEN-2007-043 | 300 | AEPW | Tap Lawton Eastside - Cimarron 345kV |
| | GEN-2007-052 | 150 | WFEC | Anadarko 138kV |
| | GEN-2008-023 | 150 | AEPW | Hobart Junction 138kV |
| | GEN-2008-037 | 100.8 | WFEC | Tap Washita – Blue Canyon 138kV |
| | GEN-2009-016 | 140.3 | AEPW | Falcon Road 138kV |
| | GEN-2009-030 | 100.8 | WFEC | Weatherford 138kV |
| GEN-2009-060 | 84 | WFEC | Gotebo 69kV | |
| PRIOR QUEUED SUBTOTAL | | 2,123.9 | | |
| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
| SW Oklahoma | GEN-2010-018 | 100.8 | WFEC | Erick 138kV |
| | GEN-2010-019 | 52.2 | WFEC | Carter Junction 69kV |
| SW OKLAHOMA SUBTOTAL | | 153 | | |
| AREA SUBTOTAL | | 2,276.9 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|--------------------------------|------------------------------|----------------|----------------|-----------------------------------|
| | ASGI-2010-006 | 150 | AECI | Tap Fairfax – Fairfax Tap 138kV |
| | ASGI-2010-007 | 150 | AECI | Tap Fairfax – Fairfax Tap 138kV |
| | GEN-2002-004 | 200 | WERE | Latham 345kV |
| | GEN-2004-010 | 300 | WERE | Latham 345kV |
| | GEN-2005-013 | 201 | WERE | Tap Latham - Neosho |
| | GEN-2005-016 | 150 | WERE | Tap Latham - Neosho |
| | GEN-2007-025 | 300 | WERE | Tap Woodring – Wichita 345kV |
| | GEN-2008-013 | 300 | OKGE | Tap Woodring – Wichita 345kV |
| | GEN-2008-021 | 42 | WERE | Wolf Creek 25kV |
| | GEN-2008-038 | 144 | AEPW | Tap Shidler – West Pawhuska 138kV |
| | GEN-2008-071 | 76.8 | OKGE | Newkirk 138kV |
| | GEN-2008-098 | 100.8 | WERE | Tap Wolf Creek – LaCygne 345kV |
| | GEN-2008-127 | 200.1 | WERE | Tap Sooner – Rose Hill 345kV |
| | GEN-2009-025 | 60 | OKGE | Tap Deer Creek – Sinclair 69kV |
| | GEN-2010-003 | 100.8 | WERE | GEN-2008-098 345kV |
| | GEN-2010-005 | 300 | MKEC | GEN-2007-025 345kV |
| | GEN-2010-013 | 50.4 | WERE | GEN-2005-013 345kV |
| | PRIOR QUEUED SUBTOTAL | | 2,825.9 | |
| NORTH OKLAHOMA SUBTOTAL | | 2,825.9 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|---------|---------|--------|------|-----------------------------------|
|---------|---------|--------|------|-----------------------------------|

| | | | | |
|------------------------------|-----------------------------|---------------|-------------|--|
| Prior Queued | Genoa | 4 | NPPD | Genoa 115kV |
| | GEN-2006-020N | 42 | NPPD | Bloomfield 115kV |
| | GEN-2006-038N019 | 80 | NPPD | Petersburg 115kV |
| | GEN-2006-044N | 40.5 | NPPD | Tap Neligh – Petersburg 115kV |
| | GEN-2006-044N02 | 100.5 | NPPD | GEN-2008-086N02 230kV |
| | GEN-2007-011N06 | 75 | NPPD | Tap Neligh – Petersburg 115kV |
| | GEN-2007-011N08 | 81 | NPPD | Bloomfield 115kV |
| | GEN-2007-011N09 | 75 | NPPD | Bloomfield 115kV |
| | GEN-2008-086N02 | 200 | NPPD | Tap Ft. Randall – Columbus 230kV |
| | GEN-2010-010 | 100.5 | NPPD | Tap Ft. Randall – Columbus 230kV |
| PRIOR QUEUED SUBTOTAL | | 797.5 | | |
| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
| NE NEBRASKA | GEN-2010-026 | 99 | NPPD | Hoskins 230kV |
| | NE NEBRASKA SUBTOTAL | | 99 | |
| AREA SUBTOTAL | | 896.5 | | |

| | | | | |
|------------------------------|--------------------------------|---------------|-------------|--|
| Prior Queued | Broken Bow | 8.3 | NPPD | Genoa 115kV |
| | Ord | 13.9 | NPPD | Bloomfield 115kV |
| | Stuart | 2.1 | NPPD | Petersburg 115kV |
| | GEN-2003-021N | 75 | NPPD | Ainsworth Wind Tap 115kV |
| | GEN-2004-005N | 30 | NPPD | St. Francis 115kV |
| | GEN-2006-038N005 | 80 | NPPD | Broken Bow 115kV |
| | GEN-2006-037N1 | 75 | NPPD | Broken Bow 115kV |
| PRIOR QUEUED SUBTOTAL | | 284.3 | | |
| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
| North Nebraska | GEN-2010-024 | 100 | NPPD | Tap Valentine – Mission Hill 115kV |
| | NORTH NEBRASKA SUBTOTAL | | 100 | |
| AREA SUBTOTAL | | 384.3 | | |

| | | | | |
|------------------------------|-----------------|----------------|------|-------------------------------------|
| Prior Queued | GEN-2003-006A-E | 100 | EMDE | Elm Creek 230kV |
| | GEN-2003-006A-W | 100 | WERE | Elm Creek 230kV |
| | GEN-2003-019 | 250 | MIDW | Smoky Hills Tap 230kV |
| | GEN-2006-031 | 75 | MIDW | Knoll 115kV |
| | GEN-2006-032 | 200 | MIDW | South Hays 230kV |
| | GEN-2008-092 | 201 | MIDW | Knoll 115kV |
| | GEN-2009-008 | 200 | SUNC | South Hays 230kV |
| | GEN-2009-011 | 50 | MKEC | Tap Plainville – Phillipsburg 115kV |
| | GEN-2009-020 | 48.6 | MIDW | Tap Bazine – Nekoma 69kV |
| | GEN-2009-040 | 73.8 | WERE | Tap Smittyville – Knob Hill 115kV |
| PRIOR QUEUED SUBTOTAL | | 1,298.4 | | |
| NORTH KANSAS SUBTOTAL | | 1,298.4 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|----------------------|-------------------------------------|-----------|-----------|-----------------------------------|
| North-West Arkansas | GEN-2010-025 | 20 | AEPW | Gentry |
| | NORTH-WEST ARKANSAS SUBTOTAL | | 20 | |
| AREA SUBTOTAL | | 20 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|--|---------------|--------------|------|-----------------------------------|
| Prior Queued | GEN-2006-038 | 750 | WFEC | Hugo 345kV |
| | GEN-2008-046 | 200 | OKGE | Sunnyside 345kV |
| | GEN-2009-032S | 6.4 | OKGE | Foster 138kV |
| PRIOR QUEUED SUBTOTAL | | 956.4 | | |
| SOUTH CENTRAL OKLAHOMA SUBTOTAL | | 956.4 | | |

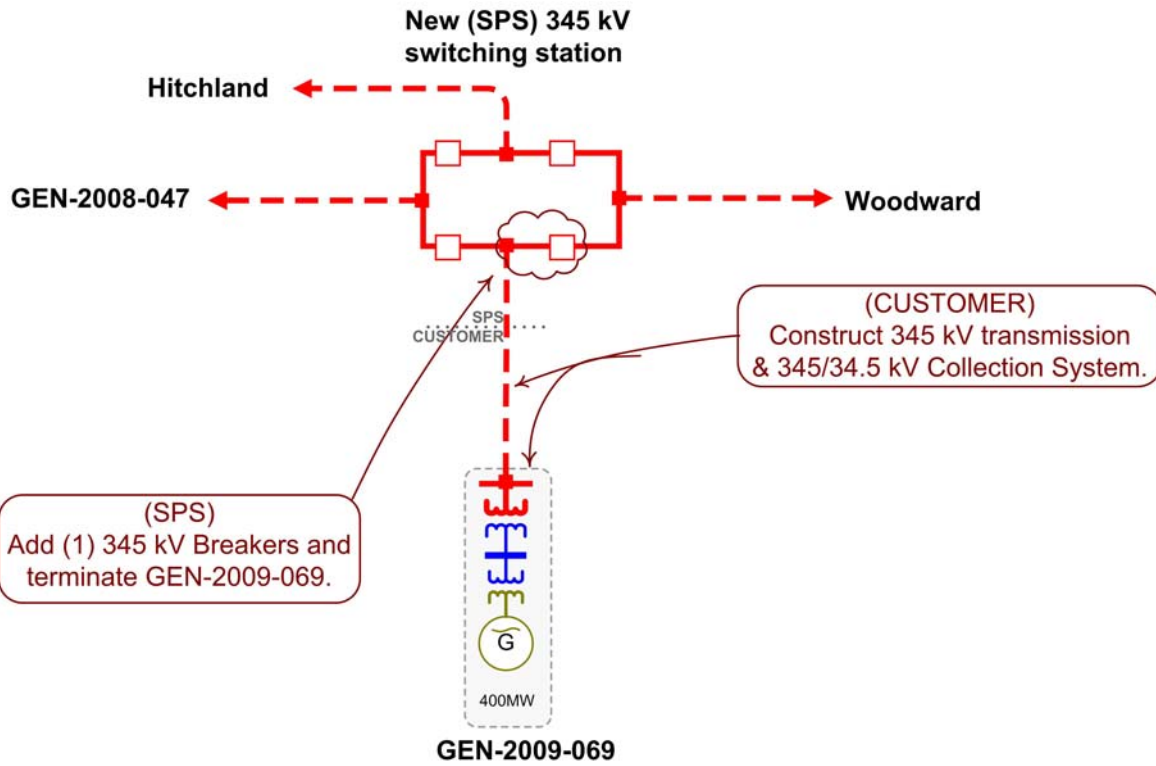
| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|------------------------------------|---------------|-------------|------|-----------------------------------|
| Prior Queued | GEN-2008-123N | 89.7 | NPPD | Tap Guide – Pauline 115kV |
| PRIOR QUEUED SUBTOTAL | | 89.7 | | |
| SOUTHWEST NEBRASKA SUBTOTAL | | 89.7 | | |

| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
|--|------------------------------|-----------------|--------------|--|
| | ASGI-2010-003 | 300 | AECI | Maryville 161kV |
| | ASGI-2010-004 | 50 | AECI | Tap Queen City – Lancaster 69kV |
| | ASGI-2010-005 | 99 | AECI | Lathrop 161kV |
| | ASGI-2010-008 | 100 | AECI | Maryville 161kV |
| | ASGI-2010-009 | 201 | AECI | Osborn 161kV |
| | GEN-2006-014 | 300 | MIPU | Maryville – Clarinda 161kV & Tie to Midway 161kV |
| | GEN-2006-017 | 300 | MIPU | Maryville – Clarinda 161kV & Tie to Midway 161kV |
| | GEN-2007-015 | 135 | WERE | Tap Humboldt – Kelly 161kV |
| | GEN-2007-017 | 101 | MIPU | Maryville – Clarinda 161kV & Tie to Midway 161kV |
| | GEN-2007-053 | 110 | MIPU | Maryville – Clarinda 161kV & Tie to Midway 161kV |
| | GEN-2008-119O | 60 | OPPD | Tap Humboldt – Kelly 161kV |
| | GEN-2008-129 | 80 | MIPU | Pleasant Hill 161kV |
| | PRIOR QUEUED SUBTOTAL | | 1,836 | |
| Cluster | Request | Amount | Area | Proposed Point of Interconnection |
| Northwest Missouri | GEN-2010-022 | 75 | MIPU | Archie 161kV |
| NORTHWEST MISSOURI SUBTOTAL | | 75 | | |
| AREA SUBTOTAL | | 1,911 | | |
| ***CLUSTERED TOTAL (w/o PRIOR QUEUED) | | 1,886 | | |
| ***CLUSTERED TOTAL (w/PRIOR QUEUED) | | 27,607.6 | | |

