

Feasibility Cluster Study for Generation Interconnection Requests

Southwest Power Pool
Engineering Dept.
Tariff Studies – Generation Interconnection

(FCS-2010-003)
August 2010



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Executive Summary

Generation Interconnection customers have requested a Feasibility Study under the Generation Interconnection Procedures (GIP) in the Southwest Power Pool Open Access Transmission Tariff (OATT). The Interconnection Customers' requests have been clustered together for the following Feasibility Cluster Study. This Feasibility Cluster Study analyzes the interconnecting of multiple generation interconnection requests associated with new generation totaling approximately 1,867 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, 1,867 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 \$199,500,000. 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 I.

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. Certain interconnection requests have been studied for Network Resource (NR) Interconnection Service. Network constraints with those requests are listed in addition in Appendix H occur as a result when the generation is injected into the balancing authority of the interconnecting Transmission Owner. 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.

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.

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 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 Generation Interconnection Procedures (GIP) in the Southwest Power Pool Open Access Transmission Tariff (OATT). The Interconnection Customers' requests have been clustered together for the following Feasibility Cluster Study. This Feasibility Cluster Study analyzes the interconnecting of multiple generation interconnection requests associated with new generation totaling approximately 1,867 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 6/30/2010.

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 competition 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-2010-003 Customers have no potential cost for the below listed projects. However, the FCS-2010-003 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-2010-003 customers.

- Hitchland 345/230/115kV upgrades to be built by SPS for 2010/2011 in-service³.
 - 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 2010 in-service⁴.
- Rose Hill – Sooner 345kV to be built by WERE/OKGE for 2013 in-service.
- Knob Hill – Steele City 115kV to be built by NPPD/WERE for 2010 in-service.
- Balanced Portfolio Projects⁵:
 - Anadarko 345/138/13.2kV Autotransformer
 - Woodward– TUCO 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
- Priority Projects⁶:
 - Hitchland - Woodward double circuit 345kV
 - Woodward – Comanche double circuit 345kV
 - Spearville – Comanche double circuit 345kV
 - Comanche – Medicine Lodge double circuit 345kV
 - Medicine Lodge – Wichita double circuit 345kV
 - Medicine Lodge 345/138kV autotransformer

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-2010-003 study and are assumed to be in service. The FCS-2010-003 Customers at this time do not have responsibility for these facilities but may later be assigned the cost of these facilities if higher queued customers terminate their GIA or withdraw from the interconnection queue. The FCS-2010-

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 Notice to Construct (NTC) issued June, 2009

⁶ Notice to Construct (NTC) issued June, 2010. NTC for double circuit lines indicated that NTC may be revised at a later time to be built at a higher voltage.

003 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 suspension⁷.
- Central Plains – Setab 115kV transmission line assigned to GEN-2007-013 interconnection customer.
- Spearville 345/230kV autotransformer #2 assigned to 1st Cluster Interconnection Customers (100% to GEN-2006-006)
- Grassland 230/115kV autotransformer #2 assigned to 1st Cluster Interconnection Customers (100% to GEN-2008-016)
- Spearville 230/115kV autotransformer #2 assigned to DISIS-2009-001-1 Interconnection Customers (100% to GEN-2008-079)
- Petersburg – Madison 115kV assigned to DISIS-2009-001-1 Interconnection Customers
- Judson Large – North Judson Large – Spearville Ckt #2 assigned to DISIS-2009-001-1 Interconnection Customers (100% to GEN-2008-079)
- GEN-2008-038 Tap – Barnsdall 138kV assigned to DISIS-2009-001-1 Interconnection Customers (100% to GEN-2008-038)
- Belden – Bloomfield 115kV assigned to DISIS-2009-001-1 Interconnection Customers
- Wheeler – Anadarko 345kV Ckt #1 assigned to DISIS-2010-001 Interconnection Customers
- Hitchland – Wheeler double circuit 345kV assigned to DISIS-2010-001 Interconnection Customers
- Madison County 230/115kV autotransformer #1 assigned to DISIS-2010-001 Interconnection Customers
- Norfolk – Madison County Tap 115kV Ckt #1 assigned to DISIS-2010-001 Interconnection Customers
- Washita – Anadarko 138kV Ckt #2 assigned to DISIS-2010-001 Interconnection Customers
- Knoll 345/230kV autotransformer #2 assigned to DISIS-2010-001 Interconnection Customers
- Mullergren – Rice County 230kV Ckt #1 assigned to DISIS-2010-001 Interconnection Customers
- Rice County 230/115kV autotransformer #1 assigned to DISIS-2010-001 Interconnection Customers
- Washita – Weatherford 138kV Ckt #1 assigned to DISIS-2010-001 Interconnection Customers
- GEN-2008-079 Tap – Spearville 115kV Ckt #1 assigned to DISIS-2010-001 Interconnection Customers
- Spearville 345/230kV autotransformer #3 assigned to DISIS-2010-001 Interconnection Customers

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.

⁷ Based on Facility Study Posting November 2008

Regional Groupings – The interconnection requests listed in Appendix A were grouped together in four different regional groups based on geographical and electrical impacts. These groupings are shown in Appendix C.

To determine interconnection impacts, four 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 four 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. Certain projects that requested Network Resource Interconnection Service were dispatched in an additional analysis into the balancing authority of the interconnecting transmission owner. 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. Interconnection Requests that were being studied for Network Resource Interconnection Service were studied in the additional NRIS analysis to determine if any constraint had at least a 3% DF. If so, these constraints 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 1,867 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 with an approximate cost of \$199,500,000. 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 listed in Appendix I. 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.

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. Certain requests that requested Network Resource Interconnection Service (NRIS) had an additional analysis conducted for sinking the energy in the interconnecting Transmission Owner’s balancing authority.

This analysis was conducted assuming that previous queued requests in the immediate area of these interconnect requests were in-service. The analysis of 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 550 MW of interconnection requests in addition to 3,344 MW of prior queued interconnection requests. The addition of the Group 1 interconnection requests will overload the Tatonga – Northwest 345kV line. To mitigate this constraint, a new 345kV line from Tatonga to Woodring was identified. In addition, the GEN-2010-030 interconnection request will have a significant impact and overload the Mooreland-Glass Mountain – Cleo Corner 138kV line. To mitigate this constraint, the entire section from Mooreland-Glass Mountain – Cleo Corner must be rebuilt.

Spearville Area – This study area contained 450 MW of interconnection requests. To facilitate the NRIS portion of the interconnection request, the Spearville – Mullergren 230kV line must be either rebuilt or a second circuit must be built.

New Mexico/West Texas Area – This group had 707 MW of requested generation. FCITC did not indicate the addition of any new constraints. Voltage stability and dynamic stability analysis which will be performed for any impact study may reveal additional constraints.

Northwest Missouri– This group had 160 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 \$199,500,000 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 I 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	Service	Area	Requested Point of Interconnection	Proposed Point of Interconnection	Requested In-Service Date
GEN-2010-028	400	NR	OKGE	TAP NORTHWEST - TATONGA 345kV	TATONGA 345kV	12/31/2013
GEN-2010-029	450	NR	SUNC	SPEARVILLE 345kV	SPEARVILLE 345kV	12/31/2013
GEN-2010-030	150	ER	WFEC	TAP MOORELAND – GLASS MOUNTAIN 138kV	TAP MOORELAND – GLASS MOUNTAIN 138kV	03/01/2014
GEN-2010-032	216	ER	SPS	TUCO 345kV	TUCO 345kV	01/01/2014
GEN-2010-033	230	ER	SPS	TUCO 345kV	TUCO 345kV	01/01/2014
GEN-2010-034	261	ER	SPS	TUCO 345kV	TUCO 345kV	01/01/2014
GEN-2010-035	160	ER	OPPD	HUMBOLT 161kV	HUMBOLT 161kV	12/01/2014
TOTAL	1,867					

* Planned Facility

^ Proposed Facility

*** Electrically Remote Interconnection Requests

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	Caprock Tap 115kV	On-Line
GEN-2001-037	100	OKGE	Windfarm Switching 138kV	On-Line
GEN-2001-039A	105	WPEK	Tap Greensburg - Judson-Large 115kV	On Schedule for 2011
GEN-2001-039M	100	SUNC	Central Plains Tap 115kV	On-Line
GEN-2002-004	200	WERE	Latham 345kV	On-Line
GEN-2002-005	120	WFEC	Red Hills Tap 138kV	On-Line
GEN-2002-006	150	SPS	Texas County 115kV	IA Executed/On Schedule 12/31/2010
GEN-2002-008	240	SPS	*Hitchland 345kV	On-Line at 120MW
GEN-2002-009	80	SPS	Hansford County 115kV	On-Line
GEN-2002-022	240	SPS	Bushland 230kV	On-Line at 160MW
GEN-2002-025A	150	WPEK	Spearville 230kV	On-Line at 100MW
GEN-2003-005	100	WFEC	Tap Anadarko - Paradise 138kV	On Line
GEN-2003-006A-E	100	EMDE	Elm Creek 230kV	On-Line
GEN-2003-006A-W	100	WERE	Elm Creek 230kV	On-Line
GEN-2003-013**	198	SPS	Tap *Hitchland - Finney 345kV	On Schedule for 2012
GEN-2003-019	250	MIDW	Smoky Hills Tap 230kV	On-Line
GEN-2003-020	160	SPS	Martin 115kV	On-Line at 80MW
GEN-2003-021N	75	NPPD	Ainsworth Wind Tap 115kV	On-Line at 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-Line
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 - Tolk West 230kV (Single Ckt Tap)	On Suspension
GEN-2005-012	250	WPEK	Spearville 345kV	On Suspension
GEN-2005-013	201	WERE	Tap Latham - Neosho	On Schedule for 2012
GEN-2005-015	150	SPS	Tap Tuco - Oklaunion 345kV	On Suspension
GEN-2005-016	150	WERE	Tap Latham - Neosho	On Schedule for 2012
GEN-2005-017	340	SPS	Tap *Hitchland - Potter County 345kV	On Suspension
GEN-2005-021	86	SPS	Kirby 115kV	On Suspension
GEN-2006-002	150	AEPW	Tap 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 Midway (WFARMS) 161kV	On Suspension
GEN-2006-017	300	MIPU	Tap Maryville – Clarinda and tie Midway (WFARMS) 161kV	On Suspension
GEN-2006-018	170	SPS	Tuco 230kV	On Schedule for 2010
GEN-2006-020S	18.9	SPS	*DWS Frisco Tap	IA Executed/On Schedule 12/31/2010
GEN-2006-020N	42	NPPD	Bloomfield 115kV	1/1/2009
GEN-2006-021	101	WPEK	Flat Ridge Tap 138kV	On-Line (100MW)
GEN-2006-022	150	WPEK	Ninnescah Tap 115kV	On Suspension
GEN-2006-024S	20	WFEC	South Buffalo Tap 69kV	On-Line

Appendix B: Prior Queued Interconnection Requests



Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
GEN-2006-031	75	MIDW	Knoll 115kV	On-Line
GEN-2006-032	200	MIDW	South Hays 230kV	On Suspension
GEN-2006-034	81	SUNC	Tap Kanarado - Sharon Springs 115kV	On Suspension
GEN-2006-035	225	AEPW	Tap Grapevine - Elk City 230kV	On Schedule for 2010
GEN-2006-037N1	75	NPPD	Broken Bow 115kV	Under Study (DISIS-2009-001)
GEN-2006-038N005	80	NPPD	Broken Bow 115kV	IA Pending
GEN-2006-038N019	80	NPPD	Petersburg 115kV	5/1/2011
GEN-2006-038	750	WFEC	Hugo 345kV	On Suspension
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	On Schedule for 2010
GEN-2006-043	99	AEPW	Tap Grapevine - Elk City 230kV	On schedule for 2009
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 2010
GEN-2006-047	240	SPS	Tap and Tie both Potter County - Plant X 230kV and Bushland - Deaf Smith 230kV	On Schedule for 2013
GEN-2006-049	400	SPS	Tap *Hitchland - Finney 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	On Schedule for 2010
GEN-2007-011N06	75	NPPD	Tap Neligh - Petersburg 115kV	Under Study (DISIS-2009-001)
GEN-2007-011N08	81	NPPD	Bloomfield 115kV	On-Line
GEN-2007-011N09	75	NPPD	Bloomfield 115kV	Under Study (DISIS-2009-001)
GEN-2007-013	99	SUNC	Selkirk 115kV	On Schedule
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 Suspension
GEN-2007-021	201	OKGE	*Tatonga 345kV	Under Study (ICS-2008-001)
GEN-2007-025	300	WERE	Tap Woodring – Wichita 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 Eddy – Tolk 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	Tap Lawton Eastside – Cimarron 345kV	Under Study (ICS-2008-001)
GEN-2007-044	300	OKGE	*Tatonga 345kV	Under Study (ICS-2008-001)

