

Aggregate Facility Study
SPP-2007-AG2-AFS-11
For Transmission Service
Requested by
Aggregate Transmission Customers

SPP Engineering, SPP Tariff Studies

SPP AGGREGATE FACILITY STUDY (SPP-2007-AG2-AFS-11)

July 27, 2009

Table of Contents

1.	Executive Summary	3
2.	Introduction	5
A	Financial Analysis	7
В.		
3.	Study Methodology	10
A	. Description	10
В.		
C.	•	
D	•	
E.		
4.	Study Results	
A	Study Analysis Results	14
В.		18
5.	Conclusion	
6.	Appendix A	20

1. Executive Summary

Pursuant to Attachment Z1 of the Southwest Power Pool Open Access Transmission Tariff (OATT), 585 MW of long-term transmission service requests have been restudied in this Aggregate Facility Study (AFS). The first phase of the AFS consisted of a revision of the impact study to reflect the withdrawal of requests for which an Aggregate Facility Study Agreement was not executed. The principal objective of the AFS is to identify system problems and potential modifications necessary to facilitate these transfers while maintaining or improving system reliability as well as summarizing the operating limits and determination of the financial characteristics associated with facility upgrades. Facility upgrade costs are allocated on a prorated basis to all requests positively impacting any individual overloaded facility. Further, Attachment Z2 provides for facility upgrade cost recovery by stating that "Transmission Customers paying Directly Assigned Upgrade Costs for Service Upgrades or that are in excess of the Safe Harbor Cost Limit for Network Upgrades associated with new or changed Designated Resources and Project Sponsors paying Directly Assigned Upgrade Costs for Sponsored Upgrades shall receive revenue credits in accordance with Attachment Z2. Generation Interconnection Customers paying for Network Upgrades shall receive credits for new transmission service using the facility as specified in Attachment Z1."

The total assigned facility upgrade Engineering and Construction (E &C) cost determined by the AFS is \$0 Million. Additionally an indeterminate amount of assigned E & C cost for 3rd party facility upgrades are assignable to the customer. The total upgrade levelized revenue requirement for all transmission requests is \$0 Million. This is based on full allocation of levelized revenue requirements for upgrades to customers without consideration of base plan funding. AFS data table 3 reflects the allocation of upgrade costs to each request without potential base plan funding based on either the requested reservation period or the deferred

reservation period if applicable. Total upgrade levelized revenue requirements for all transmission requests after consideration of potential base plan funding is \$0 Million.

Third-party facilities must be upgraded when it is determined they are constrained in order to accommodate the requested Transmission Service. These include both first-tier neighboring facilities outside SPP and Transmission Owner facilities within SPP that are not under the SPP OATT. In this AFS, third-party facilities were identified. Total engineering and construction cost estimates for required third-party facility upgrades are \$6.5 Million.

The Transmission Provider will tender a Letter of Intent on July 27th, 2009. This will open a 15-day window for Customer response. To remain in the Aggregate Transmission Service Study (ATSS), the Transmission Provider must receive from the Transmission Customer (Customer) by August 11th, 2009, an executed Letter of Intent. The Letter of Intent will list options the Customer must choose to clarify their commitment to remain in the ATSS. The only action required on OASIS is to WITHDRAW the request or leave the request in STUDY mode.

At the conclusion of the ATSS, Service Agreements for each request for service will be tendered identifying the terms and conditions of the confirmed service.

If customers withdraw from the ATSS after posting of this AFS, the AFS will be re-performed to determine final cost allocation and Available Transmission Capability (ATC) in consideration of the remaining ATSS participants. All allocated revenue requirements for facility upgrades are assigned to the customer in the AFS data tables. Potential base plan funding allowable is contingent upon validation of designated resources meeting Attachment J, Section III B criteria.

2. <u>Introduction</u>

On January 21, 2005, the Federal Energy Regulatory Commission accepted Southwest Power Pool's proposed aggregate transmission study procedures in Docket ER05-109 to become effective February 1, 2005. In compliance with this Order, the second open season of 2007 commenced on February 1, 2007. All requests for long-term transmission service received prior to June 1, 2007 with a signed study agreement were then included in this second Aggregate Transmission Service Study (ATSS) of 2007.

Approximately 585 MW of long-term transmission service has been restudied in this Aggregate Facility Study (AFS) with \$0 Million in transmission upgrades being proposed. The results of the AFS are detailed in Tables 1 through 7. A highly tangible benefit of studying transmission requests aggregately under the SPP OATT Attachment Z1 is the sharing of costs among customers using the same facility. The detailed results show individual upgrade costs by study as well as potential base plan allowances as determined by Attachments J and Z1. The following URL can be used to access the SPP OATT: (http://www.spp.org/Publications/SPP_Tariff.pdf). In order to understand the extent to which base plan upgrades may be applied to both point-topoint and network transmission services, it is necessary to highlight the definition of Designated Resource. Per Section 1.9a of the SPP OATT, a Designated Resource is "[a]ny designated generation resource owned, purchased or leased by a Transmission Customer to serve load in the SPP Region. Designated Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Transmission Customer's load on a non-interruptible basis." Therefore, not only network service, but also point-to-point service has potential for base plan funding if the conditions for classifying upgrades associated with designated resources as base plan upgrades as defined in Section III.B of Attachment J are met.

Pursuant to Attachment J, Section III B of the SPP OATT, the Transmission Customer must provide SPP information necessary to verify that the new or changed Designated Resource meets the following conditions:

- 1. Transmission Customer's commitment to the requested new or changed Designated Resource must have a duration of at least five years.
- 2. During the first year the Designated Resource is planned to be used by the Transmission Customer, the accredited capacity of the Transmission Customer's existing Designated Resources plus the lesser of (a) the planned maximum net dependable capacity applicable to the Transmission Customer or (b) the requested capacity; shall not exceed 125% of the Transmission Customer's projected system peak responsibility determined pursuant to SPP Criteria 2.

According to Attachment Z1 Section VI.A, Point-to-Point customers pay the higher of the monthly transmission access charge (base rate) or the monthly revenue requirement associated with the assigned facility upgrades including any prepayments for redispatch required during construction.

Network Integration Service customers pay the total monthly transmission access charges and the monthly revenue requirement associated with the facility upgrades including any prepayments for redispatch during construction.

Transmission Customers paying for a directly assigned network upgrade shall receive credits for new transmission service using the facility as specified in Attachment Z2.

Facilities identified as limiting the requested Transmission Service have been reviewed to determine the required in-service date of each Network Upgrade. The year that each Network Upgrade is required to accommodate a request is determined by interpolating between the

applicable model years given the respective loading data. Both previously assigned facilities and the facilities assigned to this request for Transmission Service were evaluated.

In some instances due to lead times for engineering and construction, Network Upgrades may not be available when required to accommodate a request for Transmission Service. When this occurs, the ATC with available Network Upgrades will be less than the capacity requested during either a portion of or all of the requested reservation period. As a result, the lowest seasonal allocated ATC within the requested reservation period will be offered to the Transmission Customer on an applicable annual basis as listed in Table 1. The ATC may be limited by transmission owner planned projects, expansion plan projects, or customer assigned upgrades.

Some constraints identified in the AFS were not assigned to the Customer as the Transmission Provider determined that upgrades are not required due to various reasons or the Transmission Owner has construction plans pending for these upgrades. These facilities are listed by reservation in Table 3. This table also includes constrained facilities in the current planning horizon that limit the rollover rights of the Transmission Customer. Table 6 lists possible redispatch pairs to allow start of service prior to completion of assigned network upgrades. Table 7 (if applicable) lists deferment of expansion plan projects with different upgrades with the new required in service date as a result of this AFS.

A. Financial Analysis

The AFS utilizes the allocated customer E & C cost in a present worth analysis to determine the monthly levelized revenue requirement of each facility upgrade over the term of the reservation. In some cases, network upgrades cannot be completed within the requested reservation period, thus deferred reservation periods will be utilized in the present worth analysis. If the Customer chose Option 2, Redispatch, in the Letter of Intent sent coincident with the initial AFS, the present worth analysis of revenue requirements will be based on the deferred term with

redispatch in the subsequent AFS. The upgrade levelized revenue requirement includes interest, depreciation, and carrying costs.

Each request for Transmission Service is evaluated independently as the cost associated with each Network Upgrade is assigned to a request. When facilities are upgraded throughout the reservation period, the Transmission Customer shall 1) pay the total E & C costs and other annual operating costs associated with the new facilities, and 2) receive credits associated with the depreciated book value of removed usable facilities, salvage value of removed non-usable facilities, and the carrying charges, excluding depreciation, associated with all removed usable facilities based on their respective book values.

In the event that the engineering and construction of a previously assigned Network Upgrade may be expedited, with no additional upgrades, to accommodate a new request for Transmission Service, then the levelized present worth of only the incremental expenses though the reservation period of the new request, excluding depreciation, shall be assigned to the new request. These incremental expenses, excluding depreciation, include 1) the levelized difference in present worth of the engineering and construction expenses given the change in date to complete construction to account for additional interest expense and reduced engineering and construction expense due to inflation, 2) the levelized present worth of all expediting fees, and 3) the levelized present worth of the incremental annual carrying charges, excluding depreciation and interest, during the new reservation period taking into account both a) the reservation in which the project was originally assigned, and b) a reservation, if any, in which the project was previously expedited.

Achievable Base Plan Avoided Revenue Requirements in the case of a Base Plan upgrade being displaced or deferred by an earlier in service date for a Requested Upgrade shall be determined per Attachment J, Section VII.B methodology. A deferred Base Plan upgrade being defined as a different requested network upgrade needed at an earlier date that negates the need for the initial

base plan upgrade within the planning horizon. A displaced Base Plan upgrade being defined as the same network upgrade being displaced by a requested upgrade needed at an earlier date. Assumption of a 40 year service life is utilized for Base Plan funded projects unless provided otherwise by the Transmission Owner. A present worth analysis of revenue requirements on a common year basis between the Base Plan and Requested Upgrades was performed to determine avoided Base Plan revenue requirements due to the displacement or deferral of the Base Plan upgrade by the Requested Upgrade. The difference in present worth between the Base Plan and Requested Upgrades is assigned to the transmission requests impacting this upgrade based on the displacement or deferral.

B. Third Party Facilities

For third-party facilities listed in Table 3 and Table 5, the Transmission Customer is responsible for funding the necessary upgrades of these facilities per Section 21.1 of the Transmission Provider's OATT. In this AFS, third-party facilities were identified. Total engineering and construction cost estimates for required third-party facility upgrades \$6.5 Million. The Transmission Provider will undertake reasonable efforts to assist the Transmission Customer in making arrangements for necessary engineering, permitting, and construction of the third-party facilities. Third-party facility upgrade engineering and construction cost estimates are not utilized to determine the present worth value of levelized revenue requirements for SPP system network upgrades.

All modeled facilities within the Transmission Provider system were monitored during the development of this Study as well as certain facilities in first-tier neighboring systems. Third-party facilities must be upgraded when it is determined that they are overloaded while accommodating the requested Transmission Service. An agreement between the Customer and 3rd Party Owner detailing the mitigation of the 3rd party impact must be provided to the Transmission Provider prior to tendering of a Transmission Service Agreement. These facilities

also include those owned by members of the Transmission Provider who have not placed their facilities under the Transmission Provider's OATT. Upgrades on the Southwest Power Administration network requires prepayment of the upgrade cost prior to construction of the upgrade.

Third-party facilities are evaluated for only those requests whose load sinks within the SPP footprint. The Customer must arrange for study of 3rd party facilities for load that sinks outside the SPP footprint with the applicable Transmission Providers.

3. Study Methodology

A. Description

The system impact analysis was conducted to determine the steady-state impact of the requested service on the SPP and first tier Non - SPP control area systems. The steady-state analysis was done to ensure current SPP Criteria and NERC Reliability Standards requirements are fulfilled. The Southwest Power Pool conforms to the NERC Reliability Standards, which provide the strictest requirements, related to voltage violations and thermal overloads during normal conditions and during a contingency. It requires that all facilities be within normal operating ratings for normal system conditions and within emergency ratings after a contingency. Normal operating ratings and emergency operating ratings monitored are Rate A and B in the SPP MDWG models, respectively. The upper bound and lower bound of the normal voltage range monitored is 105% and 95%. The upper bound and lower bound of the emergency voltage range monitored is 105% and 90%. Transmission Owner voltage monitoring criteria is used if more restrictive. The SPS Tuco 230 kV bus voltage is monitored at 92.5% due to pre-determined system stability limitations. The WERE Wolf Creek 345 kV bus voltage is monitored at 103.5% and 98.5% due to transmission operating procedure.

The contingency set includes all SPP control area branches and ties 69kV and above, first tier Non - SPP control area branches and ties 115 kV and above, any defined contingencies for these control areas, and generation unit outages for the control areas with SPP reserve share program redispatch. The monitor elements include all SPP control area branches, ties, and buses 69 kV and above, and all first tier Non – SPP control area branches and ties 115 kV and above. Voltage monitoring was performed for SPP control area buses 69 kV and above.

A 3 % transfer distribution factor (TDF) cutoff was applied to all SPP control area facilities. For first tier Non – SPP control area facilities, a 3 % TDF cutoff was applied to AECI, AMRN, and ENTR and a 2 % TDF cutoff was applied to MEC, NPPD, and OPPD. For voltage monitoring, a 0.02 per unit change in voltage must occur due to the transfer or modeling upgrades to be considered a valid limit to the transfer.

B. Model Development

SPP used six seasonal models to study the aggregate transfers of 585 MW over a variety of requested service periods. The SPP STEP 2008 Q4 Series Cases 2009/10 Winter Peak (09WP), 2010 Summer Peak (10SP), 2010/11 Winter Peak (10WP), 2013 Summer Peak (13SP), 2013/14 Winter Peak (13WP), and 2018 Summer Peak (18SP) were used to study the impact of the requested service on the transmission system. The Summer Peak models apply to June through September and the Winter Peak models apply to December through March.

The chosen base case models were modified to reflect the current modeling information. Five groups of requests were developed from the aggregate of 585 MW in order to minimize counter flows among requested service. Each request was included in at least two of the four groups depending on the requested path. All requests were included in group five. From the six seasonal models, five system scenarios were developed. Scenario 1 includes SWPP OASIS transmission requests not already included in the SPP 2008 Series Cases flowing in a West to East direction with ERCOTN HVDC Tie South to North, ERCOTE HVDC Tie East to West, SPS exporting,

and SPS importing from the Lamar HVDC Tie. Scenario 2 includes transmission requests not already included in the SPP 2008 Series Cases flowing in an East to West direction with ERCOTN HVDC tie North to South, ERCOTE HVDC tie East to West, SPS importing, and SPS exporting to the Lamar HVDC Tie. Scenario 3 includes transmission requests not already included in the SPP 2008 Series Cases flowing in a South to North direction with ERCOTN HVDC tie South to North, ERCOTE HVDC tie East to West, SPS exporting, and SPS exporting to the Lamar HVDC Tie. Scenario 4 includes transmission requests not already included in the SPP 2008 Series Cases flowing in a North to South direction with ERCOTN HVDC tie North to South, ERCOTE HVDC tie East to West, SPS importing, and SPS importing from the Lamar HVDC tie. Scenario 5 include all transmission not already included in the SPP 2008 Series Cases with ERCOTN North to South, ERCOTE East to West, SPS importing and SPS exporting to the Lamar HVDC tie. The system scenarios were developed to minimize counter flows from previously confirmed, higher priority requests not included in the MDWG Base Case.

C. Transmission Request Modeling

Network Integration Transmission Service requests are modeled as Generation to Load transfers in addition to Generation to Generation transfers. The Generation to Load modeling is accomplished by developing a pre-transfer case by redispatching the existing designated network resource(s) down by the new designated network resource request amount and scaling down the applicable network load by the same amount proportionally. The post-transfer case for comparison is developed by scaling the network load back to the forecasted amount and dispatching the new designated network resource being requested. Network Integration Transmission Service requests are modeled as Generation to Load transfers in addition to Generation to Generation because the requested Network Integration Transmission Service is a request to serve network load with the new designated network resource and the impacts on transmission system are determined accordingly. If the Network Integration Transmission Service request application clearly documents that the existing designated network resource(s) is

being replaced or undesignated by the new designated network resource then MW impact credits will be given to the request as is done for a redirect of existing transmission service. Point-To-Point Transmission Service requests are modeled as Generation to Generation transfers.

Generation to Generation transfers are accomplished by developing a post-transfer case for comparison by dispatching the request source and redispatching the request sink.

D. Transfer Analysis

Using the selected cases both with and without the requested transfers modeled, the PSS/E Activity ACCC was run on the cases and compared to determine the facility overloads caused or impacted by the transfer. Transfer distribution factor cutoffs (SPP and 1st-Tier) and voltage threshold (0.02 change) were applied to determine the impacted facilities. The PSS/E options chosen to conduct the analysis can be found in Appendix A.

E. Curtailment and Redispatch Evaluation

During any period when SPP determines that a transmission constraint exists on the Transmission System, and such constraint may impair the reliability of the Transmission System, SPP will take whatever actions that are reasonably necessary to maintain the reliability of the Transmission System. To the extent SPP determines that the reliability of the Transmission System can be maintained by redispatching resources, SPP will evaluate interim curtailment of existing confirmed service or interim redispatch of units to provide service prior to completion of any assigned network upgrades. Any redispatch may not unduly discriminate between the Transmission Owners' use of the Transmission System on behalf of their Native Load Customers and any Transmission Customer's use of the Transmission System to serve its designated load. Redispatch was evaluated to provide only interim service during the time frame prior to completion of any assigned network upgrades. Curtailment of existing confirmed service is evaluated to provide only interim service. Curtailment of existing confirmed service is only evaluated at the request of the transmission customer.

SPP determined potential relief pairs to relieve the incremental MW impact on limiting facilities as identified in Table 6. Using the selected cases where the limiting facilities were identified, potential incremental and decremental units were identified by determining the generation amount available for increasing and decreasing from the units generation amount, maximum generation amount, and minimum generation amount. If the incremental or decremental amount was greater than 1 MW, the unit was considered as a potential incremental or decremental unit. Generation shift factors were calculated for the potential incremental and decremental units using Managing and Utilizing System Transmission (MUST). Relief pairs from the generation shift factors for the incremental and decremental units with a greater than 3% TDF on the limiting constraint were determined from the incremental units with the lowest generation shift factors and decremental units with highest generation shift factors. If the aggregate redispatch amount for the potential relief pair was determined to be three times greater than the lower of the increment or decrement then the pair was determined not to be feasible and is not included. If transmission customer would like to see additional relief pairs beyond the relief pairs determined, the transmission customer can request SPP to provide the additional pairs. The potential relief pairs were not evaluated to determine impacts on limiting facilities in the SPP and 1st-Tier systems. The redispatch requirements would be called upon prior to implementing NERC TLR Level 5a.

4. Study Results

A. Study Analysis Results

Tables 1 through 6 contain the steady-state analysis results of the AFS. Table 1 identifies the participating long-term transmission service requests included in the AFS. This table lists deferred start and stop dates both with and without redispatch (based on customer selection of redispatch if available), the minimum annual allocated ATC without upgrades and season of first impact. Table 2 identifies total E & C cost allocated to each Transmission Customer, letter of credit requirements, third party E & C cost assignments, potential base plan E & C funding

(lower of allocated E & C or Attachment J Section III B criteria), total revenue requirements for assigned upgrades without consideration of potential base plan funding, point-to-point base rate charge, total revenue requirements for assigned upgrades with consideration of potential base plan funding, and final total cost allocation to the Transmission Customer. In addition, Table 2 identifies SWPA upgrade costs which require prepayment in addition to other allocated costs. Table 3 provides additional details for each request including all assigned facility upgrades required, allocated E & C costs, allocated revenue requirements for upgrades, upgrades not assigned to customer but required for service to be confirmed, credits to be paid for previously assigned AFS or GI network upgrades, and any third party upgrades required. Table 4 lists all upgrade requirements with associated solutions needed to provide transmission service for the AFS, Minimum ATC per upgrade with season of impact, Earliest Date Upgrade is required (DUN), Estimated Date the upgrade will be completed and in service (EOC), and Estimated E & C cost. Table 5 lists identified Third-Party constrained facilities. Table 6 identifies potential redispatch pairs available to relieve the aggregate impacts on identified constraints to prevent deferral of start of service. Table 7 (if applicable) identifies deferred expansion plan projects that were replaced with requested upgrades at earlier dates.

The potential base plan funding allowable is contingent upon meeting each of the conditions for classifying upgrades associated with designated resources as base plan upgrades as defined in Section III.B of Attachment J. If the additional capacity of the new or changed designated resource exceeds the 125% resource to load forecast for the year of start of service, the requested resource is not eligible for base plan funding of required network upgrades and the full cost of the upgrades is assignable to the customer. Additionally, if the request is for wind generation, the total requested capacity of wind generation plus existing wind generation capacity shall not exceed 20% of the Customer's projected system peak responsibility in the first year the Designated Resource is planned to be used by the Customer. If the 5 year term and 125% resource to load criteria are met, (as well as the 20% wind resource to load criteria for wind

generation requests) the requested capacity is multiplied by \$180,000 to determine the potential base plan funding allowable. The Maximum Potential Base Plan Funding Allowable may be less than the potential base plan funding allowable due to the E & C Cost allocated to the customer being lower than the potential amount allowable to the customer. The customer is responsible for any assigned upgrade costs in excess of Potential Base Plan Engineering and Construction Funding Allowable. Network upgrades required for wind generation requests located in a zone other than the customer POD shall be allocated as 67% Base Plan Region wide charge and 33% directly assigned to the customer.

Regarding application of base plan funding for PTP requests, if PTP base rate exceeds upgrade revenue requirements without taking into effect the reduction of revenue requirements by potential base plan funding, then the base rate revenue pays back the Transmission Owner for upgrades and no base plan funding is applicable as the access charge must be paid as it is the higher of "OR" pricing.

However, if initially the upgrade revenue requirements exceed the PTP base rate, then potential base plan funding would be applicable. The test of the higher of "OR" pricing would then be made against the remaining assignable revenue requirements versus PTP base rate. Examples are as follows:

Example A:

E & C allocated for upgrades is 74 million with revenue requirements of 140 million and PTP base rate of 101 million. Potential base plan funding is 47 million with the difference of 27 million E & C assignable to the customer. If the revenue requirements for the assignable portion is 54 million and the PTP base rate is 101 million, the customer will pay the higher "OR" pricing of 101 million base rate of which 54 million revenue requirements will be paid back to the

Transmission Owners for the upgrades and the remaining revenue requirements of (140-54) or 86 million will be paid by base plan funding.

Example B:

E & C allocated for upgrades is 74 million with revenue requirements of 140 million and PTP base rate of 101 million. Potential base plan funding is 10 million with the difference of 64 million E & C assignable to the customer. If the revenue requirements for this assignable portion is 128 million and the PTP base rate is 101 million the customer will pay the higher "OR" pricing of 128 million revenue requirements to be paid back to the Transmission Owners and the remaining revenue requirements of (140-128) or 12 million will be paid by base plan funding.

Example C:

E & C allocated for upgrades is 25 million with revenue requirements of 50 million and PTP base rate of 101 million. Potential base plan funding is 10 million. Base plan funding is not applicable as the higher "OR" pricing of PTP base rate of 101 million must be paid and the 50 million revenue requirements will be paid from this.

The 125% resource to load determination is performed on a per request basis and is not based on a total of designated resource requests per Customer. A footnote will provide the maximum resource designation allowable for base plan funding consideration per Customer basis per year.

Base plan funding verification requires that each Transmission Customer with potential for base plan funding provide SPP attestation statements verifying that the firm capacity of the requested designated resource is committed for a minimum five year duration.

B. Study Definitions

The Date Upgrade Needed Date (DUN) is the earliest date the upgrade is required to alleviate a constraint considering all requests. End of Construction (EOC) is the estimated date the upgrade will be completed and in service. The Total Engineering and Construction Cost (E & C) is the upgrade solution cost as determined by the transmission owner. The Transmission Customer Allocation Cost is the estimated engineering and construction cost based upon the allocation of costs to all Transmission Customers in the AFS who positively impact facilities by at least 3% subsequently overloaded by the AFS. Minimum ATC is the portion of the requested capacity that can be accommodated with out upgrading facilities. Annual ATC allocated to the Transmission Customer is determined by the least amount of allocated seasonal ATC within each year of a reservation period.

5. Conclusion

The results of the AFS show that limiting constraints exist in many areas of the regional transmission system. Due to these constraints, transmission service cannot be granted unless noted in Table 3.

The Transmission Provider will tender a Letter of Intent on July 27th, 2009. This will open a 15-day window for Customer response. To remain in the Aggregate Transmission Service Study (ATSS), the Transmission Provider must receive from the Transmission Customer (Customer) by August 11th, 2009, an executed Letter of Intent. The Letter of Intent will list options the Customer must choose to clarify their commitment to remain in the ATSS. The only action required on OASIS is to WITHDRAW the request or leave the request in STUDY mode.

The Transmission Provider must receive an unconditional and irrevocable letter of credit in the amount of the total allocated Engineering and Construction costs assigned to the Customer. This letter of credit is not required for those facilities that are base plan funded. This amount is for all

assignable Network Upgrades less pre-payment requirements. The amount of the letter of credit will be adjusted down on an annual basis to reflect amortization of these costs. The Transmission Provider will issue notifications to construct facility upgrades to the constructing Transmission Owner. This date is determined by the engineering and construction lead time provided for each facility upgrade.

6. Appendix A

PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

BASE CASES:	
Solutions - Fixed sl	ope decoupled Newton-Raphson solution (FDNS)
Tap adjustment – S	
Area interchange co	ontrol – Tie lines and loads
Var limits – Apply	immediately
	X Phase shift adjustment
•	_ Flat start
	_ Lock DC taps
	_ Lock switched shunts
ACCC CASES:	
Solutions – AC con	tingency checking (ACCC)
MW mismatch tole	rance - 0.5
Contingency case ra	ating – Rate B
Percent of rating –	100
Output code – Sum	
Min flow change in	overload report – 3mw
Excld cases w/ no c	overloads form report – YES
Exclude interfaces:	from report – NO
Perform voltage lin	nit check – YES
Elements in availab	ele capacity table – 60000
	r available capacity table – 99999.0
Min. contng. case V	/ltg chng for report – 0.02
Sorted output – Nor	ne
Newton Solution:	
Tap adjustment – S	tepping
Area interchange co	ontrol – Tie lines and loads
Var limits - Apply a	automatically
Solution options -	X Phase shift adjustment
	_ Flat start
	_ Lock DC taps
	_ Lock switched shunts

Table 1 - Long-Term Transmission Service Requests Included in Aggregate Facility Study

Customer	Study Number	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Date without interim redispatch	Deferred Stop Date without interim redispatch	Start Date with interim redispatch	Stop Date with interim redispatch	Minimum Allocated ATC (MW) withing reservation period	Season of Minimum Allocated ATC within reservation period
	AG2-2007-051	1283682		CSWS	152	6/1/2008	6/1/2013	10/1/2010		10/1/2009			10SP
	AG2-2007-107	1286446		CSWS	100	1/1/2009	1/1/2010	6/1/2011	6/1/2012	10/1/2009			10SP
	AG2-2007-047	1283676		SPA	12	6/1/2010	6/1/2040	6/1/2010		6/1/2010			10SP
	AG2-2007-109	1286498	KCPL	EES	82	1/1/2009	6/1/2010	10/1/2009	3/1/2011	10/1/2009	4/1/2011		10SP
KEPC	AG2-2007-028	1281648	WR	EDE	6	1/1/2008	1/1/2019	10/1/2009	10/1/2020			0	10SP
KPP	AG2-2007-072	1285893	WR	WR	8	11/1/2007	11/1/2017	6/1/2012	6/1/2022	10/1/2009	10/1/2019		10SP
MIDW	AG2-2007-012	1268955	WR	WR	5	6/1/2008	6/1/2013	10/1/2009	10/1/2014			0	10SP
MIDW	AG2-2007-013	1268959	WR	WR	1	6/1/2008	6/1/2013	10/1/2009	10/1/2014			0	10SP
MIDW	AG2-2007-014	1268965	WR	WR	1	6/1/2008	6/1/2013	10/1/2009	10/1/2014			0	10SP
MIDW	AG2-2007-034	1281706	WR	WR	25	3/1/2008	3/1/2027	6/1/2012	6/1/2031	10/1/2009	10/1/2028	0	10SP
MIDW	AG2-2007-078	1285947	WR	WR	2	6/1/2008	6/1/2013	10/1/2009	10/1/2014			0	10SP
SPRM	AG2-2007-110	1286502	WR	SPA	25	12/1/2008	12/1/2028	10/1/2009	10/1/2029	10/1/2009	10/1/2029	0	10SP
WRGS	AG2-2007-011D	1268638	KCPL	AMRN	20	6/1/2010	6/1/2015	6/1/2010	6/1/2015	6/1/2010	6/1/2015	0	10SP
WRGS	AG2-2007-017D	1278809	EES	SPA	20	3/1/2010	3/1/2040	3/1/2010	3/1/2040	3/1/2010	3/1/2040	0	10SP
WRGS	AG2-2007-018D	1278811	EES	SPA	20	3/1/2010	3/1/2040	3/1/2010	3/1/2040	3/1/2010	3/1/2040	0	10SP
WRGS	AG2-2007-019D	1278813	EES	SPA	7	3/1/2010	3/1/2040	3/1/2010	3/1/2040	3/1/2010	3/1/2040	0	10SP
WRGS	AG2-2007-092D	1286201	SECI	WR	99	3/1/2009	3/1/2019	6/1/2012	6/1/2022	10/1/2009	10/1/2019	0	10SP

Note 1: Start and Stop Dates with interim redispatch are determined based on customers choosing option to pursue redispatch to start service at Requested Start and Stop Dates or earliest date possible.

Note 2: Start dates with and without redispatch are based on the assumed completion dates of previous Aggregate Transmission Service Studies currently being conducted. Actual start dates may differ from the potential start dates upon completion of the previous studies.

Table 2 - Total Revenue Requirements Associated with Long-Term Transmission Service Requests

Customer	Study Number	Reservation	Engineering and Construction Cost of Upgrades Allocated to Customer for Revenue Requirements	¹ Letter of Credit Amount Required	² Potential Base Plan Engineering and Construction Funding Allowable	Notes	⁴ Additional Engineering and Construction Cost for 3rd Party Upgrades	³ Total Revenue Requirements for Assigned Upgrades Over Term of Reservation WITHOUT Potential Base Plan Funding Allocation	35 Total Revenue Requirements for Assigned Upgrades Over Term of Reservation WITH Potential Base Plan Funding Allocation	Point-to-Point Base Rate Over Reservation Period	⁴ Total Cost of Reservation Assignable to Customer Contingent Upon Base Plan Funding
AEPM	AG2-2007-051	1283682	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -	Schedule 9 Charges
AEPM	AG2-2007-107	1286446	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -	Schedule 9 Charges
CWEP	AG2-2007-047	1283676	\$ -	\$ -	\$ -			\$ -	\$ -	\$ 4,104,000	\$ 4,104,000
KCPS	AG2-2007-109	1286498	\$ -	\$ -	\$ -			\$ -	\$ -	\$ 1,324,300	\$ 1,324,300
KEPC	AG2-2007-028	1281648	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -	Schedule 9 Charges
KPP	AG2-2007-072	1285893	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -	Schedule 9 Charges
MIDW	AG2-2007-012	1268955	\$ -	\$ -	\$ -			\$ -	\$ -	\$ 719,700	\$ 719,700
MIDW	AG2-2007-013	1268959	\$ -	\$ -	\$			\$ -	\$	\$ 143,940	\$ 143,940
MIDW	AG2-2007-014	1268965	\$ -	\$ -	\$			\$ -	\$	\$ 143,940	\$ 143,940
MIDW	AG2-2007-034	1281706	\$ -	\$ -	\$			\$ -	\$ -	\$ -	Schedule 9 Charges
MIDW	AG2-2007-078	1285947	\$ -	\$ -	\$			\$ -	\$ -	\$ 287,880	\$ 287,880
SPRM	AG2-2007-110	1286502	\$ -	\$ -	\$		6,500,000	\$ -	\$ -	\$ -	Schedule 9 Charges
WRGS	AG2-2007-011D	1268638	\$ -	\$ -	\$			\$ -	\$ -	\$ 1,140,000	\$ 1,140,000
WRGS	AG2-2007-017D	1278809	\$ -	\$ -	\$			\$ -	\$	\$ 6,840,000	\$ 6,840,000
WRGS	AG2-2007-018D	1278811	\$ -	\$ -	\$			\$ -	\$ -	\$ 6,840,000	\$ 6,840,000
WRGS	AG2-2007-019D	1278813	\$ -	\$ -	\$ -			\$ -	\$ -	\$ 2,394,000	\$ 2,394,000
WRGS	AG2-2007-092D	1286201	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -	Schedule 9 Charges
Grand Total			\$ -				\$ 6,500,000	\$	\$ -		

Note 1: Letter of Credit required for financial security for transmission owner for network upgrades is determined by allocated engineering and construction costs less engineering and construction costs for upgrades when network customer is the transmission owner less the E & C allocation of expedited projects. Letter of Credit is not required for upgrades fully funded by PTP base rate or base plan funding. The Letter Of Credit Amount listed is based on meeting OATT Attachment J requirements for base plan funding.

Note 2. If potential base plan funding is applicable, this value is the lesser of the Engineering and Construction costs of assignable upgrades or the value of base plan funding calculated pursuant to Attachment J, Section III B criteria. Allocation of base plan funding is contingent upon verification of customer agreements meeting Attachment J, Section II B criteria. Not applicable if Point-to-Point base rate exceeds revenue requirements.

Note 3: Revenue Requirements (RR) are based upon deferred end dates if applicable. Deferred dates are based upon customer's choice to pursue redispatch. Achievable Base Plan Avoided RR in the case of a Base Plan upgrade being displaced or deferred by an earlier in service date for a Requested Upgrade shall be determined per Attachment J, Section VII.C methodology. Assumption of a 40 year service life is utilized for Base Plan funded projects. A present worth analysis of RR on a common year basis between the Base Plan and Requested Upgrades was performed to determine avoided Base Plan RR due to the displacement or deferral of the Base Plan upgrade by the Requested Upgrade. The incremental increase in present worth of a Requested Upgrade on a common year basis as a Base Plan upgrade is assigned to the transmission requests impacting the upgrade based on the displacement or deferral. If the displacement analysis results in lower RR due to the shorter amortization period of the requested upgrade when compared to a base plan amortization period, then no direct assignment of the upgrade cost is made due to the displacement to an earlier start date.

Note 4. For Point-to-Point requests, total cost is based on the higher of the base rate or assigned upgrade revenue requirements. For Network requests, the total cost is based on the assigned upgrade revenue requirement. Allocation of base plan funding will be determined after verification of designated resource meeting Attachment J, Section II B Criteria. Additionally E & C of 3rd Party upgrades is assignable to Customer. This includes prepayments required for any SWPA upgrades. Revenue requirements for 3rd Party facilities are not calculated. Total cost to customer is based on assumption of Revenue Requirements with confirmation of base plan funding. Customer is responsible for negotiating redispatch costs if applicable. Customer is also responsible to pay credits for previously assigned upgrades that are impacted by their request. Credits can be paid from base plan funding if applicable.

Table 2 - Total Revenue Requirements Associated with Long-Term Transmission Service Requests

Note 5: RR with base plan funding may increase or decrease even if no base plan funding is applicable to a particular request if another request that shares the upgrade is now full base plan funded resulting in a different amortization period for the upgrade and thus different RR.

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer	Reservation	POR	POD	Requested Amount		Requested	Deferred Start Date Without Redispatch		Potential Base Plan Funding Allowable	Point-to-Point	Allocated E & C Cost	Total Revenue
AEPM	1283682	WFEC	CCMC	152	6/1/2008	6/1/2013	10/1/2010			6	0	¢
AEPIVI	1203002	WFEC	COVO	102	0/1/2000	0/1/2013	10/1/2010	10/1/2013	J	- ·	J	Φ
									\$ -	\$ -	\$ -	\$

						Base Plan				
				Earliest	Redispatch	Funding for	Directly Assigned	Allocated E & C	Total E & C	Total Revenue
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	Wind	for Wind	Cost	Cost	Requirements
1283682	None					\$ -	\$ -	\$ -	\$ -	\$ -
			•		Total	٠ .	\$	٠.	\$ -	٠ .

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1283682	DIANA - LONE STAR SOUTH 138KV CKT 1	12/1/2009	12/1/2010	4/1/2010	Yes

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1283682	RIVERSIDE STATION - TULSA POWER STATION 138KV CKT 1	6/1/2010	6/1/2011	10/1/2010	Yes
	SILOAM CITY - SILOAM SPRINGS 161KV CKT 1	6/1/2010	6/1/2011		

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1283682	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer	Reservation	POR	POD	Requested Amount		Requested			Potential Base Plan Funding Allowable	Point-to-Point	Allocated E & C Cost	Total Revenue
AEPM	1286446			100						6	6	C
AEPIVI	1280446	CSWS	CSWS	100	1/1/2009	1/1/2010	6/1/2011	6/1/2012	a -	\$ -	3 -	Þ
									\$ -	\$ -	\$ -	\$

			Earliest	Redispatch	Allocated E & C		Total Revenue
Reservation Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements
1286446 None					\$ -	\$ -	\$
				Total	\$ -	\$ -	S

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1286446	DIANA - LONE STAR SOUTH 138KV CKT 1	12/1/2009	12/1/2010	4/1/2010	Yes

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1286446	RIVERSIDE STATION - TULSA POWER STATION 138KV CKT 1	6/1/2010	6/1/2011	10/1/2010	Yes
	SILOAM CITY - SILOAM SPRINGS 161KV CKT 1	6/1/2010	6/1/2011		Yes

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer	Reservation	POR	POD		Requested Start Date	Requested Stop Date	Date Without	Deferred Stop Date Without Redispatch	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
CWEP	1283676	EES	SPA	12	6/1/2010	6/1/2040	0		\$ 4,104,000	\$ -	\$
			•	•	•		•		\$ 4,104,000	\$ -	\$

				Earliest	Redispatch	Allocated E & C		Total Revenue	
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements	
1283676	None					\$ -	\$	\$	-
					Total	٠ .	\$ -	9	

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1283676	BULL SHOALS - BULL SHOALS HES 161KV CKT 1	6/1/2010	6/1/2010		

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
128367	6 3RDST - ARKOMA 161KV CKT 1	6/1/2017	6/1/2017		
	ASHDOWN WEST - CRAIG JUNCTION 138KV CKT 1	6/1/2013	6/1/2013		
	CARTHAGE (CRG X1) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2013	6/1/2013		
	CARTHAGE (CRG X2) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2013	6/1/2013		
	Multi - Stateline - Joplin - Reinmiller conversion	6/1/2016	6/1/2016		

Credits may be required for the following network upgrades directly assigned to transmission customers in previous aggregate study.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1283676	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		ĺ
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		ĺ
	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest Service Start	Redispatch
Reservation	Upgrade Name	DUN			Available
1283676	CALICO ROCK - NORFORK 161KV CKT 1	12/1/2010	12/1/2010		
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA #1	6/1/2010	6/1/2010		
	DARDANELLE - RUSSELL VILLE SOUTH 161KV CKT 1 SWPA #2	6/1/2010	6/1/2010		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer Study Number KCPS AG2-2007-109

Customer		POR	POD		Requested Start Date	Requested Stop Date	Redispatch	Date Without		Allocated E & C Cost	Total Revenue Requirements	
KCPS	1286498	KCPL	EES	82	1/1/2009	6/1/2010	10/1/2009	3/1/2011	\$ 1,324,300	\$ -	\$	-
			•	•	•		•		\$ 1,324,300	\$ -	\$	-

			Earliest	Redispatch	Allocated E & C		Total Revenue
Reservation Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements
1286498 None					\$ -	\$ -	\$
				Total	\$ -	\$ -	S

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1286498	ALUMAX TAP - BANN 138KV CKT 1	6/1/2008	6/1/2008		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
	RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer Study Number KEPC AG2-2007-028

Customer	Reservation	POR		Requested Amount	Requested Start Date	Requested Stop Date		Date Without		Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
KEPC	1281648	WR	EDE	6	1/1/2008	1/1/2019	9 10/1/2009	10/1/2020	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

				Earliest	Redispatch	Allocated E & C		Total Revenue
Reservation U	Jpgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements
1281648 N	lone					\$ -	\$ -	\$
					Total	٠ .	\$ -	6

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1281648	BISMARK JUNCTION SWITCHING STATION - FARMERS CONSUMER CO-OP 115KV CKT 1	6/1/2010	6/1/2011	10/1/2010	
	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	6/1/2011	6/1/2011		
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2012	10/1/2011	
	PLATTE CITY - SMITHVILLE 161KV CKT 1	12/1/2010	12/1/2010		
	South Harper 161 kV cut-in to Stilwell-Archie JCT 161 kV line	6/1/2010	10/1/2010	10/1/2010	

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1281648	Multi - Stateline - Joplin - Reinmiller conversion	6/1/2016	6/1/2016		
	SILOAM CITY - SILOAM SPRINGS 161KV CKT 1	6/1/2010	6/1/2011		
	TECUMSEH ENERGY CENTER - TECUMSEH HILL 115KV CKT 1	6/1/2013	6/1/2013		

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1281648	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2010	6/1/2011	10/1/2010	
	REDEL - STILWELL 161KV CKT 1	6/1/2010	6/1/2011	10/1/2010	

					Earliest	Redispatch
	Reservation	Upgrade Name	DUN	EOC	Service Date	Available
	1281648	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
		RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
		RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
		SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		
		SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
Ī		WICHITA - RENO 345KV	6/1/2009	6/1/2009		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer Study Number KPP AG2-2007-072

Customer	Reservation	POR		A		Requested	Deferred Start Date Without	Date Without	Potential Base Plan Funding Allowable	Point-to-Point		Total Revenue
Customer	Reservation	PUR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KPP	1285893	WR	WR	8	11/1/2007	11/1/2017	6/1/2012	6/1/2022	\$ -	\$ -	\$ -	\$

				Earliest	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements
1285893	None					\$ -	\$ -	\$ -
					Total	٠ .	\$	٤ .

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1285893	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2013	6/1/2013		
	CHISHOLM - RIPLEY 69KV CKT 1	6/1/2010	6/1/2010		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	6/1/2010	6/1/2012	10/1/2011	
	EAST MANHATTAN - NW MANHATTAN 230/115KV	6/1/2010	12/1/2011	10/1/2011	
	East Manhattan to Mcdowell 230 kV	6/1/2010	6/1/2012	10/1/2011	
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2012	10/1/2011	

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1285893	AQUARIUS - HUDSON JUNCTION 69KV CKT 1	6/1/2018	6/1/2018		
	AQUARIUS - LITCHFIELD 69KV CKT 1	6/1/2018	6/1/2018		
	BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2012	10/1/2011	Yes
	HUDSON JUNCTION - PITTSBURG 69KV CKT 1	6/1/2018	6/1/2018		
	LITCHFIELD - AQUARIUS - HUDSON JUNCTION 69KV CKT 1	6/1/2013	6/1/2013		
	SEVENTEENTH () 138/69/11.295KV TRANSFORMER CKT 2	6/1/2010	6/1/2013	10/1/2010	
	STRANGER CREEK - NW LEAVENWORTH 115KV	6/1/2010	6/1/2011	10/1/2010	Yes

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1285893	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 Displacement	6/1/2010	6/1/2012		Yes
	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Displacement	6/1/2010	6/1/2011		Yes

					Earliest	Redispatch
Re	servation	Upgrade Name	DUN	EOC	Service Date	Available
	1285893	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
		RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
		RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
		SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
		WICHITA - RENO 345KV	6/1/2009	6/1/2009		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
MIDW	1268955	WR	WR	5	6/1/2008	6/1/2013	10/1/2009	10/1/2014	\$ -	\$ 719,700	\$ -	\$
			•				•		\$ -	\$ 719,700	\$ -	\$

				Earliest	Redispatch	Allocated E & C		Total Revenue	٦
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements	
1268955	None					\$ -	\$ -	\$	-7
				Total		\$ -	\$ -	S	-7

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch	l
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	ı
1268955	27TH & CROCO - TECUMSEH HILL 115KV CKT 1	6/1/2010	1/1/2011	10/1/2010		ı
	27TH & CROCO JUNCTION - 41ST & CALIFORNIA 115KV CKT 1	6/1/2010	1/1/2012	10/1/2010		ı
	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	6/1/2011	6/1/2011			ı
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2012	10/1/2011		L
	South Harper 161 kV cut-in to Stilwell-Archie JCT 161 kV line	6/1/2010	6/1/2011	10/1/2010		ı

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
126895	5 KINSLEY 115KV Capacitor	6/1/2011	6/1/2011		
	TECUMSEH ENERGY CENTER - TECUMSEH HILL 115KV CKT 1	6/1/2013	6/1/2013		

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1268955	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2010	6/1/2011	10/1/2010	
	REDEL - STILWELL 161KV CKT 1	6/1/2010	6/1/2011	10/1/2010	

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1268955	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
	RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
MIDW	1268959	WR	WR	1	6/1/2008	6/1/2013	10/1/2009	10/1/2014	1 \$ -	\$ 143,940	\$ -	\$
		•		•	•		•	•	\$ -	\$ 143,940	\$ -	\$

				Earliest	Redispatch	Allocated E & C		Total Revenue	٦
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements	
1268959	None					\$ -	\$ -	\$	-7
				Total		\$ -	\$ -	S	-

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1268959	27TH & CROCO - TECUMSEH HILL 115KV CKT 1	6/1/2010	1/1/2011	10/1/2010	
	27TH & CROCO JUNCTION - 41ST & CALIFORNIA 115KV CKT 1	6/1/2010	1/1/2012	10/1/2010	
	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	6/1/2011	6/1/2011		
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2012	10/1/2011	

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1268959	KINSLEY 115KV Capacitor	6/1/2011	6/1/2011		
	TECUMSEH ENERGY CENTER - TECUMSEH HILL 115KV CKT 1	6/1/2013	6/1/2013		

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

					Earliest	Redispatch
1	Reservation	Upgrade Name	DUN	EOC	Service Date	Available
	1268959	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2010	6/1/2011	10/1/2010	

					Earliest	Redispatch
Res	servation	Upgrade Name	DUN	EOC	Service Date	Available
	1268959	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
		RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
		RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
		SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
		WICHITA - RENO 345KV	6/1/2000	6/1/2000		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
MIDW	1268965	WR	WR	1	6/1/2008	6/1/2013	10/1/2009	10/1/2014	\$ -	\$ 143,940	\$ -	\$
		•	•				•		\$ -	\$ 143,940	S -	\$

				Earliest	Redispatch	Allocated E & C		Total Revenue	7
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements	
1268965	None					\$ -	\$	\$	-
				Total		\$ -	\$ -	S	

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1268965	27TH & CROCO - TECUMSEH HILL 115KV CKT 1	6/1/2010	1/1/2011	10/1/2010	
	27TH & CROCO JUNCTION - 41ST & CALIFORNIA 115KV CKT 1	6/1/2010	1/1/2012	10/1/2010	
	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	6/1/2011	6/1/2011		
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2012	10/1/2011	

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch	
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	
1268965	KINSLEY 115KV Capacitor	6/1/2011	6/1/2011			
	TECUMSEH ENERGY CENTER - TECUMSEH HILL 115KV CKT 1	6/1/2013	6/1/2013			

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

					Earliest	Redispatch
1	Reservation	Upgrade Name	DUN	EOC	Service Date	Available
	1268965	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2010	6/1/2011	10/1/2010	

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1268965	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
	RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

Customer	Reservation	POR	POD	rioquooiou		Requested		Date Without	Potential Base Plan Funding Allowable	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
MIDW	1281706	WR	WR	25	3/1/2008	3/1/2027	6/1/2012	6/1/2031	\$ -	\$ -	\$ -	\$
									\$ -	s -	\$ -	\$

						Base Plan				
				Earliest	Redispatch	Funding for	Directly Assigned	Allocated E & C	Total E & C	Total Revenue
Reservation Upgrad	e Name	DUN	EOC	Service Date	Available	Wind	for Wind	Cost	Cost	Requirements
1281706 None						\$ -	\$ -	\$ -	\$ -	\$ -
					Total	S -	\$ -	S -	\$ -	\$ -

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch	ı
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	ı
1281706	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2013	6/1/2013			ı
	CHISHOLM - RIPLEY 69KV CKT 1	6/1/2010	6/1/2010			ı
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	6/1/2010	6/1/2012	10/1/2011	Yes	ı
	EAST MANHATTAN - NW MANHATTAN 230/115KV	6/1/2010	12/1/2011	10/1/2011	Yes	ı
	East Manhattan to Mcdowell 230 kV	6/1/2010	6/1/2012	10/1/2011	Yes	ı
	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 MIDW	6/1/2018	6/1/2018			ı
	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 WERE	6/1/2018	6/1/2018			ı
	HUNTSVILLE - ST. JOHN 115KV CKT 1	6/1/2018	6/1/2018			ı

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
		DUN	EOC	Service Date	Available
1281706	AQUARIUS - HUDSON JUNCTION 69KV CKT 1	6/1/2018	6/1/2018		
	AQUARIUS - LITCHFIELD 69KV CKT 1	6/1/2018	6/1/2018		
	BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2012	10/1/2011	Yes
	HUDSON JUNCTION - PITTSBURG 69KV CKT 1	6/1/2018	6/1/2018		
	KINSLEY 115KV Capacitor	6/1/2011	6/1/2011		
	LITCHFIELD - AQUARIUS - HUDSON JUNCTION 69KV CKT 1	6/1/2013	6/1/2013		
	LYONS - WHEATLAND 115KV CKT 1 MIDW	6/1/2018	6/1/2018		
	LYONS - WHEATLAND 115KV CKT 1 WERE	6/1/2018	6/1/2018		
	SEVENTEENTH () 138/69/11.295KV TRANSFORMER CKT 2	6/1/2010	6/1/2013	10/1/2010	Yes
	STRANGER CREEK - NW LEAVENWORTH 115KV	6/1/2010	6/1/2011	10/1/2010	Yes

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

					Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1281706	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 Displacement	6/1/2010	6/1/2012		Yes
	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2010	6/1/2011	10/1/2010	Yes
	ROSE HILL (ROSEHLIX) 345/138/13 8KV TRANSFORMER CKT 3 Displacement	6/1/2010	6/1/2011		Yes

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1281706	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
	RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer	Reservation	POR	POD	Requested Amount		Requested	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point		Total Revenue Requirements
MIDW	1285947	WR	WR	2	6/1/2008	6/1/2013	10/1/2009	10/1/2014	\$ -	\$ 287,880	\$	\$
									\$ -	\$ 287,880	\$ -	\$

ſ					Earliest	Redispatch	Allocated E & C		Total Revenue	٦
	Reservation	Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements	
Ì		None					\$ -	\$ -	\$.]
						Total	\$ -	\$ -	\$	Л

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1285947	27TH & CROCO - TECUMSEH HILL 115KV CKT 1	6/1/2010	1/1/2011	10/1/2010	
	27TH & CROCO JUNCTION - 41ST & CALIFORNIA 115KV CKT 1	6/1/2010	1/1/2012	10/1/2010	
	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	6/1/2011	6/1/2011		
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2012	10/1/2011	

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1285947	KINSLEY 115KV Capacitor	6/1/2011	6/1/2011		
	TECUMSEH ENERGY CENTER - TECUMSEH HILL 115KV CKT 1	6/1/2013	6/1/2013		

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

					Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1285947	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 Displacement	6/1/2010	6/1/2012		
	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2010	6/1/2011	10/1/2010	
	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Displacement	6/1/2010	6/1/2011		

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1285947	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
	RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer	Study Number
SPRM	AG2-2007-110

	Reservation	POR	POD	Requested Amount		Requested	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point		Total Revenue Requirements
SPRM	1286502	WR	SPA	25	12/1/2008	12/1/2028	10/1/2009	10/1/2029	\$ -	\$ -	\$ -	\$
									\$ -	\$ -	\$ -	\$

						Base Plan				
				Earliest	Redispatch	Funding for	Directly Assigned	Allocated E & C	Total E & C	Total Revenue
Reservation	Upgrade Name	DUN				Wind	for Wind	Cost	Cost	Requirements
1286502	None					\$ -	\$ -	\$ -	\$ -	\$ -
					Total	S -	S -	S -	\$ -	S -

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch	ı
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	ı
1286502	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2013	6/1/2013			ı

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1286502	BROOKLINE - JUNCTION 161KV CKT 1	6/1/2017	6/1/2017		
	SILOAM CITY - SILOAM SPRINGS 161KV CKT 1	6/1/2010	6/1/2011		

Credits may be required for the following network upgrades directly assigned to transmission customers in previous aggregate study.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1286502	RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
	RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

Third Party Limitations.