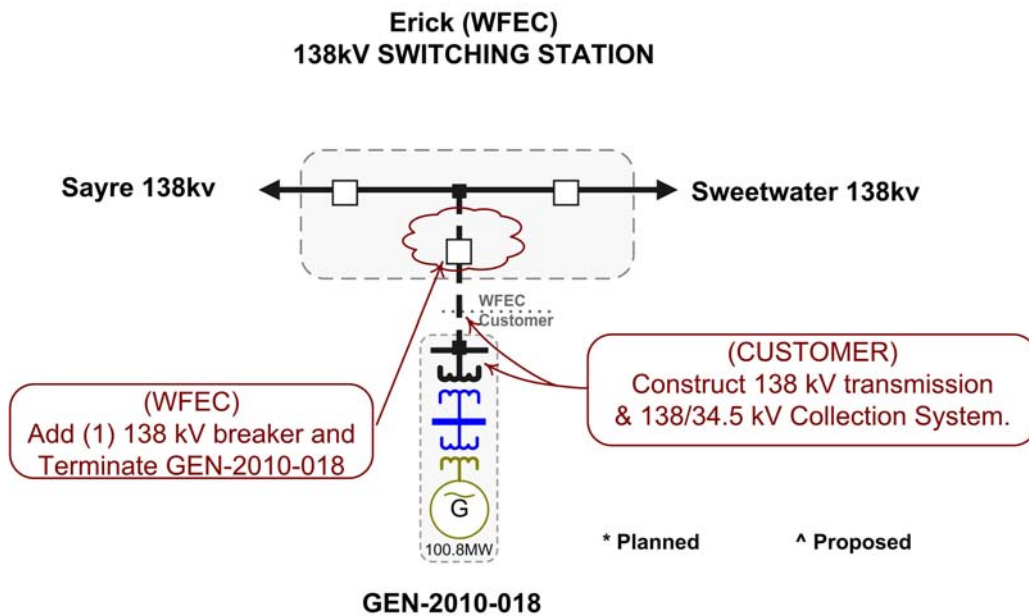
* Planned Facility
 ^ Proposed Facility
 ** Alternate requests - counted as one request for study purpose
 *** Electrically Remote Interconnection Requests included in total