Appendix B: Prior Queued Interconnection Requests



Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
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	Tap Amarillo South – Swisher 230kV	Under Study (ICS-2008-001)
GEN-2007-050	170	OKGE	*Woodward 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	Tap Maryville – Clarinda and tie to Midway (WFARMS)161kV	Under Study (ICS-2008-001)
GEN-2007-057	35	SPS	Moore County East 115kV	Under Study (ICS-2008-001)
GEN-2007-062**	765	OKGE	*Woodward 345kV	Under Study (ICS-2008-001)
GEN-2008-003	101	OKGE	*Woodward EHV 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 Tap 230kV	Under Study (ICS-2008-001)
GEN-2008-013	300	OKGE	Tap Woodring – Wichita 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 345kV	Under Study (ICS-2008-001)
GEN-2008-021	42	WERE	Wolf Creek 345kV	Under Study (DISIS-2009-001)
GEN-2008-022	300	SPS	Tap Eddy – GEN-2007-034 345kV	Under Study (DISIS-2010-001)
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	250.5	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	Hitchland 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	200	NPPD	Tap Ft. Randall – Columbus 230kV	Under Study (DISIS-2009-001)

Appendix B: Prior Queued Interconnection Requests



Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
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)
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	Fargo 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)

Appendix B: Prior Queued Interconnection Requests



Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
GEN-2010-015	200.1	SUNC	Spearville 345kV	Under Study (DISIS-2010-001)
GEN-2010-016	199.8	MIDW	Tap Spearville – Knoll 345kV	Under Study (DISIS-2010-001)
Broken Bow	8.3	NPPD	Genoa 115kV	On-Line
Ord	13.9	NPPD	Bloomfield 115kV	On-Line
Stuart	2.1	NPPD	Petersburg 115kV	On-Line
Genoa	4	NPPD	Genoa 115kV	On-Line
ASGI-2010-001	400	AECI	Tap Cooper – Fairport 345kV	AECI queue Affected Study
ASGI-2010-002	201	AECI	Lathrop 161kV	AECI queue Affected Study
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	Under Study (DISIS-2010-001)
ASGI-2010-011	48	SPS	Texas County 69kV	Under Study (DISIS-2010-001)
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
BLUCAN2	153	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
TOTAL	26,371.6			

** Interconnection on Caprock Electric tested for impacts on SPP

* Planned Facility

^ Proposed Facility

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	Tap Morewood - Elk City 138kV
	GEN-2005-005	18	OKGE	Windfarm Tap 138kV
	GEN-2005-008	120	OKGE	Woodward 138kV
	GEN-2006-024S	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 EHV 138kV
	GEN-2008-044	197.8	OKGE	Tatonga 345kV
GEN-2010-008	64.4	WFEC	Fargo 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-2010-028	400	OKGE	Tatonga 345kV
	GEN-2010-030	150	WFEC	Tap Mooreland – Glass Mountain 138kV
WOODWARD SUBTOTAL		550		
AREA SUBTOTAL		3,894.4		

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	*Tap Hitchland - Finney 345kV
	GEN-2003-020	160	SPS	Martin 115kV
	GEN-2005-017	340	SPS	*Tap Hitchland - Potter County 345kV
	GEN-2006-020	18.9	SPS	DWS Frisco Tap
	GEN-2006-044	370	SPS	*Hitchland 345kV
	GEN-2006-049	400	SPS	*Tap 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	Hitchland 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
ASGI-2010-011	48	SPS	Texas County 69kV	
PRIOR QUEUED SUBTOTAL		3,921.7		
HITCHLAND SUBTOTAL		3,921.7		

Cluster	Request	Amount	Area	Proposed Point of Interconnection
Prior Queued	Montezuma	110	MKEC	Haggard 115kV
	GEN-2001-039A	105	WPEK	Tap 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	MIDW	Tap Spearville – Knoll 345kV	
PRIOR QUEUED SUBTOTAL		3,113.6		
Cluster	Request	Amount	Area	Proposed Point of Interconnection
SPEARVILLE	GEN-2010-029	450	SUNC	Spearville 345kV
SPEARVILLE SUBTOTAL		450		
AREA SUBTOTAL		3,563.6		

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	Norton 115kV
	GEN-2005-010	160	SPS	Tap Roosevelt County - Tolk West 230kV (Single Ckt Tap)
	GEN-2005-015	150	SPS	Tap Tuco - Oklaunion 345kV
	GEN-2006-018	170	SPS	Tuco 230kV
	GEN-2007-034	150	SPS	Tap Eddy – Tolk 345kV
	GEN-2008-008	60	SPS	Graham 115kV
	GEN-2008-009	60	SPS	San Juan Mesa Tap 230kV
	GEN-2008-014	150	SPS	Tap 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	Tap Pembroke – 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
S Pandle	GEN-2010-032	216	SPS	Tuco 345kV
	GEN-2010-033	230	SPS	Tuco 345kV
	GEN-2010-034	261	SPS	Tuco 345kV
SOUTH PANHANDLE/NM SUBTOTAL		707		
AREA SUBTOTAL		2,742		

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	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	Grapevine - Elk City 230kV
	GEN-2006-035	225	AEPW	Grapevine - Elk City 230kV
	GEN-2006-043	99	AEPW	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		
SW OKLAHOMA SUBTOTAL		2,123.9		

Cluster	Request	Amount	Area	Proposed Point of Interconnection
Prior Queued	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 GEN-2008-086N02 – Columbus 230kV
PRIOR QUEUED SUBTOTAL		798.5		
NE NEBRASKA SUBTOTAL		798.5		

Cluster	Request	Amount	Area	Proposed Point of Interconnection
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		
NORTH NEBRASKA SUBTOTAL		284.3		

Cluster	Request	Amount	Area	Proposed Point of Interconnection
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
Prior Queued	ASGI-2010-001	400	AECI	Tap Cooper – Fairport 345kV
	ASGI-2010-002	201	AECI	Lathrop 161kV
	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	Tap Maryville – Clarinda 161kV & Tie to Midway 161kV
	GEN-2006-017	300	MIPU	Tap Maryville – Clarinda 161kV & Tie to Midway 161kV
	GEN-2007-015	135	WERE	Tap Humboldt – Kelly 161kV
	GEN-2007-017	101	MIPU	Tap Maryville – Clarinda 161kV & Tie to Midway 161kV
	GEN-2007-053	110	MIPU	Tap Maryville – Clarinda 161kV & Tie to Midway 161kV
	GEN-2008-1190	60	OPPD	Tap Humboldt – Kelly 161kV
	GEN-2008-129	80	MIPU	Pleasant Hill 161kV
PRIOR QUEUED SUBTOTAL		2,437		
Cluster	Request	Amount	Area	Proposed Point of Interconnection
NE NEBRASKA	GEN-2010-035	160	NPPD	Humbolt 161kV
	NE NEBRASKA SUBTOTAL		160	
AREA SUBTOTAL		2,757		

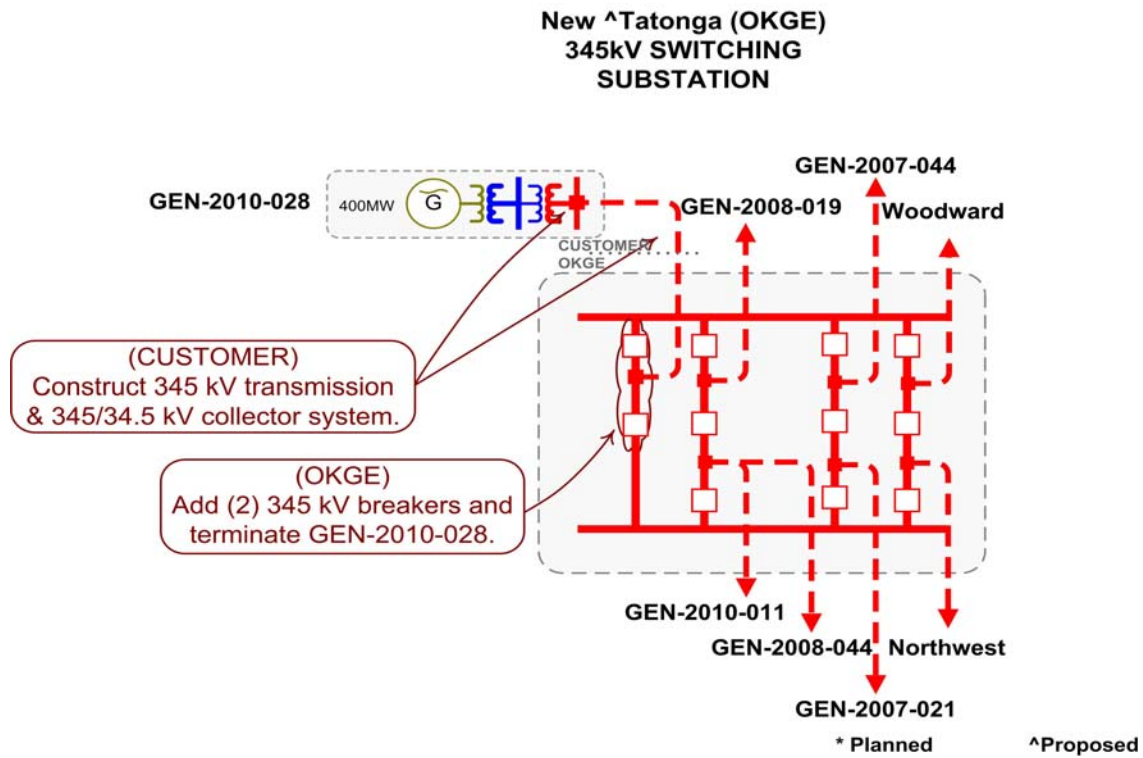
Cluster	Request	Amount	Area	Proposed Point of Interconnection
Prior Queued	GEN-2006-038	750	WFEC	Hugo 345kV
	GEN-2008-046	200	OKGE	Sunnyside 345kV
	GEN-2009-032S	6.4	OKGE	Foster 138kV
PRIOR QUEUED SUBTOTAL		956.4		
SOUTH CENTRAL OKLAHOMA SUBTOTAL		956.4		

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		
***CLUSTERED TOTAL (w/o PRIOR QUEUED)		1,867		
***CLUSTERED TOTAL (w/PRIOR QUEUED)		28,238.6		

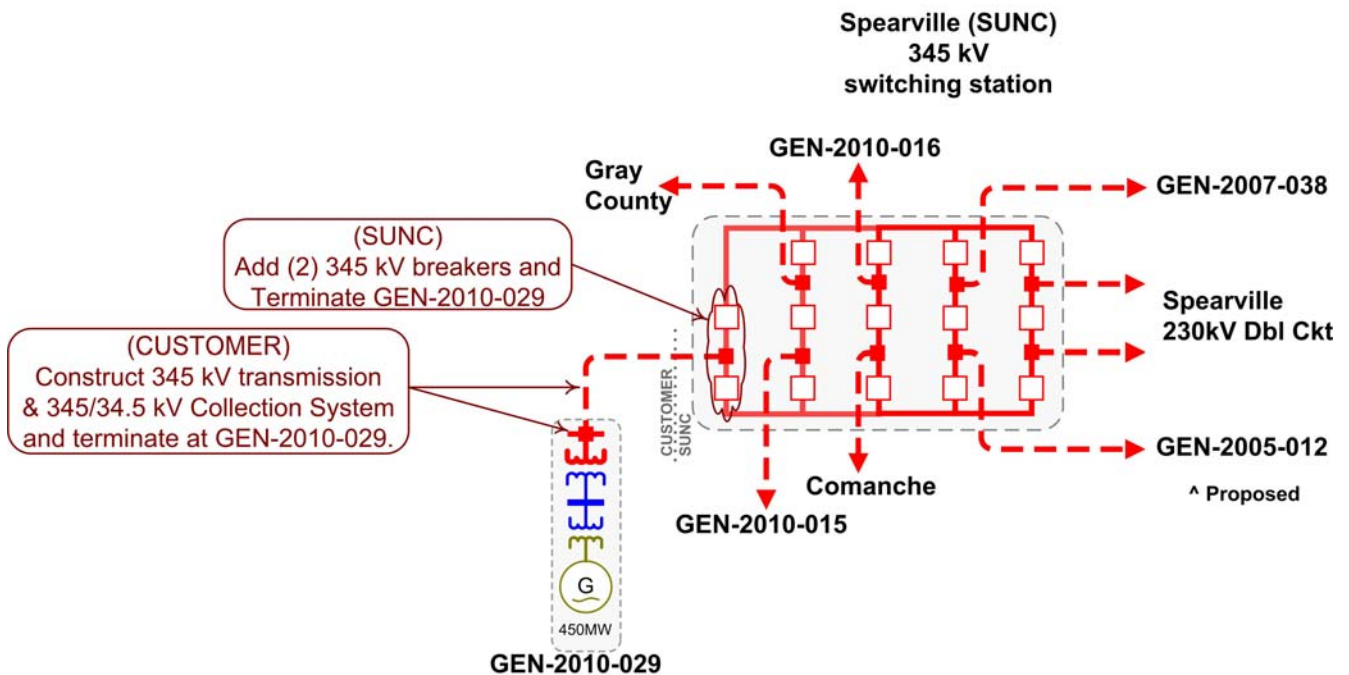
- * Planned Facility
- ^ Proposed Facility
- ** Alternate requests - counted as one request for study purpose
- *** Electrically Remote Interconnection Requests included in total