THIIU Party LIII	itations.						
				Earliest			
				Service Start	Redispatch	Allocated E & C	
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cost
1286502	HUBEN 345/161KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$ 6,500,000	\$ 6,500,000
				Total		\$ 6,500,000	\$ 6,500,000

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer Study Number WRGS AG2-2007-011D

Customer	Reservation	POR	POD	Requested Amount		Stop Date	Date Without Redispatch	Date Without	Potential Base Plan Funding Allowable	Point-to-Point		Total Revenue Requirements
WRGS	1268638	KCPL	AMRN	20	6/1/2010	6/1/2015			\$ -	\$ 1,140,000	\$ -	\$ -
		•	•						\$ -	\$ 1,140,000	\$ -	\$ -

	<u>'</u>			Earliest	Redispatch	Allocated E & C		Total Revenue	
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements	
1268638	None					\$ -	\$ -	\$	
					Total	\$ -	\$ -	\$ -	1

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1268638	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		ĺ
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer Study Number WRGS AG2-2007-017D

Customer	Reservation	POR	POD	rioquotiou		Requested	Deferred Start Date Without Redispatch	Date Without	Potential Base Plan Funding Allowable	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
WRGS	1278809		SPA	20	3/1/2010		redispaten	redispaten	\$ -	\$ 6,840,000	\$ -	\$ -
			•						\$ -	\$ 6,840,000	\$ -	\$ -

			Earliest	Redispatch	Allocated E & C		Total Revenue	
Reservation Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements	
1278809 None					\$ -	\$ -	\$	Ξ
				Total	\$ -	\$ -	S	_

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	
				Service Start	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1278809	ASHERVILLE - IDALIA 161KV CKT 1 SWPA	6/1/2011	6/1/2011		
	ASHERVILLE - POPLAR BLUFF 161KV CKT 1 SWPA	6/1/2012	6/1/2012		

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	
				Service Start	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1278809	CALICO ROCK - NORFORK 161KV CKT 1	12/1/2010	12/1/2010		

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer Study Number WRGS AG2-2007-018D

Customer	Reservation	POR	POD		Requested Start Date	Requested Stop Date	Date Without			Point-to-Point		Total Revenue Requirements
WRGS	1278811	EES	SPA	20	3/1/2010	3/1/204	.0		\$ -	\$ 6,840,000	\$ -	\$ -
					•	•	•	•	\$ -	\$ 6,840,000	\$ -	\$ -

	Earliest	Redispatch	Allocated E & C		Total Revenue	,
Reservation Upgrade	Name DUN EOC Service Date	Available	Cost	Total E & C Cost	Requirements	
1278811 None			\$ -	\$ -	\$	Ξ
		Total	\$ -	\$ -	S	_

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	
				Service Start	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1278811	HERGETT - JONESBORO 161KV CKT 1 SWPA	6/1/2013	6/1/2013		
				Total	

Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade

Customer Study Number WRGS AG2-2007-019D

Customer	Reservation	POR	POD	Requested Amount		Requested	Date Without	Date Without		Point-to-Point		Total Revenue Requirements
WRGS	1278813	EES	SPA	7	3/1/2010	3/1/2040			\$ -	\$ 2,394,000	\$ -	\$ -
		•	•					•	\$ -	\$ 2,394,000	\$ -	\$ -

					Earliest	Redispatch	Allocated E & C		Total Revenue	
	Reservation	Upgrade Name	DUN	EOC	Service Date	Available	Cost	Total E & C Cost	Requirements	
	1278813	None					\$ -	\$ -	\$	-
_						Total	\$ -	\$ -	\$	-

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	
				Service Start	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1278813	HERGETT - JONESBORO 161KV CKT 1 SWPA	6/1/2013	6/1/2013		
				Total	

Customer Study Number WRGS AG2-2007-092D

Customer	Reservation	POR	POD	Requested Amount		Requested				Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
WRGS	1286201	SECI	WR	99	3/1/2009	3/1/2019	6/1/2012	6/1/2022	\$ -	\$ -	\$ -	\$ -
		•		•					\$ -	\$ -	\$ -	\$ -

						Base Plan				
				Earliest	Redispatch	Funding for	Directly Assigned	Allocated E & C	Total E & C	Total Revenue
Reservation	Upgrade Name	DUN	EOC	Service Date	Available	Wind	for Wind	Cost	Cost	Requirements
1286201	None					\$ -	\$ -	\$ -	\$ -	\$ -
		•	•	•	Total	S -	S -	S -	\$ -	\$ -

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1286201	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2013	6/1/2013		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	6/1/2010	6/1/2012	10/1/2011	Yes
	EAST MANHATTAN - NW MANHATTAN 230/115KV	6/1/2010	12/1/2011	10/1/2011	Yes
	Fast Manhattan to Mcdowell 230 kV	6/1/2010	6/1/2012	10/1/2011	Yes

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1286201	AQUARIUS - HUDSON JUNCTION 69KV CKT 1	6/1/2018	6/1/2018		
	AQUARIUS - LITCHFIELD 69KV CKT 1	6/1/2018	6/1/2018		
	BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2012	10/1/2011	Yes
	GILL ENERGY CENTER WEST - WACO 138KV CKT 1	6/1/2010	6/1/2012	10/1/2011	Yes
	HUDSON JUNCTION - PITTSBURG 69KV CKT 1	6/1/2018	6/1/2018		
	KINSLEY 115KV Capacitor	6/1/2011	6/1/2011		
	LITCHFIELD - AQUARIUS - HUDSON JUNCTION 69KV CKT 1	6/1/2013	6/1/2013		
	SEVENTEENTH () 138/69/11.295KV TRANSFORMER CKT 2	6/1/2010	6/1/2013	10/1/2010	Yes
	STRANGER CREEK - NW LEAVENWORTH 115KV	6/1/2010	6/1/2011	10/1/2010	Yes

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

					Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1286201	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 Displacement	6/1/2010	6/1/2012		Yes
	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2010	6/1/2011	10/1/2010	Yes
	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Displacement	6/1/2010	6/1/2011		Yes

Credits may be required for the following network upgrades directly assigned to transmission customers in previous aggregate study.

				Earliest	Redispatch
Reservation	Upgrade Name	DUN	EOC	Service Date	Available
1286201	RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
	RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

Table 4 - Upgrade Requirements and Solutions Needed to Provide Transmission Service for the Aggregate Study

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
	None				\$ -

Construction Pending Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Date of Upgrade Completion (EOC)
		Reconductor line with 1192 ACSS and upgrade terminal equipment		
KACP	REDEL - STILWELL 161KV CKT 1	for 2000 amps	6/1/2010	6/1/2011
		Replace buswork within bay and change metering CT ratio, replace		
		wavetraps. Entergy must also reconductor their line to increase the		
SWPA	CALICO ROCK - NORFORK 161KV CKT 1	rating.	12/1/2010	12/1/2010
		Replace wave trap, disconnect switches, current transformers, and		
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA #1	breaker. Bus will limit rating to 1340 amps.	6/1/2010	6/1/2010
SWPA	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA #2	Replace the bus within the bay for the Russellville line.	6/1/2010	6/1/2010
WERE	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 Displacement	Replace Disconnect Switches, Wavetrap, Breaker, Jumpers	6/1/2010	6/1/2012
	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	Replace bus and Jumpers at NE Parsons 138 kV substation	6/1/2010	6/1/2011
WERE	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Displacement	Add third 345-138 kV transformer at Rose Hill	6/1/2010	6/1/2011

Expansion Plan Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

Transmission Owner	Projects - The requested service is contingent upon completion of the following upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
AEPW	DIANA - LONE STAR SOUTH 138KV CKT 1	Replace switches and reset CT	12/1/2009	12/1/2010
MIDW	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 MIDW	Tear down and rebuild 73.4% Ownership 28.79 mile HEC-Huntsville 115 kV line and replace CT, wavetrap and relays.	6/1/2018	6/1/2018
MIDW	HUNTSVILLE - ST_JOHN 115KV CKT 1	Rebuild 26.5 miles Huntsville - St. John 115 kV line and replace CT, wavetrap, breakers, and relays.	6/1/2018	6/1/2018
MIPU	PLATTE CITY - SMITHVILLE 161KV CKT 1	Replace wavetrap between Platte City and Smithville.	12/1/2010	12/1/2010
MIPU	South Harper 161 kV cut-in to Stilwell-Archie JCT 161 kV line	To tap Stilwell-Archie JCT 161 kV line into South Harper 161 kV sub and make it two new 161 kV sections: Stilwell-South Harper and Archie JCT-South Harper. Convert 69 kV to 138 kV and install terminal equipment at Dover SW; Instal 7 miles of new 138 kV fro WFEC Twin Lakes to OGE Cresent	6/1/2010	6/1/2011
OKGE	Multi-Dover-Twin Lake Cresent 138 kV	substation	6/1/2014	6/1/2014
SWPA	BULL SHOALS - BULL SHOALS HES 161KV CKT 1	Replace buswork in Bull Shoals switchyard	6/1/2010	6/1/2010
WERE	27TH & CROCO - TECUMSEH HILL 115KV CKT 1	Tear down and rebuild 2.72 mile Tecumseh Hill-27th & Croco 115 kV line as a single circuit.	6/1/2010	1/1/2011
WERE	27TH & CROCO JUNCTION - 41ST & CALIFORNIA 115KV CKT 1	Tear down and rebuild 3.43 mile 27th & Croco-41ST & CALIFORNIA 115 kV line as a single circuit.	6/1/2010	1/1/2012
WERE	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	Add second Auburn 230-115 kV transformer.	6/1/2013	6/1/2013
WERE	BISMARK JUNCTION SWITCHING STATION - FARMERS CONSUMER CO-OP 115KV CKT 1	Rebuild 2.9 mi 115 kV line Bismark to COOP	6/1/2010	6/1/2011
WERE	CHISHOLM - RIPLEY 69KV CKT 1	Tear down and rebuild 2.40 miles using single 1192.5 ACSR operated at 69 kV.	6/1/2010	6/1/2010
WERE	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	Rebuild Circle - HEC GT 115 kV line.	6/1/2011	6/1/2011
WERE	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	Uprate JEC- E.Manhattan 230 kV line to 100 deg C operation by raising structures	6/1/2010	6/1/2012
WERE	EAST MANHATTAN - NW MANHATTAN 230/115KV	Tap the Concordia - East Manhattan 230kV line and add a new substation NV Manhattan'; Add a 230kV/115kV transformer and tap the KSU - Wildcat 115kV line into NW Manhattan The East Manhattan-McDowell 115 kV is built as a 230 kV line, but is	6/1/2010	12/1/2011
WERE	East Manhattan to Mcdowell 230 kV	operated at 115 kV. Substation work will have to be performed in order to convert this line.	6/1/2010	6/1/2012
WERE	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 WERE	Tear down and rebuild 26.6% Ownership 28.79 mile HEC-Huntsville 115 kV line and replace CT, wavetrap and relays.	6/1/2018	6/1/2018
WERE	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	Rebuild 5.49 miles	6/1/2018	6/1/2018
WFEC	Norman Area Voltage Conversion	Convert Canadian - OU - Cole - Criner to 138 KV and Canadian- Goldsby-OU-W Norman-Acme-Franklin	6/1/2010	6/1/2010

Table 4 - Upgrade Requirements and Solutions Needed to Provide Transmission Service for the Aggregate Study

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
AEPW	ASHDOWN WEST - CRAIG JUNCTION 138KV CKT 1	Rebuild 2.45 miles of 795 ACSR with 1272 ACSR	6/1/2013	6/1/2013
AEPW	RIVERSIDE STATION - TULSA POWER STATION 138KV CKT 1	Install 2% Reactor at Tulsa Power Station	6/1/2010	6/1/2011
AEPW	SILOAM CITY - SILOAM SPRINGS 161KV CKT 1	Replace switches & jumpers @ AEP Siloam Springs.	6/1/2010	6/1/2011
		Tear down the Riverton to Joplin 59 69 kV line, rebuilding the line to 161 kV from Stateline to outside Joplin 59 sub. Tear down and rebuild Joplin 59 to Gateway to Pillsbury to Reinmiller, converting		
EMDE	Multi - Stateline - Joplin - Reinmiller conversion	those 69 kV lines to 161 kV. Tap the 161 kV line betwe	6/1/2016	6/1/2016
MIDW	KINSLEY 115KV Capacitor	Install 10MVAR capacitors at Kinsley 115 kV	6/1/2011	6/1/2011
MIDW	LYONS - WHEATLAND 115KV CKT 1 MIDW	Rebuild 98.5% ownership of 19.4 miles	6/1/2018	6/1/2018
OKGE	3RDST - ARKOMA 161KV CKT 1	Replace 8-1200A switches & 2-wave traps.	6/1/2017	6/1/2017
SPRM	BROOKLINE - JUNCTION 161KV CKT 1	Reconductor 1192 AAC with 1158.4 ACSS/TW 3.4 miles	6/1/2017	6/1/2017
SWPA	ASHERVILLE - IDALIA 161KV CKT 1 SWPA	Reconductor line	6/1/2011	6/1/2011
SWPA	ASHERVILLE - POPLAR BLUFF 161KV CKT 1 SWPA	Replace disconnect switches, replace some structures and resag line	6/1/2012	6/1/2012
SWPA	CARTHAGE (CRG X1) 161/69/13.8KV TRANSFORMER CKT 1	Replace transformer 1 with larger unit -125 MVA	6/1/2013	6/1/2013
SWPA	CARTHAGE (CRG X2) 161/69/13.8KV TRANSFORMER CKT 1	Replace transformer 2 with larger unit -125 MVA Increase the CT ratio to 1200/5. This would involve changing taps on	6/1/2013	6/1/2013
SWPA	HERGETT - JONESBORO 161KV CKT 1 SWPA	the CT, adjusting the scaling on a panel meter, and changing relay settings.	6/1/2013	6/1/2013
WERE	AQUARIUS - HUDSON JUNCTION 69KV CKT 1	Rebuild 0.72 miles	6/1/2018	6/1/2018
WERE	AQUARIUS - LITCHFIELD 69KV CKT 1	Rebuild 5.54 miles	6/1/2018	6/1/2018
WERE	BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON SWITCHING STATION 115KV CKT 1	Rebuild Line Tear down and rebuild Gill - Waco with bundled 1192.5 ACSR	6/1/2010	6/1/2012
WERE	GILL ENERGY CENTER WEST - WACO 138KV CKT 1	conductor	6/1/2010	6/1/2012
WERE	HUDSON JUNCTION - PITTSBURG 69KV CKT 1	Rebuild 1.41 miles	6/1/2018	6/1/2018
WERE	LITCHFIELD - AQUARIUS - HUDSON JUNCTION 69KV CKT 1	Replace 69 kV disconnect switches at Aquarius.	6/1/2013	6/1/2013
WERE	LYONS - WHEATLAND 115KV CKT 1 WERE	Rebuild 1.5% ownership of 19.4 miles	6/1/2018	6/1/2018
WERE	SEVENTEENTH () 138/69/11.295KV TRANSFORMER CKT 2	Install second 17th St. 138-69 kV transformer	6/1/2010	6/1/2013
WERE	STRANGER CREEK - NW LEAVENWORTH 115KV	Rebuild 11.62-mile Jarbalo-NW Leavenworth 115 kV line and tap in & out of Stranger 115 kV	6/1/2010	6/1/2011
WERE	TECUMSEH ENERGY CENTER - TECUMSEH HILL 115KV CKT 1	Uprate 0.24 mile TEC-Tecumseh Hill 115 kV line to 100 degree operation.	6/1/2013	6/1/2013

Previously Assigned Aggregate Study Upgrades requiring credits to Previous Aggregate Study Customers.

Transmission Owner	Upgrade Solution		Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
		Replace six (6) 138 kV switches, five at Bann & one at Alumax Tap.		
		Rebuild 0.67 miles of 1024 ACAR with 2156 ACSR. Replace		
AEPW	ALUMAX TAP - BANN 138KV CKT 1	wavetrap & jumpers @ Bann. Replace breaker 3300 @ Bann.	6/1/2008	6/1/2008
AEPW	BANN - RED SPRINGS REC 138KV CKT 1	Replace 138 kV breakers 3300 & 3310	7/1/2012	7/1/2012
AEPW	HUGO POWER PLANT - VALLIANT 345 KV AEPW	Vallient 345 KV line terminal	7/1/2012	7/1/2012
EMDE	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	Reconductor Oronogo 59467 to Riverton 59469 with Bundled 556 ACSR	6/1/2011	6/1/2011
KACP	LACYGNE - WEST GARDNER 345KV CKT 1	KCPL Sponsored Project to Reconductor Line to be In-Service by 6/1/2006	6/1/2006	6/1/2006
OKGE	NORTHWEST - WOODWARD 345KV CKT 1	Build 120 miles of 345 kV	1/1/2010	1/1/2010
OKGE	WOODWARD - WOODWARD EHV 138KV CKT 1	Build .5 miles of 138 kV and install terminal equipment	1/1/2010	1/1/2010
OKGE	WOODWARD - WOODWARD EHV 138KV CKT 2	Build .5 miles of 138 kV and install terminal equipment	1/1/2010	1/1/2010
OKGE	WOODWARD 345/138KV TRANSFORMER CKT 1	Install 345/138 kV XF	1/1/2010	1/1/2010
WERE	RENO 345/115KV CKT 1	New stepdown transformer at a new substation in Reno County east northeast of Hutchinson	6/1/2009	6/1/2009
WERE	RENO 345/115KV CKT 2	Install 2nd stepdown transformer at Reno County substation east northeast of Hutchinson	6/1/2010	6/1/2010
WERE	SUMMIT - RENO 345KV	Install new 50.55-mile 345 kV line from Reno county to Summit; 31 miles of 115 kV line between Circle and S Philips would be rebuilt as double circuit with the 345 kV line to minimize ROW impacts; Substation work required at Summit for new 345 kV terminal	6/1/2010	6/1/2010
WENE	SOUNINIT - NEINO 343KV	40 mile 345 kV transmission line from existing Wichita 345 kV substation to a new 345-115 kV substation in Reno County east	0/1/2010	0/1/2010
WERE	WICHITA - RENO 345KV	northeast of Hutchinson (Wichita to Reno)	6/1/2009	6/1/2009
WFEC	HUGO POWER PLANT - VALLIANT 345 KV WFEC	New 19 miles 345 KV	7/1/2012	7/1/2012
WFEC	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	New 345/138 kv Auto	7/1/2012	7/1/2012

Table 5 - Third Party Facility Constraints

Transmission Owner	UpgradeName	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AECI	HUBEN 345/161KV TRANSFORMER CKT 1	Install a second Huben 345/161kV transformer	6/1/2017	6/1/2017	\$ 6,500,000

BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON TO-FROM EAST MCPHERSON SWITCHING STATION - REFINRY3 115.00 115KV 2007AC2AF581T3303216SP Stating 2010 647 - 10 Upgrade: Limiting Facility Direction: Line Outage: Flowgate: Date Redispatch Needed Season Flowgate Identified

Reservation	Relief Amount	Aggregate Relief Amount	İ	
1281706	5.8	23.3	ì	
1285893	1.6	23.3	ì	
1286201	16	23.3		
Source Control Area	Source	Maximum Increment (MW)	GSF	Ì
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.54083	0
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.54083	١
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.54083	ı
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.54083	P
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.54083	١

WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.54083	AEPW	WILKES 345KV	308	-0.00035	-0.54048	43
	BPU - CITY OF MCPHERSON 115KV		-0.54083		CLAY CENTER JUNCTION 115KV	16.5	-0.0155	-0.52533	44
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.54083	WERE	HUTCHINSON ENERGY CENTER 115KV	230	-0.01467	-0.52616	44
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.54083	WERE	HUTCHINSON ENERGY CENTER 69KV	16.1001	-0.01468	-0.52615	44

WERE BPU - CITY OF MCPHERSON 115KV 232 - 0.54083 WERE HUTCHINSON ENERGY Maximum Decrement and Maximum Increment were determine from the Souce and Sink Operating Points in the study models where limiting facility was identified. Factor = Source GSF - Sink GSF Redispatch Amount = Relief Amount / Factor

 Upgrade:
 DIANA - LONE STAR SOUTH 138KV CKT 1

 Limiting Facility
 DIANA - LONE STAR SOUTH 138KV CKT 1

 Direction:
 FROM->TO

 Line Outage
 WILKES (WILKES) 345/138/13.2KV TRANSFORMER CKT 1

 Flowgate:
 2007A623-R581T3504209WP

 Date Redispatch Needed
 12/10/20 - 41/1/10

Season Flowgate Identified	2009 Winter Peak	
Reservation	Relief Amount	Aggregate Relief Amount
1283682	2.5	5.4
1286446	2.9	5.4

Color	1283682 1286446	2.5 2.9	5.4 5.4						
Company Comp		Source	Maximum Increment (MW) GSE	Sink Control Area	Sink	Maximum Decrement (MW)	GSE	Eactor	Aggregate Pedienatch Amount (MW)
April Company April Company April			, ,		-				
Color									11
Comparison Com	AEPW	LONESTAR POWER PLANT 69KV		9 AEPW	PIRKEY GENERATION 138KV	288	0.01208		11
APPEN DOLLAR PORT RAN 1997 AP	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 CELE	ACADIA 138KV	174	0.00302	-0.45881	12
Color	AEPW AEPW	LONESTAR POWER PLANT 69KV LONESTAR POWER PLANT 69KV		9 OKGE 9 WFEC					12 12
ADDITION CONTRACT AND STATE OF THE CONTR	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 EMDE	ASBURY 161KV	192	-0.00182	-0.45397	12
ACCOUNT ACCO			50 -0.455	9 SPS					12
AMERICAN DOMESTIAL PROPERTY AND ASSOCIATION OF A SAME A SA			50 -0.455	9 WFEC		152	-0.00318		12
ADDITION DOCUMENT TOTAL COLUMN	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 SPS	CAPROCK 0KV	24	-0.00262	-0.45317	12
DOTS OF A COUNTY AND ADDRESS OF A COUNTY OF A COUNTY AND ADDRESS OF A COUNTY									12
Content and cont									12
CAMPAIN CAMPAIN PART OF THE PART OF TH	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 WERE	CITY OF BURLINGTON 69KV	23.022	-0.0018	-0.45399	12
Comparison Com	AEPW AEPW	LONESTAR POWER PLANT 69KV LONESTAR POWER PLANT 69KV			CITY OF HOUMA SUB 115KV CITY OF MULVANE 69KV				12 12
CAMPATING CAMP	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 WERE	CLAY CENTER JUNCTION 115KV	6.7	-0.00174	-0.45405	12
Company Comp	AEPW	LONESTAR POWER PLANT 69KV			COGENTRIX 345KV				12
CARPON C									12
CARPTAN PROPERTY FOR THE CASE 0.000 CASE	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 SPS	CUNNINGHAM 230KV	56	-0.00264	-0.45315	12
Carper									12
Comparison Com	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 EMDE	ELK RIVER 345KV	67.754	-0.0019	-0.45389	12
CAST	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 CELE	EVANGELINE 230KV	194.5714	0.00347	-0.45926	12
CAMPAIN CAMPAIN PROVER PLANT FORW S. O. GARD ABAT CAMPAIN P. A. PAT CHEER VIEW CAMPAIN CAM									12 12
APPW	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 AEPW	FLINT CREEK 161KV	428	-0.00204	-0.45375	12
CAMPATE PARTIES PART			50 -0.455	9 WFEC					12 12
ADDRESS CONTROL CONT	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 CELE	G1COLUMB 13.800 138KV	12.7	0.00269	-0.45848	12
ADMINISTRATION 100	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 CELE	G7EVAN 22.000 138KV	155.3809			12
AGRETION DOES THAT PROVIDE PLANT 686V SI & ASSTRIPPING MARRIED TO 2000 V 304 00003									12
APPW COMESTIAN PROVISE PLANT BROW DID GASSWAPPE DID GREEN PLANT BROW DID GASSWAPPE DID GREEN PROVISE PLANT BROW DID GASSWAPPE DID GREEN PLANT BROW DID GASSWAPPE DID GREEN PROVISE PLANT BROW D	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 SPS	HARRINGTON 230KV	1040	-0.00254	-0.45325	12
ABPV COMESTAR POWER PLANT 600V 50 ASSPT VERE MCCTON 1100V 6 ADD 0.0019 1 1 1 1 1 1 1 1 1									12
APPW	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 WERE	HOLTON 115KV	6	-0.0016	-0.45419	12
APPW	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 SPS	HUBRCO2 69KV	6.796	-0.00254	-0.45325	12
ASPY									12
ASPW CONSTAR POWER PLANT 666V 50 -0.45579/RPE JEFFERY DEBREGY CENTER 3460V 50 -0.45579/RPE JEFFERY A460V 50 -0.45579/RPE JEFFERY A460V 50	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 LEPA	IRION SUB 69KV	6	0.00219	-0.45798	12
ABPY LONESTAR POWER PLANT SONY 50 0.4657 SPS LONESTAR POW									12
AEPW	AEPW	LONESTAR POWER PLANT 69KV			JONES 230KV				12
AEPW CONSTAR POWER PLANT 690V 50 A4573/9785 LAWRENCE EMERGY CENTER 2200V 64,04515 11 A2670 A2670 A2673 A2670 A	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 GRDA	KERR 115KV	13.5	-0.00217	-0.45362	12
AEPW CONESTAR POWER PLANT 68KV 50 -0.4567/35PS LP.AMCX 68KV 50 -0.4567/35PS LABERTY WILLIAM STATE OF THE PLANT 68KV 50 -0.4567/35PS LABERTY WI	AEPW AEPW	LONESTAR POWER PLANT 69KV LONESTAR POWER PLANT 69KV		9 EMDE 9 WERE	LARUSSEL 161KV LAWRENCE ENERGY CENTER 230KV				12 12
AEPW LONESTAR POWER PLANT 66V 50 -0.45679 WEC LONESTAR POWER PLANT 66V 50 -0.4	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 SPS	LP-MACK2 69KV		-0.00267	-0.45312	12
AEPW LONESTAR POWER PLANT 66V 50 0.45579 FPEC MORIND 138KV 283.137 0.0228 0.45297 11 12 12 12 12 12 13 13			50 -0.455	9 OKGE		470			12
AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/GNCE MUSKOGEE 191KV 80 -0.00234 -0.45549 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/GNCE MUSKOGEE MUSK 70 156 -0.00234 -0.45549 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/GNCE MUSK 70 156 -0.00234 -0.45579 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/GNCE MUSK 70 156 -0.00234 -0.45579 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/GNCE MUSK 70 156 -0.00234 -0.45579 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/AEPW NORTH-EASTERN \$13 TON 198KY 480 -0.00224 -0.45535 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/AEPW NORTH-EASTERN \$13 TON 198KY 480 -0.00224 -0.45535 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/AEPW NORTH-EASTERN \$13 TON 198KY 62 -0.00224 -0.45535 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/AEPW NORTH-EASTERN \$13 TON 198KY 62 -0.00224 -0.45535 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/AEPW OCC 345KY 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/AEPW OCC 345KY 11. AEPW LONESTAR POWER PLANT 68KY 60 -0.45579/AEPW 60 -0.45579/AEPW 1. LONESTAR POWER PLANT 68KY 60 -0.45579/AEPW 60 -0.45579/AEPW 1. LONESTAR POWER PLANT 68KY 60 -0.45579/AEPW 60 -0.45579/AEPW 1. LONESTAR POWER PLANT 68KY 60 -0.45579/AEPW 1. AEPW LONESTAR POWER PLANT 68KY 60 -		LONESTAR POWER PLANT 69KV	50 -0.455	9 WFEC	MORLND 138KV				12
AEPW LONESTAR POWER PLANT 66VV 50 .0.45579 GPG MUSTANG 115VV 276.3798 .0.00264 .0.45315 11 AEPW LONESTAR POWER PLANT 66VV 50 .0.45579 GPG MUSTANG 136VV 99. 0.00227 .0.4527 11 AEPW LONESTAR POWER PLANT 66VV 50 .0.45579 GPG MUSTANG 230VV 77. 0.00264 .0.45315 11 AEPW LONESTAR POWER PLANT 66VV 50 .0.45579 AEPW NORTHAGEN STATION 136VV 464 .0.00227 .0.45355 11 AEPW LONESTAR POWER PLANT 66VV 50 .0.45579 AEPW NORTHAGEN STATION 136VV 464 .0.00227 .0.45355 11 AEPW LONESTAR POWER PLANT 66VV 50 .0.45579 AEPW NORTHAGEN STATION 136VV 464 .0.00227 .0.45355 11 AEPW LONESTAR POWER PLANT 66VV 50 .0.45579 AEPW NORTHAGEN STATION 136VV 662 .0.00227 .0.45355 11 AEPW LONESTAR POWER PLANT 66VV 50 .0.45579 AEPW AEPW NORTHAGEN STATION 136VV 662 .0.00227 .0.45355 11 AEPW LONESTAR POWER PLANT 66VV 50 .0.45579 AEPW AEPW LONESTAR POWER PLANT 66VV 50	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 OKGE	MUSKOGEE 161KV	60	-0.00234	-0.45345	12
AEPW LONESTAR POWER PLANT 60KV 50 .0.45579 GRCE MUSTANG 138KV 99 .0.00202 .0.45287 11 .0.00204 .0.45579 AEPW LONESTAR POWER PLANT 60KV 50 .0.45579 AEPW NORTHEASTERN STATION 138KV 460 .0.00228 .0.45535 11 .0.00204 .0.45579 AEPW NORTHEASTERN STATION 138KV 460 .0.00228 .0.45559 AEPW NORTHEASTERN STATION 138KV 460 .0.00228 .0.45579 AEPW NORTHEASTERN STATION 138KV 460 .0.0028 .0.45579 AEPW NORTHEASTERN STATION 138KV 460 .0.45579 AEPW NORTHEASTERN S									12
AEPW LONESTAR POWER PLANT 69KY 50 0.45574 AEPW NORTHEASTERN STATION 139KY 480 -0.00224 0.45353 11	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 OKGE	MUSTANG 138KV	93			12
AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 AEPPW OEC 34KV 263 -0.00234 -0.453526 11. AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 AEPW CONSTAR POWER PLANT 66KV 50 -0.45579 AEPW LONESTAR POWER PLANT 6	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 AEPW	NORTHEASTERN STATION 138KV	480	-0.00264		12
AEPW CONESTAR POWER PLANT 69KV 50 -0.45579 EMDE CONESTAR POWER PLANT 69KV 50 -0.45579 EMDE CONESTAR POWER PLANT 69KV 50 -0.45579 EMDE CONESTAR POWER PLANT 69KV 50 -0.45579 GRDA PENSACOLA 161KV 11 -0.00208 -0.45371 11 -0.00208 -0.00208 -0.45371 11 -0.00208 -0.45	AEPW AEPW	LONESTAR POWER PLANT 69KV LONESTAR POWER PLANT 69KV							12 12
AEPW LONESTAR POWER PLANT 69KV 50 .0.45579 (RBDA PENSACOLA 161kV 11 .0.00209 .0.4537) 11 .0.00209 .0.45371 11 .0.00209 .0.00371 .0.45229 .0.0030 .0.45279 .	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 OMPA	OMPA-KAW 69KV	16.58631	-0.00254	-0.45325	12
AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 (RDA PENSACOLA 69KV 11 -0.00208 -0.45371 12 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 (BMDE RIVERTON 69KV 44.58394 -0.0165 -0.45394 12 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 (BMDE RIVERTON 69KV 44.58394 -0.0165 -0.45394 12 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 (RDA SALINA 161KV 50 -	AEPW	LONESTAR POWER PLANT 69KV			PENSACOLA 161KV				12
AEPW LONESTAR POWER PLANT 68KV 50 -0.45578 [MDE RIVERTON 69KV 44.58395 -0.0018] 0.453975 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [GRDA SALINA 161KV 36.6967 -0.00218 -0.45361 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [GRDA SALINA 161KV 36.6967 -0.00218 -0.45361 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [GRDA SALINA 161KV 36.6967 -0.00218 -0.45361 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [GRDA SALINA 161KV 36.6967 -0.00218 -0.45361 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [GRDA SALINA 20KV 93.16066 -0.00317 -0.45522 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [GRDA SEMMOLE 336KV 93.16066 -0.00317 -0.45529 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [SPS SAN JULIA 20KV 93.16066 -0.00317 -0.45529 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [SPS SIDE SAM 20KV 93.16066 -0.00317 -0.45529 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [SPS SIDE SAM 20KV 93.16066 -0.00317 -0.45529 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR 138KV 93.1606 -0.00254 -0.45225 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR 138KV 93.1606 -0.00254 -0.4529 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR 138KV 93.1606 -0.00254 -0.4529 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR 138KV 93.1606 -0.00254 -0.4531 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR 138KV 93.1606 -0.00254 -0.4531 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR 138KV 93.1606 -0.00254 -0.4531 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR 138KV 93.1606 -0.00254 -0.4531 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR 138KV 93.1606 -0.00254 -0.4531 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR 138KV 93.1606 -0.00254 -0.4531 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR 138KV 93.1606 -0.00254 -0.4531 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45579 [WFE C SLEEPING BEAR SAKV 93.1606 -0.45579 [WFE C SLEEPING BEAR SAKV 93.1606 -0.45579 [WFE C SLEEPING BEA			50 -0.455	9 GRDA	PENSACOLA 69KV	11	-0.00208	-0.45371	12
AEPW	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 EMDE	RIVERTON 69KV	44.58395	-0.00185	-0.45394	12
AFPW		LONESTAR POWER PLANT 69KV							12
AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 OKGE SEMBOLE 346KV 306.0835 -0.003 -0.45279 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 OKGE SEMBOLE 346KV 15.768 -0.0024 -0.45275 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 OKGE SEMBOLE 346KV 1235 -0.00054 -0.45252 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 OKGE SEMBOLE 346KV 1235 -0.00054 -0.45525 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 OKGE SEMBOLE 346KV 15.16 -0.00282 -0.45267 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 OKGE SEMBOLE 346KV 15.16 -0.00282 -0.45268 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 OKGE SEMBOLE 346KV 50 -0.45579 OKGE SEMBOLE	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 SPS	SAN JUAN 230KV	36	-0.00262	-0.45317	12
AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 SWPA SIKESTON 161KV 225 -0.00054 -0.45529 112 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 WFG SLEEPING BEAR 138KV 15 -0.00054 -0.45529 112 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 OKGE SMITH COGEN 138KV 166 -0.00226 -0.453516 112 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 OKGE SOOMER 138KV 515 -0.00226 -0.453516 112 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 OKGE SOOMER 138KV 515 -0.00226 -0.45316 112 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 OKGE SOOMER 345KV 537 -0.00268 -0.45311 112 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 AEPW SOUTHWESTERN STATION 138KV 107,6255 -0.00316 -0.45261 112 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 AEPW SOUTHWESTERN STATION 138KV 107,6255 -0.00316 -0.45261 112 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 AEPW SOUTHWESTERN STATION 138KV 50 -0.45578 AEPW SOUTHWESTERN STATI	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 OKGE	SEMINOLE 345KV	306.0835	-0.003	-0.45279	12
AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 WFEC SLEEPING BEAR 136KV 15 -0.00282 -0.45297 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KGE SOMER 136KV 15 -0.00282 -0.45258 11 11 12 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KGE SOMER 136KV 51 -0.00281 -0.45316 11 11 12 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KGE SOMER 136KV 51 -0.00281 -0.45316 11 11 12 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 WERE SOLTH SENECA 115KV 4 -0.00155 -0.45326 11 11 11 12 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 WERE SOLTH SENECA 115KV 4 -0.00155 -0.45424 11 11 12 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 WERE SOLTH WESTERN STATION 136KV 55 -0.00281 -0.45316 11 11 12 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KEPW SOLTHWESTERN STATION 136KV 55 -0.00316 -0.4526 11 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KEPW SOLTHWESTERN STATION 136KV 55 -0.00316 -0.4526 11 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KEPW SOLTHWESTERN STATION 136KV 55 -0.00316 -0.4526 11 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KEPW SOLTHWESTERN STATION 136KV 55 -0.00027 -0.45305 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KEPW SOLTHWESTERN STATION 136KV 52 -0.00027 -0.45305 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KEPW SOLTHWESTERN STATION 136KV 52 -0.00027 -0.45305 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KEPW SOLTHWESTERN STATION 136KV 50 -0.00027 -0.45305 11 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 KEPW SOLTHWESTERN STATION 136KV 50 -0.45579 KEPW SOLTHWESTERN STATION 13									12 12
AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 CGC SOONER 136KV 555 -0.00263 -0.45318 12 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 CGC SOONER 346KV 557 -0.00263 -0.45318 12 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 VERE SOUTH SENECA 115KV 4 -0.00155 -0.4524 13 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 VERE SOUTH SENECA 115KV 4 -0.00155 -0.4526 13 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 AEPW SOUTHWESTERN STATION 138KV 50 -0.4526 13 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 AEPW SOUTHWESTERN STATION 138KV 50 -0.00318 -0.4526 13 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 AEPW SOUTHWESTERN STATION 138KV 50 -0.00318 -0.4536 13 AEPW LONESTAR POWER PLANT 66KV 50 -0.45578 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 AEST 50 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 AEPW WEATHER POWER PLANT 66KV 50 -0.45579 AEPW LONESTAR POWER PLANT 66KV 50 -0.45579 AEPW WEATHER POWER PLANT 66KV 50 -0.45579	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 WFEC	SLEEPING BEAR 138KV	15	-0.00282	-0.45297	12
AEPW LONESTAR POWER PLANT 68KV 50 - 0.45573 (OKCE SOONER 345KV 537 - 0.00268 (-0.45311) 11 AEPW LONESTAR POWER PLANT 68KV 50 - 0.45573 (ASCE) SOUTHWESTERN STATION 138KV 10.0555 - 0.44524 (-1.2524) 11 AEPW LONESTAR POWER PLANT 68KV 50 - 0.45573 (AEPW) SOUTHWESTERN STATION 138KV 10.76255 - 0.00318 (-0.45261) 11 AEPW LONESTAR POWER PLANT 68KV 50 - 0.45573 (EMDE) STATE LINE 161KV 453.6368 - 0.0018 (-0.4536) 1.04561) 11 AEPW LONESTAR POWER PLANT 68KV 50 - 0.45573 (EMDE) STATE LINE 161KV 453.6368 - 0.0018 (-0.4539) 1.04532 (-0.4539) 11 AEPW LONESTAR POWER PLANT 68KV 50 - 0.45573 (EMDE) STEER WATER 115KV 28.6951 (0.0027) (-0.4559) 12 AEPW LONESTAR POWER PLANT 68KV 50 - 0.45573 (EMDE) TECHE 138KV 28.6951 (0.0027) (-0.4559) 11 AEPW LONESTAR POWER PLANT 68KV 50 - 0.45573 (SPS) TICK 20KV 10.41,007 (-0.0026) (-0.4551) 11 AEPW LONESTAR POWER PLANT 68KV 50 - 0.45573 (SPS) TOLK 230KV 10.41,007 (-0.0026) (-0.4531) 11 <t< td=""><td>AEPW</td><td>LONESTAR POWER PLANT 69KV</td><td>50 -0.455</td><td>9 OKGE</td><td>SOONER 138KV</td><td>535</td><td>-0.00263</td><td>-0.45316</td><td>12</td></t<>	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 OKGE	SOONER 138KV	535	-0.00263	-0.45316	12
AEPW	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 OKGE	SOONER 345KV SOUTH SENECA 115KV	537	-0.00268	-0.45311	12
AEPW	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 AEPW	SOUTHWESTERN STATION 138KV	107.6255	-0.00318	-0.45261	12
AEPW LONESTAR POWER PLANT 68KV 50 0.48578/SPS STEER WATER 115KV 224 0.00257 0.48528 11									12 12
AEPW LONESTAR POWER PLANT 68KV 50 -0.45578 WERE TECUMSEH ENERGY CENTER 115KV 88 -0.00165 -0.45414 12 AEPW LONESTAR POWER PLANT 68KV 50 -0.45578 WERE TECUMSEH ENERGY CENTER 115KV 1041.037 -0.00262 -0.453717 13 AEPW LONESTAR POWER PLANT 68KV 50 -0.45578 AEPW WEATHERFORD 34KV 12 -0.00295 -0.45284 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45578 AEPW WEATHERFORD 34KV 12 -0.00295 -0.45284 11 AEPW WILKES 138KV 491.3104 -0.33658 AEPW EASTMAN 138KV 355 -0.00254 -0.38199 11 AEPW WILKES 138KV 491.3104 -0.33658 AEPW LEBROCK 345KV 515 -0.00254 -0.36162 11 AEPW WILKES 138KV 491.3104 -0.33658 AEPW PIRKEY CENTER TOWN 28 -0.00264 -0.36162 11 AEPW WILKES 138KV 491.3104 -0.33658 AEPW WILKES 138KV 1040 -0.36166 11 AEPW WILKES 138KV 491.3104 -0.33658 AEPW WILKES 138KV 1040 -0.36166 11 AEPW WILKES 138KV 491.3104 -0.33658 AEPW WILKES 138KV 1040 -0.33658 AEPW WILKES 138KV 104	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 SPS	STEER WATER 115KV	24	-0.00257	-0.45322	12
AEPW LONESTAR POWER PLANT 68KV 50 -0.45578/AEPW WEATHERFORD 34KV 12 -0.00295 -0.45284 11 AEPW LONESTAR POWER PLANT 68KV 50 -0.45578/AEPW WILD 20KV 48 -0.00254 -0.45252 11 AEPW WILKES 138KV 491.3104 -0.33658/AEPW EASTMAN 138KV 355 -0.0254 -0.3525 11 AEPW WILKES 138KV 491.3104 -0.33658/AEPW LEBROCK 345KV 515 -0.02524 -0.36196 11 AEPW WILKES 138KV 491.3104 -0.33658/AEPW PIRKEY 0ENERATION 138KV 288 -0.02524 -0.36166 11 AEPW WILKES 138KV 491.3104 -0.33658/AEPW PIRKEY 0ENERATION 138KV 288 -0.02524 -0.36166 11 AEPW WILKES 138KV 491.3104 -0.33658/AEPW WILKES 138KV 1044 -0.02474 -0.36166 11 AEPW WILKES 138KV 491.3104 -0.33658/AEPW APRICE ACADIA 138KV 174 -0.003024 -0.33659 11 AEPW WILKES 138KV 491.3104 -0.33659/GELE ACADIA 138KV 174 -0.003024 -0.33659 11 AEPW WILKES 138KV 491.3104 -0.33659/OKOE AES 161KV 320 -0.00181 -0.33478 11 AEPW WILKES 138KV 491.3104 -0.33659/OKOE AES 161KV 320 -0.00181 -0.33478 11	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 WERE	TECUMSEH ENERGY CENTER 115KV	88	-0.00165	-0.45414	12
AEFW LONESTAR POWER PLANT 69KV 50 - 0.45578 FSF WILWIND 230KV 48 - 0.0025 - 0.45325 12 AEFW WILKES 138KV 49 : 3104 - 0.33595 AEFW EASTMAN 138KV 355 - 0.2502 - 0.35169 15 AEFW WILKES 138KV 49 : 3104 - 0.33595 AEFW LEBROCK 345KV 515 - 0.02502 - 0.36162 15 AEFW WILKES 138KV 49 : 3104 - 0.33595 AEFW PIRKEY GENERATION 138KV 228 - 0.01202 - 0.36167 15 AEFW WILKES 138KV 49 : 3104 - 0.33595 AEFW WILKES 138KV 104 - 0.02547 - 0.3516 15 AEFW WILKES 138KV 49 : 3104 - 0.33595 GELE ACADIA 138KV 174 - 0.00302 - 0.336961 16 AEFW WILKES 138KV 49 : 3104 - 0.33595 GNGE AE S 161KY 320 - 0.0018 - 0.33478 16 AEFW WILKES 138KV 49 : 3104 - 0.33595 GNGE ARADARKO 138KV 28 : 49.494 - 0.0018 - 0.33373 16	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 SPS	TOLK 230KV	1041.037	-0.00262	-0.45317	12 12
AEPW WILKES 138KV 491.3104 -0.33659/AEPW LEBROCK 345KV 515 0.02503 -0.36162 15 AEPW WILKES 138KV 491.3104 -0.33659/AEPW PIRKEY GENERATION 138KV 288 0.01208 -0.34667 15 AEPW WILKES 138KV 491.3104 -0.33659/AEPW WILKES 138KV 1044 0.02447 -0.36106 15 AEPW WILKES 138KV 491.3104 -0.33659/GELE ACADIA 138KV 174 0.00302 -0.33661 16 AEPW WILKES 138KV 491.3104 -0.33659/OKGE ACE SIGN 320 -0.0018 23 -0.0018 10 -0.33659/OKGE ACE SIGN 320 -0.0018 23 -0.0018 16 AEPW WILKES 138KV 491.3104 -0.33659/OKGE ACE SIGN 320 -0.0018 23 -0.0018 23 -0.0018 16 AEPW WILKES 138KV 491.3104 -0.33659/OKGE ANDARKO 138KV 249.994 -0.0018 23 -0.0018 32 -0.00	AEPW	LONESTAR POWER PLANT 69KV	50 -0.455	9 SPS	WILWIND 230KV	48	-0.00254	-0.45325	12
AEPW WILKES 138KV 491.3104 0.33659/AEPW PIRKEY GENERATION 138KV 288 0.01208 0.34667 11 AEPW WILKES 138KV 491.3104 0.33659/AEPW WILLSH 346KV 1044 0.02447 0.3610 15 AEPW WILKES 138KV 491.3104 0.33659/CELE ACADIA 138KV 174 0.00302 -0.33961 16 AEPW WILKES 138KV 491.3104 -0.33659/OKEE AES 161KV 320 -0.00181 0.33478 16 AFPW WILKES 138KV 491.3104 -0.33659/WEC ANADARKO 138KV 284.9049 -0.00222 -0.33377 16		WILKES 138KV WILKES 138KV	491.3104 -0.336	9 AEPW	LEBROCK 345KV				15 15
AEPW WILKES 138KV 491.3104 0.33659 CELE ACADIA 138KV 174 0.00302 -0.33961 16 AEPW WILKES 138KV 491.3104 -0.33659 CKE ACE ACADIA 138KV 320 -0.0018 2-0.33478 11 AEPW WILKES 138KV 491.3104 -0.33659 CKE ANDARKO 138KV 224.9494 -0.0018 2-0.001		WILKES 138KV	491.3104 -0.336	9 AEPW	PIRKEY GENERATION 138KV		0.01208	-0.34867	15
AEPW WILKES 138KV 491.3104 -0.33659 WFEC ANADARKO 138KV 284.9049 -0.0322 -0.3337 16	AEPW	WILKES 138KV	491.3104 -0.336	9 CELE	ACADIA 138KV	174	0.00302	-0.33961	16
	AEPW AEPW		491.3104 -0.336 491.3104 -0.336	9 OKGE 9 WFEC		320 284 9049	-0.00181		16 16