D: Proposed Point of Interconnection One line Diagrams

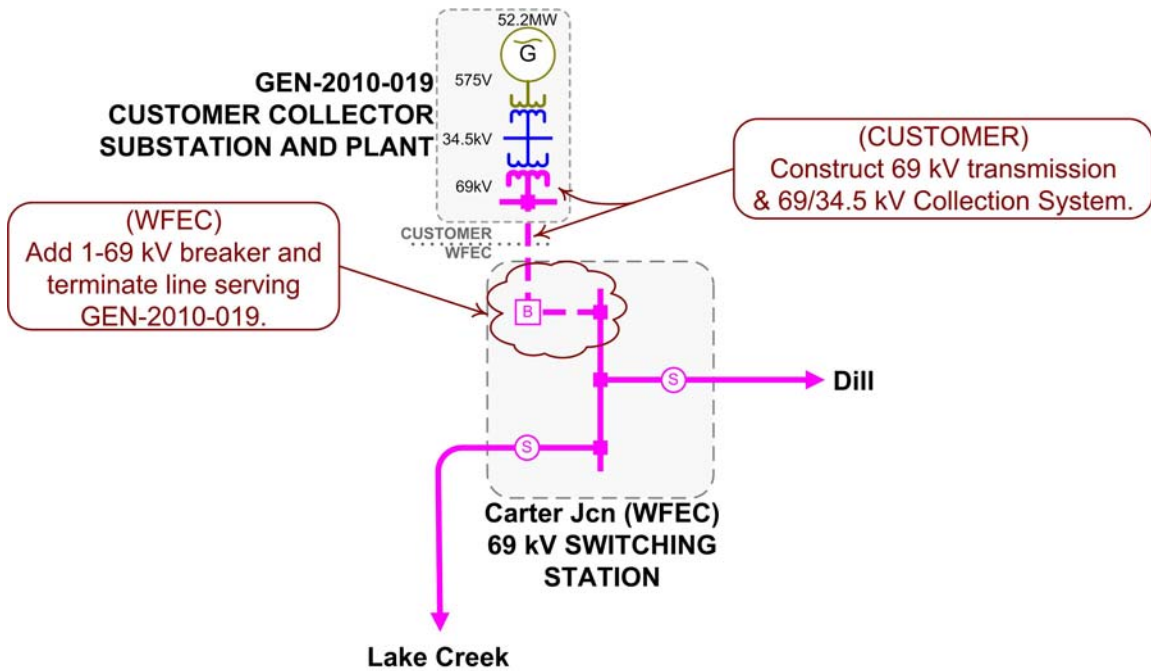
GEN-2009-069



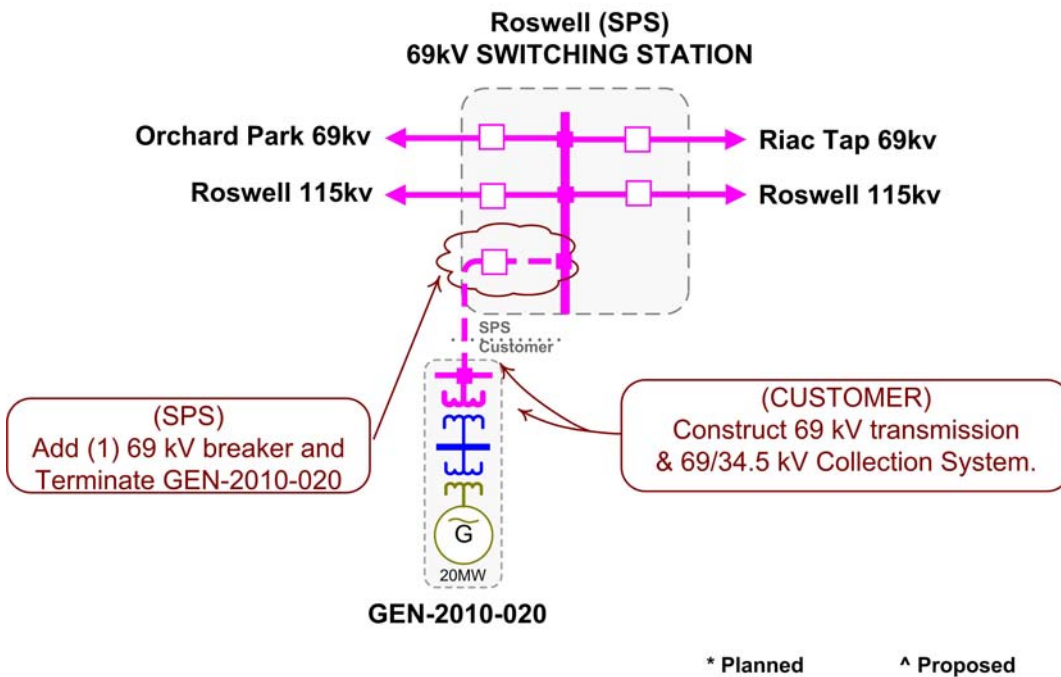
GEN-2010-018



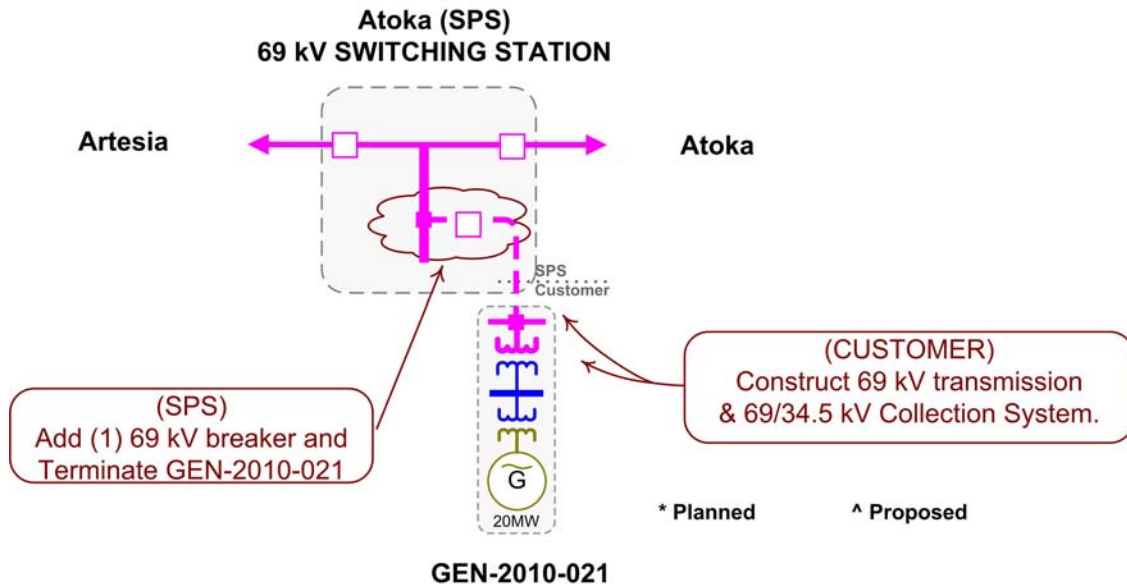
GEN-2010-019



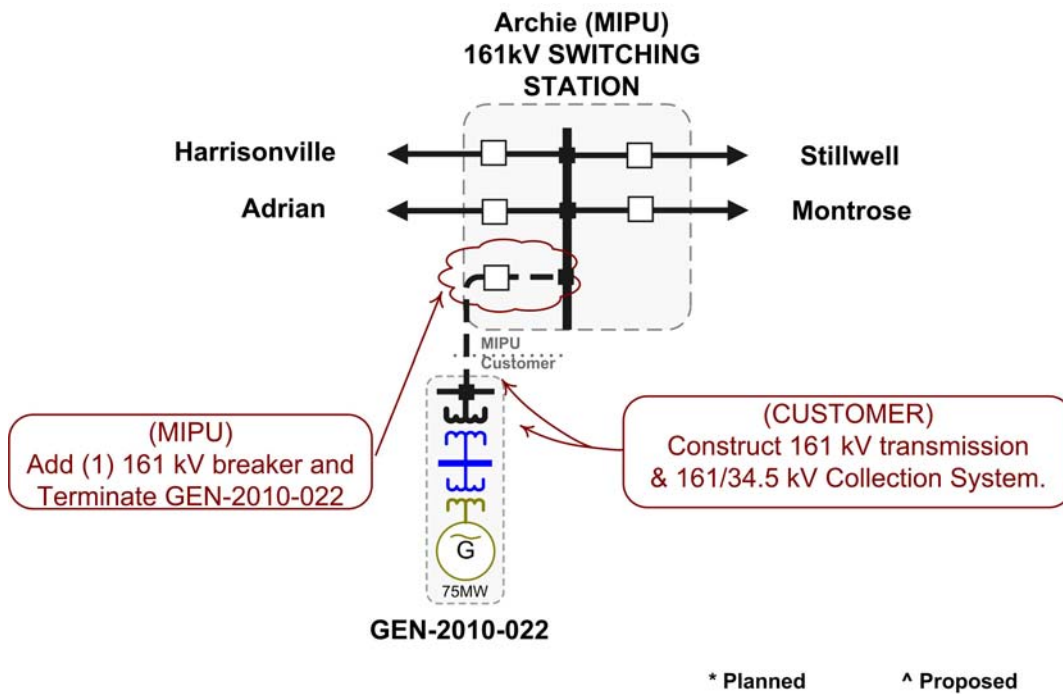
GEN-2010-020



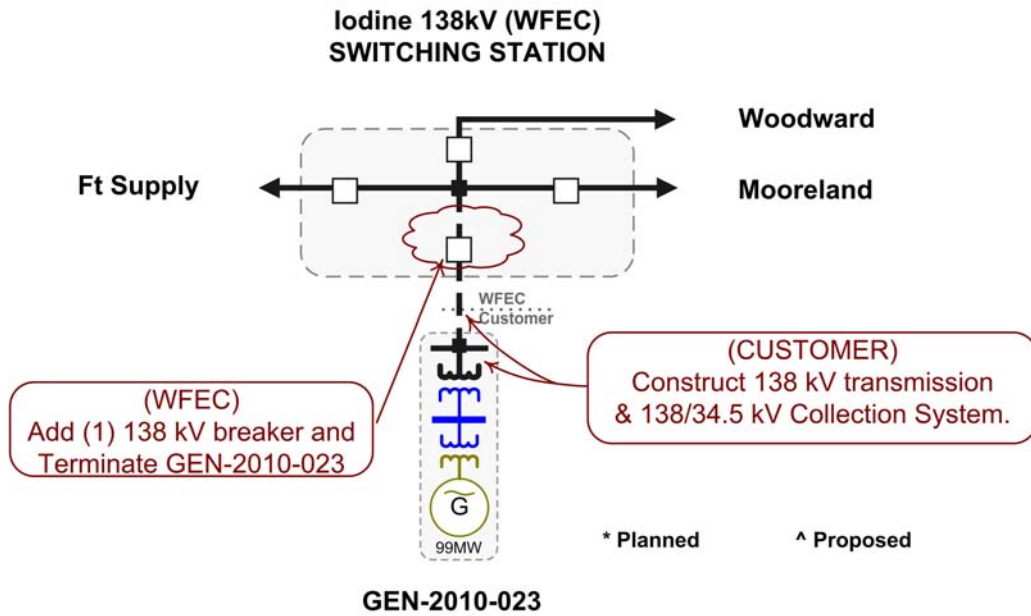
GEN-2010-021



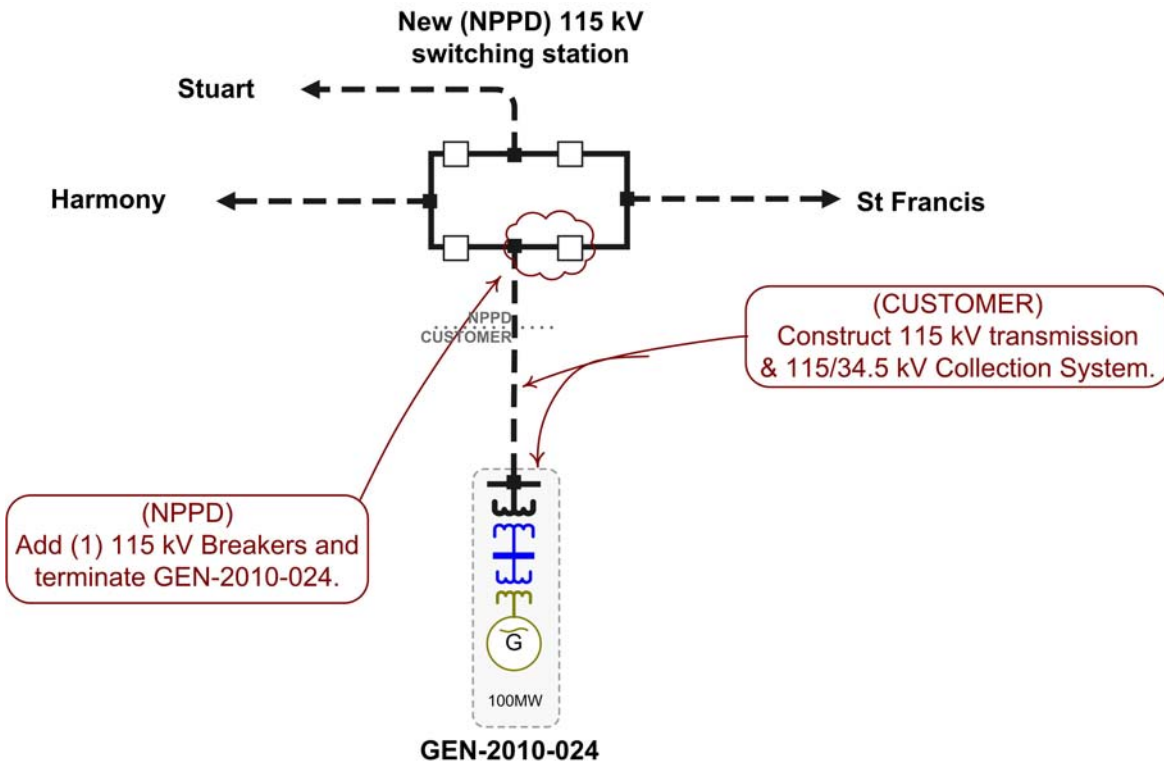
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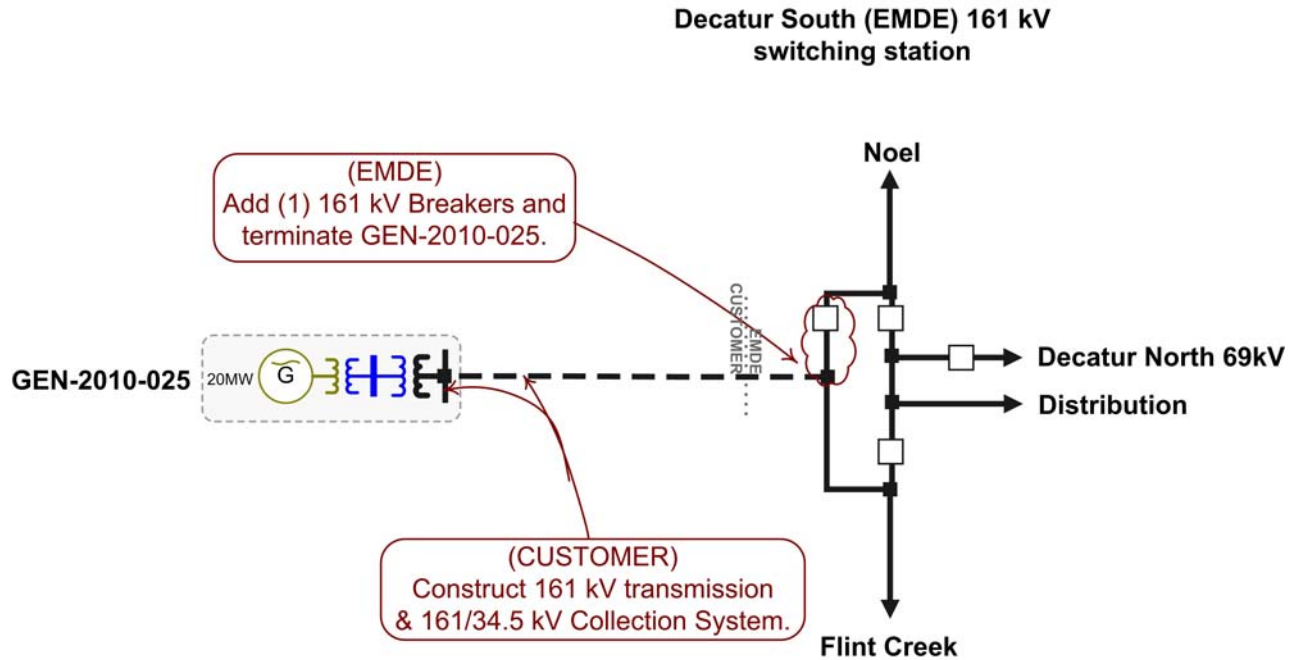
GEN-2010-023



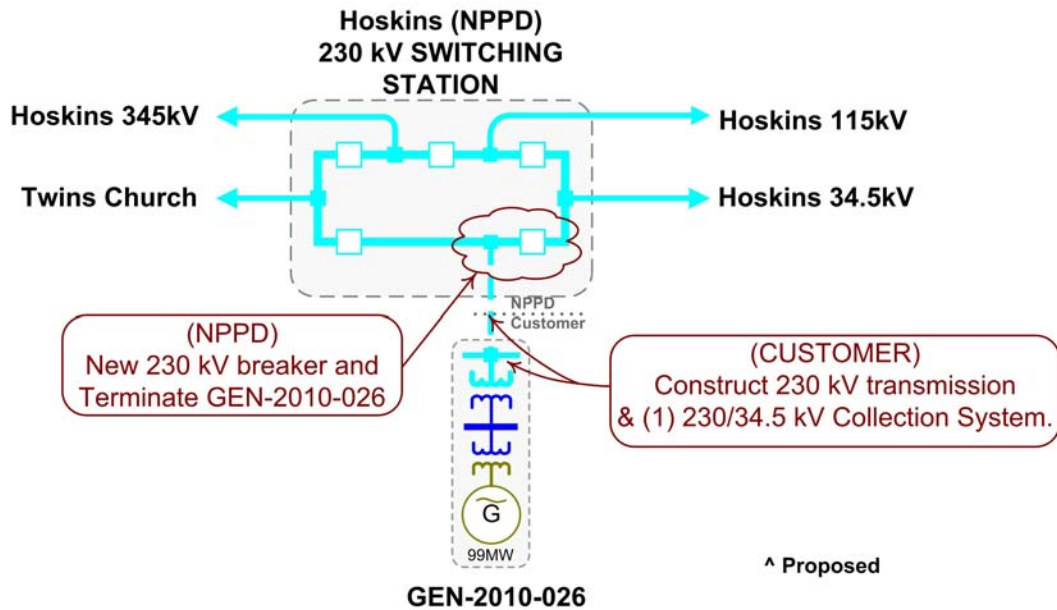
GEN-2010-024



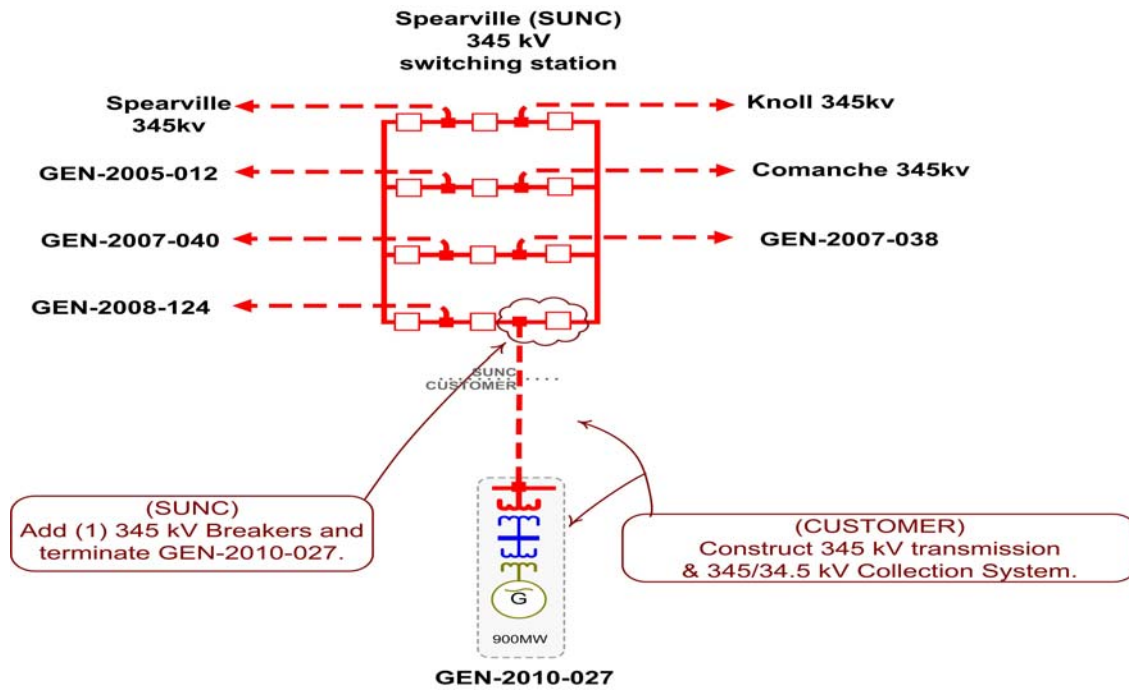
GEN-2010-025



GEN-2010-026



GEN-2010-027



E: Cost Allocation per Interconnection Request

Appendix E. - Cost Allocation Per Request

(Including Previously Allocated Network Upgrades*)

| Interconnection Request | Upgrade Type | Allocated Costs | E + C Costs |
|---|----------------------------|------------------------|------------------|
| GEN-2009-069 | | | |
| GEN-2009-069 Interconnection Costs | Current Study Allocation | \$2,000,000.00 | \$2,000,000.00 |
| Hitchland - Woodward 345kV CKT 1 via GEN-2008-047 Tap | Previously Assigned | | \$168,000,000.00 |
| Comanche - Woodward 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$80,000,000.00 |
| Medicine Lodge - Wichita 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$90,000,000.00 |
| Comanche - Medicine Lodge 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$60,000,000.00 |
| Stevens County - Gray County 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$58,200,000.00 |
| Hitchland - Woodward 345kv CKT 2 | DISIS-2010-001 Allocation | | \$168,000,000.00 |
| Finney Switching Station - Holcomb 345KV CKT 2 Per GEN-2006-044 Facility Study | Previously Allocated | | \$6,299,839.00 |
| Spearville (SPEARVL6-2) 230/115/13.8KV Transformer CKT 1 | Previously Assigned | | \$3,000,000.00 |
| Spearville (SPEARVL2) 345/230/13.8KV Transformer CKT 1 | Previously Assigned | | \$6,000,000.00 |
| | Current Study Total | \$2,000,000.00 | |
| GEN-2010-018 | | | |
| GEN-2010-018 Interconnection Costs | Current Study Allocation | \$1,500,000.00 | \$1,500,000.00 |
| Elk City - Clinton Junction 138kv Rebuild | Current Study Allocation | \$13,847,351.38 | \$19,200,000.00 |
| Brantley - Sweetwater 138kv Rebuild | Current Study Allocation | \$44,000,000.00 | \$44,000,000.00 |
| Replace Carter Junction - Lake Creek 69kv Terminal Equipment | Current Study Allocation | \$11,008.30 | \$50,000.00 |
| Comanche - Woodward 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$80,000,000.00 |
| Medicine Lodge - Wichita 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$90,000,000.00 |
| Comanche - Medicine Lodge 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$60,000,000.00 |
| Hitchland - Woodward 345kV CKT 1 via GEN-2008-047 Tap | Previously Assigned | | \$168,000,000.00 |
| | Current Study Total | \$59,358,359.68 | |
| GEN-2010-019 | | | |

* Current Study Requests' Costs of Previously Allocated Network Upgrades will be determined by a restudy, if necessary.