D: Proposed Point of Interconnection One line Diagrams

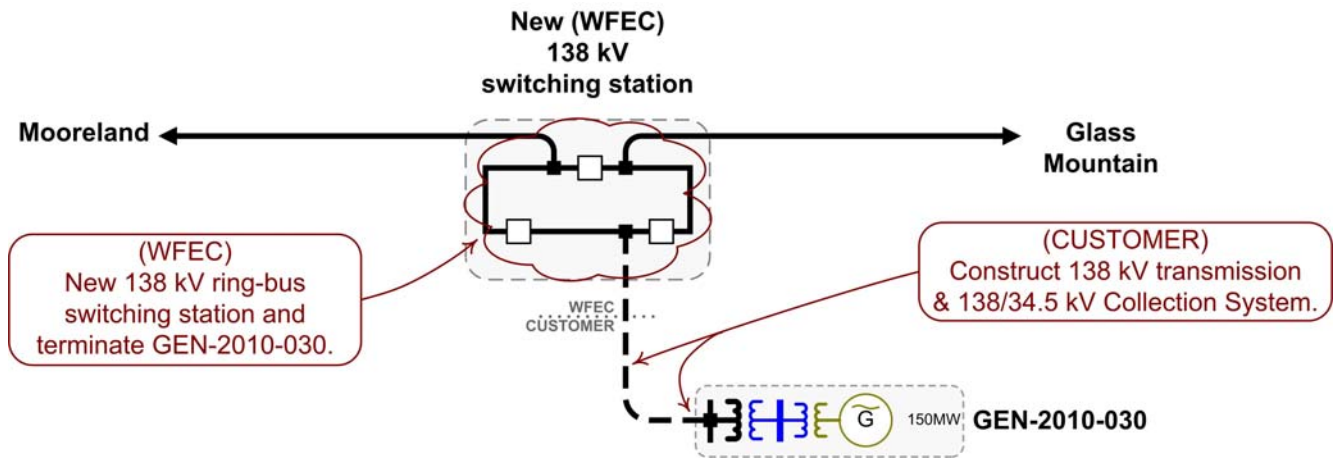
GEN-2010-028



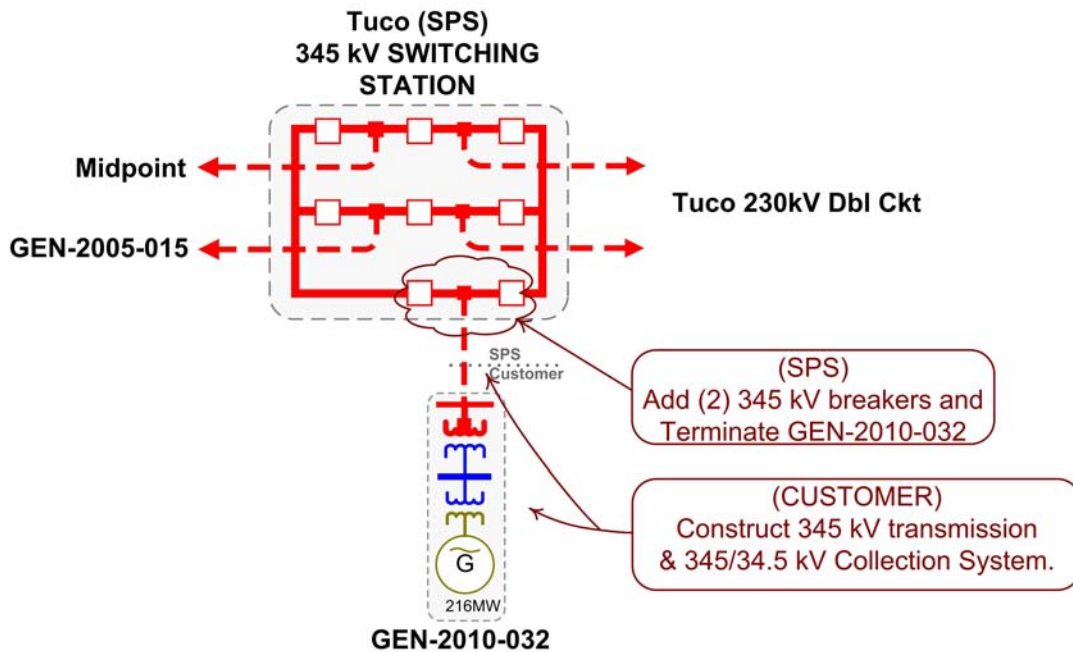
GEN-2010-029



GEN-2010-030

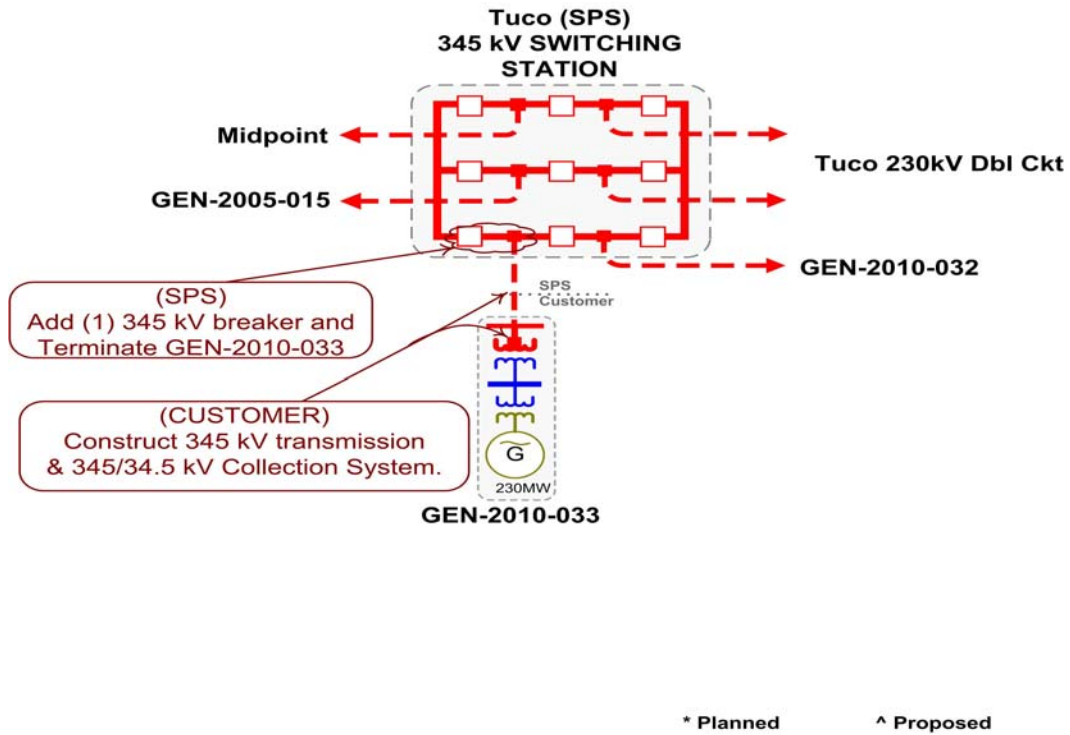


GEN-2010-032

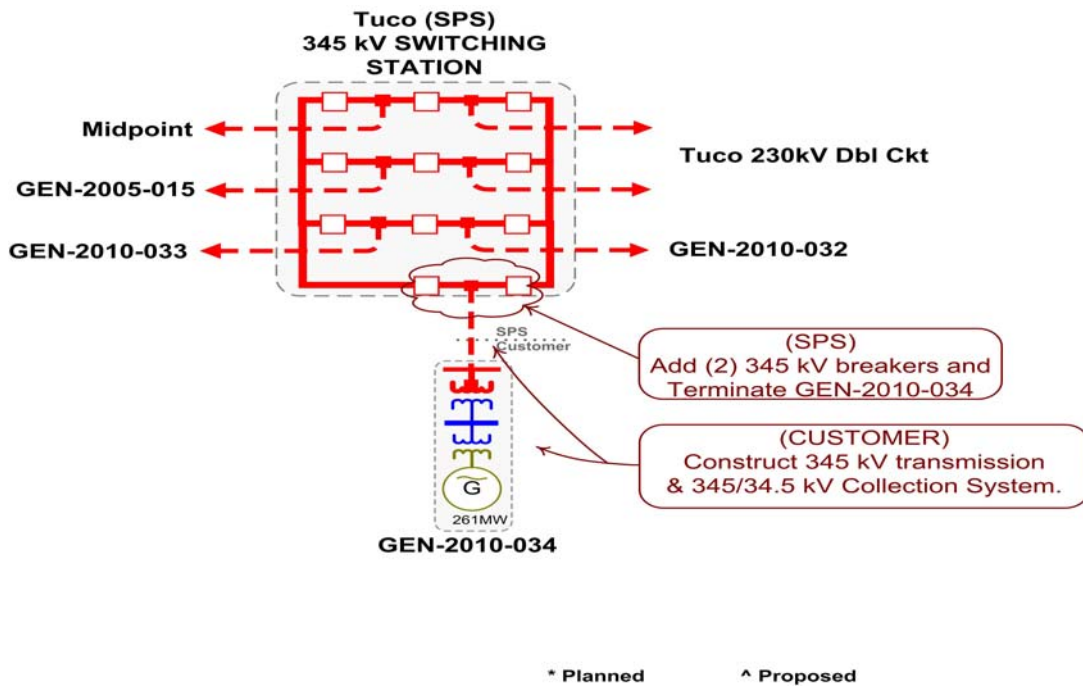


* Planned ^ Proposed

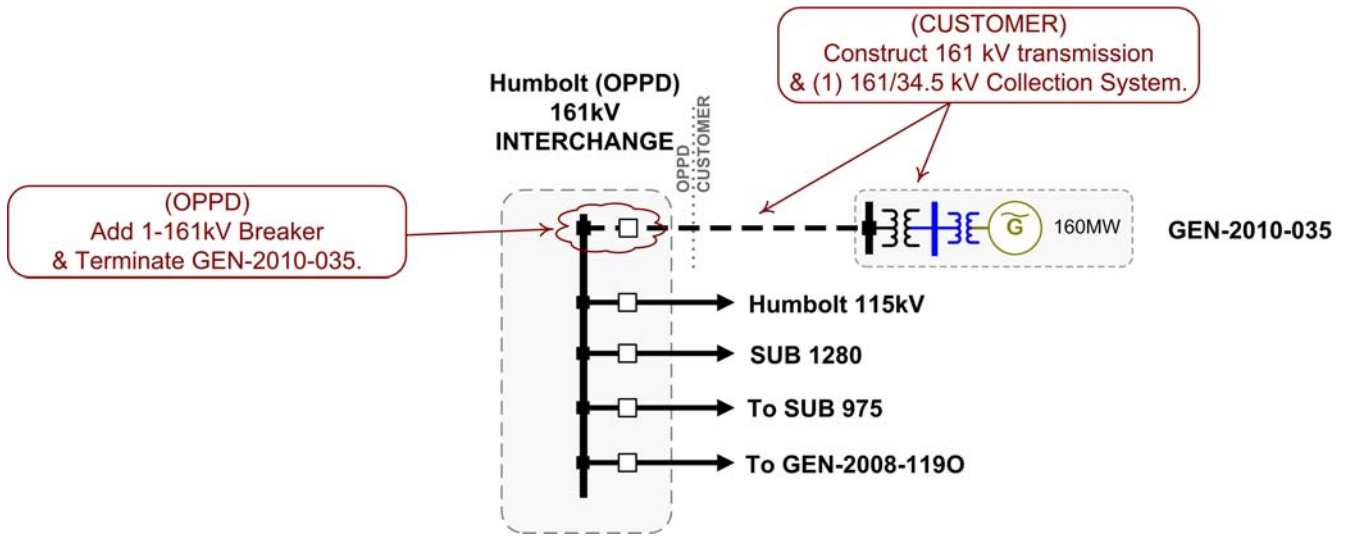
GEN-2010-033



GEN-2010-034



GEN-2010-035



E: Cost Allocation per Interconnection Request

Appendix E. - Cost Allocation Per Request - FCS-2010-003

(Including Previously Allocated Network Upgrades*)