L EDW	N.W. 1/50 100/01			DAVIOUS DAVIOS ASSOCI				
AEPW	WILKES 138KV			BAYOU RAMOS 138KV	20.03136		-0.3391	16
AEPW AEPW	WILKES 138KV WILKES 138KV	491.3104	-0.33659 SPS -0.33659 WFEC	BLUE CANYON WIND FARM 138KV	220 152	-0.00254	-0.33405 -0.33341	16 16
AEPW	WILKES 138KV		-0.33659 GRDA	BOOMER 69KV	24	-0.00316		16
AEPW	WILKES 138KV	491.3104	-0.33659 SPS	CAPROCK 0KV	24	-0.00264	-0.33397	16
AFPW	WILKES 138KV	491.3104	-0.33659 SWPA	CARTHAGE 69KV	12	-0.00202		16
AEPW	WILKES 138KV	491.3104		CENTENIAL WIND 34KV	120	-0.00283	-0.33376	16
AEPW	WILKES 138KV	491.3104	-0.33659 WERE	CHANUTE 69KV	45.393	-0.0019	-0.33469	16
AEPW	WILKES 138KV	491.3104	-0.33659 WERE	CITY OF AUGUSTA 69KV	12.4	-0.00194	-0.33465	16
AEPW	WILKES 138KV	491.3104	-0.33659 WERE	CITY OF BURLINGTON 69KV	23.022	-0.0018	-0.33479	16
AEPW	WILKES 138KV	491.3104	-0.33659 LEPA	CITY OF HOUMA SUB 115KV	57	0.00207	-0.33866	16
AEPW	WILKES 138KV	491.3104	-0.33659 WERE	CLAY CENTER JUNCTION 115KV	6.7	-0.00174	-0.33485	16
AEPW	WILKES 138KV	491.3104		COFFEY COUNTY NO. 2 SHARPE 69KV	19.61	-0.0018		16
AEPW	WILKES 138KV		-0.33659 AEPW	COGENTRIX 345KV	200	-0.00241	-0.33418	16
AEPW	WILKES 138KV	491.3104		COMANCHE 138KV	145	-0.00307		16
AEPW	WILKES 138KV	491.3104	-0.33659 AEPW	COMANCHE 69KV	60	-0.00314	-0.33345	16
AEPW	WILKES 138KV		-0.33659 SPS	CUNNINGHAM 230KV	56	-0.00264		16
AEPW	WILKES 138KV	491.3104		CZ 69KV	37.283	-0.00258		16
AEPW	WILKES 138KV	491.3104	-0.33659 CELE	DOLET HILLS 345KV	371.2379	0.00952	-0.34611	16
AEPW	WILKES 138KV	491.3104		ELK RIVER 345KV	67.754	-0.0019	-0.33469	16
AEPW	WILKES 138KV	491.3104	-0.33659 AEPW	ELLIS 69KV	6	-0.00177	-0.33482	16
AEPW	WILKES 138KV	491.3104		EVANGELINE 230KV	194.5714	0.00347	-0.34006	16
AEPW	WILKES 138KV	491.3104		EVANS ENERGY CENTER 138KV	277.9482	-0.00195		16
AEPW	WILKES 138KV	491.3104	-0.33659 AEPW	FITZHUGH 161KV	124.7	-0.00155	-0.33504	16
AEPW	WILKES 138KV	491.3104		FLINT CREEK 161KV	428	-0.00204	-0.33455	16
AEPW	WILKES 138KV	491.3104		FPLWND2 34KV	59	-0.00282		16
AEPW	WILKES 138KV	491.3104	-0.33659 WFEC	G06-24 0.6000 34KV	19	-0.00281	-0.33378	16
AEPW	WILKES 138KV	491.3104		G1COLUMB 13.800 138KV	12.7	0.00269	-0.33928	16
AEPW	WILKES 138KV		-0.33659 CELE	G1WKRAFT 13.800 230KV	55	0.00549	-0.34208	16
AEPW	WILKES 138KV	491.3104	-0.33659 CELE	G7EVAN 22.000 138KV	155.3809	0.00343	-0.34002	16
AEPW	WILKES 138KV	491.3104		GRDA1 161KV	139.1873	-0.00219	-0.3344	16
AEPW	WILKES 138KV			GRDA1 345KV	170	-0.00217	-0.33442	16
AEPW	WILKES 138KV	491.3104	-0.33659 SPS	HARRINGTON 230KV	1040	-0.00254	-0.33405	16
AEPW	WILKES 138KV	491.3104	-0.33659 SPS	HOBBS_PLT2 118.000 115KV	300	-0.00264	-0.33395	16
AEPW	WILKES 138KV	491.3104		HOBBS_PLT3 118.000 230KV	210	-0.00264		16
AEPW	WILKES 138KV	491.3104		HOLTON 115KV	6	-0.0016	-0.33499	16
AEPW	WILKES 138KV	491.3104	-0.33659 OKGE	HORSESHOE LAKE 138KV	125	-0.00295	-0.33364	16
AEPW	WILKES 138KV	491.3104	-0.33659 SPS	HUBRCO2 69KV	6.796	-0.00254	-0.33405	16
AEPW		491.3104		HUGO 138KV	440	-0.01033	-0.32626	16
AEPW	WILKES 138KV	491.3104		HUTCHINSON ENERGY CENTER 115KV	60	-0.00186	-0.33473	16
AEPW AEPW	WILKES 138KV	491.3104		IRION SUB 69KV	6	0.00219		16 16
	WILKES 138KV	491.3104		JEFFREY ENERGY CENTER 230KV	450	-0.00168		
AEPW AEPW	WILKES 138KV WILKES 138KV	491.3104 491.3104		JEFFREY ENERGY CENTER 345KV JONES 230KV	900	-0.00168	-0.33491 -0.33392	16 16
						-0.00267		
AEPW	WILKES 138KV	491.3104		JONESBORO 161KV	82.6	-0.00055	-0.33604	16
AEPW	WILKES 138KV	491.3104	-0.33659 GRDA	KERR 115KV	13.5	-0.00217	-0.33442	16
AEPW AEPW	WILKES 138KV		-0.33659 EMDE	LARUSSEL 161KV	100	-0.00173		16
	WILKES 138KV	491.3104		LAWRENCE ENERGY CENTER 230KV	224.2432	-0.00164	-0.33495	16
AEPW	WILKES 138KV	491.3104	-0.33659 SPS	LP-MACK2 69KV	60	-0.00267	-0.33392	16
AEPW	WILKES 138KV	491.3104		MAJESTC_WND3115.00 115KV	8	-0.00255	-0.33404	16
AEPW	WILKES 138KV	491.3104		MCCLAIN 138KV	470	-0.00297	-0.33362	16
AEPW	WILKES 138KV WILKES 138KV	491.3104	-0.33659 WFEC	MORLND 138KV	263.2137	-0.00282	-0.33377	16
AEPW				MRWYG11 34.500 230KV	100	-0.00169		16
AEPW	WILKES 138KV	491.3104 491.3104		MUSKOGEE 161KV	60	-0.00234		
AEPW AFPW	WILKES 138KV		-0.33659 OKGE -0.33659 SPS	MUSKOGEE 345KV	1548	-0.0023	-0.33429	16
	WILKES 138KV	491.3104		MUSTANG 115KV	276.3799	-0.00264		16
AEPW	WILKES 138KV	491.3104		MUSTANG 138KV	93	-0.00292		16
AEPW	WILKES 138KV	491.3104		MUSTANG 230KV NORTHEASTERN STATION 138KV	75	-0.00264		16
AEPW AEPW	WILKES 138KV WILKES 138KV	491.3104			480	-0.00226	-0.33433	16 16
AEPW	WILKES 138KV WILKES 138KV		-0.33659 AEPW -0.33659 AEPW	NORTHEASTERN STATION 345KV OEC 345KV	625 263	-0.00224		16
AEPW	WILKES 138KV	491.3104		OMPA-KAW 69KV	16.58631	-0.00254	-0.33425	16
AEPW	WILKES 138KV	491.3104	-0.33659 EMDE	OZARK BEACH 161KV	16.36031	-0.00234		16
AEPW	WILKES 138KV	491.3104		PENSACOLA 161KV	11	-0.00146	-0.33311	16
AEPW	WILKES 138KV	491.3104		PENSACOLA 161KV	11	-0.00208	-0.33451	16
AEPW	WILKES 138KV	491.3104	-0.33659 EMDE	RIVERTON 161KV	38	-0.00208	-0.33473	16
AEPW	WILKES 138KV	491.3104		RIVERTON 69KV	44.58395	-0.00185		16
AEPW	WILKES 138KV	491.3104		RODEMACHER 230KV	693.3329	0.00396	-0.33474	16
AEPW	WILKES 138KV	491.3104	-0.33659 GRDA	SALINA 161KV	35.64967	-0.00330	-0.33441	16
AFPW	WILKES 138KV	491.3104		SAN JUAN 230KV	35.04907	-0.00218	-0.33397	16
AEPW	WILKES 138KV	491.3104	-0.33659 OKGE	SEMINOLE 138KV	93.10606	-0.00262	-0.33342	16
AEPW	WILKES 138KV	491.3104		SEMINOLE 345KV	306.0835	-0.00317		16
AEPW	WILKES 138KV	491.3104		SIDRCH 69KV	15.796	-0.00254		16
AEPW	WILKES 138KV	491.3104	-0.33659 SWPA	SIKESTON 161KV	235	-0.00254	-0.33605	16
AEPW	WILKES 138KV	491.3104		SLEEPING BEAR 138KV	15	-0.00282		16
AEPW	WILKES 138KV	491.3104		SMITH COGEN 138KV	106			16
AEPW	WILKES 138KV	491.3104	-0.33659 OKGE	SOONER 138KV	535	-0.00263	-0.33396	16
AEPW	WILKES 138KV	491.3104		SOONER 345KV	537	-0.00268		16
AEPW	WILKES 138KV			SOUTHWESTERN STATION 138KV	107.6255	-0.00318		16
AEPW	WILKES 138KV	491.3104	-0.33659 AEPW	SOUTHWESTERN STATION 138KV	559	-0.00318	-0.33341	16
AEPW	WILKES 138KV	491.3104	-0.33659 EMDE	STATE LINE 161KV	453.6368	-0.00184	-0.33475	16
AEPW	WILKES 138KV	491.3104		STEER WATER 115KV	24	-0.00257	-0.33402	16
AEPW	WILKES 138KV	491.3104	-0.33659 CELE	TECHE 138KV	228.6951	0.00279	-0.33938	16
AEPW	WILKES 138KV	491.3104	-0.33659 WERE	TECUMSEH ENERGY CENTER 115KV	88	-0.00165	-0.33494	16
AEPW	WILKES 138KV	491.3104		TOLK 230KV	1041.037	-0.00262	-0.33397	16
AEPW	WILKES 138KV	491.3104		WEATHERFORD 34KV	12	-0.00295	-0.33364	16
AEPW	WILKES 138KV	491.3104		WILWIND 230KV	48	-0.00254	-0.33405	16
AEPW	LIEBERMAN 138KV	264		EASTMAN 138KV	355			101
AEPW	LIEBERMAN 138KV			LEBROCK 345KV			-0.05292	102
AEPW	LIEBERMAN 138KV	264	-0.02789 AEPW	WELSH 345KV	1044		-0.05236	103
AEPW	FULTON 115KV	153	-0.02648 AEPW	EASTMAN 138KV	355	0.0254		104
AEPW	FULTON 115KV		-0.02648 AEPW	LEBROCK 345KV	515	0.02503		104
AEPW	FULTON 115KV LIEBERMAN 138KV	153		WELSH 345KV PIRKEY GENERATION 138KV	1044			
AEPW		264	-0.02789 AEPW		288	0.01208		135
AEPW	FULTON 115KV			PIRKEY GENERATION 138KV	288	0.01208		139
AEPW	LIEBERMAN 138KV FULTON 115KV	264		DOLET HILLS 345KV	371.2379	0.00952		144
AEPW AEPW				DOLET HILLS 345KV	371.2379 55			
	LIEBERMAN 138KV	264 110		G1WKRAFT 13.800 230KV EASTMAN 138KV		0.00549	-0.03338	161
AEPW AEPW	ARSENAL HILL 69KV LIEBERMAN 138KV	110	-0.00634 AEPW -0.02789 CELE	RODEMACHER 230KV	355 693.3329	0.0254		169 169
	ARSENAL HILL 69KV		-0.00634 AEPW	LEBROCK 345KV	515	0.00396		
ΔEPW		264	-0.02789 CELE	EVANGELINE 230KV	194.5714	0.02503	-0.03137	171
AEPW ΔEPW	I IERERMAN 138KV						-0.00130	172
AEPW	LIEBERMAN 138KV		-0.02789 CELE	G7EVAN 22.000 138KV	155 2900	0.00343	-0.03133	179
AEPW AEPW	LIEBERMAN 138KV	264	-0.02789 CELE	G7EVAN 22.000 138KV ACADIA 138KV	155.3809 174	0.00343		172 174
AEPW AEPW AEPW	LIEBERMAN 138KV LIEBERMAN 138KV	264 264	-0.02789 CELE -0.02789 CELE	ACADIA 138KV	174	0.00302	-0.03091	174
AEPW AEPW AEPW AEPW	LIEBERMAN 138KV LIEBERMAN 138KV ARSENAL HILL 69KV	264 264 110	-0.02789 CELE -0.02789 CELE -0.00634 AEPW	ACADIA 138KV WELSH 345KV	174 1044	0.00302 0.02447	-0.03091 -0.03081	174 175
AEPW AEPW	LIEBERMAN 138KV LIEBERMAN 138KV	264 264 110 264	-0.02789 CELE -0.02789 CELE -0.00634 AEPW -0.02789 CELE	ACADIA 138KV	174	0.00302 0.02447 0.00279	-0.03091 -0.03081 -0.03068	174 175 175

AEPW | FULTON 115KV | 153 -0.02648|CELE | RODEMACHER 230KV Maximum Decrement and Maximum Increment were determine from the Souce and Sink Operating Points in the study models where limiting facility was identified. Factor = Source GSF - Sink GSF | Sink

Upgrade:

EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1
EAST MANHATTAN - NW MANHATTAN 230/115KV
East Manhattan to Mcdowell 230 KV
EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT
FROM->TO
MCDOWELL CREEK (MCDWL 1X) 230/115/13.8KV TRANSFORMER
2007AG2AFS811120832105P
Starting 2010 61/1-10/1 Utill EOC of Upgrade
2010 Summer Peak Limiting Facility
Direction:
Line Outage:
Flowgate:
Date Redispatch Needed
Season Flowgate Identified

Reservation Relief Amount Aggregate Relief Amount

1286201	11.7	14.8							
Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)

								
WERE WERE	CLAY CENTER JUNCTION 115KV CLAY CENTER JUNCTION 115KV	13.375 13.375	-0.30219 EMDE -0.30219 MKEC	MRWYG11 34.500 230KV CLIFTON 115KV	100		-0.45276 -0.387	33
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.37369	40
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 MKEC -0.22312 WERE	JEFFREY ENERGY CENTER 230KV	65 440	0.08481	-0.30793 -0.27319	48 54
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 WERE -0.22312 NPPD	JEFFREY ENERGY CENTER 345KV BPS GT1G 13.800 115KV	874 80	0.02464	-0.24776 -0.23173	60 64
WERE	ABILENE ENERGY CENTER 115KV		-0.22312 NPPD	BPS GT2G 13.800 115KV	45.19951	0.00861	-0.23173	64
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 NPPD -0.22312 OPPD	BPS ST3G 13.800 115KV CASS 1G 15.000 345KV	49.99482 42.51929	0.00861	-0.23173 -0.22648	64 65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 OPPD	CASS 2G 15.000 345KV	52.99999	0.00336	-0.22648	65
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 NPPD -0.22312 NPPD	COL.COG7 115.00 115KV COOPER1G 22.000 345KV	75 551.2802	0.00334	-0.22646 -0.22642	65 65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 NPPD	DENVER G 34.500 115KV	34.32393	0.00402	-0.22714	65
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 NPPD -0.22312 OPPD	EGY CTRG 13.800 115KV FREM 8G 13.800 69KV	54 90	0.00409	-0.22721 -0.2264	65 65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 OPPD	FT CAL1G 22.000 4KV	376	0.00327	-0.22639	65
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 NPPD -0.22312 KACP	GT-2 G 13.800 115KV IATAN 345KV	40 1806	0.00354	-0.22666 -0.22709	65 65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 KACP	IATAN 345KV	371	0.00397	-0.22709	65
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 OPPD -0.22312 OPPD	N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV	48.5 80.59999	0.00331		65 65
WERE	ABILENE ENERGY CENTER 115KV	66 66		N OMA 3G 13.800 2KV	80.59999	0.0033	-0.22642	65
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 OPPD -0.22312 OPPD	N OMA 4G 15.000 2KV N OMA 5G 20.000 4KV	107.4 173.9	0.0033		65 65
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 OPPD -0.22312 OPPD	NEBCTY1G 18.000 4KV NEBCTY2G 23.000 345KV	466 503	0.0034	-0.22652 -0.22652	65 65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 NPPD	PLATTE1G 13.800 115KV	71.51868	0.00353	-0.22665	65
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66		SHELDN1G 13.800 115KV SHELDN2G 13.800 115KV	68.40001 81	0.00521	-0.22833 -0.22833	65 65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 KACP	BULL CREEK 161KV	61.6	0.00103	-0.22415	66
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 KACP -0.22312 WERE	CITY OF HIGGINSVILLE 69KV CNTRLPL2 34.500 115KV	36 99	0.00048	-0.2236	66
WERE	ABILENE ENERGY CENTER 115KV	66		GENTLM1G 23.000 230KV	463	0.00295		66
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 NPPD -0.22312 KACP	GENTLM2G 24.000 345KV HAWTHORN 161KV	443.3608 517.7498	0.00292	-0.22604 -0.22414	66
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66		LAKE ROAD 161KV	35 92	0.00256	-0.22568	66
WERE WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 KACP	LAKE ROAD 34KV MONTROSE 161KV	359.7142	0.00019		66 66
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 KACY -0.22312 KACY	NEARMAN 161KV NEARMAN 20KV	77 235	0.0009	-0.22402 -0.22402	66 66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 KACY	QUINDARO 161KV	129.4176	0.00091	-0.22403	66
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 KACY -0.22312 MIPU	QUINDARO 69KV SIBLEY 161KV	136.3562 228.9597	0.00091	-0.22403 -0.22389	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 MIPU	SIBLEY 69KV	45.99999	0.00084	-0.22396	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 MIPU	SOUTH HARPER 161KV	67.00598	-0.00023	-0.22289	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 MKEC	A. M. MULLERGREN GENERATOR 115KV	63	-0.00265	-0.22047	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 OKGE -0.22312 AEPW	AES 161KV ARSENAL HILL 138KV	320 455	-0.0011	-0.22202 -0.22226	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 AEPW	ARSENAL HILL 69KV	90	-0.00087	-0.22225	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 EMDE -0.22312 OKGE	ASBURY 161KV CENTENIAL WIND 34KV	192 120	-0.00126	-0.22186	67 67
WERE	ABILENE ENERGY CENTER 115KV	66		CHANUTE 69KV	54.8	-0.00193	-0.22119	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 MKEC -0.22312 WERE	CIMARRON RIVER 115KV CITY OF BURLINGTON 69KV	44 55.4	-0.00116		67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 AEPW -0.22312 AEPW	COGENTRIX 345KV COMANCHE 138KV	222.0669 145	-0.00168	-0.22144	67 67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66		COMANCHE 138KV	145	-0.00211		67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 AEPW -0.22312 EMDE	EASTMAN 138KV ELK RIVER 345KV	356.7947 44.986	-0.00094 -0.00363	-0.22218 -0.21949	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 WERE	EMPORIA ENERGY CENTER 345KV	610	-0.0007	-0.22242	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 AEPW -0.22312 AEPW	FITZHUGH 161KV FLINT CREEK 161KV	125.4 428	-0.001	-0.22212 -0.22176	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 OKGE	FPLWND2 34KV	59	-0.00245	-0.22067	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 MKEC -0.22312 OKGE	GRAY COUNTY WIND FARM 115KV HORSESHOE LAKE 138KV	36 796	-0.00241	-0.22071 -0.2209	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 MKEC	JUDSON LARGE 115KV	95.93536	-0.00241	-0.22071	67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 MIDW -0.22312 AEPW	KNOLL 115KV KNOXLEE 138KV	75.60001 225	-0.00136	-0.22176	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 EMDE	LARUSSEL 161KV	100	-0.00106	-0.22206	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66		LEBROCK 345KV LIEBERMAN 138KV	517.1024 174	-0.00093	-0.22219 -0.22224	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 OKGE	MCCLAIN 138KV	470	-0.00226	-0.22086	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66		MUSKOGEE 161KV MUSKOGEE 345KV	166 1548	-0.00153 -0.00157	-0.22159 -0.22155	67 67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66		MUSTANG 138KV MUSTANG 69KV	351 51,72168	-0.0023 -0.0023	-0.22082	67 67
WERE	ABILENE ENERGY CENTER 115KV	66		NORTHEASTERN STATION 138KV	480	-0.0023	-0.22082	67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 AEPW -0.22312 AEPW	NORTHEASTERN STATION 345KV OEC 345KV	625 390.4081	-0.00166	-0.22146	67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 AEPW	PIRKEY GENERATION 138KV	288	-0.00093	-0.22219	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 OKGE -0.22312 EMDE	REDBUD 345KV RIVERTON 161KV	43.60958 100.0327	-0.00222	-0.2209 -0.22183	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 EMDE	RIVERTON 69KV	44.07887	-0.00126	-0.22186	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 OKGE -0.22312 OKGE	SEMINOLE 138KV SEMINOLE 345KV	334.858 1019	-0.00211		67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 OKGE	SMITH COGEN 138KV	106	-0.00229	-0.22083	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 OKGE -0.22312 OKGE	SOONER 138KV SOONER 345KV		-0.00277 -0.00282	-0.22035 -0.2203	67 67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 AEPW	SOUTHWESTERN STATION 138KV	287	-0.00212	-0.221	67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 AEPW -0.22312 OKGE	SOUTHWESTERN STATION 138KV SPGCK1&2 13.200 345KV	78			
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66		STATE LINE 161KV TONTITOWN 161KV	520 140	-0.00125	-0.22187	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 AEPW	TULSA POWER STATION 138KV	129.8887	-0.00168	-0.22144	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 AEPW -0.22312 AEPW	WELSH 345KV	1044 410.8099	-0.00102 -0.00096		67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 AEPW	WILKES 345KV	308	-0.00095	-0.22217	67
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 WERE -0.22312 WERE	CITY OF WINFIELD 69KV EVANS ENERGY CENTER 138KV	31.2 560	-0.00409 -0.00532		68
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 WERE	GILL ENERGY CENTER 138KV	155	-0.00498	-0.21814	68
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 WERE -0.22312 WERE	GILL ENERGY CENTER 69KV LAWRENCE ENERGY CENTER 230KV	52 223.9294	-0.00495 -0.00729		68 69
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312 WERE	HUTCHINSON ENERGY CENTER 115KV	230	-0.01521	-0.20791	71
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 WERE -0.22312 MIDW	TECUMSEH ENERGY CENTER 115KV SMOKEY HILLS 34KV	133 25	-0.01885		72
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897 EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.17954	82
WERE MIDW	TECUMSEH ENERGY CENTER 69KV SMOKEY HILLS 34KV	41 75	-0.02016 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057	-0.17073	86 87
WERE WERE	HUTCHINSON ENERGY CENTER 115KV LAWRENCE ENERGY CENTER 230KV		-0.01521 EMDE -0.00729 EMDE	MRWYG11 34.500 230KV	100	0.15057		89 94
WERE	GETTY 69KV	35	-0.00491 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057	-0.15548	95
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV	84.99999		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057	-0.15555	95 95
WERE	CHANUTE 69KV	41.1	-0.00193 EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.1525	97
AEPW AEPW	COGENTRIX 345KV ELKIN_GN 1 13.800 69KV	671.9331 60	-0.00168 EMDE -0.00138 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057		97 97
OKGE	HORSESHOE LAKE 138KV	64	-0.00222 EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.15279	97
AEPW OKGE	KIOWA 345KV MCCLAIN 138KV	1336.177 50	-0.00182 EMDE -0.00226 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057		97 97
AEPW	MID-CONTINENT 138KV	142.11	-0.00152 EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.15209	97
OKGE AEPW	MUSTANG 69KV OEC 345KV	54.27831 1756.622	-0.0023 EMDE -0.00164 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057	-0.15287 -0.15221	97 97
OKGE	REDBUD 345KV	1156.39	-0.00222 EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.15279	97
OKGE OKGE	SEMINOLE 138KV SOUTH 4TH ST 69KV	42.7	-0.00211 EMDE -0.00282 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057	-0.15339	97 97
AEPW	SOUTHWESTERN STATION 138KV	152	-0.00212 EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.15269	97

4 EDIN	loour western or tronger	250		Lunus (O. L. O. Doo oos) (J.	100		and and
	SOUTHWESTERN STATION 138KV SPGCK3&4 13.200 345KV	350 111	-0.00212 EMDE -0.00244 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.15 0.15057 -0.15	
OKGE	TINKER 5G 138KV	62	-0.00222 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.15	79 97
AEPW AEPW	TONTITOWN 161KV TULSA POWER STATION 138KV	186.12 177.1113	-0.00138 EMDE -0.00168 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.15 0.15057 -0.15	
	TULSA POWER STATION 69KV	80		MRWYG11 34.500 230KV	100	0.15057 -0.15	
	WELEETKA 138KV ARIES 161KV	162 576.6669	-0.00176 EMDE 0.00006 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.15 0.15057 -0.15	
	ARSENAL HILL 138KV	337.2		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.15	
	EASTMAN 138KV	128.2153		MRWYG11 34.500 230KV	100		
WERE AEPW	EMPORIA ENERGY CENTER 345KV FULTON 115KV	201 153	-0.0007 EMDE -0.00083 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.15 0.15057 -0.1	
	GREENWOOD 161KV	255.8	0.00011 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.15	146 98
	KNOXLEE 138KV LARUSSEL 161KV	176 171	-0.00093 EMDE -0.00106 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.1 0.15057 -0.15	
AEPW	LEBROCK 345KV	179.8976	-0.00093 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.1	15 98
	LIEBERMAN 138KV LONESTAR POWER PLANT 69KV	45.99999 50	-0.00088 EMDE -0.00097 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.15 0.15057 -0.15	
	PAOLA 5 161.00 161KV	82.5		MRWYG11 34.500 230KV	100		
KACP MIPU	PAOLA COMBUSTION TURBINES 161KV RALPH GREEN 69KV	76 73.7	-0.00019 EMDE 0.00004 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.15 0.15057 -0.15	
EMDE	RIVERTON 161KV	182.9673	-0.00129 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.15	86 98
	SOUTH HARPER 161KV STATE LINE 161KV	247.994		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.1 0.15057 -0.15	
	WILKES 138KV	52.19009		MRWYG11 34.500 230KV	100	0.15057 -0.15	
	BULL CREEK 161KV HAWTHORN 161KV	246.4	0.00103 EMDE 0.00102 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.14 0.15057 -0.14	
	KAW 69KV	245.2502 242	0.00102 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.14	
	MARSHALL 161KV	54.1	0.00056 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.15	01 99
KACP KACP	NORTHEAST 13KV NORTHEAST 161KV	223 224	0.00101 EMDE 0.00101 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.14 0.15057 -0.14	
KACY	QUINDARO 161KV	107.5824	0.00091 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.14	66 99
	QUINDARO 69KV	40.64384		MRWYG11 34.500 230KV	100	0.15057 -0.14	
NPPD	AINSWN1G 34.500 115KV KINGSLYG 13.800 115KV	49.59249 47.95929	0.0029 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.14 0.15057 -0.14	67 100
MIPU	LAKE ROAD 161KV	91	0.00256 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.14	100
NPPD NPPD	MCCOOK G 13.800 115KV SIDNEY 4 230.00 230KV	51 230.6148	0.00248 EMDE 0.00291 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.14 0.15057 -0.14	
NPPD	BURDIC3G 13.800 115KV	54	0.00354 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.14	03 101
NPPD MIDW	CANADY1G 13.800 115KV COLBY 115KV	125 36.41598	0.00323 EMDE 0.00432 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057 -0.14 0.15057 -0.14	34 101
OPPD	FREM 1G 13.800 69KV	40	0.00328 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.14	29 101
NPPD	GT-3 G 13.800 115KV	40	0.00354 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.14	03 101
KACP OPPD	JONES 1G 13.800 69KV	129 59.3	0.00397 EMDE 0.00332 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057 -0.14 0.15057 -0.14	
OPPD	JONES 2G 13.800 69KV	59.3	0.00332 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.14	25 101
	NCU903 8 69.000 69KV SARPY 1G 13.800 69KV	35.3 55.3	0.00397 EMDE 0.00335 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057 -0.1 0.15057 -0.14	
	SARPY 2G 13.800 69KV	55.3	0.00336 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.14	
OPPD	SARPY 3G 13.800 4KV	49.17342	0.00332 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.14	
	SARPY 4G 13.800 161KV SARPY 5G 13.800 161KV	48.1 48.1	0.00332 EMDE 0.00332 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.14 0.15057 -0.14	
NPPD	SHELDONG 13.800 115KV	52	0.00521 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.14	36 102
NPPD NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	34.80049 40.00518	0.00861 EMDE 0.00861 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 -0.14 0.15057 -0.14	
	HEBRON G 13.800 115KV	40.00318		MRWYG11 34.500 230KV	100	0.15057 -0.14	
WERE	JEFFREY ENERGY CENTER 345KV	108	0.02464 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.12	
	BPU - CITY OF MCPHERSON 115KV SMOKEY HILLS 34KV	232 75		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.11 0.08481 -0.10	
WERE	JEFFREY ENERGY CENTER 230KV	54	0.05007 EMDE	MRWYG11 34.500 230KV	100	0.15057 -0.1	05 147
	HUTCHINSON ENERGY CENTER 115KV GILL ENERGY CENTER 138KV	214 84.99999		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.10	
OKGE	HORSESHOE LAKE 138KV	64	-0.00222 MKEC	CLIFTON 115KV	65	0.08481 -0.08	
	REDBUD 345KV	1156.39	-0.00222 MKEC	CLIFTON 115KV	65	0.08481 -0.08	
	SEMINOLE 138KV SOUTHWESTERN STATION 138KV	200.142		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.08	
AEPW	SOUTHWESTERN STATION 138KV	350	-0.00212 MKEC	CLIFTON 115KV	65	0.08481 -0.08	93 170
	SPGCK3&4 13.200 345KV TINKER 5G 138KV	111		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.08 0.08481 -0.08	
	COGENTRIX 345KV	671.9331	-0.00222 MKEC	CLIFTON 115KV	65	0.08481 -0.08	
AEPW	KIOWA 345KV	1336.177		CLIFTON 115KV	65	0.08481 -0.08	63 171
	OEC 345KV TULSA POWER STATION 138KV	1756.622 177.1113		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.08 0.08481 -0.08	
	TULSA POWER STATION 69KV	80		CLIFTON 115KV	65	0.08481 -0.08	
	WELEETKA 138KV ELKIN_GN 1 13.800 69KV	162		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.08 0.08481 -0.08	
	LARUSSEL 161KV	171	-0.00136 MKEC	CLIFTON 115KV	65	0.08481 -0.08	
	MID-CONTINENT 138KV	142.11	-0.00152 MKEC	CLIFTON 115KV	65	0.08481 -0.08	
	RIVERTON 161KV STATE LINE 161KV	182.9673 90	-0.00129 MKEC -0.00125 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.08 0.08481 -0.08	
AEPW	TONTITOWN 161KV	186.12	-0.00138 MKEC	CLIFTON 115KV	65	0.08481 -0.08	172
	ARSENAL HILL 138KV FASTMAN 138KV	337.2 128.2153	-0.00086 MKEC -0.00094 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.08	
WERE	EMPORIA ENERGY CENTER 345KV	201	-0.0007 MKEC	CLIFTON 115KV	65	0.08481 -0.08	51 173
AEPW	FULTON 115KV KNOXLEE 138KV	153 176	-0.00083 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.08	64 173
	LEBROCK 345KV		-0.00093 MKEC	CLIFTON 115KV CLIFTON 115KV	65		
	PAOLA 5 161.00 161KV	82.5		CLIFTON 115KV	65		
KACP	PAOLA COMBUSTION TURBINES 161KV	76	-0.00019 MKEC	CLIFTON 115KV	65	0.08481 -0.	174
MIPU	SOUTH HARPER 161KV	247.994	-0.00023 MKEC	CLIFTON 115KV	65	0.08481 -0.08	04 174
	ARIES 161KV GREENWOOD 161KV	576.6669 255.8		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.08 0.08481 -0.0	
MIPU	RALPH GREEN 69KV	73.7	0.00004 MKEC	CLIFTON 115KV	65	0.08481 -0.08	77 175
	BULL CREEK 161KV HAWTHORN 161KV	246.4	0.00103 MKEC 0.00102 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.08	
KACY	KAW 69KV	245.2502 242		CLIFTON 115KV CLIFTON 115KV	65	0.08481 -0.08 0.08481 -0.08	179 177 189 177
KACP	NORTHEAST 13KV	223	0.00101 MKEC	CLIFTON 115KV	65	0.08481 -0.0	138 177
	NORTHEAST 161KV QUINDARO 161KV	224 107.5824		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481 -0.0 0.08481 -0.0	
MIPU	LAKE ROAD 161KV	91	0.00256 MKEC	CLIFTON 115KV	65	0.08481 -0.08	25 180
NPPD NPPD	SIDNEY 4 230.00 230KV CANADY1G 13.800 115KV	230.6148 125		CLIFTON 115KV	65 65	0.08481 -0.08 0.08481 -0.08	
KACP	IATAN 345KV	129	0.00397 MKEC	CLIFTON 115KV	65	0.08481 -0.08	183
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007 -0.07	04 187
WERE	SMOKEY HILLS 34KV HUTCHINSON ENERGY CENTER 115KV	214	-0.01521 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007 -0.06	
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897 WERE	JEFFREY ENERGY CENTER 345KV	874	0.02464 -0.05	61 276
	SPGCK3&4 13.200 345KV REDBUD 345KV	111 1156.39	-0.00244 WERE -0.00222 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007 -0.05 0.05007 -0.05	
OKGE	SEMINOLE 138KV	200.142	-0.00211 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007 -0.05	18 284
AEPW AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	350 152	-0.00212 WERE -0.00212 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007 -0.05 0.05007 -0.05	
TV	KIOWA 345KV	1336.177	-0.00182 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007 -0.05	89 285
		671.9331	-0.00168 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007 -0.05	75 286
AEPW	COGENTRIX 345KV			JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007 -0.05 0.05007 -0.05	
AEPW AEPW	OEC 345KV		-0.00168 WFRF				
AEPW AEPW AEPW AEPW	OEC 345KV TULSA POWER STATION 138KV WELEETKA 138KV	177.1113 162	-0.00176 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007 -0.05	
AEPW AEPW AEPW AEPW AEPW	OEC 345KV TULSA POWER STATION 138KV WELEETKA 138KV MID-CONTINENT 138KV	177.1113 162 142.11	-0.00176 WERE -0.00152 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440	0.05007 -0.05 0.05007 -0.05	59 287
AEPW AEPW AEPW AEPW BEPW AEPW AEPW AEPW AEPW AEPW	OEC 345KV TULSA POWER STATION 138KV WELEETKA 138KV MID-CONTINENT 138KV RIVERTON 161KV TONTITOWN 161KV	177.1113 162 142.11 182.9673 186.12	-0.00176 WERE -0.00152 WERE -0.00129 WERE -0.00138 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440 440	0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05	59 287 36 288 45 288
AEPW AEPW AEPW AEPW BEMDE AEPW EMDE AEPW AEPW AEPW	OEC 345KV TULSA POWER STATION 138KV WELEETKA 138KV MID-CONTINENT 138KV RIVERTON 161KV TONTITOWN 161KV EASTMAN 138KV	177.1113 162 142.11 182.9673 186.12 128.2153	-0.00176 WERE -0.00152 WERE -0.00129 WERE -0.00138 WERE -0.00094 WERE	JEFFREY ENERGY CENTER 230KV	440 440 440 440	0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05	59 287 36 288 45 288 01 290
AEPW AEPW AEPW AEPW AEPW EMDE AEPW AEPW AEPW AEPW AEPW AEPW	OEC 345KV TULSA POWER STATION 138KV WELEETKA 138KV MID-CONTINENT 138KV RIVERTON 161KV TONTITOWN 161KV	177.1113 162 142.11 182.9673 186.12	-0.00176 WERE -0.00152 WERE -0.00129 WERE -0.00138 WERE -0.00094 WERE -0.00093 WERE	JEFFREY ENERGY CENTER 230KV	440 440 440	0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05	59 287 36 288 45 288 01 290 51 290
AEPW AEPW AEPW AEPW BEMDE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	OEC 345KV TULSA POWER STATION 138KV WELLEFIKA 138KV MID-CONTINENT 138KV RIVERTON 161KV TONITTOWN 161KV EASTMAN 138KV KNOXLEE 138KV LARUSSEL 161KV LERROCK 346KV	177.1113 162 142.11 182.9673 186.12 128.2153 176 1711 179.8976	-0.00176 WERE -0.00152 WERE -0.00129 WERE -0.00138 WERE -0.00094 WERE -0.00096 WERE -0.00106 WERE -0.00108 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY BERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440 440 440 440 440 440	0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05	59 287 36 288 45 288 01 290 61 290 61 290 61 290 61 290 61 290
AEPW AEPW AEPW AEPW AEPW EMDE AEPW EMDE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	OEC 346KV TULSA POWER STATION 138KV WELEETKA 138KV MID-CONTINENT 138KV MID-CONTINENT 138KV TONTITIOWN 151KV EASTMAN 138KV KNOXLEE 138KV KNOXLEE 138KV	177.1113 1622 142.11 182.9673 186.12 128.2153 176 171 179.8976 337.2	-0.00176 WERE -0.00152 WERE -0.00129 WERE -0.00138 WERE -0.00094 WERE -0.00030 WERE -0.00106 WERE	JEFFREY ENERGY CENTER 230KV	440 440 440 440 440 440	0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05 0.05007 -0.05	59 287 36 288 45 288 40 1 290 61 290 61 290 61 290 61 290 93 290 291

Table 6 - Potential Redispatch Relief Pairs to Prevent Deferral of Service

WERE	EMPORIA ENERGY CENTER 345KV	201	-0.0007 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.05077	292
MIPU	SOUTH HARPER 161KV	247.994	-0.00023 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.0503	294
MIPU	ARIES 161KV	576.6669	0.00006 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.05001	296
MIPU	GREENWOOD 161KV	255.8	0.00011 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04996	296
KACY	KAW 69KV	242	0.00092 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04915	301
KACY	QUINDARO 161KV	107.5824	0.00091 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04916	301
KACP	BULL CREEK 161KV	246.4	0.00103 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04904	302
KACP	HAWTHORN 161KV	245.2502	0.00102 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04905	302
KACP	NORTHEAST 13KV	223	0.00101 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04906	302
KACP	NORTHEAST 161KV	224	0.00101 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04906	302
NPPD	SIDNEY 4 230.00 230KV	230.6148	0.00291 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04716	314
NPPD	CANADY1G 13.800 115KV	125	0.00323 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04684	316
KACP	IATAN 345KV	129	0.00397 WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.0461	321
WERE	HUTCHINSON ENERGY CENTER 115KV	214		JEFFREY ENERGY CENTER 345KV	874	0.02464	-0.03985	372
WERE	BPU - CITY OF MCPHERSON 115KV	232		IATAN 345KV	1806	0.00397	-0.03294	450
WERE	BPU - CITY OF MCPHERSON 115KV	232		IATAN 345KV	371	0.00397	-0.03294	450
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897 OPPD	NEBCTY1G 18.000 4KV	466	0.0034	-0.03237	457
WERE	BPU - CITY OF MCPHERSON 115KV	232		NEBCTY2G 23.000 345KV	503	0.0034	-0.03237	457
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897 NPPD	COOPER1G 22.000 345KV	551.2802	0.0033	-0.03227	459
WERE	BPU - CITY OF MCPHERSON 115KV	232		FT CAL1G 22.000 4KV	376	0.00327	-0.03224	459
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897 OPPD	N OMA 5G 20.000 4KV	173.9	0.0033	-0.03227	459
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897 NPPD	GENTLM1G 23.000 230KV	463	0.00295	-0.03192	464
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897 NPPD	GENTLM2G 24.000 345KV	443.3608	0.00292	-0.03189	464
Maximum Decrement and	Maximum Increment were determine from the S	ouce and Sink Operating Points	in the study models where limi	ting facility was identified				•

Maximum Decrement and Maximum Incremer Factor = Source GSF - Sink GSF Redispatch Amount = Relief Amount / Factor

Upgrade: EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1
East Manhattan to Modowell 230 kV
Limiting Facility EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT
Direction: FROM->TO
Line Outage: AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1
2007/AC2AFS81T27/8321059P
Sharing 2010 6/1 - 10/1 Until EOC of Upgrade
Season Flowgate Identified 2010 Summer Peak