| Interconnection Request | Upgrade Type | Allocated Costs | E + C Costs |
|--|----------------------------|------------------------|--------------------|
| GEN-2010-019 Interconnection Costs | Current Study Allocation | \$850,000.00 | \$850,000.00 |
| Replace Carter Junction - Lake Creek 69kv Terminal Equipment | Current Study Allocation | \$38,991.70 | \$50,000.00 |
| Elk City - Clinton Junction 138kv Rebuild | Current Study Allocation | \$5,352,648.62 | \$19,200,000.00 |
| Comanche - Woodward 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$80,000,000.00 |
| Comanche - Medicine Lodge 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$60,000,000.00 |
| Medicine Lodge - Wichita 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$90,000,000.00 |
| | Current Study Total | \$6,241,640.32 | |
| GEN-2010-020 | | | |
| GEN-2010-020 Interconnection Costs | Current Study Allocation | \$850,000.00 | \$850,000.00 |
| Midpoint(Wheeler) - TUCO Interchange 345KV CKT 1 Total E & C Cost for TUCO - Woodward Project | Previously Allocated | | \$229,000,000.00 |
| Midpoint(Wheeler) - Woodward 345KV CKT 1 Total E & C Cost for TUCO - Woodward Project | Previously Allocated | | \$229,000,000.00 |
| Comanche - Woodward 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$80,000,000.00 |
| Hitchland - Woodward 345kv CKT 1 via GEN-2008-047 Tap | Previously Assigned | | \$168,000,000.00 |
| Medicine Lodge - Wichita 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$90,000,000.00 |
| Comanche - Medicine Lodge 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$60,000,000.00 |
| Finney Switching Station - Holcomb 345KV CKT 2 Per GEN-2006-044 Facility Study | Previously Allocated | | \$6,299,839.00 |
| | Current Study Total | \$850,000.00 | |
| GEN-2010-021 | | | |
| GEN-2010-021 Interconnection Costs | Current Study Allocation | \$850,000.00 | \$850,000.00 |
| Midpoint(Wheeler) - TUCO Interchange 345KV CKT 1 Total E & C Cost for TUCO - Woodward Project | Previously Allocated | | \$229,000,000.00 |
| Midpoint(Wheeler) - Woodward 345KV CKT 1 Total E & C Cost for TUCO - Woodward Project | Previously Allocated | | \$229,000,000.00 |
| Comanche - Woodward 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$80,000,000.00 |
| Hitchland - Woodward 345kv CKT 1 via GEN-2008-047 Tap | Previously Assigned | | \$168,000,000.00 |
| Comanche - Medicine Lodge 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$60,000,000.00 |

* Current Study Requests' Costs of Previously Allocated Network Upgrades will be determined by a restudy, if necessary.

| Interconnection Request | Upgrade Type | Allocated Costs | E + C Costs |
|--|-----------------------------|------------------------|--------------------|
| Medicine Lodge - Wichita 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$90,000,000.00 |
| Finney Switching Station - Holcomb 345KV CKT 2 Per GEN-2006-044 Facility Study | Previously Allocated | | \$6,299,839.00 |
| | Current Study Total | \$850,000.00 | |
| GEN-2010-022 | | | |
| GEN-2010-022 Interconnection Costs | Current Study Allocation | \$3,500,000.00 | \$3,500,000.00 |
| | Current Study Total | \$3,500,000.00 | |
| GEN-2010-023 | | | |
| GEN-2010-023 Interconnection Costs | Current Study Allocation | \$2,500,000.00 | \$2,500,000.00 |
| Iodine - Woodward 138kv CKT 1 | Current Study Allocation | \$19,800,000.00 | \$19,800,000.00 |
| Comanche - Woodward 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$80,000,000.00 |
| Medicine Lodge - Wichita 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$90,000,000.00 |
| Comanche - Medicine Lodge 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$60,000,000.00 |
| Midpoint(Wheeler) - Woodward 345KV CKT 1 Total E & C Cost for TUCO - Woodward Project | Previously Allocated | | \$229,000,000.00 |
| Midpoint(Wheeler) - TUCO Interchange 345KV CKT 1 Total E & C Cost for TUCO - Woodward Project | Previously Allocated | | \$229,000,000.00 |
| Spearville (SPEARVL6-2) 230/115/13.8KV Transformer CKT 1 | Previously Assigned | | \$3,000,000.00 |
| | Current Study Total | \$22,300,000.00 | |
| GEN-2010-024 | | | |
| GEN-2010-024 Interconnection Costs | Current Study Allocation | \$4,000,000.00 | \$4,000,000.00 |
| Valentine - GEN-2010-024 115kv CKT 1 | Current Study Allocation | \$50,000,000.00 | \$50,000,000.00 |
| Stuart - Oneill 115kv | Current Study Allocation | \$28,000,000.00 | \$28,000,000.00 |
| Spearville - Comanche 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$50,000,000.00 |
| | Current Study Total | \$82,000,000.00 | |
| GEN-2010-025 | | | |
| GEN-2010-025 Interconnection Costs | Current Study Allocation | \$2,000,000.00 | \$2,000,000.00 |
| | Current Study Total | \$2,000,000.00 | |
| GEN-2010-026 | | | |

* Current Study Requests' Costs of Previously Allocated Network Upgrades will be determined by a restudy, if necessary.

| Interconnection Request | Upgrade Type | Allocated Costs | E + C Costs |
|--|----------------------------|------------------------|--------------------|
| GEN-2010-026 Interconnection Costs | Current Study Allocation | \$1,500,000.00 | \$1,500,000.00 |
| Spearville - Comanche 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$50,000,000.00 |
| | Current Study Total | \$1,500,000.00 | |
| GEN-2010-027 | | | |
| GEN-2010-027 Interconnection Costs | Current Study Allocation | \$6,000,000.00 | \$6,000,000.00 |
| Spearville - Comanche 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$50,000,000.00 |
| Comanche - Woodward 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$80,000,000.00 |
| Comanche - Medicine Lodge 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$60,000,000.00 |
| Medicine Lodge - Wichita 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$90,000,000.00 |
| Stevens County - Gray County 345KV CKT 1 Per Cluster I Impact Restudy | Previously Allocated | | \$58,200,000.00 |
| Midpoint(Wheeler) - Woodward 345KV CKT 1 Total E & C Cost for TUCO - Woodward Project | Previously Allocated | | \$229,000,000.00 |
| Midpoint(Wheeler) - TUCO Interchange 345KV CKT 1 Total E & C Cost for TUCO - Woodward Project | Previously Allocated | | \$229,000,000.00 |
| | Current Study Total | \$6,000,000.00 | |

* Current Study Requests' Costs of Previously Allocated Network Upgrades will be determined by a restudy, if necessary.

F: Cost Allocation per Network Upgrade

Appendix F. - Cost Allocation Per Upgrade Facility

| Upgrade Facility | Allocated Costs | E + C Costs |
|--|------------------------|------------------------|
| Brantley - Sweetwater 138kv Rebuild | | \$44,000,000.00 |
| GEN-2010-018 | \$44,000,000.00 | |
| Total | \$44,000,000.00 | |
| Elk City - Clinton Junction 138kv Rebuild | | \$19,200,000.00 |
| GEN-2010-018 | \$13,847,351.38 | |
| GEN-2010-019 | \$5,352,648.62 | |
| Total | \$19,200,000.00 | |
| GEN-2009-069 Interconnection Costs | | \$2,000,000.00 |
| GEN-2009-069 | \$2,000,000.00 | |
| Total | \$2,000,000.00 | |
| GEN-2010-018 Interconnection Costs | | \$1,500,000.00 |
| GEN-2010-018 | \$1,500,000.00 | |
| Total | \$1,500,000.00 | |
| GEN-2010-019 Interconnection Costs | | \$850,000.00 |
| GEN-2010-019 | \$850,000.00 | |
| Total | \$850,000.00 | |
| GEN-2010-020 Interconnection Costs | | \$850,000.00 |
| GEN-2010-020 | \$850,000.00 | |
| Total | \$850,000.00 | |
| GEN-2010-021 Interconnection Costs | | \$850,000.00 |
| GEN-2010-021 | \$850,000.00 | |
| Total | \$850,000.00 | |
| GEN-2010-022 Interconnection Costs | | \$3,500,000.00 |
| GEN-2010-022 | \$3,500,000.00 | |
| Total | \$3,500,000.00 | |
| GEN-2010-023 Interconnection Costs | | \$2,500,000.00 |
| GEN-2010-023 | \$2,500,000.00 | |

| Upgrade Facility | Allocated Costs | E + C Costs |
|---|------------------------|-------------------------|
| | Total | |
| | \$2,500,000.00 | |
| <hr/> | | |
| GEN-2010-024 Interconnection Costs | | \$4,000,000.00 |
| GEN-2010-024 | \$4,000,000.00 | |
| | Total | |
| | \$4,000,000.00 | |
| <hr/> | | |
| GEN-2010-025 Interconnection Costs | | \$2,000,000.00 |
| GEN-2010-025 | \$2,000,000.00 | |
| | Total | |
| | \$2,000,000.00 | |
| <hr/> | | |
| GEN-2010-026 Interconnection Costs | | \$1,500,000.00 |
| GEN-2010-026 | \$1,500,000.00 | |
| | Total | |
| | \$1,500,000.00 | |
| <hr/> | | |
| GEN-2010-027 Interconnection Costs | | \$6,000,000.00 |
| GEN-2010-027 | \$6,000,000.00 | |
| | Total | |
| | \$6,000,000.00 | |
| <hr/> | | |
| Iodine - Woodward 138kv CKT 1 | | \$19,800,000.00 |
| GEN-2010-023 | \$19,800,000.00 | |
| | Total | |
| | \$19,800,000.00 | |
| <hr/> | | |
| Replace Carter Junction - Lake Creek 69kv Terminal Equipment | | \$50,000.00 |
| GEN-2010-018 | \$11,008.30 | |
| GEN-2010-019 | \$38,991.70 | |
| | Total | |
| | \$50,000.00 | |
| <hr/> | | |
| Stuart - Oneill 115kv | | \$28,000,000.00 |
| GEN-2010-024 | \$28,000,000.00 | |
| | Total | |
| | \$28,000,000.00 | |
| <hr/> | | |
| Valentine - GEN-2010-024 115kv CKT 1 | | \$50,000,000.00 |
| GEN-2010-024 | \$50,000,000.00 | |
| | Total | |
| | \$50,000,000.00 | |
| <hr/> | | |
| Current Study Upgrades Total | | \$186,600,000.00 |

G: FCITC Analysis (Interconnection Constraints)