Interconnection Request and Upgrades	Upgrade Type	Allocated Costs	E + C Costs
GEN-2010-028			
GEN-2010-028 Interconnection Costs See Online Diagram.	Current Study	\$5,000,000.00	\$5,000,000
FPL Switch - Woodward 138KV CKT 1 Rebuild approximately 12 miles of 138kV.	Current Study	\$4,500,000.00	\$4,500,000
Tatonga - Woodring 345KV CKT 1 Build approximately 43 miles of 345kV.	Current Study	\$63,932,027.08	\$64,500,000
Wheeler - Woodward 345KV CKT 1 Balanced Portfolio: TUCO - Woodward 345kV CKT (Total Project E&C Cost Shown).	Previously Allocated		\$148,727,500
Comanche - Woodward 345kV CKT 2 Priority Project: Comanche - Woodward Dbl 345kV CKT (Total Project E&C Cost Shown).	Previously Allocated		\$108,227,500
Comanche - Woodward 345kV CKT 1 Priority Project: Comanche - Woodward Dbl 345kV CKT (Total Project E&C Cost Shown).	Previously Allocated		\$108,227,500
Cleveland - Sooner 345kV CKT 1 Balanced Portfolio: Cleveland - Sooner 345kV CKT (Total Project E&C Cost Shown).	Previously Allocated		\$17,000,000
	Current Study Total	\$73,432,027.08	
GEN-2010-029			
Mullergren - Spearville 230KV CKT 2 Build approximately 62 miles of 230kV.	Current Study	\$62,000,000.00	\$62,000,000
GEN-2010-029 Interconnection Costs See Online Diagram.	Current Study	\$7,500,000.00	\$7,500,000
	Current Study Total	\$69,500,000.00	
GEN-2010-030			
Tatonga - Woodring 345KV CKT 1 Build approximately 43 miles of 345kV.	Current Study	\$567,972.92	\$64,500,000
GEN-2010-030 Interconnection Costs See Online Diagram.	Current Study	\$4,000,000.00	\$4,000,000
GEN-2010-030 - Mooreland 138KV CKT 1 Rebuild approximately 19 miles of 138kV.	Current Study	\$15,200,000.00	\$15,200,000
GEN-2010-030 - Glass Mountain 138KV CKT 1 Rebuild approximately 5 miles of 138kV.	Current Study	\$4,000,000.00	\$4,000,000
Cleo Corner - Glass Mountain 138KV CKT 1 Rebuild approximately 26 miles of 138kV.	Current Study	\$20,800,000.00	\$20,800,000
Cleveland - Sooner 345kV CKT 1 Balanced Portfolio: Cleveland - Sooner 345kV CKT (Total Project E&C Cost Shown).	Previously Allocated		\$17,000,000
Comanche - Woodward 345kV CKT 1 Priority Project: Comanche - Woodward Dbl 345kV CKT (Total Project E&C Cost Shown).	Previously Allocated		\$108,227,500
Comanche - Woodward 345kV CKT 2 Priority Project: Comanche - Woodward Dbl 345kV CKT (Total Project E&C Cost Shown).	Previously Allocated		\$108,227,500

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

Interconnection Request and Upgrades	Upgrade Type	Allocated Costs	E + C Costs
		Current Study Total	\$44,567,972.92
GEN-2010-032			
GEN-2010-032 Interconnection Costs See Online Diagram.	Current Study	\$2,500,000.00	\$2,500,000
		Current Study Total	\$2,500,000.00
GEN-2010-033			
GEN-2010-033 Interconnection Costs See Online Diagram.	Current Study	\$5,000,000.00	\$5,000,000
		Current Study Total	\$5,000,000.00
GEN-2010-034			
GEN-2010-034 Interconnection Costs See Online Diagram.	Current Study	\$2,500,000.00	\$2,500,000
		Current Study Total	\$2,500,000.00
GEN-2010-035			
GEN-2010-035 Interconnection Costs See Online Diagram.	Current Study	\$2,000,000.00	\$2,000,000
		Current Study Total	\$2,000,000.00
TOTAL CURRENT STUDY COSTS		\$199,500,000	

* 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 - FCS-2010-003

Upgrade Facility and Designated Requests	Allocated Costs	E + C Costs
<hr/>		
<u>Cleo Corner - Glass Mountain 138KV CKT 1</u>		\$20,800,000
Rebuild approximately 26 miles of 138kV.		
GEN-2010-030	\$20,800,000.00	
Total	\$20,800,000.00	
<hr/>		
<u>FPL Switch - Woodward 138KV CKT 1</u>		\$4,500,000
Rebuild approximately 12 miles of 138kV.		
GEN-2010-028	\$4,500,000.00	
Total	\$4,500,000.00	
<hr/>		
<u>GEN-2010-028 Interconnection Costs</u>		\$5,000,000
See Online Diagram.		
GEN-2010-028	\$5,000,000.00	
Total	\$5,000,000.00	
<hr/>		
<u>GEN-2010-029 Interconnection Costs</u>		\$7,500,000
See Online Diagram.		
GEN-2010-029	\$7,500,000.00	
Total	\$7,500,000.00	
<hr/>		
<u>GEN-2010-030 - Glass Mountain 138KV CKT 1</u>		\$4,000,000
Rebuild approximately 5 miles of 138kV.		
GEN-2010-030	\$4,000,000.00	
Total	\$4,000,000.00	
<hr/>		
<u>GEN-2010-030 - Mooreland 138KV CKT 1</u>		\$15,200,000
Rebuild approximately 19 miles of 138kV.		
GEN-2010-030	\$15,200,000.00	
Total	\$15,200,000.00	
<hr/>		
<u>GEN-2010-030 Interconnection Costs</u>		\$4,000,000
See Online Diagram.		
GEN-2010-030	\$4,000,000.00	
Total	\$4,000,000.00	
<hr/>		
<u>GEN-2010-032 Interconnection Costs</u>		\$2,500,000
See Online Diagram.		
GEN-2010-032	\$2,500,000.00	
Total	\$2,500,000.00	
<hr/>		
<u>GEN-2010-033 Interconnection Costs</u>		\$5,000,000
See Online Diagram.		
GEN-2010-033	\$5,000,000.00	
Total	\$5,000,000.00	
<hr/>		
<u>GEN-2010-034 Interconnection Costs</u>		\$2,500,000
See Online Diagram.		
GEN-2010-034	\$2,500,000.00	
Total	\$2,500,000.00	
<hr/>		

Upgrade Facility and Designated Requests	Allocated Costs	E + C Costs
<u>GEN-2010-035 Interconnection Costs</u>		\$2,000,000
See Online Diagram.		
GEN-2010-035	\$2,000,000.00	
Total	\$2,000,000.00	
<u>Mullergren - Spearville 230KV CKT 2</u>		\$62,000,000
Build approximately 62 miles of 230kV.		
GEN-2010-029	\$62,000,000.00	
Total	\$62,000,000.00	
<u>Tatonga - Woodring 345KV CKT 1</u>		\$64,500,000
Build approximately 43 miles of 345kV.		
GEN-2010-028	\$63,932,027.08	
GEN-2010-030	\$567,972.92	
Total	\$64,500,000.00	
TOTAL CURRENT STUDY UPGRADE COST		\$199,500,000

G: FCITC Analysis (Interconnection Constraints)

H: FCITC Analysis (Additional NRIS Constraints)

GROUP				ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME
SOURCE	DISPATCH	SEASON	SINK						
G10_029	3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.04687	350.9	133.9045	'DBL-SPRVL-COM'
G10_029	3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.03539	350.9	114.6502	'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'
G10_029	3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.03376	350.9	103.485	'DBL-COM-MEDLO'
G10_028	1	10G	OKGE	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.07707	149.5	134.1346	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028	1	10G	OKGE	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.38072	1193.4	114.078	'DBL-COM-MEDLO'
G10_028	1	10G	OKGE	'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'	FROM->TO	0.87094	1191.5	125.9757	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028	1	10G	OKGE	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.87094	1193.4	125.7752	'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'
G10_028	1	10G	OKGE	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.36706	1193.4	105.4419	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028	1	10G	OKGE	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03945	149.5	102.1315	'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'
G10_028	1	10G	OKGE	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03945	149.5	100.7937	'MOORELAND 138/34.5KV TRANSFORMER CKT 1'
G10_028	1	10G	OKGE	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.07707	149.5	114.1324	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028	1	10G	OKGE	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.38072	1193.4	101.7	'DBL-COM-MEDLO'
G10_029	3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.04687	350.9	128.7522	'DBL-SPRVL-COM'
G10_029	3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.03539	350.9	107.4453	'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'
G10_029	3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.03376	350.9	100.0547	'DBL-COM-MEDLO'

I: FCITC Analysis (All Constraints)

GROUP		SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME
G10_028		3	10G	FOOTPRINT_IM	'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00057	85.5	100.1215	'DBL-SPRVL-COM'	
G10_028		3	10G	FOOTPRINT_IM	'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00251	85.5	103.0571	'CIRCLE - MULLERGREN 230KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.00374	46.3	120.1367	'OGE3TERM9'	
G10_028		1	10G	FOOTPRINT_IM	'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.00437	46.3	115.6364	'DOVER SW - OKEENE 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00486	126.1	149.6265	'WWRDEHV7 345.00 (WWDEHV-T) 345/138/13.8KV TRANSFORMER CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00486	126.1	149.6265	'WWRDEHV7 345.00 (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00604	126.1	147.9959	'CIMARRON - G07-43T 345.00 345KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00604	126.1	145.4873	'CIMARRON - G07-43T 345.00 345KV CKT 1'	
G10_028		1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00604	123	106.8777	'WWRDEHV7 345.00 (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00604	126.1	143.6289	'CIMARRON - G07-43T 345.00 345KV CKT 1'	
G10_028		1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00604	123	104.9724	'WWRDEHV7 345.00 (WWDEHV-T) 345/138/13.8KV TRANSFORMER CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00607	126.1	144.7924	'ANADARK7 345.00 - G07-43T 345.00 345KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00607	126.1	142.9247	'ANADARK7 345.00 - G07-43T 345.00 345KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'CANTON - TALOGA 69KV CKT 1'	TO->FROM	0.00609	38.6	127.4583	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'CANTON - TALOGA 69KV CKT 1'	TO->FROM	0.00609	38.6	121.3368	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00618	126.1	139.4868	'MOORELAND - TALOGA 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00631	126.1	146.4569	'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00631	126.1	144.2286	'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00631	126.1	142.2871	'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00635	126.1	141.8239	'G05-15T 345.00 - OKLAUNION 345KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00639	126.1	141.8366	'WEATHERFORD TAP - WEATHERFORD WIND FARM 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00649	100.9	179.2061	'BASE CASE'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00649	100.9	176.6245	'BASE CASE'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00649	126.1	137.8353	'G08-19 345.00 345/34.5KV TRANSFORMER CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00649	126.1	137.8353	'G08-19 345.00 - TATONGA EHV 345.00 345KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00649	126.1	137.8353	'G07-44 34.500 34.5/0.575KV TRANSFORMER CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00649	126.1	137.8353	'TATONGA EHV 345.00 345/34.5KV TRANSFORMER CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00649	100.9	174.1288	'BASE CASE'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00652	126.1	142.8295	'CLINTON JUNCTION - ELK CITY 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00682	126.1	147.232	'CANTON - TALOGA 69KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00685	126.1	148.987	'DEWEY - TALOGA 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00685	126.1	149.8	'DEWEY - TALOGA 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00685	126.1	147.6923	'DEWEY - TALOGA 138KV CKT 1'	
G10_028		3	10G	FOOTPRINT_IM	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.00692	168.3	112.3989	'DBL-COM-MEDLO'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00693	126.1	149.4958	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00693	126.1	145.3386	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	
G10_028		3	10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.00699	128.8	123.0504	'DBL-COM-MEDLO'	
G10_028		3	10G	FOOTPRINT_IM	'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.00699	128.8	114.9758	'DBL-COM-MEDLO'	
G10_028		3	10G	FOOTPRINT_IM	'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.00699	125.7	110.8901	'DBL-COM-MEDLO'	
G10_028		1	10G	OKGE	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00728	91.9	105.4806	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'	
G10_028		1	10G	OKGE	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00728	91.9	102.407	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'	
G10_028		1	10G	OKGE	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00729	91.9	103.8569	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'	
G10_028		1	10G	OKGE	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00729	91.9	102.1159	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'	
G10_028		1	10G	OKGE	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00729	91.9	100.7791	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'	
G10_028		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00743	90.1	112.0603	'BASE CASE'	
G10_028		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00746	90.1	127.9205	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'	
G10_028		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00746	90.1	122.3711	'CENTENNIAL - COWSKIN 138KV CKT 1'	
G10_028		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00749	90.1	126.27	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'	
G10_028		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00749	90.1	124.6052	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00753	126.1	154.2842	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00753	126.1	152.0489	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00753	126.1	149.732	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_028		1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00804	123	112.3866	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_028		1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00804	121.3	109.5923	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_028		1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00804	123	109.8504	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_028		1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00804	121.3	107.0206	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00817	91.9	104.9143	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00817	91.9	106.2437	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00817	91.9	100.803	'CENTENNIAL - COWSKIN 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00817	91.9	102.7943	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'	
G10_028		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00821	91.9	103.3051	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'	