1281706 1280201 Source Control Area WERE CLAY CENTER WERE ABILENE ENNE WERE CLAY CENTER WERE CLAY CENTER WERE CLAY CENTER WERE ABILENE ENNE WERE ABILENE ENNE WERE ABILENE ENNE WERE ABILENE ENNE WERE EMPORIA ENN WERE LAWRENCE E WERE HUTCHINSON WERE GETTY 69RV. WERE GILL ENERGY WERE GITY 09 FOLIA AFBUR ASBURY 1611 EMDE ASBURY 1611 ABPUW COGENTRUX. AEPW COGENTRUX. AEPW ELIKIN GN 11 AEPW ELIKIN GN 11 AEPW ELIKIN GN 14 AEPW KONDALE TIS EMDE AAPPW KONDALE TIS AEPW KONDALE TIS AEPW KROCKE KACP MONTROSE MIEPU KROP MONTROSE AEPW KROCKE MISTANG 18 AEPW MONTROSE KACP MONTROSE AEPW NORTHEAST AEPW NORTHEAST AEPW NORTHEAST AEPW OCAS MISTANG 18 AEPW NORTHEAST AEPW NORTHEAST AEPW NORTHEAST AEPW OCAS MISTANG 18 AEPW NORTHEAST AEPW NORTHEAST AEPW OCAS MISTANG 18 AEPW NORTHEAST AEPW OCAS MISTANG 18 AEPW NORTHEAST AE	Y CENTER 138KV Y CENTER 69KV Y L 138KV KV KV E 69KV 345KV	Maximum Increment (MW) 13.375 66 13.375 666 661 232 201 45.07056 475 359 84.99999 488 300 575.66669 337.2	-0.01053 -0.01291 -0.00613 -0.00602 -0.00604	EMDE MKEC WERE MKEC WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	Sink MRWYG11 34 500 230KV MRWYG11 34 500 230KV LEFTON 150K JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV MRWYG11 34 500 230KV	Maximum Decrement (MW) 100 100 65 440 65 400 100 100 100 100 100 100 100 100	0.20592 0.11765 0.09177 0.11765	Factor -0.39995 -0.35019 -0.31168 -0.26182 -0.23604 -0.2292 -0.22625 -0.22076 -0.22011 -0.22267	Aggregate Redispatch Amount (MW) 22 33 34 44 44 44 44 44 44
Source Control Area WERE CLAY CENTER WERE ABILENE ENE WERE CLAY CENTER WERE CLAY CENTER WERE CLAY CENTER WERE CLAY CENTER WERE ABILENE ENE WERE ABILENE ENE WERE TECUMSEN TE	Source IR JUNCTION 115KV PROY CENTER 115KV IR JUNCTION 115KV IR JUNCTION 115KV IR JUNCTION 115KV IR JUNCTION 115KV PROY CENTER 115KV PREGY CENTER 115KV STEREGY CENTER 115KV STEREGY CENTER 115KV VENERGY CENTER 115KV VENERGY CENTER 115KV VENERGY CENTER 115KV VENERGY CENTER 115KV SAKV V CENTER 138KV V CENTER 69KV V L 138KV KV KV KV KV KV KV KV KV KV	Maximum Increment (MW) 13.375 66 13.375 666 661 232 201 45.07056 475 359 84.99999 488 300 575.66669 337.2	-0.19403 -0.14427 -0.19403 -0.19403 -0.19403 -0.14427 -0.02328 -0.023184 -0.01419 -0.01675 -0.01053 -0.01291 -0.00613 -0.00604	EMDE EMDE MKEC WERE MKEC WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	MRWYG11 34.500 230KV MRWYG11 34.500 230KV CLIFTON 115KV JEFFREY BARGY CENTER 230KV CLIFTON 115KV JEFFREY BARGY CENTER 230KV MRWYG11 34.500 230KV	1000 1000 65 4404 65 4400 1000 1000 1000 1000	0.20592 0.20592 0.11765 0.09177 0.11765 0.09177 0.20592 0.20592 0.20592 0.20592	-0.39995 -0.35019 -0.31168 -0.2858 -0.26192 -0.23604 -0.2292 -0.22625 -0.22776 -0.22011	22 33 33 34 44 44 44 44
WERE CLAY CENTER WERE ABILENE ENE WERE CLAY CENTER WERE CLAY CENTER WERE CLAY CENTER WERE ABILENE ENE WERE ABILENE ENE WERE ABILENE ENE WERE ABILENE ENE WERE TECUMSEN E TECUMSEN E WERE TO TO SHAPP WERE TECUMSEN E WERE TO TO SHAPP WERE TECUMSEN E WERE TO TO SHAP WERE TO TO SHAP WERE TO TO SHAP WERE TO SHAP	R JUNCTION 115KV RGY CENTER 115KV RGY CENTER 115KV R JUNCTION 115KV R JUNCTION 115KV R JUNCTION 115KV RGY CENTER 115KV RGY CENTER 115KV RGY CENTER 115KV RGY CENTER 115KV RERGY CENTER 115KV SHERGY CENTER 115	13.375 66 13.375 13.375 66 66 46 20 20 20 45.07056 214 75 35 84.99999 48 30 575.66669 337.2	-0.19403 -0.14427 -0.19403 -0.19403 -0.19403 -0.14427 -0.02328 -0.023184 -0.01419 -0.01675 -0.01053 -0.01291 -0.00613 -0.00604	EMDE EMDE MKEC WERE MKEC WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	MRWYG11 34.500 230KV MRWYG11 34.500 230KV CLIFTON 115KV JEFFREY BARGY CENTER 230KV CLIFTON 115KV JEFFREY BARGY CENTER 230KV MRWYG11 34.500 230KV	1000 1000 65 4404 65 4400 1000 1000 1000 1000	0.20592 0.20592 0.11765 0.09177 0.11765 0.09177 0.20592 0.20592 0.20592 0.20592	-0.39995 -0.35019 -0.31168 -0.2858 -0.26192 -0.23604 -0.2292 -0.22625 -0.22776 -0.22011	22 33 33 34 44 44 44 44
WERE	ERGY CENTER 115KV R. JUNCTION 115KV REGY CENTER	66 13.375 666 66 66 232 232 201 45.07056 244 75 35 84.99999 48 30 575.66669 337.2	-0.14427 -0.19403 -0.19403 -0.14427 -0.14427 -0.02328 -0.02338 -0.02184 -0.01675 -0.01653 -0.00163 -0.00603 -0.00603	EMDE MKEC WERE MKEC WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	MRWYG11 34.500 230KV CLIFTON 115KV JEFFREY ENERGY CENTER 230KV CLIFTON 115KV JEFFREY ENERGY CENTER 230KV MRWYG11 34.500 230KV	100 65 440 65 440 100 100 100 100	0.20592 0.11765 0.09177 0.11765 0.09177 0.20592 0.20592 0.20592 0.20592	-0.35019 -0.31168 -0.2858 -0.26192 -0.23604 -0.2292 -0.22625 -0.22776 -0.22011 -0.22267	2 3 3 3 3 4 4 4 4
WERE ABILENE ENE WERE CLAY CENTER WERE CLAY CENTER WERE ABILENE ENE WERE ABILENE ENE WERE ABILENE ENE WERE ABILENE ENE WERE TECUMSEN E TECUMSEN	ERGY CENTER 115KV R. JUNCTION 115KV REGY CENTER	66 13.375 666 66 66 232 232 201 45.07056 244 75 35 84.99999 48 30 575.66669 337.2	-0.14427 -0.19403 -0.19403 -0.14427 -0.14427 -0.02328 -0.02338 -0.02184 -0.01675 -0.01653 -0.00163 -0.00603 -0.00603	EMDE MKEC WERE MKEC WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	MRWYG11 34.500 230KV CLIFTON 115KV JEFFREY ENERGY CENTER 230KV CLIFTON 115KV JEFFREY ENERGY CENTER 230KV MRWYG11 34.500 230KV	100 65 440 65 440 100 100 100 100	0.20592 0.11765 0.09177 0.11765 0.09177 0.20592 0.20592 0.20592 0.20592	-0.31168 -0.2858 -0.26192 -0.23604 -0.2292 -0.22625 -0.22776 -0.22011 -0.22267	3 3 3 4 4 4 4 4
WERE ABILENE ENE ABILENE ENE WERE TECUMSEN E	IR JUNCTION 115KV PEGY CENTER 115KV PERGY CENTER 115KV PEGY CE	13.375 66. 66. 44.1 2.32 20.1 45.07056 2.14 7.5 84.9999 48. 30 57.66669 337.2	-0.19403 -0.14427 -0.14427 -0.02328 -0.02033 -0.02184 -0.01675 -0.01053 -0.01053 -0.00602 -0.00602	WERE MKEC WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	JJEFFREY ENERGY CENTER 230KV CLJFTON 115KV JEFFREY ENERGY CENTER 230KV MRWYG11 34.500 230KV	440 65 440 100 100 100 100	0.09177 0.11765 0.09177 0.20592 0.20592 0.20592 0.20592 0.20592	-0.2858 -0.26192 -0.23604 -0.2292 -0.22625 -0.22776 -0.22011 -0.22267	3 4 4 4 4 4
WERE ABILENE ENE WERE ABILENE ENE WERE TECUMSEN E WERE TECUMSEN E PU - CITY OI WERE LAWRENCE E MORIA ENI WERE LAWRENCE E MORIA ENI WERE LAWRENCE E GILL ENERGY WERE GILL ON ARBOYN TO E MIPU ARIES 1614V AFEW ARSENAL HILL AREW E ASBURY 1614 AFEW E ASBURY 1614 AFEW E ASTMAN 132 AFEW E ASTMAN 133 AFEW E BLILL SOBRY WICKLES GREY WICKL	ERGY CENTER 115KV ERGY CENTER 115KV ERGY CENTER 115KV ERGY CENTER 69KV FMCPHERSON 115KV ENCROY CENTER 69KV ENCROY CENTER 115KV ERGY CENTER 30KV ENCROY CENTER 115KV EN	66 66 66 66 66 66 66 66 66 66 66 66 66	-0.14427 -0.14427 -0.02328 -0.02033 -0.02184 -0.01419 -0.01675 -0.01053 -0.01291 -0.00613 -0.00602 -0.00604	MKEC WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	CLIFTON 115KV JEFFREY ENERGY CENTER 230KV MRWYG11 34.500 230KV MRWYG11 34.500 230KV MRWYG13 34.500 230KV MRWYG13 34.500 230KV MRWYG11 34.500 230KV MRWYG11 34.500 230KV	65 440 100 100 100 100 100	0.11765 0.09177 0.20592 0.20592 0.20592 0.20592 0.20592	-0.26192 -0.23604 -0.2292 -0.22625 -0.22776 -0.22011 -0.22267	4 4 4 4
WERE ABILENE END WERE TECUMSEN E AS LEUNES AND WERE TECUMSEN E TEC	RGY CENTER 115KV NERGY CENTER 69KV IF MCPHERSON 115KV NERGY CENTER 115KV NERGY CENTER 115KV NERGY CENTER 135KV NERGY CENTER 345KV NERGY CENTER 115KV NERGY CENTER 115KV NERGY CENTER 115KV NERGY CENTER 115KV NERGY CENTER 158KV NERGY CENTER 158	66 411 232 283 201 45,07056 75 35 84,9999 44,989 30,575,6669 337,2	-0.14427 -0.02328 -0.02033 -0.02184 -0.01419 -0.01675 -0.01053 -0.01291 -0.00613 -0.00602 -0.00604	WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	JEFFREY ENERGY CENTER 230KV MRWYG11 34.500 230KV	440 100 100 100 100 100	0.09177 0.20592 0.20592 0.20592 0.20592 0.20592	-0.23604 -0.2292 -0.22625 -0.22776 -0.22011 -0.22267	44
WERE TECUMSENT TECUMSENT WERE BPU_CITY OF WERE TECUMSENT TECUMSENT TECUMSENT TECUMSENT TECUMSENT TECUMSENT TECUMSENT TECUMSENT TECUMSENT TECME T	ENERGY CENTER 69KV FMCPHERSON 115KV ENERGY CENTER 115KV ENGRY CENTER 115KV ENGRY CENTER 236KV ENGRY CENTER 230KV IN ENGRY CENTER 230KV IN ENGRY CENTER 115KV LS 34KV Y CENTER 138KV Y CENTER 69KV Y KV KV KV KV KV KV KV KV KV KS 69KV 4345KV 88KV	41 232 28 201 45,07056 2144 75, 35, 84,9999 48, 30, 576,6669 337,2	-0.02328 -0.02033 -0.02184 -0.01419 -0.01675 -0.01053 -0.01291 -0.00603 -0.00602 -0.00604	EMDE EMDE EMDE EMDE EMDE EMDE EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV MRWYG11 34.500 230KV MRWYG11 34.500 230KV MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100 100 100 100	0.20592 0.20592 0.20592 0.20592	-0.22625 -0.22776 -0.22011 -0.22267	4
WERE	ENERGY CENTER 115KV ERGY CENTER 345KV ENERGY CENTER 230KV VENERGY CENTER 115KV LS 34KV V CENTER 138KV V CENTER 65KV V KV KV KV KV KV KV KV KV KV KS	28 201 45,07056 214 75 35, 84,9999 48, 30 576,6669 337,2 211	-0.02184 -0.01419 -0.01675 -0.01053 -0.01291 -0.00613 -0.00602 -0.00604	EMDE EMDE EMDE EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100 100	0.20592 0.20592 0.20592	-0.22776 -0.22011 -0.22267	
WERE	IERGY CENTER 346KV IERGY CENTER 230KV IENBRGY CENTER 115KV IS NERGY CENTER 115KV IS OGENTER 138KV IS OGENTER 69KV IS OGENTER 6	201 45,07056 214 75 35 84,9999 48 30 576,669 337.2 21	-0.01419 -0.01675 -0.01053 -0.01291 -0.00613 -0.00602 -0.00604	EMDE EMDE EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.20592 0.20592	-0.22011 -0.22267	
WERE	N ENERGY CENTER 115KV LS 34KV Y CENTER 138KV Y CENTER 69KV / / L 138KV KV K	214 75 35 84,9999 48 30 576,6669 337,2 21	-0.01053 -0.01291 -0.00613 -0.00602 -0.00604	EMDE EMDE	MRWYG11 34.500 230KV				4
MIDW	LS 34KV Y CENTER 138KV Y CENTER 69KV Y L 138KV KV KV KV KV 69KV 69KV 345KV	75 35 84.9999 48 30 576.6669 337.2	-0.01291 -0.00613 -0.00602 -0.00604	EMDE		100	0.20592		4
WERE	Y CENTER 138KV Y CENTER 69KV Y L 138KV KV KV E 69KV 345KV	35 84.99999 48 30 576.6669 337.2 21	-0.00613 -0.00602 -0.00604	EMDE		100	0.20592	-0.21645 -0.21883	4
WERE	Y CENTER 69KV / /	84.99999 48 30 576.6669 337.2 21	-0.00602 -0.00604		MRWYG11 34.500 230KV	100	0.20592	-0.21205	4
WERE	LL 138KV KV KV KV E 69KV A 69KV 345KV	30 576.6669 337.2 21	-0.00604	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.21194	4
MIPU	LL 138KV KV KV E 69KV 69KV 345KV	576.6669 337.2 21		EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.21196	4
AEPW ARSENAL HIL EMDE ASBURY 1611 WERE CHANUTE 698 WERE CITY OF ERIE WERE CITY OF ERIE WERE CITY OF ERIE WERE CITY OF ERIE WERE CITY OF HOLE AEPW EASTMAN 133 AEPW EASTMAN 133 AEPW ELINI, GN 11 AEPW ELINI, GN 11 AEPW ELINI 698(Y) FULTON 1158 MIPU GREENWOOL AEPW KIOWA 3465(Y) AEPW KIOWA 3465(Y) AEPW KIOWA 3465(Y) AEPW LIEBERNAN 1 AEPW LOWESTAR P OKCE MUSTAN 600 OKCE MUSTAN 600 OKCE MUSTAN 600 OKCE MUSTAN 600 NORGE MUSTAN 600 AEPW NORTHEAST AEPW NORTHEAST AEPW NORTHEAST AEPW NORTHEAST AEPW OC 345(Y) AEPW NORTHEAST	LL 138KV KV IKV E 69KV A 69KV 345KV	337.2 21	-0.00607	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.21199 -0.20781	49
WERE	KV E 69KV A 69KV 345KV		-0.00107		MRWYG11 34.500 230KV	100	0.20592	-0.20699	50
WERE	E 69KV A 69KV 345KV 8KV		-0.00218		MRWYG11 34.500 230KV	100	0.20592	-0.2081	50
WERE	A 69KV 345KV 8KV	41.1 22.53	-0.003		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20892 -0.20892	50
AEPW	8KV	27.428	-0.00281		MRWYG11 34.500 230KV	100	0.20592	-0.20892	50
AEPW ELKIN, GN 11 AEPW ELKIN, GN 11 AEPW ELLIS 69KV AEPW FULTON 1198 AEPW FULTON 1198 AEPW FULTON 1198 AEPW KIOWA 345KW AEPW LEBROCK 34 AEPW LEBROCK 34 AEPW LEBROCK 34 AEPW LEBROCK 34 AEPW LONESTAR P AEPW LONESTAR P AEPW MO-CONTINE AEPW NORTHEAST AEPW NORTH			-0.00226	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20818	50
AEPW ELLIS 69KV AEPW FULTON 115K MIPU GREENWOOD OKGE HORSESHOE AEPW KIOWA 345KV KIOWA 345K		128.2153	-0.00115		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20707 -0.20793	50
AEPW FULTON 118X MIPU GREENWOOD OKGE HORSESHOE AEPW KIOWA 345KV AEPW KNOXLE 13X EMDE LARUSSEL 16 AEPW LEBROCK 344 AEPW LEBROCK 344 AEPW LONESTAR PL OKGE MCCALAN 138 AEPW MO-CONTINE KACP MONTROSE 1 OKGE MUSTANG 69 MIPU NEVADA 68KV AEPW NORTHEAST	13.000 09KV		-0.00201		MRWYG11 34.500 230KV	100	0.20592	-0.20793	50
OKGE HORSESHOE AEPW KIOWA 345KV AEPW KNOXLE 138 EMDE LARUSSEL 16 AEPW LEBROCK 344 AEPW LEBROCK 344 AEPW LONESTAR PI OKGE MCCLAIN 138 AEPW MID-CONTINE KACP MONTROSE 1 OKGE MUSKOGEE 9 MUSTANG 03 OKGE MUSTANG 13 AEPW NORTHEAST AEPW NORTHEAST AEPW NORTHEAST AEPW NORTHEAST AEPW OC 348V VKACP PAOLA 5 161. KACP PAOLA 6 S MIPU RALPH GREE OKGE REDBUD 349		153	-0.00104	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20696	50
AEPW			-0.00174		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20766	50
AEPW KNOXLE 138 EMDE LARUSSEL 16 LERROCK 348 LEBROCK 348 AEPW LEBROCK 348 AEPW LONESTAR P GKGE MCCLAIN 138 AEPW MO-CONTINE KACP MONTROSE 1 OKGE MUSKOGEE MUSTANG 03 OKGE MIPU NEVADA 68K AEPW NORTHEAST AEPW NORTHEAST AEPW NORTHEAST AEPW OC 248KV KACP PAOLA 5 161. KACP PAOLA 6 COMB MIPU RALPH GREE COKGE REDBUD 349		1336.177	-0.00264		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20856 -0.2081	50
AEPW LEBROCK 348 AEPW LIBERGAMA 11 AEPW LONESTAR PI OKOE MCCLAIN 138 AEPW MID-CONTINE KACP MONTROSE 1 OKGE MJSTANG 13 OKGE MJSTANG 13 MIPU NEVADA 68K1 AEPW NORTHEAST AEPW NORTHEAST AEPW OCC 348KY KACP PAOLA 5 161. KACP PAOLA COMM MIPU RALPH GREE OKGE REDBUG 349			-0.00115		MRWYG11 34.500 230KV	100	0.20592	-0.20707	50
AEPW LIEBERMAN I AEPW LONESTAR PI OKGE MCCLAIN 138 AEPW MD-CONTINE KACP MONTROSE OKGE MUSKOGE 1 OKGE MUSKOGE 3 OKGE MUSKAGE MUSKAGE 3 AEPW NORTHOSE AEPW NORTHEAST AEPW NORTHEAST AEPW NORTHEAST AEPW OEC 345KV KACP PAOLA 5 161. KACP PAOLA 6 168.			-0.00185		MRWYG11 34.500 230KV	100	0.20592	-0.20777	50
AEPW LONESTAR P. OKOE MCCLAIN 138 AEPW MID-CONTINE KACP MONTROSE I OKGE MUSKOGEE MUSTANG 03 OKGE MUSTANG 04 AEPW NORTHEAST AEPW NORTHEAST AEPW NORTHEAST AEPW AEPW ORTHEAST AEPW ORTSEAST KACP PAOLA 5101. KACP PAOLA COMB MIPU RALPH GREE OKGE REDBUD 349			-0.00115		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20707	50
OKGE MCCLAIN 138 AEPW MID-CONTINE KACP MONTROSE I OKGE MUSTANG 18 OKGE MUSTANG 18 MIPU NEVADA 68K AEPW NORTHEAST AEPW NORTHEAST AEPW OEC 348KV KACP PAOLA 5 161. KACP PAOLA COMB MIPU RALPH GREE COKGE REDBUD 348P	OWER PLANT 69KV	50	-0.00103		MRWYG11 34.500 230KV	100	0.20592	-0.20712	50
KACP	BKV		-0.00265		MRWYG11 34.500 230KV	100	0.20592	-0.20857	50
OKGE MJSKOGEE OKGE MJSTANG 13 OKGE MJSTANG 63 MIPU NEVADA 68KX AEPW NORTHEAST AEPW NORTHEAST AEPW OEC 348KY KACP PAOLA 5 161. KACP PAOLA 6 COMB MIPU RALPH GREE OKGE REDBUD 349	ENT 138KV	142.11 21.2858	-0.00217 -0.00113	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20809 -0.20705	50
ÖKGE MUSTANG 13 OKGE MUSTANG 18 MIPU NEVADA 68K AEPW NORTHEASTE AEPW NORTHEASTE AEPW OE3 345KV KACP PAOLA 5 161. KACP PAOLA COMB MIPU RALPH GREE OKGE REDBUD 345P			-0.00113		MRWYG11 34.500 230KV	100	0.20592	-0.20705	50
MIPU NEVADA 68KI AEPW NORTHEASTE AEPW NORTHEASTE AEPW OEC 345KV KACP PAOLA 5 161 KACP PAOLA 2 0MB MIPU RALPH GREE OKGE REDBUJ 345	38KV		-0.00271	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20863	50
AEPW NORTHEASTE AEPW NORTHEASTE AEPW OEC 345KV KACP PAOLA 5 161. KACP PAOLA COMB MIPU RALPH GREE OKGE REDBUD 345V		54.27831	-0.0027		MRWYG11 34.500 230KV	100	0.20592	-0.20862	50
AEPW NORTHEASTE AEPW OEC 345KV KACP PAOLA 5 161. KACP PAOLA COMB MIPU RALPH GREE OKGE REDBUD 345F	ERN STATION 138KV		-0.00149 -0.00233	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20741 -0.20825	50
AEPW OEC 345KV KACP PAOLA 5 161. KACP PAOLA COMB MIPU RALPH GREE OKGE REDBUD 345F	ERN STATION 345KV	19.99997			MRWYG11 34.500 230KV	100	0.20592	-0.2083	50
KACP PAOLA COMB MIPU RALPH GREE OKGE REDBUD 345k		1756.622			MRWYG11 34.500 230KV	100		-0.20817	50
MIPU RALPH GREE OKGE REDBUD 345F	.00 161KV	82.5	-0.00184	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20776	50
OKGE REDBUD 345k	BUSTION TURBINES 161KV	76	-0.00184	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20776	50
			-0.00187		MRWYG11 34.500 230KV	100			
		1156.39 182.9673			MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20859 -0.20805	50
EMDE RIVERTON 69		21.92113			MRWYG11 34.500 230KV	100	0.20592	-0.2003	50
KACP S.OTTWA5 16	61.00 161KV	20.8	-0.00069	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20661	50
OKGE SEMINOLE 13 OKGE SOUTH 4TH S		200.142			MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20841 -0.2093	50 50
MIPU SOUTH HARP		247.994	-0.00338 -0.00274	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20866	50
AEPW SOUTHWEST	TERN STATION 138KV	350	-0.00222	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20814	50
AEPW SOUTHWEST OKGE SPGCK3&4 13	TERN STATION 138KV	152	-0.00222 -0.00289	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20814 -0.20881	50
EMDE STATE LINE 1			-0.00289		MRWYG11 34:500 230KV	100		-0.20881	50
OKGE TINKER 5G 13	38KV	62	-0.00262	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20854	50
AEPW TONTITOWN	161KV	186.12	-0.00201	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20793 -0.20819	50
	ER STATION 138KV ER STATION 69KV		-0.00227 -0.00227		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20819 -0.20819	50
AEPW WELEETKA 13	38KV	162	-0.00223	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20815	50
AEPW WILKES 138K	(V	52.19009			MRWYG11 34.500 230KV	100	0.20592	-0.20711	50
KACP BULL CREEK KACP GARDNER 16			0.00076		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20516 -0.2053	51 51
KACP HAWTHORN 1	161KV	245.2502			MRWYG11 34.500 230KV	100	0.20592	-0.2054	51
KACY KAW 69KV			0.00048		MRWYG11 34.500 230KV	100	0.20592	-0.20544	51
KACP MARSHALL 16 KACP NORTHEAST			0.00009		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20583 -0.20537	51 51
KACP NORTHEAST			0.00055		MRWYG11 34.500 230KV	100	0.20592	-0.20537	
KACY QUINDARO 16	61KV	107.5824	0.00047	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20545	51
MIPU SIBLEY 161KV		40.64384 21.04025	-0.00048		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20544 -0.20599	5'
MIPU TWA 161KV	v		0.00007		MRWYG11 34.500 230KV	100	0.20592	-0.20599	
NPPD AINSWN1G 34		49.59249	0.00564	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20028	52
OPPD AUBURN 8 69 NPPD BURDIC2G 13	4.500 115KV	18.5	0.0073		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.19862 -0.19953	52
NPPD BURDIC2G 13 NPPD BURDIC3G 13	9.000 69KV		0.00639		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.19953	52 52
NPPD CANADY1G 1:	9.000 69KV 3.800 115KV	125	0.0064	EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.19952	52
NPPD COOPER1G 2 OPPD FREM 1G 13.8	0.000 69KV 3.800 115KV 3.800 115KV 3.800 115KV	26.11981		EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20043	52

0000	EDEN OF 10 ON ONLY			Indiana (Carana Carana)	100			
OPPD OPPD	FREM 6G 13.800 69KV FREM 7G 13.800 69KV	23.8	0.00558 EMDE 0.00558 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.20592	-0.20034 -0.20034	52 52
NPPD NPPD	GENTLM2G 24.000 345KV GT-3 G 13.800 115KV	20.63916 40	0.00632 EMDE 0.00639 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.20592		52 52
KACP OPPD	IATAN 345KV	129 59.3		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.20592	-0.19896	52
OPPD	JONES 1G 13.800 69KV JONES 2G 13.800 69KV	59.3	0.00558 EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.20034	52 52
NPPD MIPU	KINGSLYG 13.800 115KV LAKE ROAD 161KV	47.95929 91	0.00627 EMDE 0.0039 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.20592	-0.19965 -0.20202	52 52
NPPD OPPD	MCCOOK G 13.800 115KV NCU903 8 69.000 69KV	51 35.3	0.0063 EMDE 0.0068 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.20592	-0.19962	52 52
OPPD	SARPY 1G 13.800 69KV	55.3	0.00562 EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.2003	52
OPPD OPPD	SARPY 2G 13.800 69KV SARPY 3G 13.800 4KV	55.3 49.17342	0.00564 EMDE 0.00558 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.20592		52 52
OPPD OPPD	SARPY 4G 13.800 161KV SARPY 5G 13.800 161KV	48.1 48.1	0.00558 EMDE 0.00558 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.20592	-0.20034 -0.20034	52 52
NPPD	SIDNEY 4 230.00 230KV	230.6148	0.0062 EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.19972	52
NPPD MIDW	SUB-H G 115.00 115KV COLBY 115KV	31.3 36.41598	0.00639 EMDE 0.01116 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.20592	-0.19953 -0.19476	52 53
OPPD NPPD	S993 8 69.000 69KV SHELDONG 13.800 115KV	19.9 52	0.00773 EMDE 0.00842 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.20592	-0.19819 -0.1975	53 53
NPPD	BPS GT2G 13.800 115KV	34.80049	0.01324 EMDE	MRWYG11 34.500 230KV	100	0.20592	-0.19268	54
NPPD NPPD	BPS ST3G 13.800 115KV HEBRON G 13.800 115KV	40.00518 52	0.01324 EMDE 0.01245 EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.20592	-0.19347	54 54
WERE WERE	ABILENE ENERGY CENTER 115KV JEFFREY ENERGY CENTER 345KV	66 108	-0.14427 WERE 0.04416 EMDE	JEFFREY ENERGY CENTER 345KV MRWYG11 34.500 230KV	874 100	0.04416		55 64
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 NPPD -0.14427 NPPD	BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV	80 45.19951	0.01324	-0.15751	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 NPPD	BPS ST3G 13.800 115KV	49.99482	0.01324	-0.15751	66
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.14427 MIDW -0.14427 NPPD	KNOLL 115KV SHELDN1G 13.800 115KV	75.60001 68.40001	0.00833	-0.1526 -0.15269	68
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 NPPD -0.14427 OPPD	SHELDN2G 13.800 115KV CASS 1G 15.000 345KV	81 42.51929	0.00842		68
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 OPPD	CASS 2G 15.000 345KV	52.99999	0.00563	-0.1499	69
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.14427 NPPD -0.14427 NPPD	COL.COG7 115.00 115KV DENVER G 34.500 115KV	75 34.32393	0.0058	-0.15007 -0.15129	69
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.14427 NPPD -0.14427 NPPD	EGY CTRG 13.800 115KV GENTLM1G 23.000 230KV	54 463	0.00712		69 69
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 NPPD	GENTLM2G 24.000 345KV	443.3608	0.00632	-0.15059	69
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.14427 NPPD -0.14427 KACP	GT-2 G 13.800 115KV IATAN 345KV	40 1806	0.00639	-0.15066 -0.15123	69
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.14427 KACP -0.14427 OPPD	IATAN 345KV NEBCTY1G 18.000 4KV	371 466	0.00696		69 69
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 OPPD	NEBCTY2G 23.000 345KV	503	0.00568	-0.14995	69
WERE	ABILENE ENERGY CENTER 115KV	66		PLATTE1G 13.800 115KV	71.51868	0.0064	-0.15067	69
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.14427 MKEC -0.14427 MKEC	A. M. MULLERGREN GENERATOR 115KV CIMARRON RIVER 115KV	63 44	0.00536	-0.14963 -0.14809	70 70
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 WERE -0.14427 NPPD	CNTRLPL2 34.500 115KV COOPER1G 22.000 345KV	99 551.2802	0.00538	-0.14965	70
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 OPPD	FREM 8G 13.800 69KV	90	0.00549	-0.14985	70 70
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 OPPD -0.14427 MIPU	FT CAL1G 22.000 4KV LAKE ROAD 161KV	376 35	0.00549	-0.14976	70 70
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 MIPU	LAKE ROAD 34KV	92	0.0039	-0.14817	70
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.14427 OPPD -0.14427 OPPD	N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV	48.5 80.59999	0.00555	-0.14982 -0.1498	70 70
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66		N OMA 3G 13.800 2KV N OMA 4G 15.000 2KV	80.59999 107.4	0.00553		70 70
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 OPPD	N OMA 5G 20.000 4KV	173.9	0.00553	-0.1498	70
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.14427 MKEC -0.14427 MKEC	GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV	36 95.93536	0.00271	-0.14698 -0.14697	71 71
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.14427 KACP -0.14427 KACP	BULL CREEK 161KV CITY OF HIGGINSVILLE 69KV	61.6 36	-0.00044	-0.14503 -0.14383	72 72
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 KACP	HAWTHORN 161KV	517.7498	0.00052	-0.14479	72
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 KACY -0.14427 KACY	NEARMAN 161KV NEARMAN 20KV	77 235	0.00046	-0.14473 -0.14473	72 72
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.14427 KACY -0.14427 KACY	QUINDARO 161KV QUINDARO 69KV	129.4176 136.3562		-0.14474 -0.14475	72 72
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 MIPU	SIBLEY 161KV SIBLEY 69KV	228.9597 45.99999	-0.00007 0.0001	-0.1442	72 72
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 MIPU -0.14427 OKGE	AES 161KV	320	-0.0015	-0.14277	73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.14427 AEPW -0.14427 AEPW	ARSENAL HILL 138KV ARSENAL HILL 69KV	455 90	-0.00107		73 73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 EMDE -0.14427 AEPW	ASBURY 161KV COGENTRIX 345KV	192 222.0669	-0.00218		73 73
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 AEPW	COMANCHE 138KV	145	-0.00217	-0.1421	73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.14427 AEPW -0.14427 AEPW	COMANCHE 69KV EASTMAN 138KV			-0.14209 -0.14312	73 73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.14427 AEPW -0.14427 AEPW	FITZHUGH 161KV	125.4 428	-0.00137 -0.002		73 73
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 AEPW	KNOXLEE 138KV	225	-0.00115	-0.14312	73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.14427 EMDE -0.14427 AEPW	LARUSSEL 161KV LEBROCK 345KV		-0.00185 -0.00115		73 73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.14427 AEPW -0.14427 KACP	LIEBERMAN 138KV MONTROSE 161KV	174 359.7142	-0.00109	-0.14318 -0.14314	73 73
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 OKGE	MUSKOGEE 161KV	166	-0.00207	-0.1422	73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 OKGE -0.14427 AEPW	MUSKOGEE 345KV NORTHEASTERN STATION 138KV	480	-0.00233	-0.14216 -0.14194	73 73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 AEPW -0.14427 AEPW	NORTHEASTERN STATION 345KV OEC 345KV			-0.14189 -0.14202	73 73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 AEPW -0.14427 EMDE	PIRKEY GENERATION 138KV RIVERTON 161KV	288	-0.00115		73
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 EMDE	RIVERTON 69KV	44.07887	-0.00208	-0.14219	73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 OKGE -0.14427 OKGE	SEMINOLE 138KV SEMINOLE 345KV	1019		-0.14175	73 73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 AEPW -0.14427 AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV		-0.00222 -0.00222	-0.14205 -0.14205	73 73
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 EMDE	STATE LINE 161KV	520	-0.00208	-0.14219	73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 AEPW -0.14427 AEPW	TONTITOWN 161KV TULSA POWER STATION 138KV	129.8887		-0.142	73 73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 AEPW -0.14427 AEPW	WELSH 345KV WILKES 138KV			-0.14302 -0.14308	73 73
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 AEPW -0.14427 OKGE	WILKES 345KV CENTENIAL WIND 34KV	308	-0.00117	-0.1431	73
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 WERE	CHANUTE 69KV	54.8	-0.003	-0.14127	74
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 WERE -0.14427 OKGE	CITY OF BURLINGTON 69KV FPLWND2 34KV	59	-0.00435 -0.00275	-0.14152	74 74
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 OKGE -0.14427 OKGE	HORSESHOE LAKE 138KV MCCLAIN 138KV	796	-0.00264	-0.14163 -0.14162	74 74
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 OKGE	MUSTANG 138KV	351 51,72168	-0.00271	-0.14156	74
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 OKGE -0.14427 OKGE	MUSTANG 69KV REDBUD 345KV	43.60958	-0.00267	-0.1416	74 74
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.14427 OKGE -0.14427 OKGE	SMITH COGEN 138KV SOONER 138KV	106 535	-0.0027 -0.00337	-0.14157 -0.1409	74 74
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 OKGE	SOONER 345KV	537	-0.00339	-0.14088	74
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 MIPU -0.14427 OKGE	SOUTH HARPER 161KV SPGCK1&2 13.200 345KV			-0.14138	74 74
WERE WERE	TECUMSEH ENERGY CENTER 69KV ABILENE ENERGY CENTER 115KV	41	-0.02328 MKEC -0.14427 WERE	CLIFTON 115KV CITY OF WINFIELD 69KV	65 31.2	-0.0051	-0.14093 -0.13917	74 75
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 EMDE -0.14427 WERE	ELK RIVER 345KV GILL ENERGY CENTER 138KV	44.986	-0.00488	-0.13939 -0.13825	75 75
WERE	ABILENE ENERGY CENTER 115KV	66	-0.14427 WERE	GILL ENERGY CENTER 69KV	52	-0.00604	-0.13823	75
WERE WERE	BPU - CITY OF MCPHERSON 115KV TECUMSEH ENERGY CENTER 115KV	28	-0.02033 MKEC -0.02184 MKEC	CLIFTON 115KV CLIFTON 115KV	65	0.11765	-0.13798 -0.13949	75 75
WERE WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.14427 WERE -0.14427 WERE	EVANS ENERGY CENTER 138KV HUTCHINSON ENERGY CENTER 115KV	560	-0.00658	-0.13769 -0.13374	76 78
WERE WERE	LAWRENCE ENERGY CENTER 115KV LAWRENCE ENERGY CENTER 230KV EMPORIA ENERGY CENTER 345KV	45.07056	-0.01675 MKEC	CLIFTON 115KV	65	0.11765	-0.1344	78
VVERE	EMPORIA ENERGY CENTER 345KV	201	-0.01419 MKEC	CLIFTON 115KV	65	0.11/65	-0.13184	79

WERE	ADII ENE ENEDOV CENTED 115V/	ce	0.14427WEDE	EMPORIA ENERGY CENTER 245W/	640	0.01410	0.12000	90
MERE MIDW	ABILENE ENERGY CENTER 115KV SMOKEY HILLS 34KV	75	-0.14427 WERE -0.01291 MKEC	EMPORIA ENERGY CENTER 345KV CLIFTON 115KV	610 65	0.11765	-0.13008 -0.13056	80
WERE WERE	HUTCHINSON ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	214 66	-0.01053 MKEC -0.14427 WERE	CLIFTON 115KV LAWRENCE ENERGY CENTER 230KV	65 223.9294	0.11765 -0.01675	-0.12818 -0.12752	81 82
WERE WERE	GETTY 69KV GILL ENERGY CENTER 138KV	35 84.99999	-0.00613 MKEC -0.00602 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.12378 -0.12367	84 84
WERE WERE	GILL ENERGY CENTER 69KV WACO 138KV	48 30	-0.00604 MKEC -0.00607 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.12369 -0.12372	84 84
WERE WERE	ABILENE ENERGY CENTER 115KV CHANUTE 69KV	66 41.1	-0.14427 WERE -0.003 MKEC	TECUMSEH ENERGY CENTER 115KV CLIFTON 115KV	133 65	-0.02184 0.11765	-0.12243 -0.12065	85 86
OKGE	SOUTH 4TH ST 69KV	42.7	-0.00338 MKEC	CLIFTON 115KV	65	0.11765	-0.12103	86
OKGE MIPU	SPGCK3&4 13.200 345KV ARIES 161KV	111 576.6669	-0.00289 MKEC -0.00189 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.12054 -0.11954	86 87
AEPW AEPW	COGENTRIX 345KV ELKIN_GN 1 13.800 69KV	671.9331 60	-0.00226 MKEC -0.00201 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11991 -0.11966	87 87
MIPU OKGE	GREENWOOD 161KV HORSESHOE LAKE 138KV	255.8 64	-0.00174 MKEC -0.00264 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11939 -0.12029	87 87
AEPW EMDE	KIOWA 345KV LARUSSEL 161KV		-0.00218 MKEC -0.00185 MKEC	CLIFTON 115KV	65 65	0.11765	-0.11983 -0.1195	87 87
OKGE	MCCLAIN 138KV	50	-0.00265 MKEC	CLIFTON 115KV	65	0.11765	-0.1203	87
AEPW OKGE	MID-CONTINENT 138KV MUSKOGEE 345KV	142.11 32	-0.00217 MKEC -0.00211 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765 0.11765	-0.11982 -0.11976	87 87
OKGE AEPW	MUSTANG 69KV OEC 345KV	54.27831 1756.622	-0.0027 MKEC -0.00225 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.12035 -0.1199	87 87
KACP	PAOLA 5 161.00 161KV	82.5	-0.00184 MKEC	CLIFTON 115KV	65	0.11765	-0.11949	87
KACP MIPU	PAOLA COMBUSTION TURBINES 161KV RALPH GREEN 69KV	76	-0.00184 MKEC -0.00187 MKEC	CLIFTON 115KV	65 65	0.11765	-0.11949 -0.11952	87 87
OKGE	REDBUD 345KV	1156.39	-0.00267 MKEC	CLIFTON 115KV	65	0.11765	-0.12032	87
OKGE	RIVERTON 161KV SEMINOLE 138KV	182.9673 200.142	-0.00213 MKEC -0.00249 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11978 -0.12014	87 87
MIPU AEPW	SOUTH HARPER 161KV SOUTHWESTERN STATION 138KV	247.994 152	-0.00274 MKEC -0.00222 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.12039 -0.11987	87 87
AEPW EMDE	SOUTHWESTERN STATION 138KV STATE LINE 161KV	350 90	-0.00222 MKEC -0.00208 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11987 -0.11973	87 87
OKGE	TINKER 5G 138KV	62	-0.00262 MKEC	CLIFTON 115KV	65	0.11765	-0.12027	87
AEPW AEPW	TONTITOWN 161KV TULSA POWER STATION 138KV	186.12 177.1113	-0.00201 MKEC -0.00227 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765 0.11765	-0.11966 -0.11992	87 87
AEPW AEPW	TULSA POWER STATION 69KV WELEETKA 138KV			CLIFTON 115KV CLIFTON 115KV	65 65	0.11765 0.11765	-0.11992 -0.11988	87 87
AEPW	ARSENAL HILL 138KV EASTMAN 138KV	337.2 128.2153	-0.00107 MKEC -0.00115 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11872 -0.1188	88 88
AEPW AEPW	FULTON 115KV KNOXLEE 138KV		-0.00115 MKEC -0.00115 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765		88
AEPW	LEBROCK 345KV	179.8976	-0.00115 MKEC	CLIFTON 115KV	65	0.11765	-0.1188	88
AEPW AEPW	LIEBERMAN 138KV LONESTAR POWER PLANT 69KV	45.99999 50	-0.0012 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765 0.11765	-0.11874 -0.11885	88 88
AEPW KACP	WILKES 138KV BULL CREEK 161KV	52.19009 246.4	-0.00119 MKEC 0.00076 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11884 -0.11689	88
KACP KACP	GARDNER 161KV HAWTHORN 161KV	31 245.2502	0.00062 MKEC 0.00052 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11703 -0.11713	89 89
KACY KACP	KAW 69KV MARSHALL 161KV	242 54.1	0.00048 MKEC 0.00009 MKEC	CLIFTON 115KV	65 65	0.11765	-0.11717 -0.11756	89 89
KACP	NORTHEAST 13KV	223	0.00055 MKEC	CLIFTON 115KV	65	0.11765	-0.1171	89
KACP KACY	NORTHEAST 161KV QUINDARO 161KV	224 107.5824	0.00055 MKEC 0.00047 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765 0.11765	-0.1171 -0.11718	89 89
MIPU	QUINDARO 69KV TWA 161KV	40.64384 32.1	0.00048 MKEC 0.00154 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11717 -0.11611	89
WERE WERE	JEFFREY ENERGY CENTER 230KV TECUMSEH ENERGY CENTER 69KV	54 41	0.09177 EMDE -0.02328 WERE	MRWYG11 34.500 230KV JEFFREY ENERGY CENTER 230KV	100 440	0.20592	-0.11415 -0.11505	91 91
	LAKE ROAD 161KV	91	0.0039 MKEC	CLIFTON 115KV	65	0.11765	-0.11375	92
WERE	AINSWN1G 34.500 115KV BPU - CITY OF MCPHERSON 115KV	49.59249 232	-0.02033 WERE	JEFFREY ENERGY CENTER 230KV	65 440	0.11765	-0.11201 -0.1121	93 93
OPPD OPPD	FREM 1G 13.800 69KV JONES 1G 13.800 69KV	40 59.3	0.00558 MKEC 0.00558 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11207 -0.11207	93
OPPD OPPD	JONES 2G 13.800 69KV SARPY 1G 13.800 69KV	59.3 55.3	0.00558 MKEC 0.00562 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11207 -0.11203	93 93
OPPD OPPD	SARPY 2G 13.800 69KV SARPY 3G 13.800 4KV	55.3 49.17342	0.00564 MKEC 0.00558 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11201 -0.11207	93
OPPD	SARPY 4G 13.800 161KV	48.1	0.00558 MKEC	CLIFTON 115KV	65	0.11765	-0.11207	93
OPPD NPPD	SARPY 5G 13.800 161KV SIDNEY 4 230.00 230KV	48.1 230.6148	0.00558 MKEC 0.0062 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765 0.11765	-0.11207 -0.11145	93
NPPD NPPD	BURDIC3G 13.800 115KV CANADY1G 13.800 115KV	54 125	0.00639 MKEC 0.0064 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11126 -0.11125	94
NPPD KACP	GT-3 G 13.800 115KV IATAN 345KV	40 129	0.00639 MKEC 0.00696 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.11126 -0.11069	94 94
NPPD NPPD	KINGSLYG 13.800 115KV MCCOOK G 13.800 115KV	47.95929 51	0.00627 MKEC 0.0063 MKEC	CLIFTON 115KV	65 65	0.11765	-0.11138 -0.11135	94
OPPD	NCU903 8 69.000 69KV	35.3	0.0068 MKEC	CLIFTON 115KV	65	0.11765	-0.11085	94
NPPD WERE	SHELDONG 13.800 115KV LAWRENCE ENERGY CENTER 230KV	52 45.07056	0.00842 MKEC -0.01675 WERE	JEFFREY ENERGY CENTER 230KV	65 440	0.11765 0.09177	-0.10923 -0.10852	95 96
MIDW WERE	COLBY 115KV EMPORIA ENERGY CENTER 345KV	36.41598 201	0.01116 MKEC -0.01419 WERE	CLIFTON 115KV JEFFREY ENERGY CENTER 230KV	65 440	0.11765	-0.10649 -0.10596	98
NPPD NPPD	HEBRON G 13.800 115KV BPS GT2G 13.800 115KV	52 34.80049	0.01245 MKEC 0.01324 MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.11765	-0.1052 -0.10441	99 100
NPPD MIDW	BPS ST3G 13.800 115KV SMOKEY HILLS 34KV	40.00518		CLIFTON 115KV CLIFTON 115KV JEFFREY ENERGY CENTER 230KV	65 440	0.11765	-0.10441 -0.10468	100
WERE	HUTCHINSON ENERGY CENTER 115KV	214	-0.01053 WERE	JEFFREY ENERGY CENTER 230KV	440	0.09177	-0.1023	100 102
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV	48	-0.00602 WERE -0.00604 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440	0.09177		107 107
OKGE WERE	SOUTH 4TH ST 69KV CHANUTE 69KV	42.7 41.1	-0.00338 WERE -0.003 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09515 -0.09477	109 110
OKGE OKGE	HORSESHOE LAKE 138KV MCCLAIN 138KV	64 50	-0.00264 WERE -0.00265 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09441 -0.09442	110 110
OKGE OKGE	MUSTANG 69KV REDBUD 345KV	54.27831	-0.0025 WERE -0.0027 WERE -0.00267 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09447	110 110
MIPU	SOUTH HARPER 161KV	247.994	-0.00274 WERE	JEFFREY ENERGY CENTER 230KV	440	0.09177	-0.09451	110
OKGE OKGE	SPGCK3&4 13.200 345KV TINKER 5G 138KV	111 62	-0.00289 WERE -0.00262 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09466 -0.09439	110 110
MIPU AEPW	ARIES 161KV COGENTRIX 345KV	576.6669 671.9331	-0.00189 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09366 -0.09403	111 111
AEPW MIPU	ELKIN_GN 1 13.800 69KV GREENWOOD 161KV	60		JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177		111
AEPW EMDE	KIOWA 345KV	1336.177	-0.00174 WERE -0.00218 WERE -0.00185 WERE	JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09395	111
AEPW	LARUSSEL 161KV MID-CONTINENT 138KV	142.11	-0.00217 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440	0.09177	-0.09362 -0.09394	111
AEPW KACP	OEC 345KV PAOLA 5 161.00 161KV		-0.00225 WERE -0.00184 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177 0.09177	-0.09402 -0.09361	111
KACP	PAOLA COMBUSTION TURBINES 161KV	76	-0.00184 WERE	JEFFREY ENERGY CENTER 230KV	440	0.09177	-0.09361	111
MIPU EMDE	RALPH GREEN 69KV	73.7	-0.00187 WERE -0.00213 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09364	111
OKGE	SEMINOLE 138KV	200.142	-0.00249 WERE	JEFFREY ENERGY CENTER 230KV	440	0.09177	-0.09426	111
AEPW AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	350	-0.00222 WERE -0.00222 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09399 -0.09399	111
EMDE AEPW	STATE LINE 161KV TONTITOWN 161KV	90 186.12	-0.00208 WERE -0.00201 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09385 -0.09378	111 111
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 69KV		-0.00227 WERE -0.00227 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177		111
AEPW	WELEETKA 138KV	162	-0.00223 WERE	JEFFREY ENERGY CENTER 230KV	440	0.09177	-0.094	111
AEPW AEPW	ARSENAL HILL 138KV EASTMAN 138KV	128.2153	-0.00115 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09284 -0.09292	112 112
AEPW AEPW	FULTON 115KV KNOXLEE 138KV	153 176	-0.00104 WERE -0.00115 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09281 -0.09292	112 112
AEPW AEPW	LEBROCK 345KV LIEBERMAN 138KV	179.8976 45.99999	-0.00115 WERE -0.00109 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.09177	-0.09292 -0.09286	112
AEPW AEPW	LONESTAR POWER PLANT 69KV	50	-0.0012 WERE	JEFFREY ENERGY CENTER 230KV	440	0.09177	-0.09297	112
A EDW	WILKES 138KV	52.19009	-0.00119 WERE	JEFFREY ENERGY CENTER 230KV	440	0.09177	-0.09296	1