| GROUP | | SOURCE | | DISPATCH | SEASON | SINK | ELEMENT | DIRECTION | TDF | RATING | LOADING | CONTNAME |
|---------|--|--------|-----|----------|--------|-----------|---|-----------|---------|--------|----------|--|
| G10_018 | | 1 | 10G | | | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.2548 | 169.1 | 101.1231 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_018 | | 2 | 10G | | | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.25406 | 168 | 112.6188 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_018 | | 2 | 10G | | | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.33475 | 168 | 112.8369 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_018 | | 2 | 10G | | | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.33475 | 168 | 111.6464 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_018 | | 2 | 10G | | | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.25438 | 168 | 107.3792 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_018 | | 2 | 10G | | | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.2523 | 168 | 102.5028 | 'G05-15T 345.00 - OKLAUNION 345KV CKT 1' |
| G10_018 | | 2 | 10G | | | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.25387 | 144.7 | 101.0375 | 'BASE CASE' |
| G10_018 | | 2 | 10G | | | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.25244 | 168 | 100.3481 | 'G05-15T 345.00 - TUCO INTERCHANGE 345KV CKT 1' |
| G10_018 | | 7 | 10G | | | FOOTPRINT | 'ERICK - SWEETWATER 138KV CKT 1' | FROM->TO | 0.99605 | 129.7 | 126.4019 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_018 | | 7 | 10G | | | FOOTPRINT | 'DURHAM - SWEETWATER 138KV CKT 1' | TO->FROM | 0.99605 | 129.9 | 115.8147 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_018 | | 7 | 10G | | | FOOTPRINT | 'BRANTLEY - DURHAM 138KV CKT 1' | TO->FROM | 0.99605 | 130 | 114.4179 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_018 | | 7 | 10G | | | FOOTPRINT | 'ERICK - SWEETWATER 138KV CKT 1' | FROM->TO | 0.99605 | 129.7 | 142.9461 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_018 | | 7 | 10G | | | FOOTPRINT | 'DURHAM - SWEETWATER 138KV CKT 1' | TO->FROM | 0.99605 | 129.9 | 132.3334 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_018 | | 7 | 10G | | | FOOTPRINT | 'BRANTLEY - DURHAM 138KV CKT 1' | TO->FROM | 0.99605 | 130 | 130.9239 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_019 | | 2 | 10G | | | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.24018 | 168 | 112.8369 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_019 | | 2 | 10G | | | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.24018 | 168 | 111.6464 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.3554 | 35.7 | 139.9092 | 'SPP-SWPS-03b' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35554 | 35.7 | 138.802 | 'BECKHAM CO 230.00 - WHEELER 6 230.00 230KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35554 | 35.7 | 138.802 | 'GRAPEVINE INTERCHANGE - WHEELER 6 230.00 230KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 134.2935 | 'G09-60 34.500 34.5/0.69KV TRANSFORMER CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 134.2935 | 'G09-60 69.000 - GOTEBO 69KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 134.2935 | 'G09-60 69.000 69/34.5KV TRANSFORMER CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35465 | 35.7 | 129.8846 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35465 | 35.7 | 128.484 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.3575 | 35.7 | 120.6599 | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34473 | 35.7 | 116.2356 | 'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.3554 | 35.7 | 134.9602 | 'SPP-SWPS-03b' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35554 | 35.7 | 133.8602 | 'BECKHAM CO 230.00 - WHEELER 6 230.00 230KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35554 | 35.7 | 133.8602 | 'GRAPEVINE INTERCHANGE - WHEELER 6 230.00 230KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 132.3011 | 'G09-60 34.500 34.5/0.69KV TRANSFORMER CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 132.3011 | 'G09-60 69.000 - GOTEBO 69KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 132.3011 | 'G09-60 69.000 69/34.5KV TRANSFORMER CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35465 | 35.7 | 122.2459 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35465 | 35.7 | 120.8454 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 1 | 35.7 | 144.5378 | 'CARTER JCT - DILL JCT 69KV CKT 1' |
| G10_019 | | 7 | 10G | | | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34473 | 35.7 | 112.9579 | 'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'BUFBEAR2 69.000 - BUFFALO 69KV CKT 1' | FROM->TO | 0.19237 | 34.2 | 139.0771 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FARGOJCT2 69.000 - FT SUPPLY 69KV CKT 1' | TO->FROM | 0.80439 | 65 | 164.8028 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FARGOJCT2 69.000 - WOODWARD 69KV CKT 2' | FROM->TO | 0.80258 | 113.9 | 134.6204 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'WOODWARD - WOODWARD 69KV CKT 1' | TO->FROM | 0.50303 | 63.8 | 110.6229 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FT SUPPLY (FTSUPPLY) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.49866 | 69.7 | 105.9073 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FT SUPPLY (FTSUPPLY2) 138/69/13.8KV TRANSFORMER CKT 2' | FROM->TO | 0.49866 | 69.7 | 105.9073 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FT SUPPLY (FTSUPPLY) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.49866 | 69.7 | 105.9073 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FT SUPPLY (FTSUPPLY2) 138/69/13.8KV TRANSFORMER CKT 2' | FROM->TO | 0.49866 | 69.7 | 105.9073 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'ALVA - FREEDOM 69KV CKT 1' | TO->FROM | 0.19237 | 33.4 | 102.5879 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'BUFBEAR2 69.000 - BUFFALO 69KV CKT 1' | FROM->TO | 0.19237 | 34.2 | 150.1305 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FARGOJCT2 69.000 - FT SUPPLY 69KV CKT 1' | TO->FROM | 0.80439 | 65 | 191.4379 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FARGOJCT2 69.000 - WOODWARD 69KV CKT 2' | FROM->TO | 0.80258 | 113.9 | 150.3559 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'WOODWARD - WOODWARD 69KV CKT 1' | TO->FROM | 0.50303 | 63.8 | 130.5642 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FT SUPPLY (FTSUPPLY2) 138/69/13.8KV TRANSFORMER CKT 2' | FROM->TO | 0.49866 | 69.7 | 120.9001 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FT SUPPLY (FTSUPPLY) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.49866 | 69.7 | 120.9001 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FT SUPPLY (FTSUPPLY) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.49866 | 69.7 | 120.9001 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'FT SUPPLY (FTSUPPLY2) 138/69/13.8KV TRANSFORMER CKT 2' | FROM->TO | 0.49866 | 69.7 | 120.9001 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'ALVA - FREEDOM 69KV CKT 1' | TO->FROM | 0.19237 | 33.4 | 113.9061 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'BUFBEAR2 69.000 - FT SUPPLY 69KV CKT 1' | TO->FROM | 0.19293 | 33.4 | 108.9822 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | | 1 | 10G | | | FOOTPRINT | 'IODINE - MOORELAND 138KV CKT 1' | FROM->TO | 0.95765 | 178.4 | 108.1319 | 'FARGOJCT2 69.000 - WOODWARD 69KV CKT 2' |
| G10_024 | | 10 | 10G | | | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 120.6957 | 'AINSWRT7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | | 10 | 10G | | | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 117.8099 | 'ATKINSN7 115.00 - STUART 7 115.00 115KV CKT 1' |

| GROUP | | | | | | | | | |
|---------|----------|--------|-----------|---|-----------|---------|--------|----------|---|
| SOURCE | DISPATCH | SEASON | SINK | ELEMENT | DIRECTION | TDF | RATING | LOADING | CONTNAME |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 116.1788 | 'ATKINSN7 115.00 - EMMET 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 122.8735 | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 115.175 | 'EMMET 7 115.00 - ONEILL 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' | FROM->TO | 0.99916 | 80 | 122.4127 | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 120.364 | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' | FROM->TO | 0.99916 | 80 | 119.9127 | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 111.5811 | 'AINSWRT7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 137.6675 | 'AINSWRT7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 134.7817 | 'ATKINSN7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 133.1506 | 'ATKINSN7 115.00 - EMMET 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 148.3262 | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 132.1468 | 'EMMET 7 115.00 - ONEILL 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' | FROM->TO | 0.99916 | 80 | 147.77 | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 145.8168 | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' | FROM->TO | 0.99916 | 80 | 145.27 | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 137.0339 | 'AINSWRT7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 1 | 80 | 125 | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' | FROM->TO | 1 | 80 | 125 | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.54047 | 79.7 | 113.3589 | 'NEB01Wapa.B3' |
| G10_024 | 10 | 10G | FOOTPRINT | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' | FROM->TO | 1 | 80 | 122.5 | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 1 | 80 | 122.5 | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 0.66505 | 80 | 114.2563 | 'AINSWRT7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 0.66505 | 80 | 111.5062 | 'ATKINSN7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 0.66505 | 80 | 109.8813 | 'ATKINSN7 115.00 - EMMET 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 1 | 80 | 113.625 | 'AINSWRT7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 0.66505 | 80 | 108.7563 | 'EMMET 7 115.00 - ONEILL 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.5268 | 79.7 | 102.1079 | 'CHADRON7 115.00 - RUSHVIL7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.6229 | 79.7 | 102.1205 | 'AINSWND7 115.00 - CALAMS 7 115.00 115KV CKT 1' |

H: FCITC Analysis

| SOURCE | GROUP DISPATCH | SEASON | SINK | ELEMENT | DIRECTION | TDF | RATING | LOADING | CONTNAME |
|---------|-------------------|--------|-----------|--|-----------|---------|--------|----------|--|
| G09_069 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02016 | 168 | 112.8369 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02016 | 168 | 111.6464 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02016 | 168 | 107.181 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02016 | 168 | 105.9905 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02345 | 168 | 112.6188 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02345 | 168 | 108.1429 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02348 | 123.1 | 148.0716 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 1 | 10G | FOOTPRINT | 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1' | TO->FROM | 0.02348 | 145.7 | 112.4064 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02377 | 168 | 107.3792 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02377 | 168 | 102.8619 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 1 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02419 | 169.1 | 101.1231 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD - WOODWARD 69KV CKT 1' | TO->FROM | 0.02427 | 61.3 | 171.5915 | 'FPL SWITCH - MOORELAND 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' | FROM->TO | 0.02427 | 132.8 | 106.5404 | 'FPL SWITCH - MOORELAND 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' | FROM->TO | 0.02427 | 133.5 | 106.2064 | 'FPL SWITCH - MOORELAND 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD - WOODWARD 69KV CKT 1' | TO->FROM | 0.02427 | 61.3 | 180.1109 | 'FPL SWITCH - MOORELAND 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' | FROM->TO | 0.02427 | 132.8 | 110.4729 | 'FPL SWITCH - MOORELAND 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' | FROM->TO | 0.02427 | 133.5 | 110.1184 | 'FPL SWITCH - MOORELAND 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD - WOODWARD 69KV CKT 1' | TO->FROM | 0.02448 | 61.3 | 167.0721 | 'FPL SWITCH - WOODWARD 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' | FROM->TO | 0.02448 | 132.8 | 104.4542 | 'FPL SWITCH - WOODWARD 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' | FROM->TO | 0.02448 | 133.5 | 104.1312 | 'FPL SWITCH - WOODWARD 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD - WOODWARD 69KV CKT 1' | TO->FROM | 0.02448 | 61.3 | 175.5171 | 'FPL SWITCH - WOODWARD 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' | FROM->TO | 0.02448 | 132.8 | 108.3524 | 'FPL SWITCH - WOODWARD 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' | FROM->TO | 0.02448 | 133.5 | 108.009 | 'FPL SWITCH - WOODWARD 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02454 | 122.2 | 122.4468 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02454 | 122.2 | 120.144 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 3 | 10G | FOOTPRINT | 'WOODWARD - WOODWARD 69KV CKT 1' | TO->FROM | 0.02477 | 63 | 151.7914 | 'FPL SWITCH - MOORELAND 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02485 | 122.2 | 115.5657 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02485 | 122.2 | 113.2079 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 3 | 10G | FOOTPRINT | 'WOODWARD - WOODWARD 69KV CKT 1' | TO->FROM | 0.02498 | 63 | 146.224 | 'FPL SWITCH - WOODWARD 138KV CKT 1' |
| G09_069 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.02515 | 120.2 | 207.0388 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 3 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02551 | 122.7 | 104.2226 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.02846 | 143.1 | 116.2149 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.02846 | 143.1 | 114.594 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.02888 | 143.1 | 108.2156 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.02888 | 143.1 | 106.5353 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 3 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.02934 | 145.3 | 103.8606 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'ROMAN NOSE - SOUTHARD 138KV CKT 1' | TO->FROM | 0.02957 | 147.8 | 103.2356 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'ROMAN NOSE - SOUTHARD 138KV CKT 1' | TO->FROM | 0.02957 | 147.8 | 101.5074 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 1 | 10G | FOOTPRINT | 'ROMAN NOSE - SOUTHARD 138KV CKT 1' | TO->FROM | 0.0296 | 149.5 | 101.4052 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'DEAF SMITH COUNTY INTERCHANGE - G06-39T 230.00 230KV CKT 1' | TO->FROM | 0.03428 | 351 | 102.2185 | 'TOLK STATION EAST 230/24.0KV TRANSFORMER CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'DEAF SMITH COUNTY INTERCHANGE - G06-39T 230.00 230KV CKT 1' | TO->FROM | 0.03428 | 351 | 101.9453 | 'TOLK STATION EAST 230/24.0KV TRANSFORMER CKT 1' |
| G09_069 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.04543 | 351.7 | 124.916 | 'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1' |
| G09_069 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.04693 | 351.7 | 113.3677 | 'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05365 | 271.3 | 105.1701 | 'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05365 | 271.3 | 105.1701 | 'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05365 | 271.3 | 109.5687 | 'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05365 | 271.3 | 109.5687 | 'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05426 | 271.3 | 103.7243 | 'GRAPEVINE INTERCHANGE - WHEELER 6 230.00 230KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05433 | 271.3 | 104.3612 | 'SPP-SWPS-03b' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | TO->FROM | 0.05448 | 276.1 | 103.6914 | 'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05715 | 271.3 | 104.4367 | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05715 | 271.3 | 108.7578 | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05964 | 271.3 | 104.5365 | 'IODINE - WWRDEHV4 138.00 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05964 | 271.3 | 103.2464 | 'DEWEY - IODINE 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05964 | 271.3 | 108.3878 | 'IODINE - WWRDEHV4 138.00 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.05964 | 271.3 | 107.0977 | 'DEWEY - IODINE 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.06047 | 276.1 | 102.531 | 'IODINE - WWRDEHV4 138.00 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.06047 | 276.1 | 101.2633 | 'DEWEY - IODINE 138KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.07288 | 271.3 | 131.7122 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.07288 | 271.3 | 135.1095 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.07371 | 276.1 | 125.5152 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.07371 | 276.1 | 128.7881 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.07379 | 271.3 | 122.4831 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.07379 | 271.3 | 125.8076 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.07457 | 278.2 | 117.4537 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.07462 | 276.1 | 116.4465 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.07462 | 276.1 | 119.6479 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.0754 | 280 | 111.7238 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G09_069 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.07548 | 278.2 | 108.4831 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G09_069 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.07632 | 280 | 102.7751 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_018 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.02028 | 351.7 | 113.3677 | 'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'DOVER SW - OKEENE 138KV CKT 1' | TO->FROM | 0.02069 | 103 | 100.2966 | 'BASE CASE' |