GROUP									
SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME
G10_028	1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00821	91.9	101.564	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00821	91.9	104.6458	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00821	91.9	102.9048	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00821	91.9	101.1795	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00847	123	103.1499	'BASE CASE'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00847	121.3	100.1437	'BASE CASE'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00847	123	100.478	'BASE CASE'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00925	123	115.926	'KNOBHILL - MOORELAND 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00925	123	115.926	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00925	121.3	113.1814	'KNOBHILL - MOORELAND 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00925	121.3	113.1814	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00925	123	111.7797	'DOVER SW - OKEENE 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00925	121.3	108.9769	'DOVER SW - OKEENE 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00925	123	113.0081	'KNOBHILL - MOORELAND 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00925	123	113.0081	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00925	121.3	110.2226	'KNOBHILL - MOORELAND 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00925	121.3	110.2226	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00925	123	108.8618	'DOVER SW - OKEENE 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00925	121.3	106.0181	'DOVER SW - OKEENE 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00939	123	111.0564	'OGE3TERM9'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00939	121.3	108.2435	'OGE3TERM9'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00939	123	108.0943	'OGE3TERM9'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00939	121.3	105.2399	'OGE3TERM9'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00942	123	115.6284	'CEDARDALE - MOORELAND 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00942	123	114.6528	'CEDARDALE - OKEENE 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00942	121.3	112.7971	'CEDARDALE - MOORELAND 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00942	121.3	111.8903	'CEDARDALE - OKEENE 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00942	123	112.6569	'CEDARDALE - MOORELAND 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00942	123	111.6813	'CEDARDALE - OKEENE 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00942	121.3	109.784	'CEDARDALE - MOORELAND 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00942	121.3	108.8772	'CEDARDALE - OKEENE 138KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00961	121.3	107.8093	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028	1	10G	OKGE	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00961	121.3	104.7354	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00973	121.3	128.6497	'BASE CASE'
G10_028	1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00973	126.2	115.0175	'BASE CASE'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00973	123	103.9571	'BASE CASE'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00973	121.3	100.9623	'BASE CASE'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.00973	123	100.8878	'BASE CASE'
G10_028	1	10G	OKGE	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00986	91.9	112.807	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_028	1	10G	OKGE	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00986	91.9	112.807	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_028	1	10G	OKGE	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00986	91.9	108.6442	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_028	1	10G	OKGE	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00986	91.9	108.6442	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01017	121.3	138.8123	'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.01017	147.1	107.0559	'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01017	123	113.7512	'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01017	121.3	110.9761	'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01017	123	110.5431	'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01017	121.3	107.723	'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.01021	126.1	161.1852	'DBL-COM-MEDLO'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01041	121.3	136.1368	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.01041	147.1	104.8497	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01041	123	111.222	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01041	121.3	108.329	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01041	123	107.9382	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01041	121.3	104.9992	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01063	121.3	137.8455	'DOVER SW - OKEENE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.01063	147.1	106.2587	'DOVER SW - OKEENE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01063	123	112.6638	'DOVER SW - OKEENE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01063	121.3	109.8734	'DOVER SW - OKEENE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01063	123	109.3106	'DOVER SW - OKEENE 138KV CKT 1'
G10_028	1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01063	121.3	106.4732	'DOVER SW - OKEENE 138KV CKT 1'

GROUP												
SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME			
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01064	121.3	141.6732	'KNOBHILL - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01064	121.3	141.6732	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'		TO->FROM	0.01064	147.1	109.4151	'KNOBHILL - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'		TO->FROM	0.01064	147.1	109.4151	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01064	123	116.8165	'KNOBHILL - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01064	123	116.8165	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01064	121.3	114.0844	'KNOBHILL - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01064	121.3	114.0844	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01064	123	113.4602	'KNOBHILL - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01064	123	113.4602	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01064	121.3	110.6809	'KNOBHILL - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01064	121.3	110.6809	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'		
G10_028		1	10G	OKGE 'EL RENO - ROMAN NOSE 138KV CKT 1'		TO->FROM	0.01078	126.1	177.0774	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		
G10_028		1	10G	OKGE 'EL RENO - ROMAN NOSE 138KV CKT 1'		TO->FROM	0.01078	126.1	173.7605	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.0108	121.3	141.8392	'CEDARDALE - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.0108	121.3	140.9324	'CEDARDALE - OKEENE 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'		TO->FROM	0.0108	147.1	109.552	'CEDARDALE - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'		TO->FROM	0.0108	147.1	108.8042	'CEDARDALE - OKEENE 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.0108	123	116.5125	'CEDARDALE - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.0108	123	115.5369	'CEDARDALE - OKEENE 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.0108	121.3	113.6937	'CEDARDALE - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.0108	121.3	112.7868	'CEDARDALE - OKEENE 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.0108	123	113.1057	'CEDARDALE - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.0108	123	112.1301	'CEDARDALE - OKEENE 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.0108	121.3	110.2391	'CEDARDALE - MOORELAND 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.0108	121.3	109.3322	'CEDARDALE - OKEENE 138KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01082	121.3	137.1022	'OGE3TERM9'		
G10_028		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'		TO->FROM	0.01082	147.1	105.6458	'OGE3TERM9'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01082	123	111.9725	'OGE3TERM9'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01082	121.3	109.1724	'OGE3TERM9'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01082	123	108.5593	'OGE3TERM9'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01082	121.3	105.7114	'OGE3TERM9'		
G10_028		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01085	90.1	137.206	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'		
G10_028		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01085	90.1	137.206	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'		
G10_028		3	10G	FOOTPRINT_IM 'CLEARWATER - MILAN TAP 138KV CKT 1'		TO->FROM	0.01085	100.1	106.616	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'		
G10_028		3	10G	FOOTPRINT_IM 'CLEARWATER - MILAN TAP 138KV CKT 1'		TO->FROM	0.01085	100.1	106.616	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01161	91.9	112.3082	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01161	91.9	112.3082	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'		
G10_028		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01161	91.9	114.3076	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'		
G10_028		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01161	91.9	114.3076	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01161	91.9	109.4059	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01161	91.9	109.4059	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'		
G10_028		1	10G	OKGE 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01198	123	125.5612	'DBL-COM-MEDLO'		
G10_028		1	10G	OKGE 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01198	121.3	122.8691	'DBL-COM-MEDLO'		
G10_028		1	10G	OKGE 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01198	123	121.7821	'DBL-COM-MEDLO'		
G10_028		1	10G	OKGE 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01198	121.3	119.0371	'DBL-COM-MEDLO'		
G10_028		1	10G	OKGE 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.014	91.9	114.3983	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		
G10_028		1	10G	OKGE 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.014	91.9	108.4875	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01429	121.3	151.3551	'DBL-COM-MEDLO'		
G10_028		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'		TO->FROM	0.01429	147.1	117.3989	'DBL-COM-MEDLO'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01429	123	127.0411	'DBL-COM-MEDLO'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01429	121.3	124.3698	'DBL-COM-MEDLO'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.01429	123	122.5333	'DBL-COM-MEDLO'		
G10_028		1	10G	FOOTPRINT_IM 'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01429	121.3	119.7989	'DBL-COM-MEDLO'		
G10_028		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01489	90.1	127.5681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01543	91.9	111.0227	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01543	91.9	115.6244	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'		FROM->TO	0.01543	91.9	109.1099	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		
G10_028		1	10G	OKGE 'DOVER SW - OKEENE 138KV CKT 1'		TO->FROM	0.01796	128.4	101.4427	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'DOVER SW - OKEENE 138KV CKT 1'		TO->FROM	0.01977	128.4	101.1681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		
G10_028		1	10G	FOOTPRINT_IM 'DOVER SW - OKEENE 138KV CKT 1'		TO->FROM	0.01977	128.4	102.5536	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'		

GROUP		SOURCE		DISPATCH		SEASON		SINK		ELEMENT		DIRECTION		TDF		RATING		LOADING		CONTNAME		
G10_028				1	10G	OKGE				'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.02122	123	136.6027						'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_028				1	10G	OKGE				'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.02122	121.3	134.1479							'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	OKGE				'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.02122	147.1	103.2096								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	OKGE				'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.02122	123	129.909							'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	OKGE				'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.02122	121.3	127.3603							'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.02321	121.3	158.5612							'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.02321	147.1	123.3411								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.02321	123	137.8776							'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.02321	121.3	135.4406							'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.02321	147.1	104.2756								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'G10_030	138.00 - MOORELAND 138KV CKT 1'	TO->FROM	0.02321	123	130.5561							'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'G10_030	138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.02321	121.3	128.0165							'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.0284	350.9	116.76								'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.02988	350.9	105.233								'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.03627	350.9	108.4533								'DBL-COM-MEDLO'
G10_028				3	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03725	141.5	131.5333								'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03725	141.5	131.5333								'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03742	141.5	125.4084								'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03859	141.5	127.0647								'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03859	141.5	126.994								'MOORELAND 138/34.5KV TRANSFORMER CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03859	119.6	135.2074								'BASE CASE'
G10_028				1	10G	OKGE				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03945	149.5	102.1315								'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'
G10_028				1	10G	OKGE				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03945	149.5	100.7937								'MOORELAND 138/34.5KV TRANSFORMER CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04249	149.5	102.374								'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04249	149.5	101.0362								'MOORELAND 138/34.5KV TRANSFORMER CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04366	141.5	142.4814								'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04489	141.5	138.7123								'IODINE - WWWRDEHV4 138.00 138KV CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04489	141.5	136.8042								'DEWEY - IODINE 138KV CKT 1'
G10_028				1	10G	OKGE				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.07707	149.5	134.1346								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	OKGE				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.07707	149.5	114.1324								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'FPL SWITCH - MOORELAND 138KV CKT 1'	FROM->TO	0.07901	285.5	102.8231								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				3	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.07929	141.5	167.8722								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.08229	149.5	136.886								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.08229	149.5	115.5291								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	OKGE				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.36706	1193.4	105.4419								'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.36882	1193.4	100.7902								'CIMARRON - G07-43T 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.37449	1193.4	100.3518								'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.37991	1193.4	100.3912								'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.37991	1193.4	100.3912								'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_028				1	10G	OKGE				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.38072	1193.4	114.078								'DBL-COM-MEDLO'
G10_028				1	10G	OKGE				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.38072	1193.4	101.7								'DBL-COM-MEDLO'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.38168	1193.4	106.4072								'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.3881	1193.4	101.5605								'COMANCH5 345.00 - WWWRDEHV7 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.3881	1193.4	101.5605								'COMANCH5 345.00 - WWWRDEHV7 345.00 345KV CKT 2'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.40974	1193.4	102.5662								'DBL-COM-MEDLO'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.40974	1193.4	115.9942								'DBL-COM-MEDLO'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.40974	1193.4	102.6727								'DBL-COM-MEDLO'
G10_028				1	10G	OKGE				'TATONGA EHV 345.00 - WWWRDEHV7 345.00 345KV CKT 1'	FROM->TO	0.87094	1191.5	125.9757								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	OKGE				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.87094	1193.4	125.7752								'TATONGA EHV 345.00 - WWWRDEHV7 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'TATONGA EHV 345.00 - WWWRDEHV7 345.00 345KV CKT 1'	FROM->TO	0.97123	1191.5	132.6084								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.97123	1193.4	132.3973								'TATONGA EHV 345.00 - WWWRDEHV7 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'TATONGA EHV 345.00 - WWWRDEHV7 345.00 345KV CKT 1'	FROM->TO	0.97123	1191.5	100.9813								'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_028				1	10G	FOOTPRINT_IM				'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.97123	1193.4	100.8205								'TATONGA EHV 345.00 - WWWRDEHV7 345.00 345KV CKT 1'
G10_029				3	10G	SUNC				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00262	141.5	108.0555								'G05-12 345.00 34.5/34.5KV TRANSFORMER CKT 1'
G10_029				3	10G	SUNC				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00262	141.5	108.0555								'G05-12 345.00 - SPEARVILLE 345KV CKT 1'
G10_029				3	10G	SUNC				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00262	141.5	107.9848								'G05-12 34.500 34.5/0.69KV TRANSFORMER CKT 1'
G10_029				3	10G	SUNC				'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00262	141.5	105.4749								'HOLCOMB 115/22.0KV TRANSFORMER CKT 1'
G10_029				1	10G	FOOTPRINT_IM				'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.00351	46.3	120.1367								'OGE3TERM9'
G10_029				1	10G	FOOTPRINT_IM				'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.00353	46.3	115.6364								'DOVER SW - OKEENE 138KV CKT 1'
G10_029				1	10G	FOOTPRINT_IM				'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0046	126.1	149.6265								'WWWRDEHV7 345.00 (WWWDEHV-T) 345/138/13.8KV TRANSFORMER CKT 1'
G10_029				1	10G	FOOTPRINT_IM				'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0046	126.1	149.6265								'WWWRDEHV7 345.00 (WWWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2'