ACCP								
Company Comp		BULL CREEK 161KV			JEFFREY ENERGY CENTER 230KV			114
CACP								
CACP								
ACCP								
CACY QUADADIO UNION								
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MAR RAD 1616/07 91 0.003 WIREE EFFECT PRICE (2007) 440 0.0077 0.00787 11 11 12 12 12 12 12 1								
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SARPY (61380 69N)								9 121
SAPP 26 13 A0D 686V								
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SAPPY 61 13:00 16:11								9 121
SPPD								121
SPEC CANADY'S 13800 195V								3 122
NPPD								7 122
SPPD								122
SIDNEY 2200 0 2200								7 122
ACCP								7 122
SPED SHELDONG 1380115KV \$2 0.0064/UPRE								123
HERRON O 1.800 1156V \$2 0.0148 MERC SEPREY ENRROY CENTER 230V 440 0.09177 -0.07302 11								5 125
MERE LEFFRY PERRSY CENTER 346W								2 131
WERE BPU_CITY_OF MCD*PERSON_TISKY 2220.02033/WRE								9 142
WERE								162
MINU SIMOKEY HILLS SARV 75 0.01291 WERE JEFFREY ENERGY CENTER 156KV 874 0.04416 0.05769 11								179
WERE								7 183
### ORDER OIL ENERGY CENTER 138KV 84.99999 O.000C/WERE ##FFREY ENERGY CENTER 346KV 874 O.00416 -0.06019 22 O.000C/WERE ### O.000								9 190
AFFREY SEPREY CENTER 348KV 100 0.04416 WERE SEPREY CENTER 238KV 440 0.09777 0.04781 22 22 23 23 23 23 23 2								3 208
SPGCK384 13.200 345KV								219
RCDEUD 349KV								5 221
MIPU SOUTH HARPER 161KV 241994 0.00274 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0469 22 0.0026								3 222
SKMINCLE 138KV 20.0449 C.00249 WERE JEFFREY ENERGY CENTER 345KV 674 0.04416 0.0466 22.								222
EPPW COGENTRIX 346KV 671.3331 - 0.00228 WERE								223
AEPW OEC 34SKV 175.652 0.00227 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.04641 22.								2 224
AEPW TULSA POWER STATION 138KV 177.113 0.00227 WERE JEFFREY ENERGY CENTER 346KV 874 0.04416 0.04643 22								224
APPW TULSA POWER STATION 69KV 80 -0.00221 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0463 22 22 22 23 24 24 24 2								3 224
AEPW MID-CONTINENT 138KV 133.177 -0.00218 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04633 22 22 23 24 24 10.00217 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04633 22 23 24 24 24 24 24								3 224
APPW								225
MOE								3 225
APPW SOUTHWESTERN STATION 138KV 350 -0.00222 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04638 22 22 23 24 24 24 24 24								225
SOUTHWESTERN STATION 138KV								3 225
MODE								3 225
AFPW WELEETKA 138KV 162 -0.0022 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04639 22 22 23 24 24 24 24 24	EMDE	STATE LINE 161KV	90	-0.00208 WERE	JEFFREY ENERGY CENTER 345KV	874 0.04416	-0.04624	
MIPU ARIES 161KV 576,6669 0.00163 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04601 22 (ACC) 171 -0.00165 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04601 22 (ACC) PAOLA 5 161.00 161KV 82.5 0.00164 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.046 22 (ACC) PAOLA 5 161.00 161KV 182.5 0.00164 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.046 22 (ACC) PAOLA 5 161.00 161KV 181.00 161			162					225
MOE	MIPU	ARIES 161KV	576,6669	-0.00189 WERE	JEFFREY ENERGY CENTER 345KV	874 0.04416	-0.04605	226
AGCP PAOLA 5 161.00 161KV 82.5 0.00164 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.046 22 AGCP PAOLA COMBUSTION TURBINES 161KV 76 0.00164 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.046 22 AEPW TONTITOWN 161KV 19612 0.00201 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.04617 22 AEPW GREENWOOD 161KV 255.8 0.00174 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0462 22 AEPW ARSENAL HILL 138KV 3372 0.00176 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0462 22 AEPW EASTMAN 138KV 128.215.3 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0462 22 AEPW FULTON 115KV 155.3 0.00164 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0462 22 AEPW KNOXLEE 138KV 176 0.00164 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0463 12 AEPW KNOXLEE 138KV 179.876 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0463 12 AEPW LEBROCK 346KV 179.8976 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0463 12 AEPW LEBROCK 346KV 179.8976 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0463 12 AGCY KAW 69KV 242 0.00046 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0463 12 AGCY GUINDARO 161KV 107.6586 0.00047 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0436 22 AGCY GUINDARO 161KV 107.6586 0.00047 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0436 22 AGCP HAWTHORN 161KV 245.2502 0.00056 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0436 22 AGCP NORTHEAST 151KV 224 0.00056 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0436 22 AGCP NORTHEAST 161KV 245.00056 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0436 22 AGCP NORTHEAST 161KV 246.4 0.00056 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0436 22 AGCP NORTHEAST 161KV 246.4 0.00056 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0436 22 AGCP NORTHEAST 161KV 246.4 0.00056 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0436 22 AGCP NORTHEAST 161KV 246.4 0.00056 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0436 22 AGCP NORTHEAST 161KV 246.4 0.00056 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 0.0436 22 AGCP NORTHEAST 161KV 246.4 0.00056 WER	EMDE	LARUSSEL 161KV	171				-0.04601	226
AACP PAOLA COMBUSTION TURBINES 161KV 76 -0.0016 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.046 22 ACP TONTITOWN 161KV 186.12 -0.0020 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04617 22 ACP TONTITOWN 161KV 186.12 -0.0020 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0465 22 ACP TONTITOWN 161KV 25.8 -0.00174 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0465 22 ACP TONTITOWN 161KV 3372 -0.00176 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0462 22 ACP TONTITOWN 161KV 185 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0462 22 ACP TONTITOWN 161KV 163 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0462 22 ACP TONTITOWN 161KV 185 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0462 22 ACP TONTITOWN 161KV 185 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0462 22 ACP TONTITOWN 161KV 1878 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04631 22 ACP TONTITOWN 161KV 1878 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04631 22 ACP TONTITOWN 161KV 1878 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04631 22 ACP TONTITOWN 161KV 1878 0.00116 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04631 22 ACP TONTITOWN 161KV 1878 0.00041 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04631 22 ACP TONTITOWN 161KV 1878 0.00041 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04631 22 ACP TONTITOWN 161KV 1878 0.00041 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04686 22 ACP TONTITOWN 161KV 1878 0.00041 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04686 22 ACP TONTITOWN 161KV 1878 0.00041 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04686 22 ACP TONTITOWN 161KV 1878 0.00050 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04686 22 ACP TONTITOWN 161KV 1878 0.00050 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04686 22 ACP TONTITOWN 161KV 1878 0.00050 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04686 22 ACP TONTITOWN 161KV 1878 0.00050 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04686 22 ACP TONTITOWN 161KV 1878 0.00050 WERE JEFFREY ENERGY CENTE	KACP	PAOLA 5 161.00 161KV	82.5	-0.00184 WERE	JEFFREY ENERGY CENTER 345KV	874 0.04416	-0.046	226
APPW TONTITOWN 161KV 18.12 .0.0021 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04617 22 22 23 24 24 25 25 25 25 25 25								
APPW TONTITOWN 161KV 186.12 -0.00201 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04617 22 22 23 24 24 25 25 0.00174 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04639 22 23 24 24 24 24 24 25 25 24 24	KACP	PAOLA COMBUSTION TURBINES 161KV	76	-0.00184 WERE	JEFFREY ENERGY CENTER 345KV	874 0.04416	-0.046	226
ARSENAL HILL 138KY 337.2 -0.0016/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04623 22 22 23 24 24 24 24	AEPW	TONTITOWN 161KV	186.12	-0.00201 WERE	JEFFREY ENERGY CENTER 345KV	874 0.04416	-0.04617	7 226
ARSENAL HILL 138KY 337.2 -0.0016/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04623 22 22 23 24 24 24 24								227
AEPW	AEPW	ARSENAL HILL 138KV	337.2	-0.00107 WERE	JEFFREY ENERGY CENTER 345KV	874 0.04416	-0.04523	230
REPW KNOXLEE 138KV 176 4,00118 WERE JEFFREY ENERGY CENTER 345KV 874 0,04416 -0,04531 23 AEPW LEBROCK 346KV 179,8976 0,00118 WERE JEFFREY ENERGY CENTER 345KV 874 0,04416 -0,04381 23 KACY KAW 69KV 242 0,0004 WERE JEFFREY ENERGY CENTER 345KV 874 0,04416 -0,04369 22 KACY QUINDARO 161KV 107,5524 0,0004 WERE JEFFREY ENERGY CENTER 345KV 874 0,04416 -0,04369 22 KACP HAWTHORN 161KV 245,2502 0,0005/WERE JEFFREY ENERGY CENTER 345KV 874 0,04416 -0,04369 22 KACP NORTHEAST 161KV 223 0,0005/WERE JEFFREY ENERGY CENTER 345KV 874 0,04416 -0,04361 22 KACP NORTHEAST 161KV 224 0,0005/WERE JEFFREY ENERGY CENTER 345KV 874 0,04416 -0,04361 22 KACP BULL CREEK 161KV 24.4 0,0007/WERE JEFFREY ENERGY CENTER 345KV 874 0,04416			128.2153					230
EEROCK 346KV			153	-0.00104 WERE	JEFFREY ENERGY CENTER 345KV	874 0.04416	-0.0452	230
EEROCK 346KV								230
KACY QUINDARO 161KV 107.5824 0.0047/WRE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04369 23 KACP HAWTHORN 161KV 245.2502 0.00052/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04364 23 KACP NORTHEAST 181KV 223 0.00058/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04361 23 KACP NORTHEAST 161KV 224 0.00058/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04361 22 KACP BULL GREEK 161KV 246 0.00078/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04361 22 MIPU LAKE ROAD 161KV 91 0.0038/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0434 22 WPPD SIDNEY 4 230.00 230KV 230.6148 0.0062/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0426 22 WPPD CANADY16 1.3800 115KV 125 0.0064/WERE JEFFREY ENERGY CENTER 345KV 874 <td< td=""><td>AEPW</td><td></td><td>179.8976</td><td>-0.00115 WERE</td><td></td><td></td><td></td><td>230</td></td<>	AEPW		179.8976	-0.00115 WERE				230
KACP HAWTHORN 161KV 245,2502 0.0052/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04364 22 KACP NORTHEAST 13KV 223 0.00058/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04361 22 KACP NORTHEAST 161KV 224 0.0056/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04361 22 KACP BULL CREEK 161KV 246.4 0.00076/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0434 22 MIPU LAKE ROAD 161KY 91 0.0036/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0434 22 WPPD SIONEY 4 230.00 230KV 220.148 0.0062/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04026 22 NPPD CANADY1G 13.800 115KV 125 0.0064/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03796 22 ACP ATM 345KV 129 0.0069/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>238</td>								238
KACP NORTHEAST 13KV 223 0.0055 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04361 23 KACP NORTHEAST 161KV 224 0.00058 WERE JEFFREY ENERGY CENTER 345KV 874 0.0416 -0.04361 23 KACP BULL CREEK 161KV 246.4 0.00078 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0434 24 MIPU LAKE ROAD 161KV 91 0.0038 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0434 22 WPD SIONEY 4 230.00 230KV 220.6148 0.062 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0426 22 WPD CANADY 16 1.3800 115KV 125 0.066 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03796 22 ACP JETREY ENERGY CENTER 345KV 874 0.04416 -0.03796 22 22 VERPEY ENERGY CENTER 345KV 874 0.04416 -0.03796 22 22 22 22 22 22 22								238
KACP NORTHEAST 161KV 224 0.0056/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04361 22 KACP BULL GREEK 161KV 246.4 0.00076/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0434 22 MIPU LAKE ROAD 161KV 91 0.0036/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04026 22 MPPD SIONEY 4 230.00 230KV 220.1448 0.0066/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03796 22 MPPD CANADY1G 13.800 115KV 125 0.0066/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03796 22 AGD AIXTAN 345KV 129 0.0069/WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0372 22								239
CACP BULL CREEK 161KV 2.46.Al 0.00078 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0434 2.4 MIPU LAKE ROAD 161KV 91 0.0038 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04028 25 MPPD SIDNEY 4 230.00 230KV 230.6148 0.0062 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03796 27 MPPD GANADY1G 13.800 115KV 125 0.0064 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03796 22 AGCP JATAN 345KV 129 0.00696 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0372 22								239
MIPU LAKE ROAD 161KV 91 0.0039 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.04026 25 NPPD SIDNEY 4 230.00 230KV 230.6148 0.0062 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03796 27 NPPD CANADY1G 13.800 115KV 125 0.0064 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03776 27 CANADY 16 13.800 115KV 129 0.0069 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03772 22 CACP IATAN 345KV 129 0.0069 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0372 22		NORTHEAST 161KV	224		JEFFREY ENERGY CENTER 345KV	874 0.04416	-0.04361	239
NPPD SIDNEY 4 230.00 230KV 230.6148 0.0062 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03796 27 NPPD CANADYTIG 13.800 115KV 125 0.0066 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03796 27 AGCP IATAN 345KV 129 0.00696 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03792 22								240
NPPD CANADY1G 13.800 115KV 125 0.064 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.03776 27 KACP IATAN 345KV 129 0.0698 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0372 26								259
4ACP IATAN 345KV 129 0.00696 WERE JEFFREY ENERGY CENTER 345KV 874 0.04416 -0.0372 26								274
								276
Maximum Decrement and Maximum Increment were determine from the Souce and Sink Operating Points in the study models where limiting facility was identified.		IATAN 345KV	129	0.00696 WERE	JEFFREY ENERGY CENTER 345KV	874 0.04416	-0.0372	280

129 0.00696 WERE JEFFREY ENERGY CER Maximum Decrement and Maximum Increment were determine from the Souce and Sink Operating Points in the study models where limiting facility was identified. Factor = Source GSF - Sink GSF Redispatch Amount = Relief Amount / Factor

Reservation	Relief Amount	Aggregate Relief Amount							
1281706	3.1	14.8							
1286201	11.7	14.8							
Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)
	CLAY CENTER JUNCTION 115KV	13.375	-0.30219		MRWYG11 34.500 230KV	100	0.15057	-0.45276	33
WERE	CLAY CENTER JUNCTION 115KV	13.375	-0.30219	MKEC	CLIFTON 115KV	65	0.08481	-0.387	38
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		MRWYG11 34.500 230KV	100	0.15057	-0.37369	40
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		CLIFTON 115KV	65	0.08481	-0.30793	48
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.27319	54
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		JEFFREY ENERGY CENTER 345KV	874	0.02464	-0.24776	60
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		BPS GT1G 13.800 115KV	80	0.00861	-0.23173	64
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		BPS GT2G 13.800 115KV	45.19951	0.00861	-0.23173	64
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		BPS ST3G 13.800 115KV	49.99482	0.00861	-0.23173	64
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	OPPD	CASS 1G 15.000 345KV	42.51929	0.00336	-0.22648	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		CASS 2G 15.000 345KV	52.99999	0.00336	-0.22648	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		COL.COG7 115.00 115KV	75	0.00334	-0.22646	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		COOPER1G 22.000 345KV	551.2802	0.0033	-0.22642	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		DENVER G 34.500 115KV	34.32393	0.00402	-0.22714	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		EGY CTRG 13.800 115KV	54	0.00409	-0.22721	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		FREM 8G 13.800 69KV	90	0.00328	-0.2264	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		FT CAL1G 22.000 4KV	376	0.00327	-0.22639	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	NPPD	GT-2 G 13.800 115KV	40	0.00354	-0.22666	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		IATAN 345KV	1806	0.00397	-0.22709	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	KACP	IATAN 345KV	371	0.00397	-0.22709	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		N OMA 1G 13.800 2KV	48.5	0.00331	-0.22643	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		N OMA 2G 13.800 2KV	80.59999	0.0033	-0.22642	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		N OMA 3G 13.800 2KV	80.59999	0.0033	-0.22642	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		N OMA 4G 15.000 2KV	107.4	0.0033	-0.22642	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	OPPD .	N OMA 5G 20.000 4KV	173.9	0.0033	-0.22642	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		NEBCTY1G 18.000 4KV	466	0.0034	-0.22652	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	OPPD .	NEBCTY2G 23.000 345KV	503	0.0034	-0.22652	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		PLATTE1G 13.800 115KV	71.51868	0.00353	-0.22665	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		SHELDN1G 13.800 115KV	68.40001	0.00521	-0.22833	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		SHELDN2G 13.800 115KV	81	0.00521	-0.22833	65
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	KACP	BULL CREEK 161KV	61.6	0.00103	-0.22415	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	KACP	CITY OF HIGGINSVILLE 69KV	36	0.00048	-0.2236	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		CNTRLPL2 34.500 115KV	99	0.0003	-0.22342	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		GENTLM1G 23.000 230KV	463	0.00295	-0.22607	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		GENTLM2G 24.000 345KV	443.3608	0.00292	-0.22604	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	KACP	HAWTHORN 161KV	517.7498	0.00102	-0.22414	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	MIPU	LAKE ROAD 161KV	35	0.00256	-0.22568	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	MIPU	LAKE ROAD 34KV	92	0.00256	-0.22568	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	KACP	MONTROSE 161KV	359.7142	0.00019	-0.22331	66

WERE	ABILENE ENERGY CENTER 115KV	88	-0.22312	KVCA	NEARMAN 161KV	77	0.0000	-0.22402	66
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	KACY	NEARMAN 20KV QUINDARO 161KV	235 129.4176		-0.22402 -0.22403	66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	KACY	QUINDARO 69KV	136.3562	0.00091	-0.22403	66
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	MIPU	SIBLEY 161KV SIBLEY 69KV	228.9597 45.99999		-0.22396	66 66
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	MIPU	SOUTH HARPER 161KV	67.00598	-0.00023	-0.22289	66
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 -0.22312		A. M. MULLERGREN GENERATOR 115KV AES 161KV	63 320	-0.00265 -0.0011	-0.22047 -0.22202	67 67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	AEPW	ARSENAL HILL 138KV ARSENAL HILL 69KV		-0.00086	-0.22226	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	EMDE	ASBURY 161KV	192	-0.00126	-0.22186	67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	WERE	CENTENIAL WIND 34KV CHANUTE 69KV	54.8	-0.00243 -0.00193	-0.22119	67 67
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 -0.22312	MKEC WERE	CIMARRON RIVER 115KV CITY OF BURLINGTON 69KV	44 55.4	-0.00116 -0.00278	-0.22196 -0.22034	67 67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 -0.22312		COGENTRIX 345KV COMANCHE 138KV		-0.00168		67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	AEPW	COMANCHE 69KV	60	-0.00211	-0.22101	67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 -0.22312		EASTMAN 138KV ELK RIVER 345KV	356.7947 44.986			67 67
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 -0.22312		EMPORIA ENERGY CENTER 345KV FITZHUGH 161KV	610 125.4		-0.22242 -0.22212	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	AEPW	FLINT CREEK 161KV	428	-0.00136	-0.22176	67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	MKEC	FPLWND2 34KV GRAY COUNTY WIND FARM 115KV		-0.00241	-0.22071	67 67
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 -0.22312		HORSESHOE LAKE 138KV JUDSON LARGE 115KV	796 95.93536	-0.00222 -0.00241		67 67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	MIDW	KNOLL 115KV KNOXLEE 138KV		-0.00136	-0.22176	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	EMDE	LARUSSEL 161KV	100	-0.00106	-0.22206	67
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 -0.22312		LEBROCK 345KV LIEBERMAN 138KV	517.1024 174			67 67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	OKGE	MCCLAIN 138KV MUSKOGEE 161KV	470 166	-0.00226	-0.22086	67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	OKGE	MUSKOGEE 345KV	1548	-0.00157	-0.22155	67
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 -0.22312		MUSTANG 138KV MUSTANG 69KV	351 51.72168		-0.22082 -0.22082	67 67
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66 66	-0.22312 -0.22312	AEPW AEPW	NORTHEASTERN STATION 138KV NORTHEASTERN STATION 345KV	480 625	-0.00166 -0.00166	-0.22146 -0.22146	67 67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	AEPW	OEC 345KV PIRKEY GENERATION 138KV	390.4081		-0.22148	67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	OKGE	REDBUD 345KV	43.60958	-0.00222	-0.2209	67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	EMDE	RIVERTON 161KV RIVERTON 69KV		-0.00129 -0.00126	-0.22186	67 67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312		SEMINOLE 138KV SEMINOLE 345KV	334.858 1019		-0.22101	67 67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	OKGE	SMITH COGEN 138KV SOONER 138KV		-0.00213 -0.00229 -0.00277		67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	OKGE	SOONER 345KV	537	-0.00282	-0.2203	67
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 -0.22312		SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV		-0.00212 -0.00212		67 67
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 -0.22312		SPGCK1&2 13.200 345KV STATE LINE 161KV	78 520	-0.00244 -0.00125		67 67
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	AEPW	TONTITOWN 161KV	140	-0.00138	-0.22174	67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	AEPW	TULSA POWER STATION 138KV WELSH 345KV		-0.00102	-0.2221	67 67
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 -0.22312		WILKES 138KV WILKES 345KV	410.8099	-0.00096 -0.00095		67 67
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312	WERE WERE	CITY OF WINFIELD 69KV EVANS ENERGY CENTER 138KV		-0.00409	-0.21903 -0.2178	68
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312	WERE	GILL ENERGY CENTER 138KV	155	-0.00498	-0.21814	68
	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV		-0.22312 -0.22312		GILL ENERGY CENTER 69KV LAWRENCE ENERGY CENTER 230KV	52 223.9294	-0.00495 -0.00729		68 69
WERE	ABILENE ENERGY CENTER 115KV ABILENE ENERGY CENTER 115KV	66	-0.22312 -0.22312	WERE	HUTCHINSON ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 115KV	230 133	-0.01521 -0.01885	-0.20791	71 72
WERE	ABILENE ENERGY CENTER 115KV	66	-0.22312		SMOKEY HILLS 34KV	25	-0.02016	-0.20296	73
WERE	BPU - CITY OF MCPHERSON 115KV TECUMSEH ENERGY CENTER 69KV		-0.02897 -0.02129	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057	-0.17954 -0.17186	82 86
	SMOKEY HILLS 34KV HUTCHINSON ENERGY CENTER 115KV		-0.02016 -0.01521	EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057	-0.17073 -0.16578	87 89
	LAWRENCE ENERGY CENTER 230KV GETTY 69KV	45.07056 35	-0.00729 -0.00491	EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100		-0.15786 -0.15548	94 95
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.00498	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.15555	95
WERE	GILL ENERGY CENTER 69KV CHANUTE 69KV	41.1	-0.00495 -0.00193		MRWYG11 34.500 230KV MRWYG11 34.500 230KV		0.15057		95 97
	COGENTRIX 345KV ELKIN_GN 1 13.800 69KV	671.9331 60	-0.00168 -0.00138		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100		-0.15225 -0.15195	97 97
OKGE	HORSESHOE LAKE 138KV KIOWA 345KV		-0.00222 -0.00182	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057		97 97
OKGE	MCCLAIN 138KV	50	-0.00226	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.15283	97
	MID-CONTINENT 138KV MUSTANG 69KV	142.11 54.27831	-0.00152 -0.0023		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100		-0.15209 -0.15287	97 97
AEPW OKGE	OEC 345KV REDBUD 345KV	1756.622 1156.39	-0.00164 -0.00222		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057	-0.15221 -0.15279	97 97
	SEMINOLE 138KV SOUTH 4TH ST 69KV		-0.00211		MRWYG11 34.500 230KV MRWYG11 34.500 230KV		0.15057		97
	SOUTHWESTERN STATION 138KV		-0.00282		MRWYG11 34.500 230KV		0.15057		97
OKGE	SOUTHWESTERN STATION 138KV SPGCK3&4 13.200 345KV	111	-0.00212 -0.00244	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057 0.15057	-0.15269 -0.15301	97 97
OKGE	TINKER 5G 138KV TONTITOWN 161KV	62 186 12	-0.00222 -0.00138	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100			97 97
AEPW	TULSA POWER STATION 138KV	177.1113	-0.00168	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.15225	97
AEPW	TULSA POWER STATION 69KV WELEETKA 138KV		-0.00168 -0.00176	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV		0.15057 0.15057	-0.15233	97 97
AEPW	ARIES 161KV ARSENAL HILL 138KV	576.6669 337.2	-0.00086	EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057 0.15057		98 98
AEPW	EASTMAN 138KV EMPORIA ENERGY CENTER 345KV	128.2153 201	-0.00094	EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057	-0.15151	98
AEPW	FULTON 115KV	153	-0.00083	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.1514	98
AEPW	GREENWOOD 161KV KNOXLEE 138KV	176	-0.00093	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057 0.15057	-0.1515	98 98
	LARUSSEL 161KV LEBROCK 345KV	171 179.8976	-0.00106		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100			98 98
AEPW	LIEBERMAN 138KV	45.99999	-0.00088	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.15145	98
AEPW KACP	LONESTAR POWER PLANT 69KV PAOLA 5 161.00 161KV		-0.00097 -0.00019	EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057 0.15057		98 98
KACP	PAOLA COMBUSTION TURBINES 161KV	76	-0.00019	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.15076	98
MIPU	RALPH GREEN 69KV RIVERTON 161KV	73.7	0.00004		MRWYG11 34.500 230KV MRWYG11 34.500 230KV		0.15057	-0.15053	98
MIPU	SOUTH HARPER 161KV	247.994	-0.00023	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.1508	98
AEPW	STATE LINE 161KV WILKES 138KV	52.19009		EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV		0.15057	-0.15153	98 98
KACP	BULL CREEK 161KV HAWTHORN 161KV	246.4 245.2502	0.00103	EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057	-0.14954 -0.14955	99 99
KACY	KAW 69KV MARSHALL 161KV		0.00092		MRWYG11 34.500 230KV MRWYG11 34.500 230KV		0.15057		99
	NORTHEAST 13KV	223	0.00101	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.14956	99
	NORTHEAST 161KV	224 107.5824	0.00101		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057 0.15057		99 99
KACP KACY	QUINDARO 161KV								
KACP KACY KACY	QUINDARO 69KV	40.64384 49.59249	0.00091		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100		-0.14966 -0.14758	99
KACP KACY KACY NPPD NPPD	QUINDARO 69KV AINSWN1G 34.500 115KV KINGSLYG 13.800 115KV	49.59249 47.95929	0.00299	EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100 100	0.15057 0.15057	-0.14758 -0.14767	100
KACP KACY KACY NPPD NPPD MIPU NPPD	QUINDARO 69KV AINSWN1G 34.500 115KV	49.59249 47.95929 91	0.00299 0.0029 0.00256 0.00248	EMDE EMDE EMDE EMDE	MRWYG11 34.500 230KV	100 100 100 100	0.15057	-0.14758 -0.14767 -0.14801 -0.14809	100

				,				
NPPD NPPD	BURDIC3G 13.800 115KV CANADY1G 13.800 115KV		0.00354		MRWYG11 34.500 230KV MRWYG11 34.500 230KV		0.15057	
MIDW	COLBY 115KV	36.41598	0.00323	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.14625 10
OPPD	FREM 1G 13.800 69KV	40	0.00328	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.14729 10
NPPD KACP	GT-3 G 13.800 115KV IATAN 345KV	40 129	0.00354	EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057	-0.14703 10 ⁻
OPPD	JONES 1G 13.800 69KV	59.3	0.00397	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.1466 10 ⁻ -0.14725 10 ⁻
OPPD	JONES 2G 13.800 69KV	59.3	0.00332	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.14725 10
OPPD	NCU903 8 69.000 69KV	35.3		EMDE	MRWYG11 34.500 230KV	100		-0.1466 10
OPPD OPPD	SARPY 1G 13.800 69KV SARPY 2G 13.800 69KV	55.3 55.3	0.00335	EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057	-0.14722 10° -0.14721 10°
OPPD	SARPY 3G 13.800 4KV	49.17342	0.00332		MRWYG11 34.500 230KV	100		-0.14725 10
OPPD	SARPY 4G 13.800 161KV	48.1	0.00332		MRWYG11 34.500 230KV	100		-0.14725 10
OPPD NPPD	SARPY 5G 13.800 161KV SHELDONG 13.800 115KV	48.1 52	0.00332	EMDE EMDE	MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100	0.15057	-0.14725 10° -0.14536 10°
NPPD	BPS GT2G 13.800 115KV	34.80049	0.00321	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.14196
NPPD	BPS ST3G 13.800 115KV	40.00518	0.00861	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.14196 10-
NPPD	HEBRON G 13.800 115KV JEFFREY ENERGY CENTER 345KV	52	0.00799		MRWYG11 34.500 230KV MRWYG11 34.500 230KV	100		-0.14258 10-
WERE WERE	BPU - CITY OF MCPHERSON 115KV		-0.02464		CLIFTON 115KV	100 65	0.15057	-0.12593 118 -0.11378 130
MIDW	SMOKEY HILLS 34KV	75	-0.02037	MKEC	CLIFTON 115KV	65		-0.10497 14
WERE	JEFFREY ENERGY CENTER 230KV	54	0.05007	EMDE	MRWYG11 34.500 230KV	100	0.15057	-0.1005
WERE WERE	HUTCHINSON ENERGY CENTER 115KV GILL ENERGY CENTER 138KV		-0.01521	MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.08481	-0.10002 144 -0.08979 168
OKGE	HORSESHOE LAKE 138KV		-0.00498	MKEC	CLIFTON 115KV	65	0.08481	-0.08979 160
OKGE	REDBUD 345KV		-0.00222	MKEC	CLIFTON 115KV	65	0.08481	-0.08703 170
OKGE	SEMINOLE 138KV				CLIFTON 115KV	65	0.08481	-0.08692 170
AEPW AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	152 350	-0.00212 -0.00212	MKEC MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.08481	-0.08693 170 -0.08693 170
OKGE	SPGCK3&4 13.200 345KV		-0.00244		CLIFTON 115KV	65	0.08481	-0.08725 170
OKGE	TINKER 5G 138KV		-0.00222		CLIFTON 115KV	65		-0.08703 170
AEPW AEPW	COGENTRIX 345KV KIOWA 345KV		-0.00168	MKEC	CLIFTON 115KV CLIFTON 115KV	65	0.08481	-0.08649 17
AEPW AEPW	OEC 345KV	1336.177 1756.622			CLIFTON 115KV CLIFTON 115KV	65 65	0.08481	-0.08663 17 ⁻ -0.08645 17 ⁻
AEPW	TULSA POWER STATION 138KV	177.1113	-0.00168	MKEC	CLIFTON 115KV	65	0.08481	-0.08649 17
AEPW	TULSA POWER STATION 69KV		-0.00168		CLIFTON 115KV	65	0.08481	-0.08649 17
AEPW AEPW	WELEETKA 138KV ELKIN GN 1 13.800 69KV		-0.00176		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481	-0.08657 17 ⁻ -0.08619 17 ⁻
EMDE	LARUSSEL 161KV	171	-0.00106	MKEC	CLIFTON 115KV	65	0.08481	-0.08587 172
AEPW	MID-CONTINENT 138KV	142.11	-0.00152	MKEC	CLIFTON 115KV	65	0.08481	-0.08633
EMDE	RIVERTON 161KV		-0.00129		CLIFTON 115KV	65	0.08481	-0.0861 173
AEPW	STATE LINE 161KV TONTITOWN 161KV	90 186.12	-0.00125 -0.00138		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481	-0.08606 177 -0.08619 177
AEPW	ARSENAL HILL 138KV		-0.00086		CLIFTON 115KV	65	0.08481	-0.08567 173
AEPW	EASTMAN 138KV		-0.00094	MKEC	CLIFTON 115KV	65	0.08481	-0.08575 173
WERE AEPW	EMPORIA ENERGY CENTER 345KV FULTON 115KV	201 153	-0.0007	MKEC MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.08481	-0.08551 173 -0.08564 173
AEPW	KNOXLEE 138KV		-0.00083	MKEC	CLIFTON 115KV	65	0.08481	-0.08574 173
AEPW	LEBROCK 345KV	179.8976	-0.00093	MKEC	CLIFTON 115KV	65	0.08481	-0.08574 173
KACP	PAOLA 5 161.00 161KV	82.5	-0.00019	MKEC	CLIFTON 115KV	65	0.08481	-0.085 174
KACP	PAOLA COMBUSTION TURBINES 161KV	76	-0.00019	MKEC	CLIFTON 115KV	65	0.08481	-0.085
MIPU	SOUTH HARPER 161KV	247.994		MKEC	CLIFTON 115KV	65	0.08481	-0.08504 174
MIPU	ARIES 161KV	576.6669	0.00008	MKEC	CLIFTON 115KV	65	0.08481	-0.08475 175
MIPU MIPU	GREENWOOD 161KV	255.8 73.7	0.00011		CLIFTON 115KV CLIFTON 115KV	65 65	0.08481	-0.0847 175 -0.08477 175
KACP	RALPH GREEN 69KV BULL CREEK 161KV	246.4	0.00004	MKEC	CLIFTON 115KV	65	0.08481	-0.08477 173
KACP	HAWTHORN 161KV	245.2502	0.00102	MKEC	CLIFTON 115KV	65	0.08481	-0.08379 177
KACY	KAW 69KV	242	0.00092	MKEC	CLIFTON 115KV	65	0.08481	-0.08389 177
KACP KACP	NORTHEAST 13KV NORTHEAST 161KV	223 224	0.00101	MKEC	CLIFTON 115KV CLIFTON 115KV	65 65	0.08481	-0.0838 177 -0.0838 177
KACY	QUINDARO 161KV	107.5824	0.00091	MKEC	CLIFTON 115KV	65		-0.0839 177
MIPU	LAKE ROAD 161KV	91	0.00256	MKEC	CLIFTON 115KV	65	0.08481	-0.08225 186
NPPD NPPD	SIDNEY 4 230.00 230KV CANADY1G 13.800 115KV	230.6148	0.00291		CLIFTON 115KV CLIFTON 115KV	65	0.08481	-0.0819 18 -0.08158 183
KACP	IATAN 345KV	125 129	0.00323		CLIFTON 115KV	65 65	0.08481	-0.08158 183 -0.08084 183
WERE	BPU - CITY OF MCPHERSON 115KV		-0.02897		JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.07904 18
MIDW	SMOKEY HILLS 34KV		-0.02016		JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.07023 21
WERE WERE	HUTCHINSON ENERGY CENTER 115KV BPU - CITY OF MCPHERSON 115KV		-0.01521 -0.02897		JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV	440 874	0.05007	-0.06528 22 -0.05361 276
OKGE	SPGCK3&4 13.200 345KV		-0.00244		JEFFREY ENERGY CENTER 230KV	440		-0.05251 283
OKGE	REDBUD 345KV	1156.39	-0.00222	WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.05229 283
OKGE AEPW	SEMINOLE 138KV SOUTHWESTERN STATION 138KV		-0.00211 -0.00212	WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007	-0.05218 28 -0.05219 28
AEPW AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV		-0.00212		JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007	-0.05219 28 -0.05219 28
AEPW	KIOWA 345KV	1336.177	-0.00182	WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.05189 28
AEPW	COGENTRIX 345KV	671.9331	-0.00168	WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.05175 286
AEPW AEPW	OEC 345KV TULSA POWER STATION 138KV	1756.622 177.1113	-0.00164	WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007	-0.05171 28i -0.05175 28i
AEPW	WELEETKA 138KV		-0.00176		JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.05175 286
AEPW	MID-CONTINENT 138KV		-0.00152		JEFFREY ENERGY CENTER 230KV	440		-0.05159 28
EMDE AEPW	RIVERTON 161KV TONTITOWN 161KV		-0.00129	WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007	-0.05136 28i -0.05145 28i
AEPW	EASTMAN 138KV		-0.00138		JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.05145 28 -0.05101 29
AEPW	KNOXLEE 138KV	176	-0.00093	WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.051 29
EMDE	LARUSSEL 161KV		-0.00108		JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.05113 29
AEPW AEPW	LEBROCK 345KV ARSENAL HILL 138KV	179.8976 337.2	-0.00093		JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007	-0.051 29 -0.05093 29
AEPW	FULTON 115KV		-0.00083	WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.0509 29
WERE	EMPORIA ENERGY CENTER 345KV	201	-0.0007	WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.05077 293
MIPU	SOUTH HARPER 161KV				JEFFREY ENERGY CENTER 230KV	440		-0.0503 29
MIPU MIPU	ARIES 161KV GREENWOOD 161KV	576.6669 255.8			JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440		-0.05001 29 -0.04996 29
KACY	KAW 69KV	242	0.00092	WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04915 30
KACY	QUINDARO 161KV	107.5824	0.00091		JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04916 30
KACP KACP	BULL CREEK 161KV HAWTHORN 161KV	246.4 245.2502	0.00103		JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007	-0.04904 300 -0.04905 300
KACP	NORTHEAST 13KV	245.2502	0.00102		JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04905 30.
KACP	NORTHEAST 161KV	224	0.00101	WERE	JEFFREY ENERGY CENTER 230KV	440	0.05007	-0.04906 302
NPPD	SIDNEY 4 230.00 230KV	230.6148			JEFFREY ENERGY CENTER 230KV	440		-0.04716 314
NPPD KACP	CANADY1G 13.800 115KV IATAN 345KV	125 129	0.00323		JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV	440 440	0.05007	-0.04684 316 -0.0461 32
WERE	HUTCHINSON ENERGY CENTER 115KV	214	-0.01521	WERE	JEFFREY ENERGY CENTER 345KV	874	0.02464	-0.03985 372
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897	KACP	IATAN 345KV	1806	0.00397	-0.03294 450
WERE WERE	BPU - CITY OF MCPHERSON 115KV BPU - CITY OF MCPHERSON 115KV		-0.02897 -0.02897		IATAN 345KV NEBCTY1G 18.000 4KV	371 466	0.00397	-0.03294 450 -0.03237 450
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897	OPPD	NEBCTY2G 23.000 345KV	503	0.0034	-0.03237 45 -0.03237 45
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897	NPPD	COOPER1G 22.000 345KV	551.2802	0.0033	-0.03227 459
WERE WERE	BPU - CITY OF MCPHERSON 115KV BPU - CITY OF MCPHERSON 115KV		-0.02897 -0.02897		FT CAL1G 22.000 4KV N OMA 5G 20.000 4KV	376 173.9	0.00327	-0.03224 459 -0.03227 459
WERE	BPU - CITY OF MCPHERSON 115KV		-0.02897		GENTLM1G 23.000 230KV	1/3.9	0.0033	-0.03227 459 -0.03192 469
WERE	BPU - CITY OF MCPHERSON 115KV	232	-0.02897	NPPD	GENTLM2G 24.000 345KV	443.3608		-0.03189 46
Maximum Decrement and Ma		auga and Cink Operating Bointo			ing facility was identified			

|WERE | EPU - CITY OF MCPHERSON 115KV | 232 | 0.02897|NPPD | GENTLM2G 24.000 345KV | Maximum Decrement and Maximum Increment were determine from the Souce and Sink Operating Points in the study models where limiting facility was identified. Factor = Source GSF - Sink GSF | Redispatch Amount = Relief Amount / Factor

Season Flowgate Identified	2010 Summer Peak	
Reservation	Relief Amount	Aggregate Relief Amount
1281706		13.4
1285893	1.5	13.4

1286201	7.1	13.4	1						
Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.27887	WERE	EVANS ENERGY CENTER 138KV	560	0.10249	-0.38136	
WERE	WACO 138KV GILL ENERGY CENTER 69KV	30	-0.27887 -0.25172	WERE	EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV	560 560	0.10249		35 38
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887	WERE	HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 69KV	275.4319	0.01627	-0.29514	45
WERE	WACO 138KV WACO 138KV		-0.27887 -0.27887	WERE	HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 69KV	275.4319	0.01627	-0.29514 -0.29495	
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999		WERE	CLAY CENTER JUNCTION 115KV EMPORIA ENERGY CENTER 345KV	16.5 610	0.01193	-0.2908	46
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887	WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV	440	0.00997	-0.28884	46
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.27887	MIDW	SMOKEY HILLS 34KV	874 25	0.01026	-0.28908	46
WERE	WACO 138KV WACO 138KV	30 30	-0.27887 -0.27887		CLAY CENTER JUNCTION 115KV EMPORIA ENERGY CENTER 345KV	16.5 610	0.01193 0.01429	-0.2908 -0.29316	46 46
WERE	WACO 138KV WACO 138KV	30	-0.27887 -0.27887	WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV	440 874	0.00997	-0.28884 -0.28913	46 46
WERE	WACO 138KV GILL ENERGY CENTER 138KV	30 84.99999	-0.27887 -0.27887	MIPU	SMOKEY HILLS 34KV ARIES 161KV	25 17.69665	0.01021	-0.28908 -0.28165	46 47
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887		CLIFTON 115KV HAWTHORN 161KV	65 517.7923	0.00522	-0.28409 -0.28179	47 47
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887		IATAN 345KV IATAN 345KV	1806 371	0.00428		47 47
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887	MIDW	KNOLL 115KV LAKE ROAD 161KV	75.60001 35	0.00305	-0.28192 -0.28198	47 47
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887	MIPU WERE	LAKE ROAD 34KV LAWRENCE ENERGY CENTER 230KV	92 223.9286	0.00311	-0.28198 -0.28649	47 47
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887		MRWYG11 34.500 230KV NEARMAN 161KV	100	0.00756	-0.28643 -0.28206	47
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887	KACY	NEARMAN 20KV QUINDARO 161KV	235 129.4143	0.00319	-0.28206 -0.28204	47
WERE	GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887		QUINDARO 69KV	136.3627	0.00316	-0.28203	47
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887	MIPU	SIBLEY 161KV SIBLEY 69KV	228.9514 45.99999	0.00271	-0.28158 -0.28163	47 47
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887	WERE	SOUTH HARPER 161KV TECUMSEH ENERGY CENTER 115KV	67.06152 133	0.00298	-0.28185 -0.28637	47
WERE	WACO 138KV WACO 138KV		-0.27887 -0.27887	MKEC	ARIES 161KV CLIFTON 115KV	17.69665 65	0.00278	-0.28165 -0.28409	47 47
WERE	WACO 138KV WACO 138KV	30 30	-0.27887	KACP KACP	HAWTHORN 161KV IATAN 345KV	517.7923 1806	0.00292 0.00428	-0.28179 -0.28315	47 47
WERE	WACO 138KV WACO 138KV	30		MIDW	IATAN 345KV KNOLL 115KV	371 75.60001	0.00428	-0.28315 -0.28192	47 47
	WACO 138KV WACO 138KV	30 30	-0.27887 -0.27887	MIPU MIPU	LAKE ROAD 161KV LAKE ROAD 34KV	35 92	0.00311	-0.28198 -0.28198	47 47
WERE	WACO 138KV WACO 138KV	30	-0.27887	WERE	LAWRENCE ENERGY CENTER 230KV MRWYG11 34.500 230KV	223.9286 100	0.00762	-0.28649 -0.28643	47
WERE	WACO 138KV WACO 138KV	30		KACY	NEARMAN 161KV NEARMAN 20KV	77	0.00319	-0.28206 -0.28206	47
WERE	WACO 138KV WACO 138KV	30			QUINDARO 161KV QUINDARO 69KV	129.4143 136.3627	0.00317	-0.28204 -0.28203	47
WERE	WACO 138KV WACO 138KV	30		MIPU	SIBLEY 161KV SIBLEY 69KV	228.9514 45.99999	0.00271	-0.28158 -0.28163	47
WERE	WACO 136KV WACO 138KV WACO 138KV	30	-0.27887	MIPU	SOUTH HARPER 161KV	67.06152	0.00298	-0.28185	47
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887	OKGE	TECUMSEH ENERGY CENTER 115KV AES 161KV	133 320	-0.00102	-0.28637 -0.27785	47
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999		AEPW	ARSENAL HILL 138KV ARSENAL HILL 69KV	455 90	-0.00021 -0.00021	-0.27866 -0.27866	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999			ASBURY 161KV BPS GT1G 13.800 115KV	192 80	-0.00272 0.00213	-0.27615 -0.281	48 48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887	NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	45.19951 49.99482	0.00213	-0.281 -0.281	48
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887	KACP OPPD	BULL CREEK 161KV CASS 1G 15.000 345KV	61.6 42.51929	0.00261	-0.28148 -0.28072	48
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887	OPPD	CASS 2G 15.000 345KV CENTENIAL WIND 34KV	52.99999 120	0.00185	-0.28072 -0.2794	48 48
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887		CITY OF HIGGINSVILLE 69KV COGENTRIX 345KV	36 221.3008	-0.0021	-0.28097 -0.27718	48 48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887		COL.COG7 115.00 115KV COMANCHE 138KV	75 145	0.00132	-0.28019 -0.27923	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887		COMANCHE 69KV COOPER1G 22.000 345KV	60 551.2802	0.00034	-0.27921 -0.28111	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887	NPPD	D.HENRYG 34.500 115KV DENVER G 34.500 115KV	18 34.32393	0.00114	-0.28001 -0.28	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999		AEPW NPPD	EASTMAN 138KV EGY CTRG 13.800 115KV	356.7324 54	-0.0002 0.00115	-0.27867 -0.28002	48
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.27887	AEPW	FITZHUGH 161KV	125.4	-0.00097	-0.2779	48
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887		FLINT CREEK 161KV FPLWND2 34KV	428 59	-0.00198 0.00034	-0.27689 -0.27921	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887	OPPD	FREM 8G 13.800 69KV FT CAL1G 22.000 4KV	90 376	0.00157	-0.28044 -0.2806	48 48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887	NPPD	GENTLM1G 23.000 230KV GENTLM2G 24.000 345KV	463 443.0568	-0.00021 -0.00028	-0.27866 -0.27859	48 48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.27887 -0.27887	OKGE	GT-2 G 13.800 115KV HORSESHOE LAKE 138KV	40 796	0.00098		48 48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887		HORSESHOE LAKE 69KV KNOXLEE 138KV	16 282	0.00024 -0.0002	-0.27911 -0.27867	48 48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.27887 -0.27887	AEPW	LARUSSEL 161KV LEBROCK 345KV	100 517.0293	-0.002 -0.0002		48 48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887	OKGE	LIEBERMAN 138KV MCCLAIN 138KV	174 470	-0.00021 0.00072	-0.27866 -0.27959	48 48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887	KACP	MONTROSE 161KV MUSKOGEE 161KV	359.7056 166			
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887	OKGE	MUSKOGEE 345KV MUSTANG 138KV	1548 351	-0.00149 0.00076	-0.27738 -0.27963	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887	OKGE	MUSTANG 69KV N OMA 1G 13.800 2KV	52.52197 48.5	0.00073	-0.2796	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887	OPPD	N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV N OMA 3G 13.800 2KV	80.59999 80.59999	0.00179	-0.28066 -0.28066	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887		N OMA 3G 13.800 2KV N OMA 4G 15.000 2KV N OMA 5G 20.000 4KV	80.59999 107.4 173.9	0.00179	-0.28066 -0.28066	48
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.27887	OPPD	NEBCTY1G 18.000 4KV	466	0.00196	-0.28083	48
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.27887	AEPW	NEBCTY2G 23.000 345KV NORTHEASTERN STATION 138KV	503 480	-0.00287	-0.28083 -0.276	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887	AEPW	NORTHEASTERN STATION 345KV OEC 345KV	625 293.1376	-0.00269 -0.00194	-0.27618 -0.27693	48 48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887	AEPW	OZARK BEACH 161KV PIRKEY GENERATION 138KV	16 288	-0.00137 -0.0002	-0.2775 -0.27867	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999			PLATTE1G 13.800 115KV REDBUD 345KV	71.51868 42.0956	0.00095 0.00034	-0.27982 -0.27921	48 48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887 -0.27887	EMDE EMDE	RIVERTON 161KV RIVERTON 69KV	99.9177 44.07541	-0.00257 -0.00244	-0.2763 -0.27643	48 48
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887	OKGE	SEMINOLE 138KV SEMINOLE 345KV	334.8975 1019	0.00037	-0.27924 -0.27934	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887	NPPD	SHELDN1G 13.800 115KV SHELDN2G 13.800 115KV	68.40001 81	0.00183	-0.2807	
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887	NPPD	SIDNEY 4 230.00 230KV SMITH COGEN 138KV	19.3852 106	-0.00016	-0.27871	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887	OKGE	SOONER 345KV SOUTHWESTERN STATION 138KV	537 287	0.00076	-0.27963 -0.27918	48
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.27887	AEPW	SOUTHWESTERN STATION 138KV	712	0.00031	-0.27918	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.27887	OKGE	SPGCK1&2 13.200 345KV STATE LINE 161KV	78 520	0.00091 -0.00245	-0.27978 -0.27642	48
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 -0.27887	AEPW	TONTITOWN 161KV TULSA POWER STATION 138KV	140 147	-0.00184	-0.27703	48 48
WERE	GILL ENERGY CENTER 138KV		-0.27887		WELSH 345KV	1044	-0.0002		48

WERE	GILL ENERGY CENTER 138KV	84 99999	-0.27887 AEPW	WILKES 138KV	410.4529	•0.0003	-0.27867	48
WERE WERE	GILL ENERGY CENTER 138KV WACO 138KV	84.99999	-0.27887 AEPW -0.27887 OKGE	WILKES 345KV AES 161KV	308		-0.27867	48
WERE	WACO 138KV	30	-0.27887 AEPW	ARSENAL HILL 138KV	455	-0.00021	-0.27866	48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 AEPW -0.27887 EMDE	ARSENAL HILL 69KV ASBURY 161KV	90 192	-0.00021		48
WERE WERE	WACO 138KV WACO 138KV	30	-0.27887 NPPD -0.27887 NPPD	BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV	80 45.19951	0.00213	-0.281	48 48
WERE	WACO 138KV	30	-0.27887 NPPD	BPS ST3G 13.800 115KV	49.99482	0.00213	-0.281	48
WERE WERE	WACO 138KV WACO 138KV	30	-0.27887 KACP -0.27887 OPPD	BULL CREEK 161KV CASS 1G 15.000 345KV	61.6 42.51929	0.00261	-0.28148 -0.28072	48
WERE WERE	WACO 138KV WACO 138KV	30	-0.27887 OPPD -0.27887 OKGE	CASS 2G 15.000 345KV CENTENIAL WIND 34KV	52.99999 120	0.00185	-0.28072 -0.2794	48
WERE WERE	WACO 138KV	30	-0.27887 KACP	CITY OF HIGGINSVILLE 69KV	36	0.0021	-0.28097	48
WERE	WACO 138KV WACO 138KV	30		COGENTRIX 345KV COL.COG7 115.00 115KV	75	0.00132		48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 AEPW -0.27887 AEPW	COMANCHE 138KV COMANCHE 69KV	145 60	0.00036	-0.27923 -0.27921	48
WERE WERE	WACO 138KV WACO 138KV	30		COOPER1G 22.000 345KV D.HENRYG 34.500 115KV	551.2802 18	0.00224	-0.28111	48
WERE	WACO 138KV	30	-0.27887 NPPD -0.27887 AEPW	DENVER G 34.500 115KV	34.32393	0.00113	-0.28	48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 AEPW -0.27887 NPPD	EASTMAN 138KV EGY CTRG 13.800 115KV	356.7324 54	-0.0002 0.00115	-0.27867 -0.28002	48
WERE WERE	WACO 138KV WACO 138KV	30	-0.27887 AEPW -0.27887 AEPW	FITZHUGH 161KV FLINT CREEK 161KV	125.4 428	-0.00097		48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 OKGE -0.27887 OPPD	FPLWND2 34KV FREM 8G 13.800 69KV	59 90	0.00034	-0.27921	48
WERE	WACO 138KV	30	-0.27887 OPPD	FT CAL1G 22.000 4KV	376	0.00173	-0.2806	48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 NPPD -0.27887 NPPD	GENTLM1G 23.000 230KV GENTLM2G 24.000 345KV	463 443.0568	-0.00021		48
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.27887 NPPD -0.27887 OKGE	GT-2 G 13.800 115KV HORSESHOE LAKE 138KV	40 796	0.00098		48 48
WERE	WACO 138KV	30	-0.27887 OKGE	HORSESHOE LAKE 69KV	16	0.00024	-0.27911	48
WERE WERE	WACO 138KV WACO 138KV	30		KNOXLEE 138KV LARUSSEL 161KV	282 100	-0.0002 -0.002	-0.27687	48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 AEPW -0.27887 AEPW	LEBROCK 345KV LIEBERMAN 138KV	517.0293 174	-0.0002	-0.27867	48 48
WERE WERE	WACO 138KV WACO 138KV	30		MCCLAIN 138KV MONTROSE 161KV	470 359,7056	0.00072	-0.27959	48
WERE	WACO 138KV	30	-0.27887 OKGE	MUSKOGEE 161KV	166		-0.27727	48
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.27887 OKGE -0.27887 OKGE	MUSKOGEE 345KV MUSTANG 138KV	1548 351	-0.00149 0.00076	-0.27738 -0.27963	48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 OKGE	MUSTANG 69KV N OMA 1G 13.800 2KV	52.52197 48.5	0.00073		48
WERE	WACO 138KV	30	-0.27887 OPPD	N OMA 2G 13.800 2KV	80.59999	0.00179	-0.28066	48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 OPPD -0.27887 OPPD	N OMA 3G 13.800 2KV N OMA 4G 15.000 2KV	80.59999 107.4	0.00179		48
WERE WERE	WACO 138KV WACO 138KV	30	-0.27887 OPPD -0.27887 OPPD	N OMA 5G 20.000 4KV NEBCTY1G 18.000 4KV	173.9 466	0.00179	-0.28066	48 48
WERE	WACO 138KV	30	-0.27887 OPPD	NEBCTY2G 23.000 345KV	503	0.00196	-0.28083	48
WERE WERE	WACO 138KV WACO 138KV	30	-0.27887 AEPW -0.27887 AEPW	NORTHEASTERN STATION 138KV NORTHEASTERN STATION 345KV	625	-0.00287 -0.00269		48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 AEPW -0.27887 EMDE	OEC 345KV OZARK BEACH 161KV	293.1376 16	-0.00194		48 48
WERE WERE	WACO 138KV WACO 138KV	30	-0.27887 AEPW -0.27887 NPPD	PIRKEY GENERATION 138KV PLATTE1G 13.800 115KV	288 71.51868	-0.0002		48
WERE	WACO 138KV	30	-0.27887 OKGE	REDBUD 345KV	42.0956	0.00034	-0.27921	48 48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 EMDE -0.27887 EMDE	RIVERTON 161KV RIVERTON 69KV	99.9177 44.07541	-0.00257		48
WERE WERE	WACO 138KV WACO 138KV	30		SEMINOLE 138KV SEMINOLE 345KV	334.8975 1019	0.00037		48
WERE	WACO 138KV	30	-0.27887 NPPD	SHELDN1G 13.800 115KV	68.40001	0.00183	-0.2807	48
WERE WERE	WACO 138KV WACO 138KV	30	-0.27887 NPPD -0.27887 NPPD	SHELDN2G 13.800 115KV SIDNEY 4 230.00 230KV	81 19.3852	-0.00016	-0.2807 -0.27871	48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 OKGE -0.27887 OKGE	SMITH COGEN 138KV SOONER 345KV	106 537	0.00074	-0.27961 -0.27963	48 48
WERE	WACO 138KV	30	-0.27887 AEPW	SOUTHWESTERN STATION 138KV	712	0.00031	-0.27918	48
WERE WERE	WACO 138KV WACO 138KV	30		SOUTHWESTERN STATION 138KV SPGCK1&2 13.200 345KV	287 78	0.00031	-0.27918 -0.27978	48
WERE WERE	WACO 138KV WACO 138KV		-0.27887 EMDE -0.27887 AEPW	STATE LINE 161KV TONTITOWN 161KV		-0.00245		48
WERE WERE	WACO 138KV	30	-0.27887 AEPW	TULSA POWER STATION 138KV	147	-0.00184	-0.27703	48
WERE	WACO 138KV WACO 138KV	30	-0.27887 AEPW -0.27887 AEPW	WELSH 345KV WILKES 138KV	1044 410.4529		-0.27867	48
WERE	WACO 138KV	30	-0.27887 AEPW	WILKES 345KV	308	-0.0002	-0.27867	48
WERE WERE	GILL ENERGY CENTER 138KV	84.99999	-0.27887 MKEC -0.27887 WERE	A. M. MULLERGREN GENERATOR 115KV	63 54.8	-0.00383	-0.27504 -0.27149	49
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.27887 WERE	CITY OF BURLINGTON 69KV	55.4	-0.0051	-0.27377	49
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.27887 WERE -0.27887 OKGE	COFFEY COUNTY NO. 2 SHARPE 69KV SOONER 138KV	19.98 535	-0.0051 -0.00517		49 49
WERE	WACO 138KV	30	-0.27887 MKEC	A. M. MULLERGREN GENERATOR 115KV	63	-0.00383	-0.27504	49
WERE	WACO 138KV		-0.27887 WERE	CHANUTE 69KV	54.8	-0.00738	-0.27149	49
WERE WERE	WACO 138KV WACO 138KV		-0.27887 WERE	CITY OF BURLINGTON 69KV COFFEY COUNTY NO. 2 SHARPE 69KV	55.4 19.98	-0.0051 -0.0051	-0.27377	49 49
WERE WERE	WACO 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 OKGE -0.27887 MKEC	SOONER 138KV CIMARRON RIVER 115KV	535 44	-0.00517 -0.0138	-0.2737 -0.26507	49 50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.25172 WERE -0.25172 WERE	EMPORIA ENERGY CENTER 345KV HUTCHINSON ENERGY CENTER 115KV		0.01429	-0.26601	50
WERE	GILL ENERGY CENTER 69KV	48	-0.25172 WERE	HUTCHINSON ENERGY CENTER 69KV	30	0.01608	-0.2678	50
WERE WERE	WACO 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 MKEC -0.27887 EMDE	CIMARRON RIVER 115KV ELK RIVER 345KV		-0.01453	-0.26507 -0.26434	50 51
WERE WERE	GILL ENERGY CENTER 69KV	48	-0.25172 WERE -0.25172 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV	440	0.00997		51 51
WERE	GILL ENERGY CENTER 69KV	48	-0.25172 MIDW	SMOKEY HILLS 34KV	25	0.01021	-0.26193	51
WERE WERE	WACO 138KV GILL ENERGY CENTER 69KV	48	-0.27887 EMDE -0.25172 MKEC	ELK RIVER 345KV CLIFTON 115KV	65	-0.01453 0.00522	-0.25694	52
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.25172 KACP -0.25172 KACP	IATAN 345KV IATAN 345KV		0.00428		52
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.25172 MIDW -0.25172 MIPU	KNOLL 115KV LAKE ROAD 161KV	75.60001	0.00305	-0.25477	
WERE WERE	GILL ENERGY CENTER 69KV	48	-0.25172 MIPU	LAKE ROAD 34KV		0.00311	-0.25483	52
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.25172 WERE -0.25172 EMDE	LAWRENCE ENERGY CENTER 230KV MRWYG11 34.500 230KV	223.9286 100	0.00756		52 52
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.25172 KACY -0.25172 KACY	NEARMAN 161KV NEARMAN 20KV	77 235	0.00319	-0.25491 -0.25491	52 52
WERE WERE	GILL ENERGY CENTER 69KV	48	-0.25172 KACY	QUINDARO 161KV	129.4143	0.00317	-0.25489	52
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.25172 KACY -0.25172 WERE	QUINDARO 69KV TECUMSEH ENERGY CENTER 115KV	133	0.0075		52 52
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.27887 MKEC -0.27887 MKEC	GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV	36 95.97768	-0.02565	-0.25322	53 53
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.25172 OKGE -0.25172 MIPU	AES 161KV ARIES 161KV	320 17.69665	-0.00102	-0.2507	53
WERE	GILL ENERGY CENTER 69KV	48	-0.25172 AEPW	ARSENAL HILL 138KV	455	-0.00021	-0.25151	53
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.25172 AEPW -0.25172 NPPD	ARSENAL HILL 69KV BPS GT1G 13.800 115KV	90 80		-0.25385	53 53
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.25172 NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	45.19951 49.99482		-0.25385	53 53
WERE	GILL ENERGY CENTER 69KV	48	-0.25172 KACP	BULL CREEK 161KV	61.6	0.00261	-0.25433	53
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.25172 OPPD -0.25172 OPPD	CASS 1G 15.000 345KV CASS 2G 15.000 345KV		0.00185	-0.25357	
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.25172 OKGE -0.25172 KACP	CENTENIAL WIND 34KV CITY OF HIGGINSVILLE 69KV	120 36	0.00053	-0.25225 -0.25382	53 53
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.25172 AEPW	COGENTRIX 345KV COL.COG7 115.00 115KV		-0.00169	-0.25003 -0.25304	53
WERE WERE	GILL ENERGY CENTER 69KV	48	-0.25172 NPPD -0.25172 AEPW	COMANCHE 138KV	145	0.00036	-0.25208	53
	GILL ENERGY CENTER 69KV	48	-0.25172 AEPW	COMANCHE 69KV	60	0.00034	-0.25206	53