| SOURCE | GROUP DISPATCH | SEASON | SINK | ELEMENT | DIRECTION | TDF | RATING | LOADING | CONTNAME |
|---------|-------------------|--------|-----------|---|-----------|---------|--------|----------|---|
| G10_018 | 1 | 10G | FOOTPRINT | 'DOVER SW - OKEENE 138KV CKT 1' | TO->FROM | 0.02074 | 127.6 | 110.4274 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02231 | 123.1 | 117.2106 | 'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02493 | 123.1 | 112.7093 | 'BASE CASE' |
| G10_018 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02498 | 123.1 | 148.0716 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1' | TO->FROM | 0.02498 | 145.7 | 112.4064 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02525 | 123.1 | 123.6665 | 'EL RENO - ROMAN NOSE 138KV CKT 1' |
| G10_018 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02604 | 122.2 | 122.4468 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_018 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02635 | 122.2 | 115.5657 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_018 | 3 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02701 | 122.7 | 104.2226 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02729 | 123.1 | 122.3254 | 'DOVER SW - OKEENE 138KV CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02738 | 123.1 | 126.4469 | 'KNOBHILL - MOORELAND 138KV CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02738 | 123.1 | 126.4469 | 'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_018 | 2 | 10G | FOOTPRINT | 'DEAF SMITH COUNTY INTERCHANGE - G06-39T 230.00 230KV CKT 1' | TO->FROM | 0.02747 | 351 | 102.2185 | 'TOLK STATION EAST 230/24.0KV TRANSFORMER CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02759 | 123.1 | 126.9494 | 'CEDARDALE - MOORELAND 138KV CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02759 | 123.1 | 125.8121 | 'CEDARDALE - OKEENE 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'EL RENO - EL RENO SW 69KV CKT 1' | TO->FROM | 0.02766 | 26 | 118.8218 | 'OGE3TERM10' |
| G10_018 | 7 | 10G | FOOTPRINT | 'EL RENO - EL RENO SW 69KV CKT 1' | TO->FROM | 0.02768 | 26 | 118.8295 | 'JENSEN ROAD - JENSEN TAP 138KV CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02799 | 123.1 | 121.5168 | 'OGE3TERMS9' |
| G10_018 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02839 | 122.2 | 100.6801 | 'KNOBHILL - MOORELAND 138KV CKT 1' |
| G10_018 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.02839 | 122.2 | 100.6801 | 'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'NORGE ROAD - SOUTHWESTERN STATION 138KV CKT 1' | TO->FROM | 0.03159 | 142.4 | 101.6534 | 'SOUTHWESTERN STATION - VERDEN 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'NORGE ROAD - SOUTHWESTERN STATION 138KV CKT 1' | TO->FROM | 0.03159 | 142.4 | 100.5298 | 'NORTH 29TH CHICKASHA - VERDEN 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'NORGE ROAD - SOUTHWESTERN STATION 138KV CKT 1' | TO->FROM | 0.03159 | 142.4 | 101.4681 | 'SOUTHWESTERN STATION - VERDEN 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'NORGE ROAD - SOUTHWESTERN STATION 138KV CKT 1' | TO->FROM | 0.03159 | 142.4 | 100.3445 | 'NORTH 29TH CHICKASHA - VERDEN 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'SUNSHINE CANYON - TUTTLE 138KV CKT 1' | TO->FROM | 0.03587 | 140 | 112.1659 | 'CIMARRON - G07-43T 345.00 345KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'SUNSHINE CANYON - TUTTLE 138KV CKT 1' | TO->FROM | 0.03587 | 140 | 112.3735 | 'CIMARRON - G07-43T 345.00 345KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'SUNSHINE CANYON - TUTTLE 138KV CKT 1' | TO->FROM | 0.03914 | 140 | 102.1408 | 'ANADARK7 345.00 (ANDRK345) 345/138/13.8KV TRANSFORMER CKT 2' |
| G10_018 | 7 | 10G | FOOTPRINT | 'SUNSHINE CANYON - TUTTLE 138KV CKT 1' | TO->FROM | 0.03914 | 140 | 101.9665 | 'ANADARK7 345.00 (ANDRK345) 345/138/13.8KV TRANSFORMER CKT 2' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.04533 | 52.7 | 176.6465 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.04533 | 52.7 | 168.1076 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - FOSS TAP 69KV CKT 1' | FROM->TO | 0.04533 | 71.8 | 130.2127 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - THOMAS TAP 69KV CKT 1' | FROM->TO | 0.04533 | 54.8 | 137.3954 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'THOMAS TAP - WEATHERFORD 69KV CKT 1' | FROM->TO | 0.04533 | 52.8 | 136.7286 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - FOSS TAP 69KV CKT 1' | FROM->TO | 0.04533 | 71.8 | 123.9453 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - THOMAS TAP 69KV CKT 1' | FROM->TO | 0.04533 | 54.8 | 129.1838 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'THOMAS TAP - WEATHERFORD 69KV CKT 1' | FROM->TO | 0.04533 | 52.8 | 128.2059 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION (CLINTJCT) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.04533 | 91.9 | 101.7331 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION (CLINTJCT) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.04533 | 91.9 | 101.8419 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.04533 | 52.7 | 176.05 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.04533 | 52.7 | 167.5111 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - FOSS TAP 69KV CKT 1' | FROM->TO | 0.04533 | 71.8 | 129.7748 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - THOMAS TAP 69KV CKT 1' | FROM->TO | 0.04533 | 54.8 | 136.8218 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'THOMAS TAP - WEATHERFORD 69KV CKT 1' | FROM->TO | 0.04533 | 52.8 | 136.1332 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - FOSS TAP 69KV CKT 1' | FROM->TO | 0.04533 | 71.8 | 123.5074 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - THOMAS TAP 69KV CKT 1' | FROM->TO | 0.04533 | 54.8 | 128.6101 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'THOMAS TAP - WEATHERFORD 69KV CKT 1' | FROM->TO | 0.04533 | 52.8 | 127.6105 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION (CLINTJCT) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.04533 | 91.9 | 101.391 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION (CLINTJCT) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.04533 | 91.9 | 101.4998 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.04675 | 52.7 | 111.4992 | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.04675 | 52.7 | 101.8218 | 'CLINTON NATURAL GAS TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.04675 | 52.7 | 109.9084 | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.04675 | 52.7 | 100.231 | 'CLINTON NATURAL GAS TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.04984 | 35.7 | 134.2935 | 'G09-60 34.500 34.5/0.69KV TRANSFORMER CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.04984 | 35.7 | 134.2935 | 'G09-60 69.000 - GOTEBO 69KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.04984 | 35.7 | 134.2935 | 'G09-60 69.000 69/34.5KV TRANSFORMER CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.05392 | 35.7 | 116.2356 | 'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.06766 | 35.7 | 139.9092 | 'SPP-SWPS-03b' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.06766 | 35.7 | 102.3352 | 'SPP-SWPS-03b' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.06775 | 35.7 | 138.802 | 'BECKHAM CO 230.00 - WHEELER 6 230.00 230KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.06775 | 35.7 | 138.802 | 'GRAPEVINE INTERCHANGE - WHEELER 6 230.00 230KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.06775 | 35.7 | 101.2402 | 'BECKHAM CO 230.00 - WHEELER 6 230.00 230KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.06775 | 35.7 | 101.2402 | 'GRAPEVINE INTERCHANGE - WHEELER 6 230.00 230KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.07079 | 35.7 | 129.8846 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.07079 | 35.7 | 128.484 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.07127 | 35.7 | 120.6599 | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.09663 | 142.8 | 106.4424 | 'WEATHERFORD WIND FARM 34 KV 34.5/0.575KV TRANSFORMER CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.09663 | 142.8 | 105.9522 | 'WASHITA - WEATHERFORD WIND FARM 34 KV 34.5KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.09663 | 142.8 | 105.9522 | 'WEATHERFORD WIND FARM 138/34.5KV TRANSFORMER CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.09663 | 142.8 | 105.7551 | 'WEATHERFORD WIND FARM 34 KV 34.5/0.575KV TRANSFORMER CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.09663 | 142.8 | 105.2649 | 'WASHITA - WEATHERFORD WIND FARM 34 KV 34.5KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.09663 | 142.8 | 105.2649 | 'WEATHERFORD WIND FARM 138/34.5KV TRANSFORMER CKT 1' |
| G10_018 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.2523 | 168 | 102.5028 | 'G05-15T 345.00 - OKLAUNION 345KV CKT 1' |

| SOURCE | GROUP DISPATCH | SEASON | SINK | ELEMENT | DIRECTION | TDF | RATING | LOADING | CONTNAME |
|---------|-------------------|--------|-----------|---|-----------|---------|--------|----------|---|
| G10_018 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.25244 | 168 | 100.3481 | 'G05-15T 345.00 - TUCO INTERCHANGE 345KV CKT 1' |
| G10_018 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.25387 | 144.7 | 101.0375 | 'BASE CASE' |
| G10_018 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.25406 | 168 | 112.6188 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_018 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.25438 | 168 | 107.3792 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_018 | 1 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.2548 | 169.1 | 101.1231 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_018 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.33475 | 168 | 112.8369 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_018 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.33475 | 168 | 111.6464 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'ERICK - SWEETWATER 138KV CKT 1' | FROM->TO | 0.99605 | 129.7 | 126.4019 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'DURHAM - SWEETWATER 138KV CKT 1' | TO->FROM | 0.99605 | 129.9 | 115.8147 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'BRANTLEY - DURHAM 138KV CKT 1' | TO->FROM | 0.99605 | 130 | 114.4179 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'ERICK - SWEETWATER 138KV CKT 1' | FROM->TO | 0.99605 | 129.7 | 142.9461 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'DURHAM - SWEETWATER 138KV CKT 1' | TO->FROM | 0.99605 | 129.9 | 132.3334 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_018 | 7 | 10G | FOOTPRINT | 'BRANTLEY - DURHAM 138KV CKT 1' | TO->FROM | 0.99605 | 130 | 130.9239 | 'ELK CITY - FALCON ROAD 138KV CKT 1' |
| G10_019 | 2 | 10G | FOOTPRINT | 'DEAF SMITH COUNTY INTERCHANGE - G06-39T 230.00 230KV CKT 1' | TO->FROM | 0.02334 | 351 | 102.2185 | 'TOLK STATION EAST 230/24.0KV TRANSFORMER CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'NORGE ROAD - SOUTHWESTERN STATION 138KV CKT 1' | TO->FROM | 0.0346 | 142.4 | 101.6534 | 'SOUTHWESTERN STATION - VERDEN 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'NORGE ROAD - SOUTHWESTERN STATION 138KV CKT 1' | TO->FROM | 0.0346 | 142.4 | 100.5298 | 'NORTH 29TH CHICKASHA - VERDEN 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'NORGE ROAD - SOUTHWESTERN STATION 138KV CKT 1' | TO->FROM | 0.0346 | 142.4 | 100.491 | 'SOUTHWESTERN STATION - VERDEN 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.03636 | 52.7 | 176.6465 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.03636 | 52.7 | 168.1076 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - FOSS TAP 69KV CKT 1' | FROM->TO | 0.03636 | 71.8 | 130.2127 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - THOMAS TAP 69KV CKT 1' | FROM->TO | 0.03636 | 54.8 | 137.3954 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'THOMAS TAP - WEATHERFORD 69KV CKT 1' | FROM->TO | 0.03636 | 52.8 | 136.7286 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - FOSS TAP 69KV CKT 1' | FROM->TO | 0.03636 | 71.8 | 123.9453 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - THOMAS TAP 69KV CKT 1' | FROM->TO | 0.03636 | 54.8 | 129.1838 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'THOMAS TAP - WEATHERFORD 69KV CKT 1' | FROM->TO | 0.03636 | 52.8 | 128.2059 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION (CLINTJCT) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.03636 | 91.9 | 101.7331 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION (CLINTJCT) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.03636 | 91.9 | 101.8419 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.03636 | 52.7 | 170.9501 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.03636 | 52.7 | 162.4112 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - FOSS TAP 69KV CKT 1' | FROM->TO | 0.03636 | 71.8 | 128.0316 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - THOMAS TAP 69KV CKT 1' | FROM->TO | 0.03636 | 54.8 | 131.9174 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'THOMAS TAP - WEATHERFORD 69KV CKT 1' | FROM->TO | 0.03636 | 52.8 | 131.043 | 'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - FOSS TAP 69KV CKT 1' | FROM->TO | 0.03636 | 71.8 | 119.7642 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - THOMAS TAP 69KV CKT 1' | FROM->TO | 0.03636 | 54.8 | 123.7057 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'THOMAS TAP - WEATHERFORD 69KV CKT 1' | FROM->TO | 0.03636 | 52.8 | 122.5203 | 'WEATHERFORD SOUTHEAST - WEATHERFORD TAP 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.03778 | 52.7 | 111.4992 | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.03778 | 52.7 | 101.8218 | 'CLINTON NATURAL GAS TAP - WEATHERFORD WIND FARM 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON CITY - FOSS TAP 69KV CKT 1' | TO->FROM | 0.03778 | 52.7 | 104.6766 | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'SUNSHINE CANYON - TUTTLE 138KV CKT 1' | TO->FROM | 0.04673 | 140 | 112.1659 | 'CIMARRON - G07-43T 345.00 345KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'SUNSHINE CANYON - TUTTLE 138KV CKT 1' | TO->FROM | 0.04673 | 140 | 111.5214 | 'CIMARRON - G07-43T 345.00 345KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'SUNSHINE CANYON - TUTTLE 138KV CKT 1' | TO->FROM | 0.05062 | 140 | 102.1408 | 'ANADARK7 345.00 (ANDRK345) 345/138/13.8KV TRANSFORMER CKT 2' |
| G10_019 | 7 | 10G | FOOTPRINT | 'SUNSHINE CANYON - TUTTLE 138KV CKT 1' | TO->FROM | 0.05062 | 140 | 101.023 | 'ANADARK7 345.00 (ANDRK345) 345/138/13.8KV TRANSFORMER CKT 2' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.07817 | 142.8 | 106.4424 | 'WEATHERFORD WIND FARM 34 KV 34.5/0.575KV TRANSFORMER CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.07817 | 142.8 | 105.9522 | 'WASHITA - WEATHERFORD WIND FARM 34 KV 34.5KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.07817 | 142.8 | 105.9522 | 'WEATHERFORD WIND FARM 138/34.5KV TRANSFORMER CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.07817 | 142.8 | 101.8488 | 'WEATHERFORD WIND FARM 34 KV 34.5/0.575KV TRANSFORMER CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.07817 | 142.8 | 101.3586 | 'WASHITA - WEATHERFORD WIND FARM 34 KV 34.5KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CLINTON JUNCTION - CLINTON NATURAL GAS TAP 138KV CKT 1' | FROM->TO | 0.07817 | 142.8 | 101.3586 | 'WEATHERFORD WIND FARM 138/34.5KV TRANSFORMER CKT 1' |
| G10_019 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.18664 | 168 | 102.5028 | 'G05-15T 345.00 - OKLAUNION 345KV CKT 1' |
| G10_019 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.18678 | 168 | 100.3481 | 'G05-15T 345.00 - TUCO INTERCHANGE 345KV CKT 1' |
| G10_019 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.18857 | 168 | 112.6188 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_019 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.18889 | 168 | 107.3792 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_019 | 1 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.1893 | 169.1 | 101.1231 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_019 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.18933 | 144.7 | 101.0375 | 'BASE CASE' |
| G10_019 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.24018 | 168 | 112.8369 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_019 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.24018 | 168 | 111.6464 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 134.2935 | 'G09-60 34.500 34.5/0.69KV TRANSFORMER CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 134.2935 | 'G09-60 69.000 - GOTEBO 69KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 134.2935 | 'G09-60 69.000 69/34.5KV TRANSFORMER CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 132.3011 | 'G09-60 34.500 34.5/0.69KV TRANSFORMER CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 132.3011 | 'G09-60 69.000 - GOTEBO 69KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34146 | 35.7 | 132.3011 | 'G09-60 69.000 69/34.5KV TRANSFORMER CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34473 | 35.7 | 116.2356 | 'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.34473 | 35.7 | 112.9579 | 'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35465 | 35.7 | 129.8846 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35465 | 35.7 | 128.484 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35465 | 35.7 | 122.2459 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35465 | 35.7 | 120.8454 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.3554 | 35.7 | 139.9092 | 'SPP-SWPS-03b' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.3554 | 35.7 | 134.9602 | 'SPP-SWPS-03b' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35554 | 35.7 | 138.802 | 'BECKHAM CO 230.00 - WHEELER 6 230.00 230KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35554 | 35.7 | 138.802 | 'GRAPEVINE INTERCHANGE - WHEELER 6 230.00 230KV CKT 1' |