GROUP									
SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME
G10_029		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00554	126.1	139.4868	'MOORELAND - TALOGA 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00589	126.1	148.987	'DEWEY - TALOGA 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00594	126.1	146.4569	'WEATHERFORD SOUTHEAST 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.006	126.1	147.9959	'CIMARRON - G07-43T 345.00 345KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00601	100.9	179.2061	'BASE CASE'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00619	121.3	128.6497	'BASE CASE'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00619	126.2	115.0175	'BASE CASE'
G10_029		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00622	126.1	147.232	'CANTON - TALOGA 69KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0063	126.1	149.4958	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.0066	121.3	138.8123	'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.0066	147.1	107.0559	'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00677	121.3	137.8455	'DOVER SW - OKEENE 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00677	147.1	106.2587	'DOVER SW - OKEENE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00677	85.5	106.8759	'CIRCLE - HUTCHINSON ENERGY CENTER 115KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00677	85.5	101.9257	'CIRCLE - HUTCHINSON ENERGY CENTER 115KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00678	121.3	137.1022	'OGE3TERM9'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00678	147.1	105.6458	'OGE3TERM9'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00679	121.3	141.6732	'KNOBHILL - MOORELAND 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00679	121.3	141.6732	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00679	147.1	109.4151	'KNOBHILL - MOORELAND 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00679	147.1	109.4151	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00694	85.5	116.1787	'NINNES3 115.00 - PRATT 115KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00694	85.5	101.3249	'PRATT - SAWYER 3 115.00 115KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00694	85.5	110.5532	'NINNES3 115.00 - PRATT 115KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00695	121.3	141.8392	'CEDARDALE - MOORELAND 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00695	121.3	140.9324	'CEDARDALE - OKEENE 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00695	147.1	109.552	'CEDARDALE - MOORELAND 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00695	147.1	108.8042	'CEDARDALE - OKEENE 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00717	121.3	136.1368	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00717	147.1	104.8497	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'GOODYEAR JUNCTION - INDIAN HILLS 115KV CKT 1'	TO->FROM	0.00724	118	106.4805	'WRTOD400'
G10_029		3	10G	FOOTPRINT_IM 'GOODYEAR JUNCTION - INDIAN HILLS 115KV CKT 1'	TO->FROM	0.00724	118	102.5915	'WRTOD400'
G10_029		3	10G	SUNC 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00743	141.5	153.1093	'DBL-COM-MEDLO'
G10_029		3	10G	SUNC 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00743	141.5	151.2675	'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM 'NINNES3 115.00 - PRATT 115KV CKT 1'	FROM->TO	0.00748	78	125.7339	'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM 'NINNES3 115.00 - PRATT 115KV CKT 1'	FROM->TO	0.00748	78	118.9308	'DBL-COM-MEDLO'
G10_029		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0075	126.1	154.2842	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'DOVER SW - OKEENE 138KV CKT 1'	TO->FROM	0.00796	128.4	101.1681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00941	121.3	158.5612	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00941	147.1	123.3411	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00946	85.5	103.3982	'MULLERGREN - RICE 6 230.00 230KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00946	85.5	103.2812	'RICE 6 230.00 230/115KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00968	85.5	103.0975	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00968	85.5	103.0975	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.01052	85.5	111.3535	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.01052	85.5	120.6379	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.01052	85.5	112.6713	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.01094	126.1	161.1852	'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01134	90.1	141.2067	'MED-LDG5 345.00 345/138KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01134	100.1	110.3169	'MED-LDG5 345.00 345/138KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01134	90.1	151.1806	'MED-LDG5 345.00 345/138KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01134	100.1	119.2945	'MED-LDG5 345.00 345/138KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	FROM->TO	0.01134	104.6	106.9921	'MED-LDG5 345.00 345/138KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01134	90.1	143.0666	'MED-LDG5 345.00 345/138KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01134	100.1	111.991	'MED-LDG5 345.00 345/138KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.0114	85.5	103.0571	'CIRCLE - MULLERGREN 230KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.0114	85.5	112.2466	'CIRCLE - MULLERGREN 230KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.0114	85.5	103.7778	'CIRCLE - MULLERGREN 230KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01225	121.3	151.3551	'DBL-COM-MEDLO'
G10_029		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.01225	147.1	117.3989	'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.01261	85.5	100.1215	'DBL-SPRVL-COM'

GROUP									
SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01339	90.1	112.0603 'BASE CASE'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01339	90.1	129.0156 'WOLF CREEK 345/25.0KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01339	90.1	120.4695 'BASE CASE'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01339	90.1	111.904 'BASE CASE'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01362	90.1	127.9205 'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01362	90.1	122.3711 'CENTENNIAL - COWSKIN 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01362	90.1	136.5154 'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01362	90.1	130.9659 'CENTENNIAL - COWSKIN 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01362	100.1	105.9943 'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01362	90.1	127.7791 'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01362	90.1	122.2297 'CENTENNIAL - COWSKIN 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01362	90.1	120.8979 'SPP-WERE-30'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01366	90.1	126.27 'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01366	90.1	124.6052 'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01366	90.1	134.8862 'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01366	90.1	133.2214 'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01366	100.1	104.528 'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01366	100.1	103.0295 'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01366	90.1	126.1343 'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01366	90.1	124.4695 'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01434	91.9	104.9143 'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01438	91.9	103.3051 'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01438	91.9	101.564 'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'WOODWARD - WOODWARD 69KV CKT 1'	TO->FROM	0.01441	63.4	139.8672 'FPL SWITCH - MOORELAND 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'WOODWARD - WOODWARD 69KV CKT 1'	TO->FROM	0.01441	63.4	126.474 'FPL SWITCH - MOORELAND 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'WOODWARD - WOODWARD 69KV CKT 1'	TO->FROM	0.01462	63.4	133.44 'FPL SWITCH - WOODWARD 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'WOODWARD - WOODWARD 69KV CKT 1'	TO->FROM	0.01462	63.4	119.8407 'FPL SWITCH - WOODWARD 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'NINNEC3 115.00 - PRATT 115KV CKT 1'	FROM->TO	0.01499	78	138.1112 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'NINNEC3 115.00 - PRATT 115KV CKT 1'	FROM->TO	0.01499	78	125.4429 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01529	90.1	127.5681 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01529	90.1	136.5203 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01529	100.1	105.9988 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01529	90.1	126.7264 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01544	90.1	121.4872 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01544	100.1	102.1527 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'LYONS - WHEATLAND 115KV CKT 1'	FROM->TO	0.01574	68.2	101.7 'CIRCLE - RICE_CO 115KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01584	91.9	111.0227 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01592	100.1	101.7106 'BENTON - WICHITA 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'LYONS - WHEATLAND 115KV CKT 1'	FROM->TO	0.01679	68.2	114.625 'CIRCLE - MULLERGREN 230KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01847	90.1	137.206 'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01847	90.1	137.206 'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01847	100.1	106.616 'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01847	100.1	106.616 'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01847	90.1	148.5882 'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01847	90.1	148.5882 'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01847	100.1	116.8611 'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01847	100.1	116.8611 'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	FROM->TO	0.01847	104.6	104.6634 'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1'	FROM->TO	0.01847	104.6	104.6634 'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01847	90.1	136.8607 'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_029		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01847	90.1	136.8607 'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01847	100.1	106.3052 'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.01847	100.1	106.3052 'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_029		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01924	91.9	112.3082 'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_029		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.01924	91.9	112.3082 'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_029		3	10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.02066	128.8	105.6629 'COMANCH5 345.00 - SPEARVILLE 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.02066	128.8	105.6629 'COMANCH5 345.00 - SPEARVILLE 345KV CKT 2'
G10_029		3	10G	FOOTPRINT_IM	'LYONS - WHEATLAND 115KV CKT 1'	FROM->TO	0.02441	68.2	112.5489 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'LYONS - WHEATLAND 115KV CKT 1'	FROM->TO	0.02441	68.2	138.1645 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'LYONS - WHEATLAND 115KV CKT 1'	FROM->TO	0.02441	68.2	116.1063 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.02724	128.8	123.0504 'DBL-COM-MEDLO'

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SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME
G10_029		3	10G	FOOTPRINT_IM	'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.02724	128.8	114.9758 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.02724	125.7	110.8901 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.02724	128.8	136.4414 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.02724	128.8	128.3668 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.02724	125.7	124.6114 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.02724	128.8	124.0357 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.02724	128.8	115.9612 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.02724	125.7	111.8998 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03015	141.5	131.5333 'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03015	141.5	131.5333 'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03015	141.5	150.2894 'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03015	141.5	150.2894 'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03015	141.5	137.7862 'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03015	141.5	137.7862 'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03054	141.5	125.4084 'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0306	141.5	127.0647 'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0306	141.5	126.994 'MOORELAND 138/34.5KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0306	119.6	135.2074 'BASE CASE'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0306	119.6	158.1902 'BASE CASE'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0306	141.5	146.2964 'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0306	119.6	143.1187 'BASE CASE'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0306	141.5	133.8389 'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'
G10_029		3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.03376	350.9	103.485 'DBL-COM-MEDLO'
G10_029		3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.03376	350.9	100.0547 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03378	141.5	156.3004 'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03378	141.5	142.2622 'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03469	141.5	142.4814 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03469	141.5	164.2135 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03469	141.5	149.7601 'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.03471	168.3	112.3989 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.03471	168.3	126.268 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.03471	168.3	113.6182 'DBL-COM-MEDLO'
G10_029		3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.03539	350.9	114.6502 'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'
G10_029		3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.03539	350.9	107.4453 'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03601	141.5	138.7123 'IODINE - WWRDEHV4 138.00 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03601	141.5	136.8042 'DEWEY - IODINE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03601	141.5	160.5113 'IODINE - WWRDEHV4 138.00 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03601	141.5	158.6032 'DEWEY - IODINE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03601	141.5	145.5155 'IODINE - WWRDEHV4 138.00 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.03601	141.5	143.6074 'DEWEY - IODINE 138KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - MOORELAND 138KV CKT 1'	FROM->TO	0.04016	280.7	101.2675 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04099	141.5	167.8722 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04099	141.5	189.2285 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04099	141.5	172.1876 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04176	141.5	146.8518 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04176	141.5	174.4762 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04176	141.5	157.0968 'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04533	141.5	181.8298 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.04533	141.5	163.3205 'DBL-COM-MEDLO'
G10_029		3	10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.04564	128.8	141.4953 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.04564	128.8	133.4208 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.04564	125.7	129.79 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.04564	128.8	167.3583 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.04564	128.8	159.2837 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.04564	125.7	156.2907 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.04564	128.8	146.4581 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.04564	128.8	138.3835 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.04564	125.7	134.8751 'DBL-SPRVL-COM'
G10_029		3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.04687	350.9	133.9045 'DBL-SPRVL-COM'
G10_029		3	10G	SUNC	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.04687	350.9	128.7522 'DBL-SPRVL-COM'
G10_029		3	10G	FOOTPRINT_IM	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.06062	168.3	127.7618 'DBL-SPRVL-COM'