Column	WEDE	OUT ENERGY OFFITER COLO.	40	0.0547/	LUDDO	COORERAC ON ONE DAFIO	FF4 0000	0.0000	4 0 05000	
Column		GILL ENERGY CENTER 69KV	48			COOPER1G 22.000 345KV D. HENRYG 34.500 115KV	551.2802 18			53
10 10 10 10 10 10 10 10	WERE	GILL ENERGY CENTER 69KV	48	-0.25172	NPPD	DENVER G 34.500 115KV	34.32393	0.0011	3 -0.25285	50
March Marc		GILL ENERGY CENTER 69KV								
Color Colo	WERE									50
Column C	WERE									50
Column C	WERE									53
Column C						GENTLM2G 24.000 345KV				53
Company										53
## COLOR STATE OF THE REAL PROPERTY OF THE PRO	WERE									50
Color Design Companies Color C										50
Section Sect										53
Color Name Colo										50
Section Sect		GILL ENERGY CENTER 69KV								
Color Description	WERE	GILL ENERGY CENTER 69KV				MUSKOGEE 345KV	1548			53
Color Colo	WERE	GILL ENERGY CENTER 69KV								
Column										50
Color	WERE	GILL ENERGY CENTER 69KV			OPPD	N OMA 2G 13.800 2KV				53
Color Colo						N OMA 3G 13.800 2KV				53
Section Sect										53
Section Sect	WERE	GILL ENERGY CENTER 69KV				NEBCTY1G 18.000 4KV	466	0.0019	-0.25368	53
Section Sect										50
Color Marco Color Bases	WERE									53
March Marc	WERE					REDBUD 345KV				53
11										
March Marc	WERE	GILL ENERGY CENTER 69KV		-0.25172	NPPD	SHELDN1G 13.800 115KV			-0.25355	53
March Marc	WERE	GILL ENERGY CENTER 69KV	48	-0.25172	NPPD	SHELDN2G 13.800 115KV	81	0.0018	3 -0.25355	50
March Marc										50
Color	WERE	GILL ENERGY CENTER 69KV	48	-0.25172	NPPD	SIDNEY 4 230.00 230KV	19.3852	-0.0001	-0.25156	53
ALL DEFENDENCE ALL	WERE	GILL ENERGY CENTER 69KV					106	0.0007	4 -0.25246	
Miles										50
Color	WERE	GILL ENERGY CENTER 69KV	48	-0.25172	AEPW	SOUTHWESTERN STATION 138KV	712	0.0003	1 -0.25203	53
WINDER COLD PRINTON COLD PRINT	WERE	GILL ENERGY CENTER 69KV		-0.25172	AEPW	SOUTHWESTERN STATION 138KV	287	0.0003	1 -0.25203	50
MEST GL. DERECT CENTER BRY										53
WARD SANCE	WERE	GILL ENERGY CENTER 69KV	48		AEPW	WILKES 138KV		-0.000	-0.25152	50
WEST SACO SINCY SP. 0.7785 MINES DEPROY CENTRE BOY S. 0.7785 MINES D. 0.0000 D. 0.00000 D. 0.0000 D. 0.0000 D. 0.0000 D. 0.0000 D. 0.0000 D. 0.00000 D. 0.0000										50
MARKE OIL DEREY CENTER 6007 4 - 4.557 MARKET OATH A.5007 A.50										53
STATE STAT				0.2.00						
WATER GILL DEREY CENTER DAY										
WELL GALL DERBY CENTER GROV 40 - 2577 AVER WELL CALL DERBY CENTER GROV 41 - 2577 AVER WELL CALL DERBY CENTER GROV 41 - 2577 AVER WELL CALL DERBY CENTER GROV 42 - 2577 AVER WELL CALL DERBY CENTER GROV 43 - 2577 AVER WELL CALL DERBY CENTER GROV 44 - 2577 AVER WELL CALL DERBY CENTER GROV 45 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTER GROV 47 - 2577 AVER WELL CALL DERBY CENTE										
WILE CILL PERIOC CENTER 6007 44 0.012 6.002	WERE	GILL ENERGY CENTER 69KV	48	-0.25172	WERE	COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	-0.005	1 -0.24662	54
WILES CALL PRINCY CENTER 6007	WERE									
WEST COLL PERFORMENT COLD C	WERE					NORTHEASTERN STATION 138KV				
WEST OLL PERFOR CENTER BROW 4 0,2517/EMBE SEVERAL STATE SEVERAL STAT	WERE	GILL ENERGY CENTER 69KV	48	-0.25172	AEPW	NORTHEASTERN STATION 345KV	625	-0.0026	-0.24903	54
WEEL CALL PERFORM						OEC 345KV				54
WERE OLL PERFORMANCE PRINTER BOWY 4 0, 2517 (APPW) 100 100 100 100 100 100 100 100 100 10										
WITHOUT COLUMN STATES AND 10 0.2577 APPW 10	WERE	GILL ENERGY CENTER 69KV				SOONER 138KV	535	-0.0051	7 -0.24655	54
WEST GLIL DERBY CENTER 68V										54
WEEL OLL DERGY CENTER GOV 44 0.2517/JUNES (LANDER) SAME SAME SAME SAME SAME SAME SAME SAME										
WERE GLIL ENRIGY CENTER RISKY 44 06 2377 MINE C. PLY C. PLACESTA TABLEY 2.00 1.00 2.00 1.	WERE	GILL ENERGY CENTER 69KV			WERE	CHANUTE 69KV			-0.24434	55
WERE GLL DERROY CENTER TRIBRY MS 90009 0.7278/WERE CTTY OF AUGUST A SIGNY 20										
WEST GULL PERFOY CENTER 686V 48 0.3577/MINCS MARKET MA										57
WERE	WERE	WACO 138KV				CITY OF AUGUSTA 69KV				57
WERE OILL ERROY CENTER 138V 84,9999 2789/WERE CTYO C WARFEL DIGNY 31 207699 202098 0 0 0 0 0 0 0 0 0										59
WERE GILL ERROY CENTER 680Y 48 0_2517_WERE CITY OF WIRFELD 680Y 51.2 do7148 -0.17875 7.7 wire ELROPE CITY OF WIRFELD 680Y 56.0 do24 do1555 6.0 color 1.0										66
WERE OFTY GROW 38, 0.03391 WERE EVANS EMERCY CENTRE 1380V 500 0.10264 0.10367 17 17 17 17 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19										66
WERE										99
ENDE STATE LINE (19TV) 60 0.0024 WERE EVAN SERGY CENTER 138V) 500 0.10244 0.10149 17 1						EVANS ENERGY CENTER 138KV		0.1024	9 -0.10987	122
AEPW COCENTRIK 3-96V 0-000-22 WERE E EVANS ENERGY CENTER 1386V 560 0 10024 0-01418 11 12 12 12 12 12 12 12 12 12 12 12 12										127
ELRING GN 11 3300 GNV										128
AEPW DC SAMPU 1838 W 1838 W 1838 W 1839 W 1838 W 1839 W 18	AEPW	ELKIN_GN 1 13.800 69KV	60	-0.00192	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	9 -0.10441	128
AEPW OEC 349KV 1985.882 - 0.00194/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1040 1.12 AEPW TULSA POWER STATION 198KV 160 - 0.00194/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1043 1.1 AEPW TULSA POWER STATION 198KV 160 - 0.00194/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1043 1.1 AEPW TULSA POWER STATION 198KV 160 - 0.00194/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1043 1.1 AEPW WELETKA 138KV 160 - 0.00194/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1033 1.1 AEPW WELETKA 138KV 160 - 0.000194/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1033 1.1 AEPW EASTMAN 138KV 128.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 128.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 128.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10244 0.1027 1.1 AEPW EASTMAN 138KV 178.2778 0.00021/WERE EVAN										
AEPW TOUTTOWN 161KV 1980V 160 -0.00191/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1043 1.12 AEPW TULSA POWER STATION 98KV 160 -0.00191/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1033 1.12 AEPW TULSA POWER STATION 98KV 160 -0.00191/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1033 1.12 AEPW WELETKA 138KV 162 -0.00091/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1033 1.12 AEPW ARSENAL HILL 138KV 1332 -0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1027 1.13 AEPW EASTMAN 138KV 128 -77F 0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW FULTON 115KV 1.50 -0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW FULTON 115KV 1.50 -0.00021/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW ROUNDED 1.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW ROUNDED 1.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW ROUNDED 1.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW ROUNDED 1.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW ROUNDED 1.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW ROUNDED 1.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW ROUNDED 1.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW LIEBEROMAN 138KV 4.99999 -0.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW LIEBEROMAN 138KV 4.99999 -0.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW LIEBEROMAN 138KV 4.99999 -0.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW LIEBEROMAN 138KV 6.90999 -0.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW LIEBEROMAN 138KV 6.90999 -0.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW LIEBEROMAN 138KV 6.90999 -0.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW LIEBEROMAN 138KV 6.90999 -0.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW LIEBEROMAN 138KV 6.90999 -0.00001/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.1029 1.13 AEPW	AEPW	OEC 345KV		-0.00194	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	9 -0.10443	128
AEPW NO.				-0.00191	WERE	EVANS ENERGY CENTER 138KV		0.1024	-0.1044	128
APPD MCCOOK G 13.80 0119KV 51						EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV				128
AEPW MELETRA 138VV 162 -0.0009F/MERE EVANS ENERGY CENTER 138VV 500 -0.1024 -0.1027 11 12 12 14 14 14 14 14 14 14 14 14 14 14 14 14	NPPD	MCCOOK G 13.800 115KV	51	-0.00121	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	-0.1037	129
AEPW	AEPW	WELEETKA 138KV				EVANS ENERGY CENTER 138KV				
AEPW										
AEPW (NOWA 345KV 1336 588 - 0.00007 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10256 13. AEPW LEBROCK 345KV 1719 706 - 0.0002 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AEPW LEBROCK 345KV 1719 706 - 0.0002 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AEPW LEBROCK 345KV 1719 706 0.0002 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AEPW LEBROCK 345KV 1519 0.0002 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AEPW LEBROCK 345KV 1519 0.0002 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10265 13. AEPW WILKES 138KV 525 4706 0.0002 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10265 13. AEPW WILKES 138KV 525 4706 0.0002 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AND POP AINSWING 34 500 115KV 450 500 0.0002 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AND POP AINSWING 34 500 115KV 450 500 0.0002 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AND POP AINSWING 34 500 115KV 12.00023 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AND POP AINSWING 34 500 115KV 12.00023 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AND POP AINSWING 34 500 115KV 150 0.00024 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AND POP AINSWING 34 500 115KV 150 0.00024 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AND POP AINSWING 34 500 115KV 150 0.00024 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10269 13. AND POP AINSWING 34 500 0.10249 0.10269 13. AEPW 500 0.10249 0.102	AEPW	FULTON 115KV	153	-0.00025	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	9 -0.10274	130
AEPW LEBROCK 345KV 119 -0.0002/ WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10269 13 AEPW LEBROCK 345KV 179.976 -0.0002/ WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10269 13 AEPW LEBROKA 345KV 45.9999 -0.00021 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10265 13 AEPW WILKES 138KV 560 0.10249 -0.10265 13 AEPW WILKES 138KV 552.4706 -0.0002/ WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10269 13 AEPW WILKES 138KV 52.4706 -0.0002/ WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10269 13 AEPW MILKES 138KV 52.4706 -0.0002/ WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10269 13 AEPW DAINSWING 34.500 115KV 49.95249 0.00021 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10269 13 AINSWING 34.500 115KV 125 0.00021 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10269 13 AINSWING 34.500 115KV 125 0.00021 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.1022 13 AINSWING 34.500 115KV 560 0.00021 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.1022 13 AINSWING 34.500 115KV 560 0.00021 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.1077 13 AINSWING 34.500 115KV 560 0.00021 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10177 13 AINSWING 34.500 115KV 560 0.00021 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10177 13 AINSWING 34.500 115KV 560 0.00021 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10177 13 AEPW SOUTHWESTERN STATION 138KV 152 0.000031 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10215 13 AEPW SOUTHWESTERN STATION 138KV 152 0.000031 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10215 13 AEPW SOUTHWESTERN STATION 138KV 560 0.00021 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10216 13 AEPW SOUTHWESTERN STATION 138KV 560 0.00031 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10218 13 AEPW SOUTHWESTERN STATION 138KV 560 0.00031 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10218 13 AEPW SOUTHWESTERN STATION 138KV 560 0.00031 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10218 13 AEPW SOUTHWESTERN STATION 138KV 560 0.00031 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.100218 13 AEPW SOUTHWESTERN STATION 138KV 560 0.00031 WERE										130
AEPW LEBROCK 346KV 179,9706 -0,0002/WERE EVANS ENERGY CENTER 138KV 560 -0,10289 13 AEPW LIEBERMAN 138KV 45,999,90 -0,0002/WERE EVANS ENERGY CENTER 138KV 560 -1,0028 -0,1027 13 AEPW WILKES 138KV 52,04706 -0,0001/WERE EVANS ENERGY CENTER 138KV 560 -1,0028 -0,10269 13 AEPW MILKES 138KV 49,99249 0,00071/WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0,10269 13 NPPD AINSWHG 34,500 115KV 49,99249 0,00071/WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0,1076 13 OKGE HORSESHOE LAKE 138KV 64 0,00041/WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0,1070 13 OKGE MCSLAIN 138KV 50 0,00072/WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0,1070 13 OKGE MUSTANG 98KV 53,47802 0,00072/WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0,1070 <td>AEPW</td> <td>KNOXLEE 138KV</td> <td>119</td> <td>-0.0002</td> <td>WERE</td> <td>EVANS ENERGY CENTER 138KV</td> <td>560</td> <td>0.1024</td> <td>-0.10269</td> <td>130</td>	AEPW	KNOXLEE 138KV	119	-0.0002	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	-0.10269	130
NPPD	AEPW	LEBROCK 345KV	179.9706	-0.0002	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	-0.10269	130
AEPW WILES 138KV 52,470E 0.0002/WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10269 13 NPPD AINSWING 34,500 115KV 49,9529 0.00071/WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10279 13 NPPD CANADY1G 13,800 115KV 125 0.00029/WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.1022 13 OKGE HORSESHOE LAKE 138KV 64 0.00041/WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.1020 13 OKGE MCCLAIN 138KV 550 0.00072/WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10270 11 OKGE MCCLAIN 138KV 550 0.00072/WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10176 13 OKGE REDBUD 345KV 15,700 0.00073/WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10176 13 OKGE SEMINOLE 138KV 15,700 0.00034/WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10176 13 OKGE SEMINOLE 138KV 15,700 0.00034/WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10279 15 OKGE SEMINOLE 138KV 15,000 0.00031/WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10212 15 OKGE SEMINOLE 138KV 15,000 0.00031/WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10212 15 OKGE TINKER 50 138KV 15,000 0.00031/WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10212 15 OKGE TINKER 50 138KV 550 0.10249 -0.10215 15 OKGE SEMINOLE 138KV 550 0.10249 -0.10215 15 OKGE TINKER 50 138KV 550 0.10249 -0.10215 15 OKGE SEMINOLE 138KV 550 0.10249 -0.10215 15 OKGE TINKER 50 138KV 550 0.10249 -0.10215 15 OKGE SEMINOLE 138KV 550 0.10249 -0.1025 15 OKGE SEMINOLE 138KV 550 0.10249 -0.1025 15 OKGE SEMINOLE 138KV 550 0.10249 -0.1025 15 OKGE SEMINOLE 138KV 550 0.10249 -0.1	AEPW NPPD	LIEBERMAN 138KV SIDNEY 4 230 00 230KV				EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV				
NPPD	AEPW	WILKES 138KV	52.54706	-0.0002	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	-0.10269	130
OKGE HORSESHOE LAKE 138KV 64 0.00041 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10208 12 OKGE MCCLAN 138KV 550 0.00072 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10777 13 OKGE MUSTANG 89KV 53.47802 0.00073 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.1076 13 OKGE REDBUD 345KV 111.59 0.00034 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.1076 13 OKGE SEMINOLE 138KV 200.1025 0.00037 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10215 13 OKGE SEMINOLE 138KV 200.1025 0.00037 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10215 13 OKGE SEMINOLE 138KV 152 0.00031 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10216 13 OKGE SEMINOLE 138KV 560 0.00031 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10216 13 OKGE TINKER 56 138KV 62 0.00031 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10216 13 OKGE TINKER 56 138KV 62 0.00057 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10216 13 OKGE MINISTRA 51 0.0000 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10216 13 OKGE MINISTRA 51 0.0000 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10216 13 OKGE SEGNISHALL 161KV 54.1 0.00047 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10162 13 OKGE SEGNISHALL 161KV 54.1 0.00147 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10162 13 OKGE SEGNISHALL 161KV 54.1 0.00147 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10102 13 OKGE SEGNISHA 13200 346KV 111 0.00047 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10102 13 OKGE SEGNISHA 13200 346KV 55.0 0.00174 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10102 13 OKFOPD JONES 1G 13.800 69KV 55.3 0.0018 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10059 13 OKFOPD JONES 1G 13.800 69KV 55.3 0.0016 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10069 13 OKFOPD JONES 1G 13.800 69KV 55.3 0.0018 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10069 13 OKFOPD SARPY 1G 13.800 69KV 55.3 0.0016 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10069 13 OKFOPD SARPY 2G 13.800 69KV 55.3 0.0016 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10069 13 OKFOPD SARPY 2G 13.800 69KV 55.3 0.0016 WERE EVANS ENERGY CENTER 138KV	NPPD	AINSWN1G 34.500 115KV	49.59249			EVANS ENERGY CENTER 138KV		0.1024	9 -0.10178	131
OKGE MCLAIN 138KV 560 0.00073/WERE EVANS ENERGY CENTER 138KV 560 0.10248 -0.10177 11 11 0 0 0 0 0 0 0 0 0 0 0 0 0 0		HORSESHOE LAKE 138KV				EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV				
OKGE REDBUD 345KV 1157,904 0,00034 WERE EVANS ENERGY CENTER 138KV 560 0,10243 -0.10215 11 OKGE SEMINOLE 138KV 200.1025 0,00037 WERE EVANS ENERGY CENTER 138KV 560 0,10243 -0.10212 11 AEPW SOUTHWESTERN STATION 138KV 152 0,00031 WERE EVANS ENERGY CENTER 138KV 560 0,10243 -0.10218 11 OKGE TINKER 5G 138KV 80 0,00031 WERE EVANS ENERGY CENTER 138KV 560 0,10243 -0.10218 11 OKGE TINKER 5G 138KV 80 0,00031 WERE EVANS ENERGY CENTER 138KV 560 0,10243 -0.10218 11 OKGE TINKER 5G 138KV 80 0,00031 WERE EVANS ENERGY CENTER 138KV 560 0,10243 -0.1019 11 OKGE MARSHALL ISHV 54 0,00038 WERE EVANS ENERGY CENTER 138KV 560 0,10243 -0.1019 11 OKGE WARSHALL ISHV 54 0,00038 WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0.1019 11 OKGE SPOCKSA 13 220 346KV 151 0,00031 WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0.1019 11 OKGE SPOCKSA 14 320 346KV 151 0,00031 WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0.10105 11 OKGE SPOCKSA 14 320 346KV 151 0,00031 WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0.10105 11 OKGE SPOCKSA 14 320 346KV 151 0,00031 WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0.10105 11 OKGE SPOCKSA 14 320 346KV 550 0,00034 WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0.10105 11 OKGE SPOCKSA 14 320 346KV 550 0,00034 WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0.10105 11 OKGE SPOCKSA 14 320 346KV 550 0,00034 WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0.10105 11 OKGE SPOCKSA 14 320 346KV 550 0,00034 WERE EVANS ENERGY CENTER 138KV 560 0,10249 -0.1006 11 OKAPA DEVALUATION OF THE STATE	OKGE	MCCLAIN 138KV	50	0.00072	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	-0.10177	131
December						EVANS ENERGY CENTER 138KV				
AEPW SOUTHWESTERN STATION 138KV 152 0.00031 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10218 13 AEPW SOUTHWESTERN STATION 138KV 350 0.00031 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10218 13 AEPW SOUTHWESTERN STATION 138KV 62 0.00051 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10192 13 AEPW SOUTHWESTERN STATION 138KV 62 0.00051 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10192 13 AEPW SOUTHWESTERN STATION 138KV 64 0.00058 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10192 13 AEPW SOUTHWESTERN STATION 138KV 550 0.10248 -0.10195 13 AEPW SOUTHWESTERN STATION 138KV 550 0.10249 -0.10075 13 AEPW SOUTHWESTERN STATION 138KV 550 0.10249 -0.10075 13 AEPW SOUTHWESTERN STATION 138KV 550 0.10249 -0.10075 13 AEPW SOUTHWESTERN STATION 138KV 550 0.10249 -0.10099 13 AEPW SOUTHWESTERN STATION 138KV 550 0.10249 -0.10099 13 AEPW SOUTHWESTERN STATION 138KV 550 0.0016 WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10099 13 AEPW SOUTHWESTERN STATION 138KV 550 0.0016 WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10099 13 AEPW SOUTHWESTERN STATION 138KV 550 0.0016 WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10099 13 AEPW SOUTHWESTERN STATION 138KV 550 0.0016 WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10099 13 AEPW SOUTHWESTERN STATION 138KV 550 0.0016 WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10099 13 AEPW SOUTHWESTERN STATION 138KV 550 0.0016 WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10099 13 AEPW SOUTHWESTERN STATION 138KV 550 0.0016 WERE EVANS ENERGY CENTER 138KV 550 0.10249 -0.10099 13 AEPW SOUTHWESTERN STATION 13						EVANS ENERGY CENTER 138KV				131
OKGE TINKER \$61 38KV	AEPW	SOUTHWESTERN STATION 138KV	152	0.00031	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	-0.10218	131
NPPD BURDIC3G 13.800 119KV 54 0.00098 WERE						EVANS ENERGY CENTER 138KV				
KACP MARSHALL 161KV 54.1 0.0014/WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10102 15 005E SPGCX34 13.200 345KV 111 0.00091/WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10105 15 15 15 15 15 15 15 15 15 15 15 15 15						EVANS ENERGY CENTER 138KV				132
NPPD HEBRON 6 13.800 115KV 52 0.00174 WERE	KACP	MARSHALL 161KV				EVANS ENERGY CENTER 138KV				
OPPD										132
OPPD										133
KACP PAOLA COMBUSTION TURBINES 161KV 76 0.0016 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10089 13		JONES 2G 13.800 69KV	59.3	0.0018	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	-0.10069	133
OPPD SARPY 1G 13.800 69KV 55.3 0.00161 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.0068 13 OPPD SARPY 2G 13.800 69KV 5.53 0.00161 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.0068 15 OPPD SARPY 3G 13.800 4KV 49.04224 0.00181 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 13 OPPD SARPY 4G 13.800 161KV 49.1 0.00181 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 13 OPPD SARPY 5G 13.800 161KV 48.1 0.00181 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 13 NPPD SHELDONG 13.800 115KV 52 0.00183 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 13 MIPU ARIES 161KV 57.30.33 0.00278 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10069 13	OPPD	IDAOL A E 464 00 464KV	82.5	0.0016	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	9 -0.10089	133
OPPD SARPY 1G 13.800 69KV 55.3 0.00161 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.0068 13 OPPD SARPY 2G 13.800 69KV 5.53 0.00161 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.0068 15 OPPD SARPY 3G 13.800 4KV 49.04224 0.00181 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 13 OPPD SARPY 4G 13.800 161KV 49.1 0.00181 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 13 OPPD SARPY 5G 13.800 161KV 48.1 0.00181 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 13 NPPD SHELDONG 13.800 115KV 52 0.00183 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 13 MIPU ARIES 161KV 57.30.33 0.00278 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10069 13	OPPD	FAOLA S 161:00 161KV		ĺ.		EVANCENEDOV CENTED 400KV	560	0.1024	0.40000	133
OPPD SARPY 3G 13.800 4KV 49.04224 0.00161 WERE EVANS ENERGY CENTER 138KV 560 0.10243 -0.10068 11 OPPD SARPY 4G 13.800 161KV 48.1 0.00181 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 15 OPPD SARPY 3G 13.800 161KV 48.1 0.00181 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 15 NPPD SHELDONG 13.800 115KV 52 0.00182 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10066 12 MIPU ARIES 161KV 573.003 0.00278 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10069 15	OPPD KACP		76	0.0016	WERE	EVANS ENERGY CENTER 138KV			-0.10089	
OPPD SARPY 46 13.800 161KV 49.1 0.00161 WERE EVANS ENERGY CENTER 138KV 560 0.10249 0.10069 11 OPPD SARPY 56 13.800 161KV 49.1 0.00161 WERE EVANS ENREGY CENTER 138KV 560 0.10249 0.01068 13 NPPD SHELDONG 13.800 115KV 52 0.00163 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.0066 13 MIPU ARIES 161KV 57.73.033 0.00278 WERE EVANS ENREGY CENTER 138KV 560 0.10249 -0.0069 15	OPPD KACP KACP OPPD	PAOLA COMBUSTION TURBINES 161KV SARPY 1G 13.800 69KV	55.3	0.00181	WERE	EVANS ENERGY CENTER 138KV	560	0.1024	-0.10068	133
OPPD SARPY 5G 13.800 161KV 48.1 0.00161]WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10068 13 NPPD SHELDONG 13.800 115KV 52 0.00183]WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.10066 13 MIPU ARIES 161KV 577.3033 0.00278]WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.00967 13	OPPD KACP KACP OPPD OPPD	PAOLA COMBUSTION TURBINES 161KV SARPY 1G 13.800 69KV SARPY 2G 13.800 69KV	55.3 55.3	0.00181	WERE WERE	EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV	560 560	0.1024	-0.10068 -0.10068	133
MIPU ARIES 161KV 577.3033 0.00278 WERE EVANS ENERGY CENTER 138KV 560 0.10249 -0.09971 13	OPPD KACP OPPD OPPD OPPD OPPD OPPD	PAOLA COMBUSTION TURBINES 161KV SARPY 10 13.800 69KV SARPY 20 13.800 69KV SARPY 3G 13.800 4KV SARPY 46 13.800 161KV	55.3 55.3 49.04224 48.1	0.00181 0.00181 0.00181	WERE WERE WERE WERE	EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV	560 560 560 560	0.1024 0.1024 0.1024 0.1024	9 -0.10068 9 -0.10068 9 -0.10068 9 -0.10068	133 133 133
	OPPD KACP OPPD OPPD OPPD OPPD OPPD OPPD OPPD	PAOLA COMBUSTION TURBINES 161KV SARPY 1G 13.800 69KV SARPY 3G 13.800 69KV SARPY 3G 13.800 4KV SARPY 4G 13.800 161KV SARPY 5G 13.800 161KV	55.3 55.3 49.04224 48.1 48.1	0.00181 0.00181 0.00181 0.00181	WERE WERE WERE WERE WERE	EVANS ENERGY CENTER 138KV	560 560 560 560 560 560	0.1024 0.1024 0.1024 0.1024 0.1024	9 -0.10068 9 -0.10068 9 -0.10068 9 -0.10068	133 133 133 133
	OPPD KACP OPPD OPPD OPPD OPPD OPPD OPPD OPPD NPPD	PAOLA COMBUSTION TURBINES 161KV SARPY 1G 13.800 69KV SARPY 2G 13.800 69KV SARPY 3G 13.800 46KV SARPY 4G 13.800 161KV SARPY 5G 13.800 161KV SHELDONG 13.800 115KV	55.3 55.3 49.04224 48.1 48.1	0.00181 0.00181 0.00181 0.00181 0.00181	WERE WERE WERE WERE WERE	EVANS ENERGY CENTER 138KV	560 560 560 560 560 560	0.1024 0.1024 0.1024 0.1024 0.1024 0.1024	9 -0.10068 9 -0.10068 9 -0.10068 9 -0.10068 9 -0.10068	133 133 133 133

Table 6 - Potential Redispatch Relief Pairs to Prevent Deferral of Service

MIPU	GREENWOOD 161KV				EVANS ENERGY CENTER 138KV	560	0.10249 -0.09972	134
KACP	HAWTHORN 161KV	245.2077	0.00292	WERE	EVANS ENERGY CENTER 138KV	560	0.10249 -0.09957	134
KACP	NORTHEAST 13KV	223	0.003	WERE	EVANS ENERGY CENTER 138KV	560	0.10249 -0.09949	134
KACP	NORTHEAST 161KV	224	0.003	WERE	EVANS ENERGY CENTER 138KV	560		134
MIPU	RALPH GREEN 69KV	73.7	0.00269	WERE	EVANS ENERGY CENTER 138KV	560	0.10249 -0.0998	134
MIPU	SOUTH HARPER 161KV	247.9384	0.00298	WERE	EVANS ENERGY CENTER 138KV	560		134
KACY	KAW 69KV	242	0.00315	WERE	EVANS ENERGY CENTER 138KV	560	0.10249 -0.09934	135
MIPU	LAKE ROAD 161KV	91	0.00311	WERE	EVANS ENERGY CENTER 138KV	560	0.10249 -0.09938	135
KACY	QUINDARO 161KV	107.5857	0.00317	WERE	EVANS ENERGY CENTER 138KV	560	0.10249 -0.09932	135
KACP	IATAN 345KV	129			EVANS ENERGY CENTER 138KV		0.10249 -0.09821	136
WERE	JEFFREY ENERGY CENTER 230KV	54	0.00997	WERE	EVANS ENERGY CENTER 138KV	560		145
WERE	JEFFREY ENERGY CENTER 345KV	108	0.01026	WERE	EVANS ENERGY CENTER 138KV	560	0.10249 -0.09223	145
MIDW	SMOKEY HILLS 34KV	75	0.01021		EVANS ENERGY CENTER 138KV	560		145
WERE	ABILENE ENERGY CENTER 115KV	66	0.01265	WERE	EVANS ENERGY CENTER 138KV	560	0.10249 -0.08984	149
WERE	BPU - CITY OF MCPHERSON 115KV				EVANS ENERGY CENTER 138KV	560		152
WERE	EMPORIA ENERGY CENTER 345KV	201	0.01429	WERE	EVANS ENERGY CENTER 138KV	560	0.10249 -0.0882	152
WERE	HUTCHINSON ENERGY CENTER 115KV	128.5681	0.01627		EVANS ENERGY CENTER 138KV	560	0.10249 -0.08622	155
	and Marian and Income at the Company of the Company	Cirl. Ortire Delete			the feelile was identified			190

WERE | INDICHINSON ENERGY CENTER 115KV | 128.5681 | U.0162/WERE | IEVANS ENERGY CENT Maximum Decrement and Maximum increment were determine from the Souce and Sink Operating Points in the study models where limiting facility was identified. Factor - Source GSF - Sink GSF Redispatch Amount | Relief Amount / Factor

 Upgrade:
 GILL ENERGY CENTER WEST - WACO 138KV CKT 1

 Limiting Facility
 GILL ENERGY CENTER WEST - WACO 138KV CKT 1

 Direction:
 FROM-3TO

 Line Outage
 COWSKIN - EVANS ENERGY CENTER SOUTH 138KV CKT 1

 Flowgate:
 2007 AG224FS81T1933310SP

 Date Redispatch Needed
 600 - 10

Season Flowgate Identified	2010 Summer Peak	1	,						
Reservation	Relief Amount	Aggregate Relief Amount							
1286201	3.8	3.8							
1286201	3.8	3.8		1					
Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Pedienatch Amount (MW)
Source Control Area	Source	waximum increment (www)	GSF	Sink Control Area	Sink	Maximum Decrement (MWV)	GSF	Factor	Aggregate Redispatch Amount (MW)
WERE	WACO 138KV	30	-1	MKEC	A. M. MULLERGREN GENERATOR 115KV	63	0	-1	4
WERE	WACO 138KV	30	-1	OKGE	AES 161KV	320	C	-1	4
WERE	WACO 138KV	30	-1	NPPD	AINSWN1G 34.500 115KV	10.205	C	-1	4
WERE	WACO 138KV	30	-1	MIPU	ARIES 161KV	4.960196	C	-1	4
	WACO 138KV	30	-1		ARSENAL HILL 138KV	455	C	-1	4
WERE	WACO 138KV	30	-1		ARSENAL HILL 69KV	90	C	-1	4
	WACO 138KV	30	-1		ASBURY 161KV	192	C	-1	4
WERE	WACO 138KV	30	-1	MIDW	ATWOOD 115KV	1.625496	0	-1	4
WERE	WACO 138KV	30	-1	NPPD	BPS GT1G 13.800 115KV	80	C	-1	4
WERE	WACO 138KV	30	-1	NPPD	BPS GT2G 13.800 115KV	44.32	0	-1	4
WERE	WACO 138KV	30	-1	NPPD	BPS ST3G 13.800 115KV	49.022	C	-1	4
WERE	WACO 138KV	30	-1	NPPD	BROKENBG 69.000 115KV	8.3	0	-1	4
WERE	WACO 138KV	30	-1	KACP	BULL CREEK 161KV	61.6	0	-1	4
WERE	WACO 138KV	30		OPPD	CASS 1G 15.000 345KV	42.51929	0	-1	4
WERE	WACO 138KV	30	-1	OPPD	CASS 2G 15.000 345KV	52.99999		-1	4
WERE	WACO 138KV	30	-1		CENTENIAL WIND 34KV	44	0	-1	
WERE	WACO 138KV	30	-1	WERE	CHANUTE 69KV	54.8	0	-1	
WERE	WACO 138KV	30	-1	MKEC	CIMARRON RIVER 115KV	33	0	-1	
WERE	WACO 138KV	30		WERE	CITY OF AUGUSTA 69KV	20	C	-1	
WERE	WACO 138KV	30	-1	WERE	CITY OF BURLINGTON 69KV	55.4	C	-1	4
WERE	WACO 138KV	30	-1	WERE	CITY OF ERIE 69KV	4	C	-1	4
WERE	WACO 138KV	30	-1	WERE	CITY OF FREDONIA 69KV	5.269998		-1	4
WERE	WACO 138KV	30	-1		CITY OF GIRARD 69KV	3.6	C	-1	4
WERE WERE	WACO 138KV	30	-1	KACP WERE	CITY OF HIGGINSVILLE 69KV	36	<u> </u>	-1	4
	WACO 138KV	30	-1		CITY OF IOLA 69KV CITY OF MULVANE 69KV	10.2	0	-1	4
WERE	WACO 138KV WACO 138KV		-1		CITY OF MULVANE 69KV CITY OF WINFIELD 69KV	9.729	0	-1	4
	WACO 138KV WACO 138KV	30	-1			31.2		-1	4
WERE	WACO 138KV WACO 138KV	30	-1	WERE MKEC	CLAY CENTER JUNCTION 115KV CLIFTON 115KV	16.5	0	-1	4
			-1		CLIFTON 115KV	3.374023		-1	4
	WACO 138KV WACO 138KV	30 30		WERE WERE	CNTRLPL2 34.500 115KV COFFEY COUNTY NO. 2 SHARPE 69KV	99 19.98	- 0	-1	
	WACO 138KV	30	- 1		COGENTRIX 345KV	19.98		-1	
	WACO 138KV	30			COL COG7 115 00 115KV	865 75		-1	
	WACO 138KV	30			COL.COG7 115.00 115KV	12.01502		-1	
	WACO 138KV	30			COLBT 115KV COLMBS2G 13 800 115KV	3.001		-1	
	WACO 138KV	30			COLMBS3G 13.800 115KV	3.001		-1	
	WACO 138KV	30		AEPW	COMANCHE 138KV	145		-1	
	WACO 138KV	30			COMANCHE 196KV	60		-1	
	WACO 138KV	30			COOPERIG 22 000 345KV	535 747		-1	
	WACO 138KV	30	-1		CRETE G 34.500 115KV	15.7		-1	
	WACO 138KV	30	-1		D.HENRYG 34.500 115KV	18.7		-1	4
	WACO 138KV	30	-1		DENVER G 34.500 115KV	33,909	- 0	-1	4
	WACO 138KV	30	-1	AEPW	EASTMAN 138KV	157.549	- 0	-1	4
	WACO 138KV	30	-1	NPPD	EGY CTRG 13.800 115KV	54	- 0	-1	4
WERE	WACO 138KV	30	-1	EMDE	ELK RIVER 345KV	44.986		-1	4
WERE	WACO 138KV	30	-1	AEPW	ELLIS 69KV	6	- 0	-1	4
	WACO 138KV	30	-1	WERE	EMPORIA ENERGY CENTER 345KV	610		-1	4
	WACO 138KV	30	-1	WERE	EVANS ENERGY CENTER 138KV	560	0	-1	4
WERE	WACO 138KV	30	-1	NPPD	FAIRBRYG 34.500 115KV	15.3	0	-1	4
	WACO 138KV	30	-1	AEPW	FITZHUGH 161KV	125.4	0	-1	4
WERE	WACO 138KV	30	-1	AEPW	FLINT CREEK 161KV	428	C	-1	4
WERE	WACO 138KV	30	-1	OKGE	FPLWND2 34KV	16	C	-1	4
WERE	WACO 138KV	30	-1	OPPD	FREM 8G 13.800 69KV	90	C	-1	4
WERE	WACO 138KV	30	-1	OPPD	FT CAL1G 22.000 4KV	376	C	-1	4
WERE	WACO 138KV	30	-1	NPPD	GENTLM1G 23.000 230KV	461.318	C	-1	4
WERE	WACO 138KV	30	-1	NPPD	GENTLM2G 24.000 345KV	430.5264	C	-1	4
WERE	WACO 138KV	30	-1	WERE	GILL ENERGY CENTER 138KV	155	0	-1	
WERE	WACO 138KV	30	-1		GILL ENERGY CENTER 69KV	52	0	-1	4
WERE	WACO 138KV	30	-1		GRAY COUNTY WIND FARM 115KV	110	0	-1	4
WERE	WACO 138KV	30	-1	MIDW	GREAT BEND PLANT 69KV	9.25	- 0	-1	4
	L		1	==	GREAT PLAINS ENERGY WIND			1	
WERE	WACO 138KV	30	-1	KACP	GENERATION AT SPEARVILLE 230KV	100	C	-1	4
WERE	WACO 138KV	30	-1	NPPD	GT-2 G 13.800 115KV	40	0	-1	4
WERE	WACO 138KV	30	-1	KACP	HAWTHORN 161KV	485.2	C	-1	4
WERE WERE	WACO 138KV	30	-1	WERE	HOLTON 115KV	12.2	0	-1	4
	WACO 138KV	30	-1	OKGE	HORSESHOE LAKE 138KV HORSESHOE LAKE 69KV	796 16		-1	4
WERE	WACO 138KV WACO 138KV	30	-1	OKGE WERE	HUTCHINSON ENERGY CENTER 115KV		- 0	-1	4
	WACO 138KV WACO 138KV	30	-1		HUTCHINGON ENERGY CENTER 6010	257.9033 30	0	-1	4
WERE	WACO 138KV WACO 138KV	30			HUTCHINSON ENERGY CENTER 69KV IATAN 345KV	30		-1	7
	WACO 138KV WACO 138KV	30			IATAN 345KV	1806	- 0	-1	
	WACO 138KV	30			JEFFREY ENERGY CENTER 230KV	1806		-1	
	WACO 138KV	30	-1	WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV	874		-1	-
	WACO 138KV WACO 138KV	30			JEFFREYG 6.9000 115KV	3.001		-1	
	WACO 138KV	30	-1		JOHN.1 G 6.9000 115KV	3.001		-1	
	WACO 138KV	30			JOHN 2 G 6 9000 115KV	3.001		-1	
	WACO 138KV	30			JUDSON LARGE 115KV	95.37077		-1	
	WACO 138KV	30			KINGSLYG 13.800 115KV	2.001		-1	
	WACO 138KV	30			KIOWA 345KV	3.198808		-1	
WERE	WACO 138KV	30			KNOLL 115KV	75.60001		-1	
	WACO 138KV	30			KNOXLEE 138KV	282	-	-1	
	WACO 138KV	30	-1		LAKE ROAD 34KV	92		-1	4
	WACO 138KV	30	-1		LARUSSEL 161KV	100		-1	4
WERE	WACO 138KV	30	-1	WERE	LAWRENCE ENERGY CENTER 230KV	223,9929		-1	4
WERE	WACO 138KV	30	-1	AEPW	LEBROCK 345KV	367.1163		-1	4
WERE	WACO 138KV	30	-1	AEPW	LIEBERMAN 138KV	174		-1	4
WERE	WACO 138KV	30	-1	AEPW	LONESTAR POWER PLANT 69KV	27		-1	4
	WACO 138KV	30	-1		MCCLAIN 138KV	470		-1	4
WERE	WACO 138KV	30	-1	KACP	MONTROSE 161KV	307.363	C	-1	4
WERE	WACO 138KV	30	-1	OKGE	MUSKOGEE 161KV	166	C	-1	4
WERE	WACO 138KV	30	-1	OKGE	MUSKOGEE 345KV	1548	C	-1	4
	WACO 138KV	30	-1		MUSTANG 138KV	351	C	-1	4
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VERE	WACO 138KV	30	4	OKGE	MUSTANG 69KV	9	0 0	-1	
ERE	WACO 138KV WACO 138KV	30		OPPD	N OMA 1G 13.800 2KV	48.		-1	
ERE	WACO 138KV	30		OPPD	N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV	80.5999		-1	
RE	WACO 138KV	30		OPPD	N OMA 3G 13.800 2KV	80.5999		-1	
ERE	WACO 138KV	30		OPPD	N OMA 4G 15.000 2KV	107.		-1	
ERE	WACO 138KV	30		OPPD	N OMA 5G 20.000 4KV	173.		-1	
ERE	WACO 138KV	30		NPPD	N.PLATTG 13.800 115KV	15.10	7 0	-1	
ERE	WACO 138KV	30	-1	KACY	NEARMAN 161KV	7	7 0	-1	
ERE	WACO 138KV	30	-1	KACY	NEARMAN 20KV	23	5 0	-1	
ERE	WACO 138KV	30		OPPD	NEBCTY1G 18,000 4KV	46	6 0	-1	
ERE	WACO 138KV	30		OPPD	NEBCTY2G 23.000 345KV	50		-1	
ERE	WACO 138KV	30		AEPW	NORTHEASTERN STATION 138KV	48		-1	
ERE	WACO 138KV	30		AEPW	NORTHEASTERN STATION 345KV	62		-1	
ERE	WACO 138KV	30		AEPW	OEC 345KV	555.486			
						555.486	3 0	-1	
ERE	WACO 138KV	30		NPPD	ORD G 34.500 115KV		3 0	-1	
ERE	WACO 138KV	30		WERE	OXFORD 138KV		3 0	-1	
ERE	WACO 138KV	30		EMDE	OZARK BEACH 161KV	1		-1	
ERE	WACO 138KV	30		AEPW	PIRKEY GENERATION 138KV	28		-1	
ERE	WACO 138KV	30		NPPD	PLATTE1G 13.800 115KV	69.4459		-1	
ERE	WACO 138KV	30	-1	MKEC	PRATT 3 115.00 115KV	12.27	6 0	-1	
ERE	WACO 138KV	30		KACY	QUINDARO 161KV	117.006		-1	
ERE	WACO 138KV	30		KACY	QUINDARO 69KV	123,663		-1	
ERE	WACO 138KV	30		OKGE	REDBUD 345KV	11.7989		-1	
ERE	WACO 138KV	30		EMDE	RIVERTON 161KV	190.253		-1	
ERE	WACO 138KV	30		EMDE	RIVERTON 161KV	43.9893		-1	
ERE	WACO 138KV	30		KACP	S.OTTWA5 161.00 161KV	5.19999		-1	
ERE	WACO 138KV	30		OPPD	SARPY 3G 13.800 4KV	1.81539		-1	
ERE	WACO 138KV	30		WERE	SCRANTN3 115.00 115KV	1.46		-1	
ERE	WACO 138KV	30		OKGE	SEMINOLE 138KV	329.138		-1	
ERE	WACO 138KV	30	-1	OKGE	SEMINOLE 345KV	101	9 0	-1	
ERE	WACO 138KV	30	-1	NPPD	SHELDN1G 13.800 115KV	68.4000	1 0	-1	
ERE	WACO 138KV	30	-1	NPPD	SHELDN2G 13.800 115KV	80.5	6 0	-1	
ERE	WACO 138KV	30		MIPU	SIBLEY 161KV	228,550	8 0	-1	
ERE	WACO 138KV	30		MIPU	SIBLEY 69KV	25.3653		-1	
ERE	WACO 138KV	30		NPPD	SIDNEY 4 230.00 230KV	19.00		-1	
ERE	WACO 138KV	30		OKGE	SMITH COGEN 138KV	19.00		-1	
						5			
ERE	WACO 138KV	30		MIDW	SMOKEY HILLS 34KV			-1	
ERE	WACO 138KV	30		OKGE	SOONER 138KV	53		-1	
ERE	WACO 138KV	30		OKGE	SOONER 345KV	53		-1	
ERE	WACO 138KV	30		OKGE	SOUTH 4TH ST 69KV	12.7197	3 0	-1	
ERE	WACO 138KV	30		WERE	SOUTH SENECA 115KV	11.		-1	•
ERE	WACO 138KV	30	-1	AEPW	SOUTHWESTERN STATION 138KV	71	2 0	-1	
ERE	WACO 138KV	30	-1	AEPW	SOUTHWESTERN STATION 138KV	28	7 0	-1	
ERE	WACO 138KV	30		OKGE	SPGCK1&2 13.200 345KV	7		-1	
ERE	WACO 138KV	30		OKGE	SPGCK3&4 13.200 345KV	1		-1	
ERE	WACO 138KV	30		EMDE	STATE LINE 161KV	53		-1	
ERE	WACO 138KV	30		NPPD	STUART 7 115.00 115KV	2.		-1	
								-1	
ERE	WACO 138KV	30		WERE	TECUMSEH ENERGY CENTER 115KV	13			
ERE	WACO 138KV	30		OKGE	TINKER 5G 138KV	6		-1	
ERE	WACO 138KV	30		AEPW	TONTITOWN 161KV	14		-1	
ERE	WACO 138KV	30		AEPW	TULSA POWER STATION 138KV	240.089		-1	
ERE	WACO 138KV	30		NPPD	W.POINTG 34.500 115KV	7.		-1	·
ERE	WACO 138KV	30	-1	AEPW	WEATHERFORD 34KV	1.	2 0	-1	
ERE	WACO 138KV	30		AEPW	WELSH 345KV	104	4 0	-1	
ERE	WACO 138KV	30		KACP	WGARDNR5 161.00 161KV	6.		-1	
ERE	WACO 138KV	30		AEPW	WILKES 138KV	410.866		-1	
ERE	WACO 138KV	30		AEPW	WILKES 130KV			-1	
					IVVILNED J4DNV	30	이 네		