| SOURCE | GROUP DISPATCH | SEASON | SINK | ELEMENT | DIRECTION | TDF | RATING | LOADING | CONTNAME |
|---------|-------------------|--------|-----------|---|-----------|---------|--------|----------|---|
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35554 | 35.7 | 133.8602 | 'BECKHAM CO 230.00 - WHEELER 6 230.00 230KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.35554 | 35.7 | 133.8602 | 'GRAPEVINE INTERCHANGE - WHEELER 6 230.00 230KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 0.3575 | 35.7 | 120.6599 | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' |
| G10_019 | 7 | 10G | FOOTPRINT | 'CARTER JCT - LAKE CREEK 69KV CKT 1' | FROM->TO | 1 | 35.7 | 144.5378 | 'CARTER JCT - DILL JCT 69KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.02026 | 271.3 | 104.4367 | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.02168 | 271.3 | 104.5365 | 'IODINE - WWRDEHV4 138.00 138KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.02168 | 271.3 | 103.2464 | 'DEWEY - IODINE 138KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.0292 | 271.3 | 105.1701 | 'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.0292 | 271.3 | 105.1701 | 'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02925 | 144.7 | 101.0375 | 'BASE CASE' |
| G10_020 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.02935 | 271.3 | 131.7122 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.03018 | 276.1 | 125.5152 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.03027 | 271.3 | 122.4831 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_020 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.03104 | 278.2 | 117.4537 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.0311 | 276.1 | 116.4465 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_020 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.03188 | 280 | 111.7238 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_020 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.03196 | 278.2 | 108.4831 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_020 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.0328 | 280 | 102.7751 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03339 | 168 | 112.6188 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03371 | 168 | 107.3792 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_020 | 1 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03413 | 169.1 | 101.1231 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_020 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.03426 | 351.7 | 124.916 | 'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03556 | 168 | 112.8369 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03556 | 168 | 111.6464 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_020 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.03576 | 351.7 | 113.3677 | 'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.04335 | 168 | 102.5028 | 'G05-15T 345.00 - OKLAUNION 345KV CKT 1' |
| G10_020 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.04349 | 168 | 100.3481 | 'G05-15T 345.00 - TUCO INTERCHANGE 345KV CKT 1' |
| G10_020 | 6 | 10G | FOOTPRINT | 'PLANT X STATION 230/115KV TRANSFORMER CKT 1' | FROM->TO | 0.06846 | 236.9 | 110.7933 | 'LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1' |
| G10_020 | 6 | 10G | FOOTPRINT | 'PLANT X STATION 230/115KV TRANSFORMER CKT 1' | FROM->TO | 0.06846 | 236.9 | 110.7933 | 'LAMB COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 1' |
| G10_020 | 6 | 10G | FOOTPRINT | 'PLANT X STATION 230/115KV TRANSFORMER CKT 1' | FROM->TO | 0.08708 | 236.9 | 104.5342 | 'DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1' |
| G10_020 | 6 | 10G | FOOTPRINT | 'PLANT X STATION 230/115KV TRANSFORMER CKT 1' | FROM->TO | 0.09145 | 236.9 | 111.1984 | 'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1' |
| G10_020 | 6 | 10G | FOOTPRINT | 'SOUTH PLAINS REC-YUMA - WOLFFORTH INTERCHANGE 115KV CKT 1' | TO->FROM | 0.1008 | 159.8 | 106.5807 | 'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.02024 | 271.3 | 104.4367 | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.02165 | 271.3 | 104.5365 | 'IODINE - WWRDEHV4 138.00 138KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.02165 | 271.3 | 103.2464 | 'DEWEY - IODINE 138KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.02886 | 144.7 | 101.0375 | 'BASE CASE' |
| G10_021 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.02902 | 271.3 | 105.1701 | 'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.02902 | 271.3 | 105.1701 | 'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.02928 | 271.3 | 131.7122 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.03011 | 276.1 | 125.5152 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.03019 | 271.3 | 122.4831 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_021 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.03097 | 278.2 | 117.4537 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.03102 | 276.1 | 116.4465 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_021 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.0318 | 280 | 111.7238 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_021 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.03188 | 278.2 | 108.4831 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_021 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.03272 | 280 | 102.7751 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03297 | 168 | 112.6188 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03329 | 168 | 107.3792 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_021 | 1 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03371 | 169.1 | 101.1231 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_021 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.03411 | 351.7 | 124.916 | 'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03504 | 168 | 112.8369 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03504 | 168 | 111.6464 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_021 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.03562 | 351.7 | 113.3677 | 'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.04314 | 168 | 102.5028 | 'G05-15T 345.00 - OKLAUNION 345KV CKT 1' |
| G10_021 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.04328 | 168 | 100.3481 | 'G05-15T 345.00 - TUCO INTERCHANGE 345KV CKT 1' |
| G10_021 | 6 | 10G | FOOTPRINT | 'PLANT X STATION 230/115KV TRANSFORMER CKT 1' | FROM->TO | 0.06053 | 236.9 | 110.7263 | 'LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1' |
| G10_021 | 6 | 10G | FOOTPRINT | 'PLANT X STATION 230/115KV TRANSFORMER CKT 1' | FROM->TO | 0.06053 | 236.9 | 110.7263 | 'LAMB COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 1' |
| G10_021 | 6 | 10G | FOOTPRINT | 'PLANT X STATION 230/115KV TRANSFORMER CKT 1' | FROM->TO | 0.08236 | 236.9 | 104.4944 | 'DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1' |
| G10_021 | 6 | 10G | FOOTPRINT | 'PLANT X STATION 230/115KV TRANSFORMER CKT 1' | FROM->TO | 0.0842 | 236.9 | 111.1372 | 'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1' |
| G10_021 | 6 | 10G | FOOTPRINT | 'SOUTH PLAINS REC-YUMA - WOLFFORTH INTERCHANGE 115KV CKT 1' | TO->FROM | 0.10071 | 159.8 | 106.6797 | 'TOLK STATION EAST - TUCO INTERCHANGE 230KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CANTON - TALOGA 69KV CKT 1' | TO->FROM | 0.02102 | 37.5 | 166.8511 | 'CEDARDALE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CANTON - TALOGA 69KV CKT 1' | TO->FROM | 0.02102 | 37.5 | 162.3178 | 'CEDARDALE - OKEENE 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CANTON - OKEENE 69KV CKT 1' | FROM->TO | 0.02102 | 45.3 | 127.0842 | 'CEDARDALE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CANTON - OKEENE 69KV CKT 1' | FROM->TO | 0.02102 | 45.3 | 123.3315 | 'CEDARDALE - OKEENE 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CANTON - TALOGA 69KV CKT 1' | TO->FROM | 0.02102 | 37.5 | 164.4826 | 'CEDARDALE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CANTON - TALOGA 69KV CKT 1' | TO->FROM | 0.02102 | 37.5 | 159.9493 | 'CEDARDALE - OKEENE 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CANTON - OKEENE 69KV CKT 1' | FROM->TO | 0.02102 | 45.3 | 125.1236 | 'CEDARDALE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CANTON - OKEENE 69KV CKT 1' | FROM->TO | 0.02102 | 45.3 | 121.3708 | 'CEDARDALE - OKEENE 138KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'CANTON - TALOGA 69KV CKT 1' | TO->FROM | 0.02143 | 38.5 | 129.2149 | 'CEDARDALE - MOORELAND 138KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'CANTON - TALOGA 69KV CKT 1' | TO->FROM | 0.02143 | 38.5 | 126.098 | 'CEDARDALE - OKEENE 138KV CKT 1' |
| G10_023 | 7 | 10G | FOOTPRINT | 'CANTON - TALOGA 69KV CKT 1' | TO->FROM | 0.02184 | 38.6 | 100.1459 | 'CEDARDALE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.02305 | 120.2 | 164.3548 | 'DEWEY - TALOGA 138KV CKT 1' |