GROUP									
SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAMES
G10_029		3 10G	FOOTPRINT_IM	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.06062	168.3	155.6713	'DBL-SPRVL-COM'
G10_029		3 10G	FOOTPRINT_IM	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.06062	168.3	133.7962	'DBL-SPRVL-COM'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.08172	350.9	100.0639	'MULLERGREN - S HAYS6 230.00 230KV CKT 1'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.09779	350.9	107.8721	'COMANCH5 345.00 - SPEARVILLE 345KV CKT 1'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.09779	350.9	107.8721	'COMANCH5 345.00 - SPEARVILLE 345KV CKT 2'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.10555	350.9	108.4533	'DBL-COM-MEDLO'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.12135	350.9	116.76	'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.12135	350.9	140.911	'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.12135	350.9	118.4689	'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.12283	350.9	105.233	'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.12283	350.9	114.4274	'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.12283	350.9	106.8605	'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1'
G10_029		1 10G	FOOTPRINT_IM	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.13776	1193.4	102.5662	'DBL-COM-MEDLO'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.16697	350.9	139.4515	'DBL-SPRVL-COM'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.16697	350.9	170.5951	'DBL-SPRVL-COM'
G10_029		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.16697	350.9	144.154	'DBL-SPRVL-COM'
G10_030		3 10G	FOOTPRINT_IM	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.00074	168.3	112.3989	'DBL-COM-MEDLO'
G10_030		3 10G	FOOTPRINT_IM	'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00094	85.5	103.0571	'CIRCLE - MULLERGREN 230KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.00266	128.8	123.0504	'DBL-COM-MEDLO'
G10_030		3 10G	FOOTPRINT_IM	'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.00266	128.8	114.9758	'DBL-COM-MEDLO'
G10_030		3 10G	FOOTPRINT_IM	'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.00266	125.7	110.8901	'DBL-COM-MEDLO'
G10_030		3 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00385	90.1	127.9205	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00385	90.1	122.3711	'CENTENNIAL - COWSKIN 138KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00388	90.1	126.27	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00388	90.1	124.6052	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00391	90.1	112.0603	'BASE CASE'
G10_030		1 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00456	91.9	104.9143	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.0046	91.9	103.3051	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.0046	91.9	101.564	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00522	90.1	127.5681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00536	90.1	121.4872	'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00576	91.9	111.0227	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00576	91.9	103.3341	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00596	90.1	137.206	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00596	90.1	137.206	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_030		3 10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.00596	100.1	106.616	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_030		3 10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.00596	100.1	106.616	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00672	91.9	112.3082	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00672	91.9	112.3082	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_030		1 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00672	91.9	105.4494	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_030		1 10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00672	91.9	105.4494	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'CANTON - TALOGA 69KV CKT 1'	TO->FROM	0.00774	38.6	104.5622	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'CANTON - TALOGA 69KV CKT 1'	TO->FROM	0.00774	38.6	103.785	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'CANTON - TALOGA 69KV CKT 1'	TO->FROM	0.00905	38.6	145.7448	'CEDARDALE - MOORELAND 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'CANTON - TALOGA 69KV CKT 1'	TO->FROM	0.00905	38.6	141.8588	'CEDARDALE - OKEENE 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'CANTON - OKEENE 69KV CKT 1'	FROM->TO	0.00905	47.1	109.8885	'CEDARDALE - MOORELAND 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'CANTON - OKEENE 69KV CKT 1'	FROM->TO	0.00905	47.1	106.7038	'CEDARDALE - OKEENE 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	FROM->TO	0.01321	55.9	127.1583	'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	FROM->TO	0.01321	56	127.1098	'EL RENO - ROMAN NOSE 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	FROM->TO	0.01354	55.9	103.2755	'CEDARDALE - MOORELAND 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	FROM->TO	0.01354	56	103.2696	'CEDARDALE - MOORELAND 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	FROM->TO	0.01354	55.9	101.4866	'CEDARDALE - OKEENE 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	FROM->TO	0.01354	56	101.4839	'CEDARDALE - OKEENE 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	FROM->TO	0.01391	55.9	103.017	'DEWEY - SOUTHARD 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	FROM->TO	0.01391	56	103.1902	'DEWEY - SOUTHARD 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.01506	126.1	148.987	'DEWEY - TALOGA 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.01506	126.1	147.3109	'DEWEY - TALOGA 138KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.01985	350.9	116.76	'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0211	126.1	139.4868	'MOORELAND - TALOGA 138KV CKT 1'
G10_030		1 10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0211	126.1	138.1166	'MOORELAND - TALOGA 138KV CKT 1'
G10_030		3 10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.02133	350.9	105.233	'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1'

GROUP										
SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME	
G10_030		3	10G	FOOTPRINT_IM 'MULLERGRENN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.02323	350.9	108.4533	'DBL-COM-MEDLO'	
G10_030		1	10G	FOOTPRINT_IM 'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.0302	46.3	120.1367	'OGE3TERM9'	
G10_030		1	10G	FOOTPRINT_IM 'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.0302	46.3	118.6393	'OGE3TERM9'	
G10_030		1	10G	FOOTPRINT_IM 'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.03023	46.3	115.6364	'DOVER SW - OKEENE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.03023	46.3	113.4654	'DOVER SW - OKEENE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04275	126.1	147.9959	'CIMARRON - G07-43T 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04275	126.1	146.7982	'CIMARRON - G07-43T 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04278	126.1	146.088	'ANADARK7 345.00 - G07-43T 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04293	126.1	147.232	'CANTON - TALOGA 69KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04293	126.1	146.1059	'CANTON - TALOGA 69KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04302	100.9	179.2061	'BASE CASE'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04302	100.9	177.9514	'BASE CASE'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04332	126.1	146.4569	'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0434	126.1	154.2842	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0434	126.1	152.506	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04417	126.1	149.4958	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04417	126.1	148.3945	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04533	126.1	161.1852	'DBL-COM-MEDLO'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04533	126.1	158.6832	'DBL-COM-MEDLO'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.04584	126.1	175.7938	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'DOVER SW - OKEENE 138KV CKT 1'	TO->FROM	0.04834	128.4	101.1681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.05169	126.1	149.6265	'WWRDEHV7 345.00 (WWDEHV-T) 345/138/13.8KV TRANSFORMER CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.05169	126.1	149.6265	'WWRDEHV7 345.00 (WWDEHV-T2) 345/138/13.8KV TRANSFORMER CKT 2'	
G10_030		1	10G	FOOTPRINT_IM 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.08106	1193.4	102.5662	'DBL-COM-MEDLO'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.30583	121.3	128.6497	'BASE CASE'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.30583	126.2	115.0175	'BASE CASE'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.30583	121.3	132.4604	'BASE CASE'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.30583	126.2	118.6803	'BASE CASE'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.30608	121.3	136.1368	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.30608	147.1	104.8497	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.30608	121.3	139.4163	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.30608	147.1	107.554	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.3072	121.3	141.6732	'KNOBHILL - MOORELAND 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.3072	121.3	141.6732	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.3072	147.1	109.4151	'KNOBHILL - MOORELAND 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.3072	147.1	109.4151	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.3072	121.3	145.1608	'KNOBHILL - MOORELAND 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.3072	121.3	145.1608	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.3072	147.1	112.291	'KNOBHILL - MOORELAND 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.3072	147.1	112.291	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.30794	121.3	158.5612	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.30794	147.1	123.3411	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.30794	121.3	158.4427	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.30794	147.1	123.2434	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.30866	121.3	151.3551	'DBL-COM-MEDLO'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.30866	147.1	117.3989	'DBL-COM-MEDLO'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.30866	121.3	153.2556	'DBL-COM-MEDLO'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.30866	147.1	118.966	'DBL-COM-MEDLO'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.30876	121.3	138.8123	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.30876	147.1	107.0559	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.30876	121.3	142.5507	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.30876	147.1	110.1387	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.31108	121.3	137.8455	'DOVER SW - OKEENE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.31108	121.3	137.1022	'OGE3TERM9'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.31108	147.1	106.2587	'DOVER SW - OKEENE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.31108	147.1	105.6458	'OGE3TERM9'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.31108	121.3	141.4361	'DOVER SW - OKEENE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.31108	121.3	140.6117	'OGE3TERM9'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.31108	147.1	109.2196	'DOVER SW - OKEENE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.31108	147.1	108.5398	'OGE3TERM9'	
G10_030		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.31337	121.3	141.8392	'CEDARDALE - MOORELAND 138KV CKT 1'	

GROUP		SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME
G10_030		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.31337	121.3	140.9324	'CEDARDALE - OKEENE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.31337	147.1	109.552	'CEDARDALE - MOORELAND 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.31337	147.1	108.8042	'CEDARDALE - OKEENE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.31337	121.3	145.4291	'CEDARDALE - MOORELAND 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.31337	121.3	144.5222	'CEDARDALE - OKEENE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.31337	147.1	112.5122	'CEDARDALE - MOORELAND 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.31337	147.1	111.7644	'CEDARDALE - OKEENE 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM	'G10_030 138.00 - MOORELAND 138KV CKT 1'	FROM->TO	1	123	117.561	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	
G10_030		1	10G	FOOTPRINT_IM	'G10_030 138.00 - MOORELAND 138KV CKT 1'	FROM->TO	1	123	108.6992	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00006	126.1	139.4868	'MOORELAND - TALOGA 138KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'LYONS - WHEATLAND 115KV CKT 1'	FROM->TO	0.00028	68.2	112.5489	'DBL-SPRVL-COM'	
G10_032		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00034	126.1	149.4958	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00042	100.9	179.2061	'BASE CASE'	
G10_032		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00063	126.1	147.232	'CANTON - TALOGA 69KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.00066	46.3	120.1367	'OGE3TERM9'	
G10_032		3	10G	FOOTPRINT_IM	'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00092	85.5	100.1215	'DBL-SPRVL-COM'	
G10_032		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00112	126.1	146.4569	'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.00157	46.3	115.6364	'DOVER SW - OKEENE 138KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.00161	350.9	139.4515	'DBL-SPRVL-COM'	
G10_032		3	10G	FOOTPRINT_IM	'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00221	85.5	103.0571	'CIRCLE - MULLERGREN 230KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0031	126.1	161.1852	'DBL-COM-MEDLO'	
G10_032		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00327	126.1	147.9959	'CIMARRON - G07-43T 345.00 345KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00416	126.1	154.2842	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.00521	168.3	112.3989	'DBL-COM-MEDLO'	
G10_032		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00532	90.1	127.9205	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00532	90.1	122.3711	'CENTENNIAL - COWSKIN 138KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00532	90.1	112.0603	'BASE CASE'	
G10_032		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00535	90.1	126.27	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00535	90.1	124.6052	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.00558	128.8	123.0504	'DBL-COM-MEDLO'	
G10_032		3	10G	FOOTPRINT_IM	'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.00558	128.8	114.9758	'DBL-COM-MEDLO'	
G10_032		3	10G	FOOTPRINT_IM	'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.00558	125.7	110.8901	'DBL-COM-MEDLO'	
G10_032		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00604	91.9	104.9143	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00607	91.9	103.3051	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00607	91.9	101.564	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00636	90.1	127.5681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.0065	90.1	121.4872	'TATONGA EHV 345.00 - WVRDEHV7 345.00 345KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.0069	91.9	111.0227	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00712	121.3	128.6497	'BASE CASE'	
G10_032		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00712	126.2	115.0175	'BASE CASE'	
G10_032		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00715	121.3	138.8123	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00715	147.1	107.0559	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'DOVER SW - OKEENE 138KV CKT 1'	TO->FROM	0.00755	128.4	101.1681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00778	121.3	141.8392	'CEDARDALE - MOORELAND 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00778	121.3	140.9324	'CEDARDALE - OKEENE 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00778	147.1	109.552	'CEDARDALE - MOORELAND 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00778	147.1	108.8042	'CEDARDALE - OKEENE 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00779	121.3	141.6732	'KNOBHILL - MOORELAND 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00779	121.3	141.6732	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00779	147.1	109.4151	'KNOBHILL - MOORELAND 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00779	147.1	109.4151	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00779	90.1	137.206	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00779	90.1	137.206	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'	
G10_032		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.00779	100.1	106.616	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'	
G10_032		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.00779	100.1	106.616	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00782	121.3	137.8455	'DOVER SW - OKEENE 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00782	147.1	106.2587	'DOVER SW - OKEENE 138KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00809	121.3	137.1022	'OGE3TERM9'	
G10_032		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00809	147.1	105.6458	'OGE3TERM9'	
G10_032		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00856	91.9	112.3082	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00856	91.9	112.3082	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'	