Reservation	Relief Amount	Aggregate Relief Amount							
1286201	4.6	4.6							
Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)
WERE	WACO 138KV	30	.1	MKEC	A. M. MULLERGREN GENERATOR 115KV	63		-1	5
	WACO 138KV	30		WERE	ABILENE ENERGY CENTER 115KV	40		-1	5
WERE	WACO 138KV	30	-1	OKGE	AES 161KV	320		-1	6
	WACO 138KV	30	- 1	NPPD	AINSWN1G 34.500 115KV	10.38864		-1	5
	WACO 138KV	30		MIPU	ARIES 161KV	282.6805	-	-1	5
	WACO 138KV	30		AEPW	ARSENAL HILL 138KV	455		-1	5
	WACO 138KV	30		EMDE	ASBURY 161KV	192		-1	5
	WACO 138KV	30		WERE	BPU - CITY OF MCPHERSON 115KV	152	-	-1	5
	WACO 138KV	30		KACP	BULL CREEK 161KV	308		-1	5
	WACO 138KV	30		OPPD	CASS 1G 15.000 345KV	53.3		-1	5
	WACO 138KV	30		OPPD	CASS 2G 15.000 345KV	53.3		-1	5
	WACO 138KV	30		OKGE	CENTENIAL WIND 34KV	120		-1	5
	WACO 138KV	30		WERE	CHANUTE 69KV	58.45001			5
	WACO 138KV WACO 138KV	30		MKEC	CIMARRON RIVER 115KV	58.45001		-1	5
		30		WERE	CITY OF AUGUSTA 69KV	20		-1	5
	WACO 138KV WACO 138KV	30		WERE	CITY OF AUGUSTA 69KV	55.4			5
		30		WERE		24		-1	5
	WACO 138KV WACO 138KV	30		WERE	CITY OF ERIE 69KV CITY OF FREDONIA 69KV	6.8		-1	5
		30		WERE			·		5
	WACO 138KV				CITY OF GIRARD 69KV	3.6	Ü	-1	5
	WACO 138KV	30		KACP	CITY OF HIGGINSVILLE 69KV	35.001	· ·	-1	5
	WACO 138KV	30		WERE	CITY OF IOLA 69KV	10.2	0	-1	5
	WACO 138KV	30		WERE	CITY OF MULVANE 69KV	10.358	0	-1	5
	WACO 138KV	30		WERE	CITY OF WINFIELD 69KV	31.2	C	-1	5
	WACO 138KV	30		WERE	CLAY CENTER JUNCTION 115KV	16.5	C	-1	5
	WACO 138KV	30		MKEC	CLIFTON 115KV	65	0	-1	5
	WACO 138KV	30		WERE	CNTRLPL2 34.500 115KV	99	C	-1	5
	WACO 138KV	30		WERE	COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	C	-1	5
	WACO 138KV	30		AEPW	COGENTRIX 345KV	212.9467	0	-1	5
	WACO 138KV	30		NPPD	COL.COG7 115.00 115KV	75	C	-1	5
	WACO 138KV	30		MIDW	COLBY 115KV	12.16475	0	-1	5
	WACO 138KV	30	-1	NPPD	COLMBS2G 13.800 115KV	3.055602	0	-1	5
	WACO 138KV	30	-1	NPPD	COLMBS3G 13.800 115KV	3.055602		-1	5
	WACO 138KV	30		AEPW	COMANCHE 138KV	145	0	-1	5
	WACO 138KV	30		AEPW	COMANCHE 69KV	60		-1	5
	WACO 138KV	30		NPPD	COOPER1G 22.000 345KV	549.9063	0	-1	5
	WACO 138KV	30		NPPD	DENVER G 34.500 115KV	12.32423	C	-1	5
	WACO 138KV	30		AEPW	EASTMAN 138KV	356.0529	C	-1	5
	WACO 138KV	30		NPPD	EGY CTRG 13.800 115KV	54	C	-1	5
	WACO 138KV	30		NPPD	EGYCTR2G 22.000 115KV	197.1	C	-1	5
	WACO 138KV	30		EMDE	ELK RIVER 345KV	149.955	0	-1	5
	WACO 138KV	30		AEPW	ELKIN_GN 1 13.800 69KV	5.000001		-1	5
	WACO 138KV	30		AEPW	ELLIS 69KV	11	0	-1	5
	WACO 138KV	30		WERE	EMPORIA ENERGY CENTER 345KV	610	0	-1	5
	WACO 138KV	30		WERE	EVANS ENERGY CENTER 138KV	562.0034	0	-1	5
	WACO 138KV	30		AEPW	FITZHUGH 161KV	126		-1	5
	WACO 138KV	30		AEPW	FLINT CREEK 161KV	428	0	-1	5
WERE	WACO 138KV	30	-1	OKGE	FPLWND2 34KV	102	C	-1	5
WERE	WACO 138KV	30	-1	OPPD	FREM 6G 13.800 69KV	6.802	C	-1	5
	WACO 138KV	30	-1	OPPD	FREM 7G 13.800 69KV	16.606	C	-1	5
WERE	WACO 138KV	30	-1	OPPD	FREM 8G 13.800 69KV	90.8		-1	5
	WACO 138KV	30		OPPD	FT CAL1G 22.000 4KV	366	C	-1	5
	WACO 138KV	30	-1	AEPW	FULTON 115KV	32.99999	0	-1	5
								· · · ·	

WERE	WACO 138KV	30	-1 NPPD	GENTLM1G 23.000 230KV	463	3 0 -1	
	WACO 138KV	30		GENTLM2G 24.000 345KV	441.217		
WERE	WACO 138KV	30		GILL ENERGY CENTER 138KV	155	0 -1	5
WERE WERE	WACO 138KV WACO 138KV	30	-1 WERE -1 MKEC	GILL ENERGY CENTER 69KV GRAY COUNTY WIND FARM 115KV	75	0 -1	5
WERE	WACO 138KV	30		GREAT BEND PLANT 69KV	7.02414		
WERE	WACO ISBN	30	- I WILDW	GREAT PLAINS ENERGY WIND	7.024140	0 -	3
WERE	WACO 138KV	30	-1 KACP	GENERATION AT SPEARVILLE 230KV	-	0 -1	5
WERE	WACO 138KV	30		GREENWOOD 161KV	247	0 -1	5
WERE	WACO 138KV	30		GT-2 G 13.800 115KV	39.31558	5 0 -1	
	WACO 138KV	30		HAWTHORN 161KV	766	0 -1	
WERE WERE	WACO 138KV WACO 138KV	30		HOLTON 115KV HORSESHOE LAKE 138KV	12.2	0 -1	
	WACO 138KV	30		HORSESHOE LAKE 138KV	16	0 -1	
	WACO 138KV	30		HUTCHINSON ENERGY CENTER 115KV	356		
WERE	WACO 138KV	30		HUTCHINSON ENERGY CENTER 69KV	30		
WERE	WACO 138KV	30		IATAN 345KV	1806	0 -1	5
WERE	WACO 138KV	30	-1 KACP	IATAN 345KV	37	0 -1	5
	WACO 138KV	30		JEFFREY ENERGY CENTER 230KV	440		
	WACO 138KV	30		JEFFREY ENERGY CENTER 345KV	874	0 -1	
	WACO 138KV	30		JEFFREYG 6.9000 115KV	3.055602	0 -1	
WERE	WACO 138KV WACO 138KV	30		JOHN.1 G 6.9000 115KV JUDSON LARGE 115KV	3.055602 96.05116	0 -1	
	WACO 138KV	30		KINGSLYG 13.800 115KV	2.03740	0 -1	
	WACO 138KV	30		KIOWA 345KV	6.936519	0 -1	
WERE	WACO 138KV	30		KNOLL 115KV	75.6000	0 -1	5
WERE	WACO 138KV	30	-1 AEPW	KNOXLEE 138KV	164	0 -1	5
	WACO 138KV	30		LAKE ROAD 161KV	111	0 -1	5
WERE	WACO 138KV	30	-1 MIPU	LAKE ROAD 34KV	92	0 -1	5
WERE WERE	WACO 138KV	30		LARUSSEL 161KV	100 224.035		
WERE WERE	WACO 138KV WACO 138KV	30		LAWRENCE ENERGY CENTER 230KV LEBROCK 345KV	224.0353 320.7084	3 0 -1 4 0 -1	
	WACO 138KV	30		MARSHALL 161KV	320.708	0 -1	
WERE	WACO 138KV	30		MCCLAIN 138KV	470		
	WACO 138KV	30		MONTROSE 161KV	360.101	5 0 -1	
WERE	WACO 138KV	30	-1 EMDE	MRWYG11 34.500 230KV	100	0 -1	
	WACO 138KV	30		MUSKOGEE 161KV	166		
	WACO 138KV	30		MUSKOGEE 345KV	1548		
	WACO 138KV WACO 138KV	30		MUSTANG 138KV	35	0 -1	
WERE WERE	WACO 138KV WACO 138KV	30		MUSTANG 69KV N OMA 1G 13.800 2KV	27.02	0 -1	
	WACO 138KV	30		N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV	55.03	0 -1	
WERE	WACO 138KV	30		N OMA 3G 13.800 2KV	55.03	0 -1	
WERE	WACO 138KV	30		N OMA 4G 15.000 2KV	80.03999	0 -1	
WERE	WACO 138KV	30		N OMA 5G 20.000 4KV	115.062		5
WERE	WACO 138KV	30		N.PLATTG 13.800 115KV	15.37983		
	WACO 138KV	30		NCU903 8 69.000 69KV	10.704		
WERE	WACO 138KV	30		NEARMAN 161KV	77	0 -1	
WERE WERE	WACO 138KV WACO 138KV	30		NEARMAN 20KV	235	0 -1 0 -1	
WERE	WACO 138KV	30		NEBCTY1G 18.000 4KV NEBCTY2G 23.000 345KV	500	3 0 -1	
	WACO 138KV	30		NEVADA 69KV	18		
WERE	WACO 138KV	30		NORTHEAST 13KV	127.3076		
WERE	WACO 138KV	30	-1 KACP	NORTHEAST 161KV	111	0 -1	5
	WACO 138KV	30		NORTHEASTERN STATION 138KV	480		
	WACO 138KV	30		NORTHEASTERN STATION 345KV	566	6 0 -1	
WERE	WACO 138KV	30		OEC 345KV	379.080	0 -1	
	WACO 138KV	30		OXFORD 138KV	3	0 -1	
WERE	WACO 138KV	30	-1 EMDE	OZARK BEACH 161KV	16	0 -1	5
WERE	WACO 138KV	30	-1 KACP	PAOLA COMBUSTION TURBINES 161KV	77	0 -1	5
	WACO 138KV	30		PIRKEY GENERATION 138KV	288	0 -1	5
WERE	WACO 138KV	30	-1 NPPD	PLATTE1G 13.800 115KV	71.3361	0 -1	5
	WACO 138KV	30		PRATT 3 115.00 115KV	12.276	6 0 -1	
WERE	WACO 138KV	30	-1 KACY	QUINDARO 161KV	133.065	5 0 -1	
WERE	WACO 138KV	30		QUINDARO 69KV	140	0 -1	
	WACO 138KV WACO 138KV	30		RALPH GREEN 69KV REDBUD 345KV	455.900	0 -1	
WERE	WACO 138KV	30		RIVERTON 161KV	455.800		
	WACO 138KV	30	-1 EMDE	RIVERTON 69KV	44.142	0 -1	
WERE	WACO 138KV	30	-1 KACP	S.OTTWA5 161.00 161KV	8.899998	3 0 -1	
	WACO 138KV	30		S993 8 69.000 69KV	5.502	2 0 -1	
WERE	WACO 138KV	30		SARPY 1G 13.800 69KV	5.909002	0 -1	
	WACO 138KV WACO 138KV	30		SARPY 3G 13.800 4KV	45.12089 41.516	0 -1	
WERE	WACO 138KV WACO 138KV	30		SARPY 4G 13.800 161KV SARPY 5G 13.800 161KV	41.516	0 -1	
	WACO 138KV	30		SEMINOLE 138KV	477.5549	9 0 -1	
WERE	WACO 138KV	30	-1 OKGE	SEMINOLE 345KV	1019	0 -1	
WERE	WACO 138KV	30	-1 NPPD	SHELDN1G 13.800 115KV	65.55029	0 -1	5
	WACO 138KV	30		SHELDN2G 13.800 115KV	76.79918		
WERE	WACO 138KV	30		SIBLEY 161KV	229.0836	0 -1	
WERE WERE	WACO 138KV WACO 138KV	30		SIBLEY 69KV SIDNEY 4 230.00 230KV	45.99999 19.3518	0 -1	
WERE	WACO 138KV WACO 138KV	30		SMITH COGEN 138KV	19.3518		
WERE	WACO 138KV	30		SMOKEY HILLS 34KV	76	0 -1	
WERE	WACO 138KV	30	-1 OKGE	SOONER 138KV	535	0 -1	
	WACO 138KV	30	-1 OKGE	SOONER 345KV	537		5
WERE	WACO 138KV	30		SOUTH 4TH ST 69KV	37	0 -1	5
	WACO 138KV	30		SOUTH HARPER 161KV	315	0 -1	5
WERE	WACO 138KV WACO 138KV	30		SOUTH SENECA 115KV SOUTHWESTERN STATION 138KV	11.3 679.950	0 -1	5
WERE				SOUTHWESTERN STATION 138KV	230		
WERE				SPGCK1&2 13.200 345KV	60		
WERE WERE	WACO 138KV	30	-1 OKGE				
WERE WERE		30 30 30	-1 OKGE	SPGCK3&4 13.200 345KV	30	0 -1	5
WERE WERE WERE WERE WERE	WACO 138KV WACO 138KV WACO 138KV WACO 138KV	30 30 30	-1 OKGE -1 EMDE	SPGCK3&4 13.200 345KV STATE LINE 161KV	30 506.1493	3 0 -1	
WERE WERE WERE WERE WERE WERE WERE	WACO 138KV WACO 139KV WACO 138KV WACO 138KV WACO 138KV	30 30 30 30	-1 OKGE -1 EMDE -1 WERE	SPGCK3&4 13.200 345KV STATE LINE 161KV TECUMSEH ENERGY CENTER 115KV	30 506.1493 16	0 -1 0 -1	5
WERE WERE WERE WERE WERE WERE WERE WERE	WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV	30 30 30 30 30	-1 OKGE -1 EMDE -1 WERE -1 WERE	SPGCK3&4 13.200 345KV STATE LINE 161KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 69KV	30 506.1493 16 26	0 -1 0 -1 5 0 -1	5 5 5
WERE WERE WERE WERE WERE WERE WERE WERE	WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV	30 30 30 30 30 30	-1 OKGE -1 EMDE -1 WERE -1 WERE -1 OKGE	SPGCK3&4 13.200 345KV STATE LINE 161KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 69KV TINKER 5G 138KV	30 506.1493 167 26 60	0 -1 0 -1 5 0 -1 0 0 -1	5 5 5 5
WERE WERE WERE WERE WERE WERE WERE WERE	WACO 138KV	30 30 30 30 30 30 30	-1 OKGE -1 EMDE -1 WERE -1 WERE -1 OKGE -1 AEPW	SPGGK384 13.200 345KV STATE LINE 161KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 69KV TINKER 5G 138KV TONTITOWN 161KV	30 506.149: 16: 26: 6: 210	3 0 -1 0 -1 5 0 -1 0 0 -1	5 5 5 5 5
WERE WERE WERE WERE WERE WERE WERE WERE	WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV WACO 138KV	30 30 30 30 30 30 30 30 30	-1 OKGE -1 EMDE -1 WERE -1 WERE -1 OKGE -1 AEPW -1 AEPW	SPGCK384 13.200 345KV STATE LINE 161KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 69KV TINKER 5G 138KV TONTITOWN 161KV TURK 138KV	3(5) 3(3) 50(14) 16) 16) 16) 16) 17) 17) 17) 17) 17) 17) 17) 17) 17) 17	0 -1 0 -1 0 -1 0 -1 0 -1 0 -1	5 5 5 5 5
WERE WERE WERE WERE WERE WERE WERE WERE	WACO 138KV	30 30 30 30 30 30 30	-1 OKGE -1 EMDE -1 WERE -1 WERE -1 OKGE -1 AEPW -1 AEPW -1 MIPU	SPGCK384 13 200 345KV STATE LINE IGIKV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 69KV TINKER 5G 139KV TONTITOWN 161KV TURK 138KV TURK 136KV TURK 15KV WEATHERFORD 34KV	30 506.149: 16: 26: 6: 210	0 -1 0 -1 6 0 -1 0 -1 0 0 -1 8 0 -1	5 5 5 5 5 5 5
WERE WERE WERE WERE WERE WERE WERE WERE	WACO 138KV	30 30 30 30 30 30 30 30 30 30 30 30 30 3		SPGCK384 13 200 345KV STATE LINE TOTAL THE TOT	33 506.14926 16' 22 66 211 4444, 22' 144 104	0 -1 0 -1 0 -1 0 0 -1 0 0 -1 8 0 -1 8 0 -1 8 0 -1	5 5 5 5 6 6 6
WERE WERE WERE WERE WERE WERE WERE WERE	WACO 138KV	33 33 33 33 33 33 33 33 34 36 36 36		SPGCK384 13.200 345KV STATE LINE IGIKV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 69KV TINKER 5G 138KV TONITTOWN 161KV TUNK 138KV TUNK 136KV WALSH 345KV WELSH 345KV WELSH 345KV WEARDNRS 161.00 161KV	30 506.1493 16 ¹⁵ 24 66 6 61 211 444 221 144 104	0 -1 0 -1 0 0 -1 0 0 -1 0 0 -1 0 0 -1 0 0 -1 0 0 -1	5 5 5 5 5 5 5 6 6 5 5
WERE WERE WERE WERE WERE WERE WERE WERE	WACO 138KV	30 33 33 33 34 36 36 36 36 36 37 37 37 38 38 38 38 38 38 38 38 38 38 38 38 38	11 OKGE 1 EMDE 1 EMDE 1 WERE 1 WERE 1 OKGE 1 AEPW	SPGCK384 13 200 345KV STATE LINE TOTAL THE TOT	36 506.14995	0 -1 0 -1 0 -1 0 -1 0 -1 0 -1 0 -1 0 -1	5 5 5 5 5 6 6 6 6
WERE WERE WERE WERE WERE WERE WERE WERE	WACO 138KV	33 33 33 33 33 33 33 33 34 36 36 36	1 OKGE	SPGCK384 13.200 345KV STATE LINE IGIKV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 69KV TINKER 5G 138KV TONITTOWN 161KV TUNK 138KV TUNK 136KV WALSH 345KV WELSH 345KV WELSH 345KV WEARDNRS 161.00 161KV	30 506.1493 16 ¹⁵ 24 66 6 61 211 444 221 144 104	0 -1 0 0 -1	5 5 5 5 5 5 5 5 5 5 5 5 5

| WERE | WACO 138KV | 30 -1 DKGE | WOODWARD 24KV | Maximum Decrement and Maximum Increment were determine from the Souce and Sink Operating Points in the study models where limiting facility was identified. Factor = Source GSF - Sink GSF |
Redispatch Amount = Relief Amount / Factor

Reservation	Relief Amount	Aggregate Relief Amount
1281706	1.4	8.5
1286201	7.1	8.5

Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)
WERE	CITY OF NEODESHA 69KV		-0.44772		AES 161KV			-0.4494	
WERE	CITY OF NEODESHA 69KV	6.738	-0.44772	NPPD	AINSWN1G 34.500 115KV	10.205	-0.00487	-0.44285	19

WERE	CITY OF NEODESHA 69KV	6 729	-0.44772 AEPW	ARSENAL HILL 138KV	455	0.000	-0.44782	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 AEPW -0.44772 EMDE	ARSENAL HILL 136KV ARSENAL HILL 69KV ASBURY 161KV	90 192	0.0001	-0.44782	19
WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD -0.44772 NPPD	BPS GT1G 13.800 115KV	80	-0.00581	-0.44191	19
WERE WERE	CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	44.32 49.022	-0.00581 -0.00581	-0.44191	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD -0.44772 KACP	BROKENBG 69.000 115KV BULL CREEK 161KV		-0.00532 -0.00583	-0.44189	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 OPPD -0.44772 OPPD	CASS 1G 15.000 345KV CASS 2G 15.000 345KV	42.51929 52.99999	-0.00481	-0.44291	19 19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 OKGE -0.44772 MKEC	CENTENIAL WIND 34KV CIMARRON RIVER 115KV	44 33	-0.00328 -0.00866	-0.44444 -0.43906	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 KACP -0.44772 WERE	CITY OF HIGGINSVILLE 69KV CNTRLPL2 34.500 115KV	36 99	-0.00362	-0.4441 -0.43993	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 AEPW -0.44772 NPPD	COGENTRIX 345KV COL.COG7 115.00 115KV	865 75	-0.00294	-0.45066 -0.44301	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 MIDW -0.44772 AEPW	COLBY 115KV COMANCHE 138KV	12.01502 145		-0.43974 -0.44522	19
WERE WERE	CITY OF NEODESHA 69KV	6.738	-0.44772 AEPW -0.44772 NPPD	COMANCHE 69KV COOPER1G 22.000 345KV	60 535.747	-0.00245	-0.44527	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD -0.44772 NPPD	CRETE G 34.500 115KV D.HENRYG 34.500 115KV			-0.44244	19
WERE	CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD -0.44772 AFPW	DENVER G 34.500 115KV	33.909	-0.00521	-0.44251	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD	EGY CTRG 13.800 115KV	157.549 54	-0.00522	-0.4425	19 19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 EMDE -0.44772 NPPD	ELK RIVER 345KV FAIRBRYG 34.500 115KV	44.986 15.3	-0.0074	-0.44169	19 19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 AEPW -0.44772 AEPW	FITZHUGH 161KV FLINT CREEK 161KV	125.4 428	0.00162	-0.45136	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 OKGE -0.44772 OPPD	FPLWND2 34KV FREM 8G 13.800 69KV	16 90	-0.00355 -0.00465		19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 OPPD -0.44772 NPPD	FT CAL1G 22.000 4KV GENTLM1G 23.000 230KV	376 461.318	-0.00466		19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD -0.44772 MKEC	GENTLM2G 24.000 345KV GRAY COUNTY WIND FARM 115KV		-0.00571	-0.44201	19
WERE	CITY OF NEODESHA 69KV		-0.44772 KACP	GREAT PLAINS ENERGY WIND GENERATION AT SPEARVILLE 230KV	100	-0.00997	-0.43774	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD -0.44772 KACP	GT-2 G 13.800 115KV HAWTHORN 161KV	40	-0.00513	-0.44259	19
WERE	CITY OF NEODESHA 69KV	6.738	-0.44772 WERE	HOLTON 115KV	12.2	-0.00514 -0.0093	-0.43842	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 OKGE -0.44772 OKGE	HORSESHOE LAKE 138KV HORSESHOE LAKE 69KV	796 16	-0.00182 -0.00154		19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 KACP -0.44772 KACP	IATAN 345KV IATAN 345KV	371	-0.00627 -0.00627	-0.44145	19 19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 WERE -0.44772 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV	440 874	-0.00978 -0.00976	-0.43794	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 MKEC -0.44772 AEPW	JUDSON LARGE 115KV KNOXLEE 138KV	95.37077 282	-0.01	-0.43772	19
WERE WERE	CITY OF NEODESHA 69KV	6.738	-0.44772 MIPU -0.44772 EMDE	LAKE ROAD 34KV LARUSSEL 161KV	92 100	-0.00538	-0.44234	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 WERE -0.44772 AFPW	LAWRENCE ENERGY CENTER 230KV LEBROCK 345KV	223.9929 367.1163	-0.00883	-0.43889	19
WERE	CITY OF NEODESHA 69KV	6.738	-0.44772 AEPW	LIEBERMAN 138KV	174	0.0001	-0.44782	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 AEPW -0.44772 OKGE	LONESTAR POWER PLANT 69KV MCCLAIN 138KV	27 470	-0.00224	-0.44548	19 19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 KACP -0.44772 OKGE	MONTROSE 161KV MUSKOGEE 161KV	307.363 166	-0.00393 0.00264		19 19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 OKGE -0.44772 OKGE	MUSKOGEE 345KV MUSTANG 138KV	1548 351	-0.0025		19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 OKGE -0.44772 OPPD	MUSTANG 69KV N OMA 1G 13.800 2KV	90 48.5	-0.00237		19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 OPPD -0.44772 OPPD	N OMA 2G 13.800 2KV N OMA 3G 13.800 2KV	80.59999 80.59999	-0.00471	-0.44301 -0.44301	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 OPPD -0.44772 OPPD	N OMA 4G 15.000 2KV N OMA 5G 20.000 4KV	107.4	-0.0047	-0.44301	19
WERE WERE	CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD -0.44772 KACY	N.PLATTG 13.800 115KV NEARMAN 161KV	15.107	-0.00563	-0.44209	19
WERE	CITY OF NEODESHA 69KV	6.738	-0.44772 KACY -0.44772 OPPD	NEARMAN 20KV	235	-0.00553	-0.44219	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 OPPD	NEBCTY1G 18.000 4KV NEBCTY2G 23.000 345KV	466 503	-0.00493 -0.00493		19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 AEPW -0.44772 AEPW	NORTHEASTERN STATION 138KV NORTHEASTERN STATION 345KV	480 625	0.00652		19 19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 AEPW -0.44772 EMDE	OEC 345KV OZARK BEACH 161KV	555.4863 16	0.00373		19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 AEPW -0.44772 NPPD	PIRKEY GENERATION 138KV PLATTE1G 13.800 115KV	288 69.44599	-0.00514		19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 KACY -0.44772 KACY	QUINDARO 161KV QUINDARO 69KV	117.0069 123.6635	-0.00552 -0.00551		19
WERE WERE	CITY OF NEODESHA 69KV	6.738 6.738	-0.44772 OKGE -0.44772 EMDE	REDBUD 345KV RIVERTON 161KV	11.79899 190.2537	-0.0016		19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 EMDE -0.44772 OKGE	RIVERTON 69KV SEMINOLE 138KV	43.98939 329.1385	-0.00256	-0.45028	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 OKGE -0.44772 NPPD	SEMINOLE 345KV SHELDN1G 13.800 115KV	1019 68.40001	-0.00167	-0.44605	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD -0.44772 MIPU	SHELDN2G 13.800 115KV SIBLEY 161KV	80.56	-0.00528 -0.00471	-0.44244	19
WERE	CITY OF NEODESHA 69KV		-0.44772 MIPU	SIBLEY 69KV	25.36536	-0.0048	-0.44292	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV		-0.44772 NPPD -0.44772 OKGE	SIDNEY 4 230.00 230KV SMITH COGEN 138KV			-0.44214	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 OKGE -0.44772 OKGE	SOONER 138KV SOONER 345KV	537	-0.00482		19 19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 OKGE -0.44772 WERE	SOUTH 4TH ST 69KV SOUTH SENECA 115KV	11.2	-0.00916	-0.44265 -0.43856	19 19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 AEPW -0.44772 AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV		-0.00244 -0.00244	-0.44528	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 OKGE -0.44772 OKGE	SPGCK1&2 13.200 345KV SPGCK3&4 13.200 345KV		-0.00298	-0.44474 -0.44474	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 EMDE -0.44772 OKGE	STATE LINE 161KV TINKER 5G 138KV	538	0.00255	-0.45027 -0.44574	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 AEPW -0.44772 AEPW	TONTITOWN 161KV TULSA POWER STATION 138KV		0.00349		19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 NPPD -0.44772 AEPW	W.POINTG 34.500 115KV WEATHERFORD 34KV	7.4 12	-0.00449	-0.44323 -0.44472	19
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 AEPW -0.44772 AEPW -0.44772 AEPW	WELSH 345KV	1044		-0.44772	19
WERE	CITY OF NEODESHA 69KV		-0.44772 AEPW -0.44772 AEPW	WILKES 138KV WILKES 345KV	410.8666 308	0.00005		19
WERE	CITY OF NEODESHA 69KV		-0.44772 MKEC	A. M. MULLERGREN GENERATOR 115KV	63	-0.0111	-0.43662	20
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 WERE -0.44772 WERE	CITY OF BURLINGTON 69KV CITY OF MULVANE 69KV	55.4 9.729	-0.02396	-0.43682 -0.42376	20 20
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 WERE -0.44772 WERE	CITY OF WINFIELD 69KV CLAY CENTER JUNCTION 115KV	31.2 16.5	-0.02156 -0.01102	-0.42616 -0.4367	20
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738 6.738	-0.44772 WERE -0.44772 WERE	COFFEY COUNTY NO. 2 SHARPE 69KV EMPORIA ENERGY CENTER 345KV	19.98 610	-0.0109		20 20
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 WERE -0.44772 WERE	EVANS ENERGY CENTER 138KV GILL ENERGY CENTER 138KV			-0.42747	20
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 WERE -0.44772 MIDW	GILL ENERGY CENTER 69KV GREAT BEND PLANT 69KV	52	-0.02238 -0.01122	-0.42534	20
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 WERE -0.44772 WERE	HUTCHINSON ENERGY CENTER 115KV	257.9033	-0.01361	-0.43411	20
WERE		6.738	-0.44772 MIDW	HUTCHINSON ENERGY CENTER 69KV KNOLL 115KV PRATT 3 115.00 115KV	75.60001		-0.43684	20
	CITY OF NEODESHA 69KV				12.276	-0.01379		20
WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738	-0.44772 MKEC -0.44772 MIDW	SMOKEY HILLS 34KV	50	-0.0118	-0.43592	20
WERE WERE WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV CHANUTE 69KV	6.738 6.738 41.1	-0.44772 MIDW -0.44772 WERE -0.39914 OKGE	SMOKEY HILLS 34KV TECUMSEH ENERGY CENTER 115KV AES 161KV	50 133 320	-0.0118 -0.01026 0.00168	-0.43592 -0.43746 -0.40082	20
WERE WERE WERE	CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV CITY OF NEODESHA 69KV	6.738 6.738 41.1 41.1 41.1	-0.44772 MIDW -0.44772 WERE	SMOKEY HILLS 34KV TECUMSEH ENERGY CENTER 115KV	50 133 320 455 90	-0.0118 -0.01026 0.00168 0.0001	-0.43592 -0.43746 -0.40082	20