| SOURCE | GROUP DISPATCH | SEASON | SINK | ELEMENT | DIRECTION | TDF | RATING | LOADING | CONTNAME |
|---------|-------------------|--------|-----------|--|-----------|---------|--------|----------|--|
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.02305 | 120.2 | 162.9634 | 'DEWEY - TALOGA 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'OKEENE - WATONGA SW 69KV CKT 1' | FROM->TO | 0.02358 | 46.5 | 103.9277 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'OKEENE - WATONGA SW 69KV CKT 1' | FROM->TO | 0.02358 | 46.5 | 102.0095 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'OKEENE - WATONGA SW 69KV CKT 1' | FROM->TO | 0.0249 | 46.5 | 100.6257 | 'DOVER SW (DOVER) 138/69/13.8KV TRANSFORMER CKT 1' |
| G10_023 | 3 | 10G | FOOTPRINT | 'MULLERGREY - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.02826 | 351.7 | 124.916 | 'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1' |
| G10_023 | 3 | 10G | FOOTPRINT | 'MULLERGREY - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.02977 | 351.7 | 113.3677 | 'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'BUFBEAR2 69.000 - BUFFALO 69KV CKT 1' | FROM->TO | 0.0303 | 34.2 | 105.9474 | 'KNOBHILL - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'BUFBEAR2 69.000 - BUFFALO 69KV CKT 1' | FROM->TO | 0.0303 | 34.2 | 105.9474 | 'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'BUFBEAR2 69.000 - BUFFALO 69KV CKT 1' | FROM->TO | 0.0303 | 34.2 | 106.4319 | 'KNOBHILL - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'BUFBEAR2 69.000 - BUFFALO 69KV CKT 1' | FROM->TO | 0.0303 | 34.2 | 106.4319 | 'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03064 | 168 | 102.5028 | 'G05-15T 345.00 - OKLAUNION 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.03076 | 120.2 | 153.7654 | 'MOORELAND - TALOGA 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.03076 | 120.2 | 152.4503 | 'MOORELAND - TALOGA 138KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03078 | 168 | 100.3481 | 'G05-15T 345.00 - TUCO INTERCHANGE 345KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03103 | 144.7 | 101.0375 | 'BASE CASE' |
| G10_023 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03569 | 168 | 112.6188 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'OKEENE - WATONGA SW 69KV CKT 1' | FROM->TO | 0.03594 | 46.5 | 132.0033 | 'OGE3TERMS' |
| G10_023 | 1 | 10G | FOOTPRINT | 'OKEENE - WATONGA SW 69KV CKT 1' | FROM->TO | 0.03594 | 46.5 | 130.4474 | 'OGE3TERMS' |
| G10_023 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03601 | 168 | 107.3792 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'OKEENE - WATONGA SW 69KV CKT 1' | FROM->TO | 0.03636 | 46.5 | 104.0793 | 'OGE3TERMS' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.03642 | 169.1 | 101.1231 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'OKEENE - WATONGA SW 69KV CKT 1' | FROM->TO | 0.03904 | 46.5 | 126.9563 | 'DOVER SW - OKEENE 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'OKEENE - WATONGA SW 69KV CKT 1' | FROM->TO | 0.03904 | 46.5 | 125.301 | 'DOVER SW - OKEENE 138KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.04215 | 168 | 112.8369 | 'CLINTON AIR FORCE BASE TAP - ELK CITY 138KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'CLINTON JUNCTION - ELK CITY 138KV CKT 1' | TO->FROM | 0.04215 | 168 | 111.6464 | 'CLINTON AIR FORCE BASE TAP - HOBART JUNCTION 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05554 | 120.2 | 160.8096 | 'CIMARRON (CIMARON1) 345/138/13.8KV TRANSFORMER CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05583 | 120.2 | 165.2013 | 'G05-15T 345.00 - OKLAUNION 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05583 | 120.2 | 163.9161 | 'G05-15T 345.00 - OKLAUNION 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05584 | 93.4 | 203.3304 | 'BASE CASE' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05584 | 93.4 | 201.8503 | 'BASE CASE' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05591 | 120.2 | 163.3964 | 'G05-15T 345.00 - TUCO INTERCHANGE 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05591 | 120.2 | 162.0924 | 'G05-15T 345.00 - TUCO INTERCHANGE 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05669 | 120.2 | 161.5743 | 'MED-LDG5 345.00 - WICHITA 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05669 | 120.2 | 161.5743 | 'MED-LDG5 345.00 - WICHITA 345KV CKT 2' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05676 | 120.2 | 164.8177 | 'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05676 | 120.2 | 163.6599 | 'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05678 | 120.2 | 161.1658 | 'CANTON - TALOGA 69KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05737 | 120.2 | 162.2527 | 'COMANCH5 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.05737 | 120.2 | 162.2527 | 'COMANCH5 345.00 - WWRDEHV7 345.00 345KV CKT 2' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.06171 | 120.2 | 207.0388 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.06171 | 120.2 | 204.4171 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.06502 | 143.1 | 116.2149 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.06544 | 143.1 | 108.2156 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_023 | 3 | 10G | FOOTPRINT | 'EL RENO - ROMAN NOSE 138KV CKT 1' | TO->FROM | 0.0659 | 145.3 | 103.8606 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'ROMAN NOSE - SOUTHDARD 138KV CKT 1' | TO->FROM | 0.06613 | 147.8 | 103.2356 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'ROMAN NOSE - SOUTHDARD 138KV CKT 1' | TO->FROM | 0.06616 | 149.5 | 101.4052 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'DOVER SW - OKEENE 138KV CKT 1' | TO->FROM | 0.07012 | 103 | 100.2966 | 'BASE CASE' |
| G10_023 | 1 | 10G | FOOTPRINT | 'DOVER SW - OKEENE 138KV CKT 1' | TO->FROM | 0.07386 | 127.6 | 110.4274 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'DOVER SW - OKEENE 138KV CKT 1' | TO->FROM | 0.07386 | 127.6 | 108.5518 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.07671 | 123.1 | 117.2106 | 'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.07671 | 123.1 | 115.9986 | 'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.08611 | 123.1 | 112.7093 | 'BASE CASE' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.08611 | 123.1 | 111.5555 | 'BASE CASE' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09006 | 123.1 | 123.6665 | 'EL RENO - ROMAN NOSE 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09006 | 123.1 | 122.4337 | 'EL RENO - ROMAN NOSE 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09043 | 123.1 | 148.0716 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1' | TO->FROM | 0.09043 | 145.7 | 112.4064 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09043 | 123.1 | 145.8591 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1' | TO->FROM | 0.09043 | 145.7 | 110.5371 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09149 | 122.2 | 122.4468 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.0918 | 122.2 | 115.5657 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_023 | 3 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09246 | 122.7 | 104.2226 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09249 | 123.1 | 126.4469 | 'KNOBHILL - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09249 | 123.1 | 126.4469 | 'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09249 | 123.1 | 125.1475 | 'KNOBHILL - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09249 | 123.1 | 125.1475 | 'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09349 | 122.2 | 100.6801 | 'KNOBHILL - MOORELAND 138KV CKT 1' |
| G10_023 | 2 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09349 | 122.2 | 100.6801 | 'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09411 | 123.1 | 122.3254 | 'DOVER SW - OKEENE 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09411 | 123.1 | 121.0535 | 'DOVER SW - OKEENE 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09504 | 123.1 | 121.5168 | 'OGE3TERMS' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.09504 | 123.1 | 120.2347 | 'OGE3TERMS' |

| SOURCE | GROUP DISPATCH | SEASON | SINK | ELEMENT | DIRECTION | TDF | RATING | LOADING | CONTNAME |
|---------|-------------------|--------|-----------|--|-----------|---------|--------|----------|--|
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.097 | 123.1 | 126.9494 | 'CEDARDALE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.097 | 123.1 | 125.8121 | 'CEDARDALE - OKEENE 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.097 | 123.1 | 125.6726 | 'CEDARDALE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'GLASS MOUNTAIN - MOORELAND 138KV CKT 1' | TO->FROM | 0.097 | 123.1 | 124.5353 | 'CEDARDALE - OKEENE 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'BUFBEAR2 69.000 - BUFFALO 69KV CKT 1' | FROM->TO | 0.19237 | 34.2 | 139.0771 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'ALVA - FREEDOM 69KV CKT 1' | TO->FROM | 0.19237 | 33.4 | 102.5879 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'BUFBEAR2 69.000 - BUFFALO 69KV CKT 1' | FROM->TO | 0.19237 | 34.2 | 150.1305 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'ALVA - FREEDOM 69KV CKT 1' | TO->FROM | 0.19237 | 33.4 | 113.9061 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'BUFBEAR2 69.000 - FT SUPPLY 69KV CKT 1' | TO->FROM | 0.19293 | 33.4 | 108.9822 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FT SUPPLY (FTSUPPLY) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.49866 | 69.7 | 105.9073 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FT SUPPLY (FTSUPPLY2) 138/69/13.8KV TRANSFORMER CKT 2' | FROM->TO | 0.49866 | 69.7 | 105.9073 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FT SUPPLY (FTSUPPLY) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.49866 | 69.7 | 105.9073 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FT SUPPLY (FTSUPPLY2) 138/69/13.8KV TRANSFORMER CKT 2' | FROM->TO | 0.49866 | 69.7 | 105.9073 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FT SUPPLY (FTSUPPLY2) 138/69/13.8KV TRANSFORMER CKT 2' | FROM->TO | 0.49866 | 69.7 | 120.9001 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FT SUPPLY (FTSUPPLY) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.49866 | 69.7 | 120.9001 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FT SUPPLY (FTSUPPLY) 138/69/13.8KV TRANSFORMER CKT 1' | FROM->TO | 0.49866 | 69.7 | 120.9001 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FT SUPPLY (FTSUPPLY2) 138/69/13.8KV TRANSFORMER CKT 2' | FROM->TO | 0.49866 | 69.7 | 120.9001 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'WOODWARD - WOODWARD 69KV CKT 1' | TO->FROM | 0.50303 | 63.8 | 110.6229 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'WOODWARD - WOODWARD 69KV CKT 1' | TO->FROM | 0.50303 | 63.8 | 130.5642 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FARGOJCT2 69.000 - WOODWARD 69KV CKT 2' | FROM->TO | 0.80258 | 113.9 | 134.6204 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FARGOJCT2 69.000 - WOODWARD 69KV CKT 2' | FROM->TO | 0.80258 | 113.9 | 150.3559 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FARGOJCT2 69.000 - FT SUPPLY 69KV CKT 1' | TO->FROM | 0.80439 | 65 | 164.8028 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'FARGOJCT2 69.000 - FT SUPPLY 69KV CKT 1' | TO->FROM | 0.80439 | 65 | 191.4379 | 'IODINE - MOORELAND 138KV CKT 1' |
| G10_023 | 1 | 10G | FOOTPRINT | 'IODINE - MOORELAND 138KV CKT 1' | FROM->TO | 0.95765 | 178.4 | 108.1319 | 'FARGOJCT2 69.000 - WOODWARD 69KV CKT 2' |
| G10_024 | 10 | 10G | FOOTPRINT | 'CANADAY4 230.00 230/115KV TRANSFORMER CKT 1' | FROM->TO | 0.02256 | 99.3 | 110.8318 | 'C.CREEK4 230.00 - RIVERDL4 230.00 230KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.5268 | 79.7 | 102.1079 | 'CHADRON7 115.00 - RUSHVIL7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.54047 | 79.7 | 113.3589 | 'NEB01WapaB3' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.6229 | 79.7 | 102.1205 | 'AINSWND7 115.00 - CALAMS 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 120.6957 | 'AINSWRT7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 117.8099 | 'ATKINSN7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 116.1788 | 'ATKINSN7 115.00 - EMMET 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 115.175 | 'EMMET 7 115.00 - ONEILL 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 137.6675 | 'AINSWRT7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 134.7817 | 'ATKINSN7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 133.1506 | 'ATKINSN7 115.00 - EMMET 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.66421 | 79.7 | 132.1468 | 'EMMET 7 115.00 - ONEILL 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 0.66505 | 80 | 114.2563 | 'AINSWRT7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 0.66505 | 80 | 111.5062 | 'ATKINSN7 115.00 - STUART 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 0.66505 | 80 | 109.8813 | 'ATKINSN7 115.00 - EMMET 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 0.66505 | 80 | 108.7563 | 'EMMET 7 115.00 - ONEILL 7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 122.8735 | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' | FROM->TO | 0.99916 | 80 | 122.4127 | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 120.364 | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' | FROM->TO | 0.99916 | 80 | 119.9127 | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 111.5811 | 'AINSWRT7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 148.3262 | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' | FROM->TO | 0.99916 | 80 | 147.77 | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 145.8168 | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' | FROM->TO | 0.99916 | 80 | 145.27 | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'MISSION7 115.00 - ST.FRANC 115.00 115KV CKT 1' | TO->FROM | 0.99916 | 79.7 | 137.0339 | 'AINSWRT7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 1 | 80 | 125 | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - HARMONY7 115.00 115KV CKT 1' | FROM->TO | 1 | 80 | 125 | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' | FROM->TO | 1 | 80 | 122.5 | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 1 | 80 | 122.5 | 'HARMONY7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_024 | 10 | 10G | FOOTPRINT | 'G10-24 115.00 - ST.FRANC 115.00 115KV CKT 1' | FROM->TO | 1 | 80 | 113.625 | 'AINSWRT7 115.00 - VALENTN7 115.00 115KV CKT 1' |
| G10_027 | 2 | 10G | FOOTPRINT | 'DEAF SMITH COUNTY INTERCHANGE - G06-39T 230.00 230KV CKT 1' | TO->FROM | 0.02395 | 351 | 102.2185 | 'TOLK STATION EAST 230/24.0KV TRANSFORMER CKT 1' |
| G10_027 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.03211 | 271.3 | 105.1701 | 'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1' |
| G10_027 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.03211 | 271.3 | 105.1701 | 'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1' |
| G10_027 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.03646 | 271.3 | 104.4367 | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.03761 | 278.2 | 100.413 | 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1' |
| G10_027 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.038 | 271.3 | 104.5365 | 'IODINE - WWRDEHV4 138.00 138KV CKT 1' |
| G10_027 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.038 | 271.3 | 103.2464 | 'DEWEY - IODINE 138KV CKT 1' |
| G10_027 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.04568 | 271.3 | 131.7122 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_027 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.04651 | 276.1 | 125.5152 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_027 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.04659 | 271.3 | 122.4831 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.04737 | 278.2 | 117.4537 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.04737 | 278.2 | 122.4777 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_027 | 2 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.04742 | 276.1 | 116.4465 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.0482 | 280 | 111.7238 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.0482 | 280 | 116.7071 | 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.04828 | 278.2 | 108.4831 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - MOORELAND 138KV CKT 1' | FROM->TO | 0.04828 | 278.2 | 113.4982 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |

| SOURCE | GROUP | | SINK | ELEMENT | DIRECTION | TDF | RATING | LOADING | CONTNAME |
|---------|----------|--------|-----------|---------------------------------------|-----------|---------|--------|----------|--|
| | DISPATCH | SEASON | | | | | | | |
| G10_027 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.04912 | 280 | 102.7751 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'FPL SWITCH - WOODWARD 138KV CKT 1' | TO->FROM | 0.04912 | 280 | 107.7529 | 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'CIRCLE - MULLERGREN 230KV CKT 1' | TO->FROM | 0.06195 | 313.2 | 101.1031 | 'SMOKYHILLS6 230.00 - SUMMIT 230KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.11532 | 351.7 | 124.916 | 'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.11532 | 351.7 | 130.079 | 'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.11682 | 351.7 | 113.3677 | 'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1' |
| G10_027 | 3 | 10G | FOOTPRINT | 'MULLERGREN - SPEARVILLE 230KV CKT 1' | TO->FROM | 0.11682 | 351.7 | 118.5209 | 'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1' |