GROUP										
SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME	
G10_032		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00875	121.3	158.5612	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00875	147.1	123.3411	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0095	141.5	125.4084	'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'	
G10_032		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00959	121.3	136.1368	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_032		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00959	147.1	104.8497	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01031	141.5	127.0647	'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01031	141.5	126.994	'MOORELAND 138/34.5KV TRANSFORMER CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01031	119.6	135.2074	'BASE CASE'	
G10_032		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01042	121.3	151.3551	'DBL-COM-MEDLO'	
G10_032		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.01042	147.1	117.3989	'DBL-COM-MEDLO'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01186	141.5	142.4814	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0125	141.5	138.7123	'IODINE - WWRDEHV4 138.00 138KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0125	141.5	136.8042	'DEWEY - IODINE 138KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.016	141.5	167.8722	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01677	141.5	146.8518	'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01687	141.5	131.5333	'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01687	141.5	131.5333	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.02512	350.9	116.76	'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.0266	350.9	105.233	'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1'	
G10_032		3	10G	FOOTPRINT_IM 'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.02928	350.9	108.4533	'DBL-COM-MEDLO'	
G10_032		1	10G	FOOTPRINT_IM 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.07145	1193.4	102.5662	'DBL-COM-MEDLO'	
G10_033		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00006	126.1	139.4868	'MOORELAND - TALOGA 138KV CKT 1'	
G10_033		3	10G	FOOTPRINT_IM 'LYONS - WHEATLAND 115KV CKT 1'	FROM->TO	0.00028	68.2	112.5489	'DBL-SPRVL-COM'	
G10_033		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00034	126.1	149.4958	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00042	100.9	179.2061	'BASE CASE'	
G10_033		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00063	126.1	147.232	'CANTON - TALOGA 69KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.00066	46.3	120.1367	'OGE3TERM9'	
G10_033		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00092	85.5	100.1215	'DBL-SPRVL-COM'	
G10_033		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00112	126.1	146.4569	'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.00157	46.3	115.6364	'DOVER SW - OKEENE 138KV CKT 1'	
G10_033		3	10G	FOOTPRINT_IM 'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.00161	350.9	139.4515	'DBL-SPRVL-COM'	
G10_033		3	10G	FOOTPRINT_IM 'ST JOHN - ST_JOHN 115KV CKT 1'	FROM->TO	0.00221	85.5	103.0571	'CIRCLE - MULLERGREN 230KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0031	126.1	161.1852	'DBL-COM-MEDLO'	
G10_033		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00327	126.1	147.9959	'CIMARRON - G07-43T 345.00 345KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00416	126.1	154.2842	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_033		3	10G	FOOTPRINT_IM 'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.00521	168.3	112.3989	'DBL-COM-MEDLO'	
G10_033		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00532	90.1	127.9205	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'	
G10_033		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00532	90.1	122.3711	'CENTENNIAL - COWSKIN 138KV CKT 1'	
G10_033		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00532	90.1	112.0603	'BASE CASE'	
G10_033		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00535	90.1	126.27	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'	
G10_033		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00535	90.1	124.6052	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'	
G10_033		3	10G	FOOTPRINT_IM 'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.00558	128.8	123.0504	'DBL-COM-MEDLO'	
G10_033		3	10G	FOOTPRINT_IM 'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.00558	128.8	114.9758	'DBL-COM-MEDLO'	
G10_033		3	10G	FOOTPRINT_IM 'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.00558	125.7	110.8901	'DBL-COM-MEDLO'	
G10_033		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00604	91.9	104.9143	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00607	91.9	103.3051	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00607	91.9	101.564	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'	
G10_033		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00636	90.1	127.5681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_033		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.0065	90.1	121.4872	'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.0069	91.9	111.0227	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00712	121.3	128.6497	'BASE CASE'	
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00712	126.2	115.0175	'BASE CASE'	
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00715	121.3	138.8123	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00715	147.1	107.0559	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'DOVER SW - OKEENE 138KV CKT 1'	TO->FROM	0.00755	128.4	101.1681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00778	121.3	141.8392	'CEDARDALE - MOORELAND 138KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00778	121.3	140.9324	'CEDARDALE - OKEENE 138KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00778	147.1	109.552	'CEDARDALE - MOORELAND 138KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00778	147.1	108.8042	'CEDARDALE - OKEENE 138KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00779	121.3	141.6732	'KNOBHILL - MOORELAND 138KV CKT 1'	
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00779	121.3	141.6732	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'	

GROUP				ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME
SOURCE	DISPATCH	SEASON	SINK						
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00779	147.1	109.4151	'KNOBHILL - MOORELAND 138KV CKT 1'
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00779	147.1	109.4151	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00779	90.1	137.206	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00779	90.1	137.206	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_033		3	10G	FOOTPRINT_IM 'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.00779	100.1	106.616	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_033		3	10G	FOOTPRINT_IM 'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.00779	100.1	106.616	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00782	121.3	137.8455	'DOVER SW - OKEENE 138KV CKT 1'
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00782	147.1	106.2587	'DOVER SW - OKEENE 138KV CKT 1'
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00809	121.3	137.1022	'OGE3TERM9'
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00809	147.1	105.6458	'OGE3TERM9'
G10_033		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00856	91.9	112.3082	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'
G10_033		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00856	91.9	112.3082	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00875	121.3	158.5612	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00875	147.1	123.3411	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0095	141.5	125.4084	'WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00959	121.3	136.1368	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00959	147.1	104.8497	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01031	141.5	127.0647	'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01031	141.5	126.994	'MOORELAND 138/34.5KV TRANSFORMER CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01031	119.6	135.2074	'BASE CASE'
G10_033		1	10G	FOOTPRINT_IM 'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01042	121.3	151.3551	'DBL-COM-MEDLO'
G10_033		1	10G	FOOTPRINT_IM 'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.01042	147.1	117.3989	'DBL-COM-MEDLO'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01186	141.5	142.4814	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0125	141.5	138.7123	'IODINE - WWRDEHV4 138.00 138KV CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0125	141.5	136.8042	'DEWEY - IODINE 138KV CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.016	141.5	167.8722	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01677	141.5	146.8518	'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01687	141.5	131.5333	'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01687	141.5	131.5333	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.02512	350.9	116.76	'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.0266	350.9	105.233	'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1'
G10_033		3	10G	FOOTPRINT_IM 'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.02928	350.9	108.4533	'DBL-COM-MEDLO'
G10_033		1	10G	FOOTPRINT_IM 'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.07145	1193.4	102.5662	'DBL-COM-MEDLO'
G10_034		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00006	126.1	139.4868	'MOORELAND - TALOGA 138KV CKT 1'
G10_034		3	10G	FOOTPRINT_IM 'LYONS - WHEATLAND 115KV CKT 1'	FROM->TO	0.00028	68.2	112.5489	'DBL-SPRVL-COM'
G10_034		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00034	126.1	149.4958	'TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1'
G10_034		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00042	100.9	179.2061	'BASE CASE'
G10_034		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00063	126.1	147.232	'CANTON - TALOGA 69KV CKT 1'
G10_034		1	10G	FOOTPRINT_IM 'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.00066	46.3	120.1367	'OGE3TERM9'
G10_034		3	10G	FOOTPRINT_IM 'ST JOHN - ST JOHN 115KV CKT 1'	FROM->TO	0.00092	85.5	100.1215	'DBL-SPRVL-COM'
G10_034		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00112	126.1	146.4569	'WEATHERFORD JCT. - WEATHERFORD SOUTHEAST 138KV CKT 1'
G10_034		1	10G	FOOTPRINT_IM 'OKEENE - WATONGA SW 69KV CKT 1'	FROM->TO	0.00157	46.3	115.6364	'DOVER SW - OKEENE 138KV CKT 1'
G10_034		3	10G	FOOTPRINT_IM 'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.00161	350.9	139.4515	'DBL-SPRVL-COM'
G10_034		3	10G	FOOTPRINT_IM 'ST JOHN - ST JOHN 115KV CKT 1'	FROM->TO	0.00221	85.5	103.0571	'CIRCLE - MULLERGREN 230KV CKT 1'
G10_034		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.0031	126.1	161.1852	'DBL-COM-MEDLO'
G10_034		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00327	126.1	147.9959	'CIMARRON - G07-43T 345.00 345KV CKT 1'
G10_034		1	10G	FOOTPRINT_IM 'EL RENO - ROMAN NOSE 138KV CKT 1'	TO->FROM	0.00416	126.1	154.2842	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'
G10_034		3	10G	FOOTPRINT_IM 'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.00521	168.3	112.3989	'DBL-COM-MEDLO'
G10_034		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00532	90.1	127.9205	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'
G10_034		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00532	90.1	122.3711	'CENTENNIAL - COWSKIN 138KV CKT 1'
G10_034		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00532	90.1	112.0603	'BASE CASE'
G10_034		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00535	90.1	126.27	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_034		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00535	90.1	124.6052	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_034		3	10G	FOOTPRINT_IM 'G01-39AT 115.00 - GREENSBURG 115KV CKT 1'	FROM->TO	0.00558	128.8	123.0504	'DBL-COM-MEDLO'
G10_034		3	10G	FOOTPRINT_IM 'GREENSBURG - SUN CITY 115KV CKT 1'	FROM->TO	0.00558	128.8	114.9758	'DBL-COM-MEDLO'
G10_034		3	10G	FOOTPRINT_IM 'MEDICINE LODGE - SUN CITY 115KV CKT 1'	TO->FROM	0.00558	125.7	110.8901	'DBL-COM-MEDLO'
G10_034		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00604	91.9	104.9143	'COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1'
G10_034		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00607	91.9	103.3051	'EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1'
G10_034		1	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00607	91.9	101.564	'HOOVER NORTH - LAKERIDGE 138KV CKT 1'
G10_034		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00636	90.1	127.5681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'
G10_034		3	10G	FOOTPRINT_IM 'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.0065	90.1	121.4872	'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'

GROUP		SOURCE	DISPATCH	SEASON	SINK	ELEMENT	DIRECTION	TDF	RATING	LOADING	CONTNAME
G10_034		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.0069	91.9	111.0227	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00712	121.3	128.6497	'BASE CASE'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00712	126.2	115.0175	'BASE CASE'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00715	121.3	138.8123	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00715	147.1	107.0559	'EL RENO - ROMAN NOSE 138KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'DOVER SW - OKEENE 138KV CKT 1'	TO->FROM	0.00755	128.4	101.1681	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00778	121.3	141.8392	'CEDARDALE - MOORELAND 138KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00778	121.3	140.9324	'CEDARDALE - OKEENE 138KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00778	147.1	109.552	'CEDARDALE - MOORELAND 138KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00778	147.1	108.8042	'CEDARDALE - OKEENE 138KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00779	121.3	141.6732	'KNOBHILL - MOORELAND 138KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00779	121.3	141.6732	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00779	147.1	109.4151	'KNOBHILL - MOORELAND 138KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00779	147.1	109.4151	'KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00779	90.1	137.206	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00779	90.1	137.206	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'	
G10_034		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.00779	100.1	106.616	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'	
G10_034		3	10G	FOOTPRINT_IM	'CLEARWATER - MILAN TAP 138KV CKT 1'	TO->FROM	0.00779	100.1	106.616	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00782	121.3	137.8455	'DOVER SW - OKEENE 138KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00782	147.1	106.2587	'DOVER SW - OKEENE 138KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00809	121.3	137.1022	'OGE3TERM9'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00809	147.1	105.6458	'OGE3TERM9'	
G10_034		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00856	91.9	112.3082	'MED-LDG5 345.00 - WICHITA 345KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'HARPER - MILAN TAP 138KV CKT 1'	FROM->TO	0.00856	91.9	112.3082	'MED-LDG5 345.00 - WICHITA 345KV CKT 2'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00875	121.3	158.5612	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00875	147.1	123.3411	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0095	141.5	125.4084	'WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.00959	121.3	136.1368	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.00959	147.1	104.8497	'ANADARK7 345.00 - MIDPT_BUS 7 345.00 345KV CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01031	141.5	127.0647	'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01031	141.5	126.994	'MOORELAND 138/34.5KV TRANSFORMER CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01031	119.6	135.2074	'BASE CASE'	
G10_034		1	10G	FOOTPRINT_IM	'G10_030 138.00 - GLASS MOUNTAIN 138KV CKT 1'	FROM->TO	0.01042	121.3	151.3551	'DBL-COM-MEDLO'	
G10_034		1	10G	FOOTPRINT_IM	'CLEO CORNER - GLASS MOUNTAIN 138KV CKT 1'	TO->FROM	0.01042	147.1	117.3989	'DBL-COM-MEDLO'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01186	141.5	142.4814	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0125	141.5	138.7123	'IODINE - WWRDEHV4 138.00 138KV CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0125	141.5	136.8042	'DEWEY - IODINE 138KV CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.016	141.5	167.8722	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01677	141.5	146.8518	'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01687	141.5	131.5333	'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.01687	141.5	131.5333	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.02512	350.9	116.76	'G10-016TAP 345.00 - KNOLL345 345.00 345KV CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.0266	350.9	105.233	'G10-016TAP 345.00 - SPEARVILLE 345KV CKT 1'	
G10_034		3	10G	FOOTPRINT_IM	'MULLERGREN - SPEARVILLE 230KV CKT 1'	TO->FROM	0.02928	350.9	108.4533	'DBL-COM-MEDLO'	
G10_034		1	10G	FOOTPRINT_IM	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	TO->FROM	0.07145	1193.4	102.5662	'DBL-COM-MEDLO'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00333	141.5	131.5333	'BECKHAM CO 230.00 - ELK CITY 230KV 230KV CKT 1'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00333	141.5	131.5333	'ELK CITY 230KV (ELKCTY-6) 230/138/13.8KV TRANSFORMER CKT 1'	
G10_035		3	10G	FOOTPRINT_IM	'MEDICINE LODGE 138/115KV TRANSFORMER CKT 1'	FROM->TO	0.00392	168.3	127.7618	'DBL-SPRVL-COM'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00533	141.5	127.0647	'G07-51 34.500 34.5/0.6KV TRANSFORMER CKT 1'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00533	141.5	126.994	'MOORELAND 138/34.5KV TRANSFORMER CKT 1'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00533	119.6	135.2074	'BASE CASE'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00583	141.5	167.8722	'NORTHWEST - TATONGA EHV 345.00 345KV CKT 1'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00615	141.5	142.4814	'WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00625	141.5	138.7123	'IODINE - WWRDEHV4 138.00 138KV CKT 1'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00625	141.5	136.8042	'DEWEY - IODINE 138KV CKT 1'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.00634	141.5	125.4084	'WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1'	
G10_035		3	10G	FOOTPRINT_IM	'FPL SWITCH - WOODWARD 138KV CKT 1'	TO->FROM	0.0066	141.5	146.8518	'TATONGA EHV 345.00 - WWRDEHV7 345.00 345KV CKT 1'	