WERE WERE	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 AEPW -0.39914 AEPW	COGENTRIX 345KV EASTMAN 138KV	865 157,549	0.00294	-0.40208 -0.39919	21 21
WERE	CHANUTE 69KV	41.1	-0.39914 AEPW	FITZHUGH 161KV	125.4	0.00162	-0.40076	21
WERE WERE	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 AEPW -0.39914 OKGE	FLINT CREEK 161KV HORSESHOE LAKE 138KV	428 796	-0.00364 -0.00182	-0.40278 -0.39732	21
	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 OKGE -0.39914 AEPW	HORSESHOE LAKE 69KV KNOXLEE 138KV	16 282	-0.00154 0.00006	-0.3976 -0.3992	21 21
WERE	CHANUTE 69KV	41.1	-0.39914 EMDE	LARUSSEL 161KV	100	0.0021	-0.40124	21
WERE	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 AEPW -0.39914 AEPW	LEBROCK 345KV LIEBERMAN 138KV	367.1163 174	0.00005	-0.39919 -0.39924	21
	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 AEPW -0.39914 OKGE	LONESTAR POWER PLANT 69KV MUSKOGEE 161KV	27 166	0.00004	-0.39918 -0.40178	21 21
WERE	CHANUTE 69KV CHANUTE 69KV	41.1	-0.39914 OKGE	MUSKOGEE 345KV NORTHEASTERN STATION 138KV	1548	0.00259	-0.40173	21
WERE	CHANUTE 69KV	41.1 41.1	-0.39914 AEPW	NORTHEASTERN STATION 345KV	480 625	0.00372	-0.40566	21
	CHANUTE 69KV CHANUTE 69KV	41.1	-0.39914 AEPW -0.39914 EMDE	OEC 345KV OZARK BEACH 161KV	555.4863 16	0.00373	-0.40287 -0.40186	21 21
WERE	CHANUTE 69KV CHANUTE 69KV	41.1	-0.39914 AEPW -0.39914 OKGE	PIRKEY GENERATION 138KV REDBUD 345KV	288 11.79899	0.00005	-0.39919 -0.39754	21
WERE	CHANUTE 69KV	41.1	-0.39914 EMDE	RIVERTON 161KV	190.2537	0.00294	-0.39754	21 21
WERE WERE	CHANUTE 69KV CHANUTE 69KV	41.1	-0.39914 EMDE -0.39914 OKGE	RIVERTON 69KV SEMINOLE 138KV	43.98939 329.1385	-0.00256	-0.4017 -0.39758	21
WERE	CHANUTE 69KV	41.1	-0.39914 OKGE	SEMINOLE 345KV	1019	-0.00167	-0.39747	21
WERE WERE	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 EMDE -0.39914 OKGE	STATE LINE 161KV TINKER 5G 138KV	538 60	-0.00255	-0.40169 -0.39716	21
WERE WERE	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 AEPW -0.39914 AEPW	TONTITOWN 161KV TULSA POWER STATION 138KV	140 240.0898	0.00349	-0.40263 -0.40224	21
WERE	CHANUTE 69KV	41.1	-0.39914 AEPW	WELSH 345KV	1044	0	-0.39914	21
WERE	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 AEPW -0.39914 AEPW	WILKES 138KV WILKES 345KV	410.8666 308	0.00004	-0.39918 -0.39919	21
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 OKGE -0.39914 AEPW	AES 161KV ARSENAL HILL 138KV	320 455	0.00168	-0.40082 -0.39924	21 21
WERE	CITY OF ERIE 69KV	22.53	-0.39914 AEPW	ARSENAL HILL 69KV	90	0.0001	-0.39924	21
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 EMDE -0.39914 AEPW	ASBURY 161KV COGENTRIX 345KV	192 865	-0.00123 0.00294	-0.39791 -0.40208	21
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 AEPW -0.39914 AEPW	EASTMAN 138KV FITZHUGH 161KV	157.549 125.4	0.00005	-0.39919 -0.40076	21
WERE	CITY OF ERIE 69KV	22.53	-0.39914 AEPW	FLINT CREEK 161KV	428	0.00364	-0.40278	21
WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 OKGE -0.39914 OKGE	HORSESHOE LAKE 138KV HORSESHOE LAKE 69KV	796 16	-0.00182 -0.00154	-0.39732 -0.3976	21
WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 AEPW -0.39914 EMDE	KNOXLEE 138KV LARUSSEL 161KV	282 100	0.00006	-0.3992 -0.40124	21
WERE	CITY OF ERIE 69KV	22.53	-0.39914 AEPW	LEBROCK 345KV	367.1163	0.00005	-0.39919	21
WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 AEPW -0.39914 AEPW	LIEBERMAN 138KV LONESTAR POWER PLANT 69KV	174 27	0.0001	-0.39924 -0.39918	21 21
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 OKGE -0.39914 OKGE	MUSKOGEE 161KV MUSKOGEE 345KV	166 1548	0.00264	-0.40178 -0.40173	21 21
WERE	CITY OF ERIE 69KV	22.53	-0.39914 AEPW	NORTHEASTERN STATION 138KV	480	0.00372	-0.40286	21
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 AEPW -0.39914 AEPW	NORTHEASTERN STATION 345KV OEC 345KV	625 555.4863	0.00652	-0.40566 -0.40287	21 21
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 EMDE -0.39914 AEPW	OZARK BEACH 161KV PIRKEY GENERATION 138KV	16 288	0.00272	-0.40186 -0.39919	21 21
WERE	CITY OF ERIE 69KV	22.53	-0.39914 OKGE	REDBUD 345KV	11.79899	-0.0016	-0.39754	21
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 EMDE -0.39914 EMDE	RIVERTON 161KV RIVERTON 69KV	190.2537 43.98939	0.00294	-0.40208 -0.4017	21
WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 OKGE -0.39914 OKGE	SEMINOLE 138KV SEMINOLE 345KV	329.1385 1019	-0.00156 -0.00167	-0.39758 -0.39747	21 21
WERE	CITY OF ERIE 69KV	22.53	-0.39914 EMDE	STATE LINE 161KV	538	0.00255	-0.40169	21
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 OKGE -0.39914 AEPW	TINKER 5G 138KV TONTITOWN 161KV	60 140	-0.00198 0.00349	-0.39716 -0.40263	21
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 AEPW -0.39914 AEPW	TULSA POWER STATION 138KV WELSH 345KV	240.0898 1044	0.0031	-0.40224 -0.39914	
WERE	CITY OF ERIE 69KV	22.53	-0.39914 AEPW	WILKES 138KV	410.8666	0.00004	-0.39918	21
WERE	CITY OF ERIE 69KV	22.53	-0.39914 AEPW	WILKES 345KV	308	0.00005	-0.39919	21
WERE	CHANUTE 69KV							. 22
WERE		41.1	-0.39914 MKEC	A. M. MULLERGREN GENERATOR 115KV AINSWN1G 34 500 115KV	63	-0.0111	-0.38804 -0.39427	
WERE	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 NPPD -0.39914 NPPD	AINSWN1G 34.500 115KV BPS GT1G 13.800 115KV	10.205 80	-0.00487 -0.00581	-0.39427 -0.39333	22 22
WERE WERE	CHANUTE 69KV	41.1	-0.39914 NPPD	AINSWN1G 34.500 115KV	10.205	-0.00487	-0.39427	22 22 22 22
WERE WERE WERE WERE	CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV	41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD	AINSWN1G 34.500 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV BPS ST3G 13.800 115KV	10.205 80 44.32 49.022 8.3	-0.00487 -0.00581 -0.00581 -0.00581	-0.39427 -0.39333 -0.39333 -0.39333	22 22 22 22 22 22 22
WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 VPPD -0.39914 QPPD	AINSWN1G 34.500 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV BROKENBG 69.000 115KV BULL CREEK 161KV CASS 1G 15.000 345KV	10.205 80 44.32 49.022 8.3 61.6 42.51929	-0.00487 -0.00581 -0.00581 -0.00581 -0.00532 -0.00583 -0.00481	-0.39427 -0.39333 -0.39333 -0.39382 -0.39331 -0.39433	22 22 22 22 22 22 22 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV	41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 KACP	AINSWM1G 34.500 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV BPS ST3G 13.800 115KV BROKENBG 69.000 115KV BULL CREEK 161KV	10.205 80 44.32 49.022 8.33 61.6	-0.00487 -0.00581 -0.00581 -0.00582 -0.00583	-0.39427 -0.39333 -0.39333 -0.39333 -0.39382 -0.39331	22 22 22 22 22 22 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.3 41.1 41.1 41.3 41.3 41.1 41.3 41.1	-0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 KACP -0.39914 OPPD -0.39914 OPPD -0.39914 OWGE	AINSWINTG 34.500 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV BROKENBG 68.000 115KV BULL CREEK 161KV CASS 1G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV	10.205 80 44.32 49.022 8.3 61.6 42.51929 52.99999 44	-0.00487 -0.00581 -0.00581 -0.00582 -0.00583 -0.00481 -0.00481 -0.00328 -0.00866	-0.39427 -0.39333 -0.39333 -0.39382 -0.39331 -0.39433 -0.39483 -0.39586 -0.39048	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.3 41.3 41.3 41.3 41.1 41.1 41.3 41.3	-0.39914 NPPD -0.39914 KACP -0.39914 OPPD -0.39914 OPPD -0.39914 OWEC -0.39914 WECE -0.39914 WECE -0.39914 WERE	AINSWING 34.500 115KV BPS GT1G 13.800 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV BROKENBG 68.000 115KV BULL CREEK 161KV CASS 1G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV	10.205 80 44.32 49.022 8.3.3 61.6 42.51929 52.9999 44.3 33.3 55.4	-0.00487 -0.00581 -0.00581 -0.00582 -0.00583 -0.00481 -0.00481 -0.00328 -0.00866 -0.0109 -0.00362	-0.39427 -0.39333 -0.39333 -0.39333 -0.39331 -0.39433 -0.39586 -0.39048 -0.38824 -0.39552	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.3 41.1 41.3 41.3 41.3 41.1 41.1	-0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OKGE -0.39914 OWEC -0.39914 WKEC	AINSWINTG 34.500 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT3G 13.800 115KV BROKENBG 69.000 115KV BRULL CREEK 161KV CASS 1G 15.000 345KV CASS 1G 15.000 345KV CIMARRON RIVER 115KV CIMARRON RIVER 115KV CITY OF BURLINITOTON 69KV	10.205 80 44.32 49.022 8.3 61.6 42.51929 52.9999 44 33 55.4	-0.00487 -0.00581 -0.00581 -0.00581 -0.00532 -0.00583 -0.00481 -0.00481 -0.00328 -0.00866 -0.0109	-0.39427 -0.39333 -0.39333 -0.39333 -0.39331 -0.39433 -0.39433 -0.39586 -0.39048 -0.38824	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GBKV	41.1 41.1 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 KACP -0.39914 OPPD -0.39914 OPPD -0.39914 MKEC -0.39914 MKEC -0.39914 KACP -0.39914 WERE -0.39914 WERE -0.39914 WERE	AINSWING 34.500 115KV BPS GTIG 13.800 115KV BPS GTIG 13.800 115KV BPS GTIG 13.800 115KV BPS GTIG 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV GASS 16 15.000 345KV CASS 16 15.000 345KV CASS 26 15.000 345KV COMBARGON RIVER 115KV CIMARRON RIVER 115KV CITY OF PURLINATION OF SKY CITY OF HIGGINSVILLE 68KV CLAY CENTER JUNCTION 115KV CNTR.IP.2 34.500 115KV CONTRIP.2 34.500 115KV COFFEY COUNTY NO. 2 SHARPE 68KV	10.205 80 44.32 49.022 63.3 61.6 42.51929 52.99999 43.33 65.4 36 61.65 99 19.99	-0.00487 -0.00581 -0.00581 -0.00582 -0.00583 -0.00481 -0.00481 -0.00328 -0.00866 -0.00362 -0.00362 -0.00362 -0.00362 -0.00362 -0.00362 -0.00362	-0.39427 -0.39333 -0.39333 -0.39333 -0.39333 -0.39433 -0.39433 -0.39526 -0.39652 -0.39552 -0.39552 -0.39552 -0.3824 -0.39552 -0.3824	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GBKV	41.1 41.1 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WKEC -0.39914 MKEC -0.39914 KACP -0.39914 WKER -0.39914 WERE	AINSWING 34.500 115KV BPS GTIG 13.800 115KV BPS GTIG 13.800 115KV BPS GTIG 13.800 115KV BPS GTIG 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV GASS 2G 15.000 345KV CASS 2G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CIMARRON RIVER 115KV CITY OF PHICHINGTON 69KV CITY OF HIGGINSVILLE 69KV CITY OF HIGGINSVILLE 69KV CONTRULL 34.500 115KV CONTRULL 23.500 115KV COCCEPT 15.00 115KV COLCOFT 115.00 115KV COLCOFT 115.00 115KV	10.205 80 80 44.32 45.022 8.33 61.6 42.51929 82.99999 43 33 55.4 65.4 61.5 99 11.938	-0.00487 -0.00581 -0.00581 -0.00583 -0.00583 -0.00583 -0.00481 -0.00481 -0.00328 -0.004866 -0.0109 -0.0109 -0.00779 -0.00779 -0.00471 -0.00471 -0.00471	-0.39427 -0.39333 -0.39333 -0.39333 -0.39333 -0.39433 -0.39586 -0.39682 -0.39812 -0.39812 -0.39812 -0.39135 -0.39433	222 222 222 222 222 222 223 224 224 225 227 227 227 227 227 227 227 227 227
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GBKV	41.1 41.1 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 MPPD -0.39914 NPPD	AINSWING 34.500 115KV BPS GTIG 13.800 115KV BPS GTIG 13.800 115KV BPS GTIG 13.800 115KV BPS GTIG 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV GASS 26 15.000 345KV CASS 26 15.000 345KV CASS 26 15.000 345KV CASS 26 15.000 345KV CIMARRON RIVER 115KV CIMARRON RIVER 115KV CITY OF PHICHINGTON 69KV CITY OF PHICHINGTON 69KV CITY OF PHICHINGTON 115KV CONTRULP 23 4.500 115KV CONTRULP 23 4.500 115KV COCOLOGY 115.00 115KV COLCOGY 115.00 115KV COMANCHE 138KV COMANCHE 69KV COMANCHE 69KV	10.205 80 80 80 44.32 45.022 63.3 61.6 64.5 99.9999 43.3 65.4 65.4 65.6 65.6 99.9999 75 12.01502	-0.00487 -0.00581 -0.00581 -0.00582 -0.00583 -0.00583 -0.00481 -0.00328 -0.00362 -0.0109 -0.00362 -0.0109 -0.00779 -0.00779 -0.00471	-0.39427 -0.39333 -0.39333 -0.39333 -0.39333 -0.39433 -0.39586 -0.39586 -0.39682 -0.39552 -0.38824 -0.39552 -0.39433	22 22 22 22 22 22 22 22 22 22 22 22 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OKGE -0.39914 WERE -0.39914 MIDW -0.39914 AEPW -0.39914 AEPW -0.39914 AEPW	AINSWINTG 34.500 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT3G 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV BULL CREEK 161KV CASS 2G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CLAY CENTER JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 68KV COLEY COUNTY NO. 2 SHARPE 68KV COLEY COUNTY NO. 2 SHARPE 68KV COLEY COUNTY NO. 2 CHARPE 68KV COMANCHE 68KV COMANCHE 138KV COMANCHE 68KV COMANCHE 138KV	10.205 80 90 44.32 49.022 81 83 63 64.51929 52.99999 43 43 43 55 66 16.5 99 19.98 75 21.01505	-0.00487 -0.00581 -0.00581 -0.00582 -0.00583 -0.00583 -0.00481 -0.00481 -0.00481 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328 -0.00328	-0.39427 -0.39333 -0.39333 -0.39333 -0.39333 -0.39433 -0.39433 -0.39586 -0.38624 -0.3852 -0.38524 -0.39586 -0.39684 -0.39586 -0.39684 -0.39586 -0.39684 -0.39684 -0.39684 -0.39684 -0.39684 -0.39684 -0.39684 -0.39684	222 222 223 224 225 226 227 227 227 227 227 227 227 227 227
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GOKY	41.1 41.1 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OKGE -0.39914 OKGE -0.39914 WERE -0.39914 MIDW -0.39914 AEPW -0.39914 NPPD -0.39914 NPPD	AINSWING 34.500 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV BULL CREEK 161KY CASS 2G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CLAY CENTER JUNCTION 115KV COTFEC COUNTY NO. 2 SHARPE 69KV COLEY COUNTY NO. 2 SHARPE 69KV COMANCHE 98KV COMANCHE 98KV COMANCHE 50KV COMANCHE 50KV COPERIG 22.000 345KV CREEK G 34.500 115KV DHENRYG 34.500 115KV	10.205 80 90 44.32 49.022 8.33 61.6 82.51929 52.9999 5	-0.00487 -0.00581 -0.00581 -0.00582 -0.00583 -0.00583 -0.00481 -0.00481 -0.00328 -0.00462 -0.01102 -0.00779 -0.0079 -0.0079 -0.00509 -0.00509 -0.00509 -0.00509 -0.00508	-0.39427 -0.39333 -0.39333 -0.39333 -0.39331 -0.39331 -0.39433 -0.3964 -0.39552 -0.38124 -0.39552 -0.3964 -0.39664 -0.39664 -0.39664 -0.39664 -0.39664 -0.39664 -0.39664 -0.39664 -0.39664 -0.39664 -0.39664 -0.39664 -0.39664	222 222 223 224 225 226 227 227 227 227 227 227 227 227 227
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GOKY	41.1 41.1 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OKGE -0.39914 OKGE -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD	AINSWINTG 34.500 115KV BPS GT1G 13.800 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT3G 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV BULL CREEK 161KY CASS 2G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CLAY CENTER JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 68KV COLSY COLCOGY 115KV COLBY 115KV COMANCHE 138KV COMANCHE 68KV COMANCHE 69KV COMANCHE 69KV COPERIG 22.000 345KV CRETE G 34.500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV	10.205 80 90 44.32 49.022 8.33 61.6 82.51929 52.9999 5	-0.00487 -0.00581 -0.00581 -0.00581 -0.00583 -0.00583 -0.00583 -0.00481 -0.00362 -0.00362 -0.00362 -0.00362 -0.00362 -0.00362 -0.00362 -0.00509 -0.00521 -0.00521 -0.00521	-0.39427 -0.39333 -0.39333 -0.39333 -0.39333 -0.39433 -0.39483 -0.3958	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.1 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 MREC -0.39914 MREC -0.39914 MREC -0.39914 MREC -0.39914 MREE -0.39914 MREE -0.39914 MREE -0.39914 MREE -0.39914 MREE -0.39914 NPPD	AINSWINIG 34.500 115KV BPS GTIC 13.800 115KV BPS GTIC 13.800 115KV BPS GTIC 13.800 115KV BPS GTIC 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV BULL CREEK 161KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 54KV CITY OF BURLINGTON 66KV CITY OF BURLINGTON 66KV CITY OF BURLINGTON 66KV CLAY CENTER JUNCTION 115KV COMPANDED 15KV DENVER G 34.500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV EGY CITYG 13.800 115KV EGY CITYG 13.800 115KV EGY CITYG 13.800 115KV	10.205 80 90 44.32 43.02 43.02 43.02 43.02 63.3 61.6 42.51929 52.99999 33.3 55.4 36.6 16.5 99 19.38 75 12.01502 14.5 60 535.747 18.8 33.999 544.44,868	-0.00487 -0.00581 -0.00581 -0.00581 -0.00583 -0.00583 -0.00481 -0.00481 -0.00382 -0.00382 -0.00382 -0.00382 -0.00382 -0.00382 -0.00382 -0.00382 -0.00382 -0.00521 -0.00522	-0.39427 -0.39333 -0.39333 -0.39333 -0.39333 -0.39333 -0.39433 -0.39433 -0.39586 -0.39652 -0.39156 -0.39168 -0.39664 -0.39664 -0.39664 -0.39664 -0.39693 -0.3933 -0.3933 -0.3933 -0.3933 -0.3933	22 22 22 23 24 25 26 27 27 28 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.1 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 ORGE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 NPPD -0.39914 AEPW -0.39914 NPPD	AINSWINIG 34.500 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT3G 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV BULL CREEK 161KV CASS 2G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 54KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV COLAY CENTER JUNCTION 115KV COMPANCH 136KV ENTER GS 34.500 115KV DENVER GS 34.500 115KV ENTER GS 34.500 115KV	10.205 80 90 180 180 44.32 40.022 8.33 61.6 42.51929 52.99999 43.33 56.4 75 10.505 11.055 12.01502 14.5 60 535.747 181 33.999 84 44.986 66 66 66 66 67 68 68 68 68 68 68 68 68 68 68 68 68 68	-0.00487 -0.00581 -0.00581 -0.00581 -0.00581 -0.00532 -0.00532 -0.00481 -0.00481 -0.00362 -0.0109 -0.0109 -0.00798 -0.00521 -0.00521 -0.00522 -0.00522 -0.00522 -0.00521 -0.00	-0.39427 -0.39333 -0.39333 -0.39333 -0.39333 -0.39382 -0.39433 -0.39586 -0.39684 -0.	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 NPPD -0.39914 WERE -0.39914 OKGE -0.39914 OKGE	AINSWING 34.500 115KV BPS GTG 13.800 115KV BPS GTG 13.800 115KV BPS GTG 13.800 115KV BPS GTG 13.800 115KV BROKENBG 69.001 15KV BROKENBG 69.000 115KV BULL CREEK 161KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV COLAY CENTER JUNCTION 115KV COMPANDED 15KV ENTER 15KV COMPANDED 15KV ENTER 15KV COMPANDED 15KV ENTER	10.205 80 80 80 80 80 44.32 8.3 61.6 83 61.6 42.51929 82.99999 83 85.3 86 16.5 99 19.38 75 12.01502 14.5 80 538,747 16.8 33.99 64 44.98 66 610 515,3,3	-0.00487 -0.00581 -0.00581 -0.00581 -0.00583 -0.00583 -0.00481 -0.00481 -0.00328 -0.00362 -0.00362 -0.00779 -0.00102 -0.00529 -0.00521	-0.39427 -0.39333 -0.39333 -0.39333 -0.39363 -0.39463 -0.39686 -0.	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GBKV	41.1 41.1 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 MPPD	AINSWINTG 34.500 115KV BPS GTO2G 13.800 115KV BPS GTO2G 13.800 115KV BPS GTO2G 13.800 115KV BPS GTO2G 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV BULL CREEK 161KY CASS 2G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CLAY CENTER JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 69KV COLEY COUNTY NO. 2 SHARPE 69KV COLEY COUNTY NO. 2 SHARPE 69KV COLEY COUNTY NO. 2 SHARPE 69KV COMANCHE 98KV COMANCHE 98KV COMANCHE 53KV DENVER G 34.500 115KV DENVER G 34.500 115KV EVENTER G 34.500 115KV EVENTER G 34.500 115KV EVENTER G 34.500 115KV FREM BROY COUNTER G 34.500 115KV FREM BROY COUNTER G 34.500 115KV FREM G 34.500 115KV	10.205 80 90 44.32 49.022 8.3 61.6 62.51929 52.9999 52.9999 52.9999 52.9999 53.9999 64.956 65.5 66.5 66.5 67.7 7 7 7 7 18.7 83.909 84.4986 44.986 45.93 65.93 65.93 65.93 65.93 65.93 65.94 65.94 65.9	-0.00487 -0.00581 -0.00581 -0.00581 -0.00581 -0.00582 -0.00582 -0.00481 -0.00481 -0.00362 -0.0109 -0.0109 -0.0109 -0.00779 -0.00779 -0.0079 -0.00522 -0.0052	-0.39427 -0.39333 -0.39333 -0.39333 -0.39383 -0.39433 -0.39433 -0.39552 -0.38624 -0.38624 -0.39669 -0.39669 -0.39669 -0.3969 -0.393869 -0.39393 -0.3939 -0.	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GOKY CHANU	41.1 41.1 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 OPPD	AINSWINTG 34.500 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV BULL CREEK 161KY CASS 2G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CLAY CENTER JUNCTION 115KV COPERY COUNTY NO. 2 SHARPE 68KV COLAY CENTER JUNCTION 115KV COMANCHE 68KV COMANCHE 68KV COMANCHE 69KV COMANCHE 58KV DENVER G 34.500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV FREM BG 13.800 68KV FFER MS 13.800 68KV FFER MS 13.800 68KV FFER MS 13.800 68KV GENTLING 23.000 230KV GENTLING 23.000 230KV GENTLING 23.000 230KV	10.205 80 90 44.32 49.022 8.33 61.6. 42.51929 52.9999 52.9999 53.9999 63.999 64.318 63.6 64.5. 65.5 65.6 66.5 66.5 67.7 67.7 67.7 6	-0.00487 -0.00581 -0.00581 -0.00581 -0.00581 -0.00581 -0.00581 -0.00481 -0.00481 -0.00481 -0.00581 -0.00481 -0.00581 -0.00481 -0.00581 -0.	-0.394334164 -0.392334346 -0.392333436 -0.393333436 -0.39433 -0.39433 -0.39433 -0.39433 -0.39433 -0.3943 -0.39	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GORV	41.1 41.1 41.1 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 WERE -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD	AINSWINTG 34.500 115KV BPS GTTG 13.800 115KV BPS GTTG 13.800 115KV BPS GTTG 13.800 115KV BPS GTTG 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV BULL CREEK 161KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CLAY CENTER JUNCTION 115KV COPFEY COUNTY NO. 2 SHARPE 69KV COOTRICH 21 34 500 115KV COMMANCHE 138KV COMMANCHE 138KV COMMANCHE 138KV COMMANCHE 138KV COMMANCHE 138KV COPPERIG 22.000 34KKV CREE G 34.500 115KV DENVER G 34.500 115KV EK TURN 15 SAN	10.205 80 80 80 80 80 81 44.32 83 61.6 82.51929 82.9499 83 85 86 86 86 86 87 89 89 87 75 12.01502 145 86 83 86 86 86 86 86 86 86 86 86 86 86 86 86	-0.00487 -0.00581 -0.00581 -0.00581 -0.00581 -0.00582 -0.00583 -0.00481 -0.00328 -0.0109 -0.01102 -0.01102 -0.0109 -0.00747 -0.00747 -0.0052 -	0.394333436444444444444444444444444444444	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.3 41.3 41.3 41.3 41.3 41.3 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 ORGE -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 NPPD -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 ORGE -0.39914 ORGE -0.39914 ORGE -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 NPPD -0.39914 WERE	AINSWINTG 34.500 115KV BPS GTTG 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV GASS 1G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 69KV COLAY CENTER JUNCTION 115KV COMANCHE 158KV COMENTER JUNCTION 115KV COMANCHE 158KV FURDINGTON 15KV GENTLING 23 000 15KV FPLWD 23 4KV FPLWD 23 4KV FPLWD 23 4KV FPLWD 23 4KV FREM BG 13 500 115KV FPLWD 23 4KV FREM BG 13 500 115KV FREM 25 500	10.205 8.83 44.322 8.33 61.8 42.51929 8.39 83.9 84.9 84.9 85.9 85.9 85.9 85.9 85.9 85.9 85.9 85		4.3 94/27.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.3 41.3 41.3 41.3 41.3 41.3 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 WERE -0.39914 ORGE -0.39914 ORGE -0.39914 NPPD -0.39914 ORGE -0.39914 OPPD	AINSWINTG 34.500 115KV BPS GTO26 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV GASS 16 15.000 345KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV COLAY CENTER JUNCTION 115KV COMANCHE 59KV COLAY CENTER JUNCTION 115KV COLAY CENTER JUNCTION 115KV COLAY CENTER JUNCTION 115KV COMANCHE 59KV COMANCHE 59KV COMANCHE 138KV COMANCHE 138KV COMANCHE 158KV COMANCHE 15	10.205 8.83 44.322 8.33 61.6.8 42.51929 52.99999 52.99999 53.9999 53.9999 54.999 55.4 56.4 56.5 57.5 57.1 57.5 57.5		4.3 94/27.3 94/24.6 94	22 22 22 22 22 22 22 22 22 22 22 22 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GBKV	41.1 41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OKE -0.39914 OKE -0.39914 WEE -0.39914 MPPD -0.39914 NPPD	AINSWINTG 34.500 115KV BPS GTO26 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV BULL CREEK 161KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV COLAY CENTER JUNCTION 115KV CONTRIPLE 34 5500 115KV CONTRIPLE 34 5500 115KV COMANCHE 69KV COMANCHE 75 34 500 115KV DENVER G 34 500 115KV DENVER G 34 500 115KV DENVER G 34 500 115KV ENTER G 34 500 115KV GENTIMIG 23 000 39KV GENTIMIG 25 000 39KV GERT PLANS EN REPREY VIND GENERATION AT SPEARVILLE 230KV GERT PLANS EN ENERGY WIND GENERATION AT SPEARVILLE 230KV HAWTHORN 161KV HAWTHORN 161KV	10.205 80 80 80 80 80 81 44.32 8.33 81.86 81.86 82.51929 52.9999 52.9999 52.9999 52.9999 53.9999 64.998 64.988 65.86 66.56 66.57 67 67 67 67 68 68 68 68 68 68 68 68 68 68 68 68 68		9.394343 9.39545 9.39545 9.39545 9.39545 9.39545 9.39545 9.39545 9.39545 9.39545 9.3955 9.3	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GOKY	41.1 41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 NPPD -0.39914 ORD -0.39914 NPPD	AINSWINTG 34.500 115KV BPS GTO2G 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV BULL CREEK 161KY CASS 2G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV COLAY CENTER JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 68KV COLAY CENTER JUNCTION 115KV COLBY 115KV COLBY 115KV COMANCHE 68KV COMANCHE 68KV COMANCHE 69KV COMANCHE 58KV DENVER G 34.500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV EK RUFER 345KV FREM BG 13.800 68KV FREM BG 13.800 68KV FREM BG 13.800 68KV FREM BG 13.800 68KV GENTLING 24.000 345KV GENTLING 24.000 345KV GENTLING 25.000 34KV GENTLING 25.000 34	10.205 80 80 80 80 80 80 80 81 44.32 8.3 8.3 8.3 8.3 8.4 8.5 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3	-0.00487	4.9 3497.2 3497.	22 22 23 24 25 26 27 27 28 28 29 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GORV CHANU	41.1 41.1 41.1 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 MPPD -0.39914 NPPD	AINSWINTG 34.500 115KV BPS GT1G 13.800 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT3G 13.800 115KV BPS GT3G 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV GASS 2G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV COLAY CENTER JUNCTION 115KV CONTRUPL 24 3500 115KV COFFEY COUNTY NO. 2 SHARPE 69KV COLOGY 115KV COLOGY 115KV COMANCHE 69KV COMANCHE 69KV COMANCHE 59KV COMANCHE 59KV COMANCHE 59KV DENVER G 34.500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV ELK RIVER 345KV FREM 86 13.800 69KV FT CAL 162 2.000 44KV FREM 86 13.800 69KV FT CAL 162 2.000 34KV GENTLMG 23.000 230KV GENTLMG 24.000 34KV GENTLMG 25.000 34KV GENTLMG 25.000 34KV GENTLMG 25.000 34KV GENTLMG 25.000 34	10.205 80 80 80 80 80 80 80 80 81 81 81 81 81 81 82 81 83 86 86 86 86 86 86 86 86 86 86 86 86 86	-0.00481-0.00581-0.005821-0.00	9.39473434343444444444444444444444444444	22 22 22 22 22 22 22 22 22 22 22 22 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 ORD -0.39914 WERE -0.39914 MPPD -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE	AINSWINTG 34.500 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT3G 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV BULL CREEK 161KY CASS 2G 15.000 345KV CASS 2G 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV COLAY CENTER, JUNCTION 115KV COTFELY COUNTY NO. 2 SHARPE 68KV COLAY CENTER, JUNCTION 115KV COLBY 115KV COLBY 115KV COLBY 115KV COMANCHE 68KV COMANCHE 68KV COMANCHE 69KV COMANCHE 69KV COMANCHE 75KV DENVER G 34.500 115KV DENVER G 34.500 115KV EK RUFER 345KV EK RUFER 345KV EK RUFER 345KV EK RUFER 345KV FREM 8G 13.800 69KV FT CAL1G 22 000 4KV GENTLING 23.000 230KV GENTLING 24.000 345KV GENTLING 25.000 34KV GENTLING	10.205 80 44.32 40.022 8.33 61.61 62.51929 52.9999 52.9999 63.999 64.61 65.66 66.66 66.67	-0.00487	4.934234 4.934234 4.9393334 4.9393334 4.9393334 4.939334 4.939334 4.93944 4.93934 4.93934 4.93934 4.93934 4.93934 4.93934 4.93934 4.93	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.3 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OKEC -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 PPD -0.39914 WERE	AINSWING 34.500 115KV BPS GTO26 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV BULL CREEK 161KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV COLAY CENTER JUNCTION 115KV COLAY CENTER 34.500 115KV COMANCHE 69KV COMANCHE 69KV COMANCHE 73KV COMET 34.500 115KV DENVER 34.500 115KV DENVER 34.500 115KV DENVER 34.500 115KV DENVER 34.500 115KV ENTER 34.500 115KV GENTIMIG 23.000 346KV GENTIMIG 20.000 346KV GENTI	10.205 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	-0.00487	9.39433334343434343434343434343434343434	22 22 22 22 22 22 22 22 22 22 22 22 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.3 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 ORGE -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 MIDW -0.39914 WERE -0.39914 MIDW -0.39914 WERE -0.39914 MPPD -0.39914 WERE -0.39914 MPPD -0.39914 WERE	AINSWING 34.500 115KV BPS GTO26 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV COLAY CENTER, JUNCTION 115KV CONTRUPL 23 AS 000 115KV COFFEY COUNTY NO. 2 SHARPE 68KV COLEY 115KV COMANCHE 68KV COMANCHE 68KV COMANCHE 75KV DENVER G 34.500 115KV EV CRETE G 34.500 115KV GENTLING 25.000 34KV GENTLING 26.000 34KV GENTLING 26.	10.205 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	-0.004874 -0.0058181 -0.0058181 -0.0058181 -0.0058181 -0.0058181 -0.0058181 -0.0068181 -	9.39433394343949494949494949494949494949	22 22 22 22 22 22 22 22 22 22 22 22 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GORV CHANU	41.1 41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 ORD -0.39914 NPPD -0.39914 WERE	AINSWINTIG 34.500 115KV BPS GT1G 13.800 115KV BPS GT3G 13.800 115KV BROKENBG 68.000 115KV BULL CREEK 161KY CASS 26 15.000 345KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV COLAY CENTER JUNCTION 115KV CONTRIPLE 34.500 115KV COPERY COUNTY NO. 2 SHARPE 68KV COLAY CONTRIPLE 34.500 115KV COMANCHE 68KV COMANCHE 68KV COMANCHE 69KV COMANCHE 53KV DENVER G 34.500 115KV ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV ENPORLA BENERY CASTON 15KV FREMB G 13.800 69KV FT CAL 16 22.000 345KV GENTLMG 23.000 230KV GENTLMG 24.000 345KV GENTLMG 23.000 230KV GENTLMG 24.000 345KV GENTLMG 25.000 345KV GENTLMG 13.800 69KV FT CAL 16 22.000 345KV GENTLMG 25.000 345KV GENTLMG 25.000 345KV GENTLMG 25.000 345KV GENTLMG 25.000 345KV FREMB G 13.800 115KV FREMB G 13.800 115KV FREMB G 13.800 115KV FREMB G 13.800 115KV FREMB G 13.800 69KV FT CAL 16 22.000 345KV GENTLMG 25.000 345KV FREMB G 13.800 115KV FREMB G 13.800 69KV FT CAL 16 22.000 345KV GENTLMG 25.000 345KV GENTLMG 25.000 345KV GENTLMG 25.000 345KV GENTLMG 25.000 345KV FREMB G 13.800 69KV FT CAL 16 22.000 345KV FREMB G 13.800 69KV FT CAL 16 22.000 345KV GENTLMG 25.000 345KV FREMB G 13.800 69KV FT CAL 16 22.000 345KV FREMB G 13.800 69KV FT CAL 16 22.000 345KV FREMB G 13.800 69KV FT CAL 16 22.000 345KV GENTLMG 25.000 3	10.205 80 80 80 80 80 80 81 44.32 83 83 86.8 86.8 86.8 86.8 86.8 86.8 86.	- 0.00481400000000000000000000000000000000	9.3947474797979797979797979797979797979797	22 22 23 24 25 26 27 27 28 28 29 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0	AINSWINTG 34.500 115KV BPS GT1G 13.800 115KV BPS GT3G 13.800 115KV BPS GT3G 13.800 115KV BROKENBG 68.000 115KV BULL CREEK 161KY CASS 26 15.000 345KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV COLAY CENTER JUNCTION 115KV CONTRIPLE 34.500 115KV COLOGY 115KV COLOGY 115KV COLOGY 115KV COMANCHE 68KV COMANCHE 68KV COMANCHE 69KV COMANCHE 69KV COMANCHE 69KV COMANCHE 75KV ENTER 54.500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV ELK RIVER 345KV ENTER G 34.500 115KV FREM BG 13.800 15KV FREM BG 13.800 69KV FT CAL1G 22.000 345KV GENTLMG 23.000 230KV GENTLMG 24.000 345KV GENTLMG 24.000 34FV GENTLMG 15.000 54KV GENTLMG 15.000 54KV GENTLMG 15.000 54KV GENTLMG 15.000 115KV FREM BG 13.800 69KV FT CAL1G 25.000 34KV GENTLMG 15.000 34KV GENTLMG 15.000 34KV GENTLMG 25.000 34KV GENTLMG 15.000 54KV FREM BG 13.800 115KV HUTCHINSON ENERGY CENTER 345KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 15KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JUDSON LARGE 115KV LAWRENCE ENERGY CENTER 230KV KOCLAIN 135KV LAWRENCE ENERGY CENTER 230KV	10.205 80 80 80 80 80 80 81 44.32 83 83 83 84.51929 52.9999 52.9999 52.9999 53 93 10.50 10	-0.00481-0.005281-0.005281-0.0055281	9.39473433433434344444444444444444444444	22 22 23 24 25 26 27 27 28 28 29 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 NPPD -0.39914 WERE -0	AINSWINTG 34.500 115KV BPS GTTG 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV BULL CREEK 161KV CASS 26 15.000 345KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CITY OF BURLINGTON 69KV COLAY CENTER JUNCTION 115KV COMPANDED 115KV ENTER 25 36 500 115KV DENVER G 34.500 115KV ENTER 25 36.00 115KV	10.205 80 80 80 80 81 81 81 82 81 83 83 86 86 86 86 86 86 86 86 86 86 86 86 86	- 0.0048140 - 0.0052140 - 0.00	9.391712 9.39172 9.	22 22 23 24 25 26 26 27 27 28 28 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.3 41.3 41.3 41.3 41.3 41.3 41.3	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 NPPD -0.39914 WERE -0.39914 MPPD -0.39914 WERE -0.39914 MPPD -0.39914 MPPD -0.39914 WERE -0.39914 MPPD -0.39914 WERE	AINSWING 34.500 115KV BPS GT1G 13.800 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CENTENIAL WIND 34KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 68KV CITY OF BURLINGTON 69KV COLAY CENTER, JUNCTION 115KV CONTRUPL 23 AS 000 115KV COFFER 20.00 115KV COLEY 115KV COMANCHE 68KV COMANCHE 68KV COMANCHE 68KV COMANCHE 75KV DENVER G 34.500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV EV CRETE G 34.500 115KV GENTLING 25.000 34KV GENTLING 26.000 34KV GENTLING 26.000 54KV GENTLING 26.0	10.205 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		9.3943333434343444444444444444444444444	22 22 22 22 22 22 22 22 22 22 22 22 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 WERE -0	AINSWINTG 34.500 115KV BPS GT1G 13.800 115KV BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT3G 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV CASS 26 15.000 345KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CITY OF BURLINGTON 69KV COLAY CENTER JUNCTION 115KV CONTRUPL 24 3500 115KV COFFEY COUNTY NO. 2 SHARPE 69KV COLEY 115KV COLEY 115KV COMANCHE 69KV COMANCHE 69KV COMANCHE 53KV DENVER G 34.500 115KV ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV FREM 6G 13.800 69KV FT CAL 16 22.000 34KV GENTMIN 62.300 63KV GENTMIN 62.300 63KV GENTMIN 62.300 64KV GENTMIN 62.300 64KV GENTMIN 62.300 64KV GENTMIN 62.300 64KV GERTMIN 62.300 64KV GREAT FLANS ENERGY WIND CENERATION AT SPEARVILLE 230KV HAVETHORN 161KV HAVITHORN 16	10.205 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	-0.00487 -0.005818-0.005828 -0.005818-0.005828 -0.005818-0.005828 -0.005818-0.005828 -0.005828	9.39433334344444 9.39432344444 9.39432344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.394344444 9.39434444444 9.3943444444 9.3943444444 9.3943444444 9.3943444444 9.3943444444444444444444444444444444444	22 22 23 24 25 26 27 28 28 29 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 MPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 NPPD -0.39914 WERE -0	AINSWINTG 34.500 115KV BPS GTTG 13.800 115KV BROKENBG 68.000 115KV BROKENBG 68.000 115KV CASS 26.15.000 345KV CASS 26.15.000 345KV CASS 26.15.000 345KV CENTENIAL WIND 34KV CITY OF BURLINGTON 69KV COLAY CENTER JUNCTION 115KV CONTRUPL 24 3500 115KV COFFEY COUNTY NO. 2 SHARPE 69KV COLEY 115KV COLEY 115KV COMANCHE 69KV COMANCHE 58KV COMANCHE 58KV COMANCHE 58KV DENVER G 34.500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV EX TOR CONTRUPL 24 3500 115KV DENVER G 34.500 115KV DENVER G 34.500 115KV GENTIMES 35.800 115KV FREM 66 35.800 115KV FREM 67 35.800 115KV FREM 67 35.800 115KV GENTIMES 26.000 34KV GENTIMES 26.000 3	10.205 8.83 44.322 8.33 61.6.6 42.51929 43.922 8.33 61.6.5 9.9999 444 333 45.5.4 16.5.5 9.999 175 12.01502 145.5 60 55.37,47 15.7 15.7 15.7 15.7 15.7 15.7 15.7 15.	-0.00487 -0.005818-0.00582 -0.005818-0.00582 -0.005818-0.00582 -0.	9.394343944449 9.394543944449 9.394543944449 9.394543944449 9.394543944449 9.394543944449 9.394543944449 9.394543944449 9.394543944449 9.394543944449 9.394543944449 9.39454394449 9.39454394449 9.3945439449 9.394543949 9.394543949 9.394543949 9.394543949 9.394549 9.39549 9.39549 9.39549 9.395549 9.39	22 22 23 24 25 26 27 27 28 28 29 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE GORY CHANU	41.1 41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 WERE -0.39914 NPPD -0.39914 WERE -0	AINSWINTG 34.500 115KV BPS GTTG 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV BULL CREEK 161KV CASS 26 15.000 345KV CASS 26 15.000 345KV CASS 26 15.000 345KV CASS 26 15.000 345KV CENTENIAL WIND 34KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV COLAY CENTER JUNCTION 115KV COLAY CENTER JUNCTION 115KV CONTRUPL 23 AS 000 115KV COMENT 15 AS 000 115KV ENTER 25 AS 000 115KV ENT	10.205 80 80 80 80 80 80 80 80 80 80 80 80 80 8	- 0.00481 - 0.00581 - 0.00	9.3947343343343434343434343434343434343434	222 222 222 222 222 222 222 222 222 22
WERE WERE WERE WERE WERE WERE WERE WERE	CHANUTE 69KV	41.1 41.1 41.1 41.1 41.1 41.1 41.1 41.1	-0.39914 NPPD -0.39914 OPPD -0.39914 OPPD -0.39914 OPPD -0.39914 WERE -0.39914 NPPD -0.39914 NPPD -0.39914 WERE -0.39914 NPPD -0.39914 WERE -0.39914 OKGE	AINSWING 34.500 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT2G 13.800 115KV BPS GT3G 13.800 115KV BPS GT3G 13.800 115KV BROKENBG 69.000 115KV BROKENBG 69.000 115KV BBLLL CREEK 161KV CASS 2G 15.000 345KV CASS 2G 15.000 345KV CASS 2G 15.000 345KV CASS 2G 15.000 345KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV COLOFY 115KV COLOFY 1	10.205 8.0 8.0 8.0 8.0 8.0 8.3 8.3 8.3 8.1 8.2.51929 8.3 3.3 8.5 8.3 8.5 8.3 8.3 8.5 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3		9.394343 9.394323 9.39433 9.39433 9.39434 9.39434 9.39444 9.394	222 222 222 222 222 222 222 222 222 22

wee	DITABLE COLO.		-0.39914 OPPD	NEDODINO OS SOS SERVICI	500			
WERE	CHANUTE 69KV CHANUTE 69KV	41.1	-0.39914 OPPD -0.39914 NPPD	NEBCTY2G 23.000 345KV PLATTE1G 13.800 115KV	503 69.44599	-0.00493 -0.00514	-0.39421 -0.394	22
WERE	CHANUTE 69KV	41.1	-0.39914 MKEC	PRATT 3 115.00 115KV	12.276	-0.01379	-0.38535	22
WERE WERE	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 KACY -0.39914 KACY	QUINDARO 161KV QUINDARO 69KV	117.0069 123.6635	-0.00552 -0.00551	-0.39362 -0.39363	22 22
WERE	CHANUTE 69KV	41.1	-0.39914 NPPD	SHELDN1G 13.800 115KV	68.40001	-0.00528	-0.39386	22
WERE WERE	CHANUTE 69KV CHANUTE 69KV	41.1	-0.39914 NPPD -0.39914 MIPU	SHELDN2G 13.800 115KV SIBLEY 161KV	80.56 228.5508	-0.00528 -0.00471	-0.39386 -0.39443	22 22
	CHANUTE 69KV	41.1	-0.39914 MIPU	SIBLEY 69KV	25.36536	-0.00471	-0.39434	
	CHANUTE 69KV	41.1	-0.39914 NPPD	SIDNEY 4 230.00 230KV	19.008	-0.00558	-0.39356	22
WERE WERE	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 OKGE -0.39914 MIDW	SMITH COGEN 138KV SMOKEY HILLS 34KV	106 50	-0.00233	-0.39681 -0.38734	22
	CHANUTE 69KV	41.1	-0.39914 OKGE	SOONER 138KV	535	-0.00487	-0.39427	22
WERE WERE	CHANUTE 69KV CHANUTE 69KV	41.1	-0.39914 OKGE -0.39914 OKGE	SOONER 345KV SOUTH 4TH ST 69KV	537 12.71973	-0.00482 -0.00507	-0.39432 -0.39407	22 22
WERE	CHANUTE 69KV	41.1	-0.39914 WERE	SOUTH SENECA 115KV	11.2	-0.00916		22
	CHANUTE 69KV	41.1	-0.39914 AEPW	SOUTHWESTERN STATION 138KV	712	-0.00244	-0.3967	22 22
	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 AEPW -0.39914 OKGE	SOUTHWESTERN STATION 138KV SPGCK1&2 13.200 345KV	287 78	-0.00244	-0.3967 -0.39616	22
WERE	CHANUTE 69KV	41.1	-0.39914 OKGE	SPGCK3&4 13.200 345KV	12	-0.00298	-0.39616	22
	CHANUTE 69KV CHANUTE 69KV	41.1	-0.39914 WERE -0.39914 NPPD	W.POINTG 34.500 115KV	133	-0.01026	-0.38888 -0.39465	22 22
	CHANUTE 69KV	41.1	-0.39914 AEPW	WEATHERFORD 34KV	12	-0.003	-0.39614	22
WEDE	OITY OF FRIE COICY	20.50	0.00044141/50	A MANUEL EDODENI CENEDATOR 445KV		0.0444	0.00004	
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 MKEC -0.39914 NPPD	A. M. MULLERGREN GENERATOR 115KV AINSWN1G 34.500 115KV	63 10.205	-0.0111	-0.38804 -0.39427	22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 NPPD	BPS GT1G 13.800 115KV	80	-0.00581	-0.39333	22
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53	-0.39914 NPPD -0.39914 NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	44.32 49.022	-0.00581 -0.00581	-0.39333 -0.39333	22 22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 NPPD	BROKENBG 69.000 115KV	8.3	-0.00532		22
	CITY OF ERIE 69KV	22.53	-0.39914 KACP	BULL CREEK 161KV	61.6	-0.00583	-0.39331	22
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 OPPD -0.39914 OPPD	CASS 1G 15.000 345KV CASS 2G 15.000 345KV	42.51929 52.99999	-0.00481 -0.00481	-0.39433 -0.39433	22 22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 OKGE	CENTENIAL WIND 34KV	44	-0.00328	-0.39586	22
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 MKEC -0.39914 WERE	CIMARRON RIVER 115KV CITY OF BURLINGTON 69KV	33 55.4	-0.00866	-0.39048 -0.38824	22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 KACP	CITY OF HIGGINSVILLE 69KV	36	-0.00362	-0.39552	22
	CITY OF ERIE 69KV	22.53		CLAY CENTER JUNCTION 115KV	16.5	-0.01102		22
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 WERE -0.39914 WERE	CNTRLPL2 34.500 115KV COFFEY COUNTY NO. 2 SHARPE 69KV	99 19.98	-0.00779	-0.39135 -0.38824	22 22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 NPPD	COL.COG7 115.00 115KV	75	-0.00471	-0.39443	22
WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 MIDW	COLBY 115KV COMANCHE 138KV	12.01502 145	-0.00798	-0.39116 -0.39664	
WERE	CITY OF ERIE 69KV	22.53	-0.39914 AEPW -0.39914 AEPW	COMANCHE 69KV	145	-0.0025 -0.00245	-0.39664 -0.39669	22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 NPPD	COOPER1G 22.000 345KV	535.747	-0.00509	-0.39405	22
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 NPPD -0.39914 NPPD	CRETE G 34.500 115KV D.HENRYG 34.500 115KV	15.7	-0.00528 -0.00521	-0.39386 -0.39393	22 22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 NPPD	DENVER G 34.500 115KV	33.909	-0.00521	-0.39393	22
	CITY OF ERIE 69KV	22.53 22.53	-0.39914 NPPD -0.39914 EMDE	EGY CTRG 13.800 115KV ELK RIVER 345KV	54 44,986	-0.00522	-0.39392 -0.39174	22
	CITY OF ERIE 69KV	22.53	-0.39914 EMDE -0.39914 WERE	EMPORIA ENERGY CENTER 345KV	44.986	-0.01091	-0.39174	
WERE	CITY OF ERIE 69KV	22.53	-0.39914 NPPD	FAIRBRYG 34.500 115KV	15.3	-0.00603	-0.39311	22 22
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53	-0.39914 OKGE -0.39914 OPPD	FPLWND2 34KV FREM 8G 13.800 69KV	16 90	-0.00355 -0.00465	-0.39559 -0.39449	22 22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 OPPD	FT CAL1G 22.000 4KV	376	-0.00466	-0.39448	22
	CITY OF ERIE 69KV			GENTLM1G 23.000 230KV	461.318	-0.00567	-0.39347	
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 NPPD -0.39914 MKEC	GENTLM2G 24.000 345KV GRAY COUNTY WIND FARM 115KV	430.5264 110	-0.00571 -0.00998	-0.39343 -0.38916	22
	CITY OF ERIE 69KV	22.53		GREAT BEND PLANT 69KV	9.25	-0.01122		22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 KACP	GREAT PLAINS ENERGY WIND GENERATION AT SPEARVILLE 230KV	100	-0.00907	-0.39007	22
	CITY OF ERIE 69KV	22.53	-0.39914 NPPD	GT-2 G 13.800 115KV	40	-0.00513		22
	CITY OF ERIE 69KV	22.53	-0.39914 KACP -0.39914 WERE	HAWTHORN 161KV HOLTON 115KV	485.2	-0.00514	-0.394	22
WERE WERE	CITY OF ERIE 69KV	22.53 22.53	-0.39914 WERE -0.39914 WERE	HUTCHINSON ENERGY CENTER 115KV	12.2 257.9033	-0.0093 -0.01361	-0.38984 -0.38553	22 22
	CITY OF ERIE 69KV	22.53	-0.39914 WERE	HUTCHINSON ENERGY CENTER 69KV	30	-0.01361	-0.38553	22
	CITY OF ERIE 69KV	22.53 22.53	-0.39914 KACP -0.39914 KACP	IATAN 345KV IATAN 345KV	371 1806	-0.00627 -0.00627	-0.39287 -0.39287	22 22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 WERE	JEFFREY ENERGY CENTER 230KV	440	-0.00978	-0.38936	22
	CITY OF ERIE 69KV	22.53 22.53		JEFFREY ENERGY CENTER 345KV	874	-0.00976	-0.38938	
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53	-0.39914 MKEC -0.39914 MIDW	JUDSON LARGE 115KV KNOLL 115KV	95.37077 75.60001	-0.01	-0.38914 -0.38826	22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 MIPU	LAKE ROAD 34KV	92	-0.00538	-0.39376	22
	CITY OF ERIE 69KV	22.53 22.53	-0.39914 WERE -0.39914 OKGE	LAWRENCE ENERGY CENTER 230KV MCCLAIN 138KV	223.9929 470	-0.00883	-0.39031 -0.3969	22
	CITY OF ERIE 69KV	22.53	-0.39914 KACP	MONTROSE 161KV	307.363	-0.00393		22
	CITY OF ERIE 69KV	22.53	-0.39914 OKGE -0.39914 OKGE	MUSTANG 138KV	351 90	-0.00237	-0.39677 -0.39677	22
	CITY OF ERIE 69KV	22.53 22.53	-0.39914 ORGE -0.39914 OPPD	MUSTANG 69KV N OMA 1G 13.800 2KV	48.5	-0.00237 -0.00472		22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 OPPD	N OMA 2G 13.800 2KV	80.59999	-0.00471	-0.39443	22
	CITY OF ERIE 69KV	22.53 22.53	-0.39914 OPPD -0.39914 OPPD	N OMA 3G 13.800 2KV N OMA 4G 15.000 2KV	80.59999 107.4	-0.00471	-0.39443 -0.39443	22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 OPPD	N OMA 5G 20.000 4KV	173.9	-0.00471	-0.39443	22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 NPPD	N.PLATTG 13.800 115KV	15.107	-0.00563	-0.39351	22
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 KACY	NEARMAN 161KV NEARMAN 20KV	77 235	-0.00553 -0.00553	-0.39361 -0.39361	22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 OPPD	NEBCTY1G 18.000 4KV	466	-0.00493	-0.39421	22
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 OPPD -0.39914 NPPD	NEBCTY2G 23.000 345KV PLATTE1G 13.800 115KV	503 69.44599	-0.00493 -0.00514	-0.39421 -0.394	22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 MKEC	PRATT 3 115.00 115KV	12.276	-0.01379	-0.38535	22
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53		QUINDARO 161KV QUINDARO 69KV	117.0069 123.6635	-0.00552 -0.00551	-0.39362 -0.39363	22 22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 NPPD	SHELDN1G 13.800 115KV	68.40001	-0.00528	-0.39386	22
	CITY OF ERIE 69KV	22.53		SHELDN2G 13.800 115KV	80.56	-0.00528		22
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 MIPU -0.39914 MIPU	SIBLEY 161KV SIBLEY 69KV	228.5508 25.36536	-0.00471	-0.39443 -0.39434	22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 NPPD	SIDNEY 4 230.00 230KV	19.008	-0.00558	-0.39356	22
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 OKGE -0.39914 MIDW	SMITH COGEN 138KV SMOKEY HILLS 34KV	106 50	-0.00233 -0.0118	-0.39681 -0.38734	
	CITY OF ERIE 69KV	22.53	-0.39914 MIDW -0.39914 OKGE	SOONER 138KV	535	-0.00118	-0.38734	22
	CITY OF ERIE 69KV	22.53	-0.39914 OKGE	SOONER 345KV	537	-0.00482	-0.39432	22
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53		SOUTH 4TH ST 69KV SOUTH SENECA 115KV	12.71973 11.2	-0.00507 -0.00916	-0.39407 -0.38998	22
WERE	CITY OF ERIE 69KV	22.53	-0.39914 AEPW	SOUTHWESTERN STATION 138KV	287	-0.00244	-0.3967	22
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 AEPW -0.39914 OKGE	SOUTHWESTERN STATION 138KV SPGCK1&2 13.200 345KV	712 78	-0.00244	-0.3967 -0.39616	
WERE	CITY OF ERIE 69KV	22.53	-0.39914 OKGE	SPGCK3&4 13.200 345KV	12	-0.00298	-0.39616	22
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 WERE -0.39914 NPPD	TECUMSEH ENERGY CENTER 115KV W.POINTG 34.500 115KV	133 7.4	-0.01026	-0.38888 -0.39465	22
	CITY OF ERIE 69KV CITY OF ERIE 69KV		-0.39914 NPPD -0.39914 AEPW	WEATHERFORD 34KV	7.4	-0.00449	-0.39465 -0.39614	22
WERE	CHANUTE 69KV	41.1	-0.39914 WERE	CITY OF MULVANE 69KV	9.729	-0.02396	-0.37518	23
	CHANUTE 69KV CHANUTE 69KV	41.1 41.1	-0.39914 WERE -0.39914 WERE	CITY OF WINFIELD 69KV EVANS ENERGY CENTER 138KV	31.2 560	-0.02156 -0.02025		
WERE	CHANUTE 69KV	41.1	-0.39914 WERE	GILL ENERGY CENTER 138KV	155	-0.02023	-0.37689	23
WERE	CHANUTE 69KV	41.1 22.53	-0.39914 WERE	GILL ENERGY CENTER 69KV	52	-0.02238	-0.37676	23
WERE WERE	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53	-0.39914 WERE -0.39914 WERE	CITY OF MULVANE 69KV CITY OF WINFIELD 69KV	9.729 31.2	-0.02396 -0.02156		23
WERE	CITY OF ERIE 69KV	22.53	-0.39914 WERE	EVANS ENERGY CENTER 138KV	560	-0.02025	-0.37889	23
	CITY OF ERIE 69KV CITY OF ERIE 69KV	22.53 22.53		GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV	155 52	-0.02238	-0.37684 -0.37676	
WERE	CHANUTE 69KV	41.1	-0.39914 WERE	CITY OF AUGUSTA 69KV	20	-0.04919	-0.34995	24
WERE WERE	CITY OF ERIE 69KV CITY OF IOLA 69KV	22.53	-0.39914 WERE -0.29372 AEPW	CITY OF AUGUSTA 69KV NORTHEASTERN STATION 345KV	20 625	-0.04919 0.00652	-0.34995 -0.30024	24 28
	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 27.428		AES 161KV	625 320	0.00652	-0.30024 -0.2954	
WERE	CITY OF IOLA 69KV	27.428	-0.29372 AEPW	ARSENAL HILL 138KV	455	0.0001	-0.29382	29
	CITY OF IOLA 69KV CITY OF IOLA 69KV		-0.29372 AEPW -0.29372 EMDE	ARSENAL HILL 69KV ASBURY 161KV	90 192	-0.0001	-0.29382 -0.29249	29 29
	CITY OF IOLA 69KV CITY OF IOLA 69KV		-0.29372 EMDE -0.29372 OKGE	CENTENIAL WIND 34KV	192	-0.00123		

	CITY OF IOLA 69KV		CITY OF HIGGINSVILLE 69KV	36 -0.00362 -0.2901 865 0.00294 -0.29666
WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 AEPW 27.428 -0.29372 AEPW	COGENTRIX 345KV COMANCHE 138KV	145 -0.0025 -0.29122
WERE	CITY OF IOLA 69KV	27.428 -0.29372 AEPW	COMANCHE 69KV	60 -0.00245 -0.29127
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 AEPW 27.428 -0.29372 AEPW	EASTMAN 138KV FITZHUGH 161KV	157.549 0.00005 -0.29377 125.4 0.00162 -0.29534
WERE	CITY OF IOLA 69KV	27.428 -0.29372 AEPW	FLINT CREEK 161KV	428 0.00364 -0.29736
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 OKGE 27.428 -0.29372 OKGE	FPLWND2 34KV HORSESHOE LAKE 138KV	16 -0.00355 -0.29017 796 -0.00182 -0.2919
WERE	CITY OF IOLA 69KV	27.428 -0.29372 OKGE	HORSESHOE LAKE 69KV	16 -0.00154 -0.29218
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 AEPW 27.428 -0.29372 EMDE	KNOXLEE 138KV LARUSSEL 161KV	282 0.00006 -0.29378 100 0.0021 -0.29582
	CITY OF IOLA 69KV	27.428 -0.29372 EMDE	LEBROCK 345KV	367.1163 0.00005 -0.29377
WERE	CITY OF IOLA 69KV	27.428 -0.29372 AEPW	LIEBERMAN 138KV	174 0.0001 -0.29382
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 AEPW 27.428 -0.29372 OKGE	LONESTAR POWER PLANT 69KV MCCLAIN 138KV	27 0.00004 -0.29376 470 -0.00224 -0.29148
WERE	CITY OF IOLA 69KV	27.428 -0.29372 KACP	MONTROSE 161KV	307.363 -0.00393 -0.28979
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 OKGE 27.428 -0.29372 OKGE	MUSKOGEE 161KV MUSKOGEE 345KV	166 0.00264 -0.29636 1548 0.00259 -0.29631
WERE	CITY OF IOLA 69KV	27.428 -0.29372 OKGE	MUSTANG 138KV	351 -0.00237 -0.29135
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 OKGE 27.428 -0.29372 AEPW	MUSTANG 69KV NORTHEASTERN STATION 138KV	90 -0.00237 -0.29135 480 0.00372 -0.29744
WERE	CITY OF IOLA 69KV	27.428 -0.29372 AEPW 27.428 -0.29372 AEPW	OEC 345KV	555.4863 0.00373 -0.29745
WERE	CITY OF IOLA 69KV	27.428 -0.29372 EMDE	OZARK BEACH 161KV	16 0.00272 -0.29644
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 AEPW 27.428 -0.29372 OKGE	PIRKEY GENERATION 138KV REDBUD 345KV	288 0.00005 -0.29377 11.79899 -0.0016 -0.29212
WERE	CITY OF IOLA 69KV	27.428 -0.29372 EMDE	RIVERTON 161KV	190.2537 0.00294 -0.29666
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 EMDE 27.428 -0.29372 OKGE	RIVERTON 69KV SEMINOLE 138KV	43.98939 0.00256 -0.29628 329.1385 -0.00156 -0.29216
WERE	CITY OF IOLA 69KV	27.428 -0.29372 OKGE	SEMINOLE 345KV	1019 -0.00167 -0.29205
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 OKGE 27.428 -0.29372 AEPW	SMITH COGEN 138KV SOUTHWESTERN STATION 138KV	106 -0.00233 -0.29139 287 -0.00244 -0.29128
WERE	CITY OF IOLA 69KV	27.428 -0.29372 AEPW	SOUTHWESTERN STATION 138KV	712 -0.00244 -0.29128
WERE	CITY OF IOLA 69KV	27.428 -0.29372 OKGE	SPGCK1&2 13.200 345KV	78 -0.00298 -0.29074
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 OKGE 27.428 -0.29372 EMDE	SPGCK3&4 13.200 345KV STATE LINE 161KV	12 -0.00298 -0.29074 538 0.00255 -0.29627
WERE	CITY OF IOLA 69KV	27.428 -0.29372 OKGE	TINKER 5G 138KV	60 -0.00198 -0.29174
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 AEPW 27.428 -0.29372 AEPW	TONTITOWN 161KV TULSA POWER STATION 138KV	140 0.00349 -0.29721 240.0898 0.0031 -0.29682
WERE	CITY OF IOLA 69KV	27.428 -0.29372 AEPW	WEATHERFORD 34KV	12 -0.003 -0.29072
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 AEPW 27.428 -0.29372 AEPW	WELSH 345KV WILKES 138KV	1044 0 -0.29372 410.8666 0.00004 -0.29376
	CITY OF IOLA 69KV		WILKES 138KV WILKES 345KV	308 0.00005 -0.29377
WERE	CITY OF IOLA 69KV	27.428 -0.29372 MKEC	A M MILLEDGDEN CENEDATOR 445/04	63 -0.0111 -0.28262
	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 MKEC 27.428 -0.29372 NPPD	A. M. MULLERGREN GENERATOR 115KV AINSWN1G 34.500 115KV	63 -0.0111 -0.28262 10.205 -0.00487 -0.28885
WERE	CITY OF IOLA 69KV		BPS GT1G 13.800 115KV	80 -0.00581 -0.28791
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 NPPD 27.428 -0.29372 NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	44.32 -0.00581 -0.28791 49.022 -0.00581 -0.28791
WERE	CITY OF IOLA 69KV	27.428 -0.29372 KACP	BULL CREEK 161KV	61.6 -0.00583 -0.28789
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 OPPD 27.428 -0.29372 OPPD	CASS 1G 15.000 345KV CASS 2G 15.000 345KV	42.51929 -0.00481 -0.28891 52.99999 -0.00481 -0.28891
WERE	CITY OF IOLA 69KV	27.428 -0.29372 MKEC	CIMARRON RIVER 115KV	33 -0.00866 -0.28506
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 WERE 27.428 -0.29372 WERE	CITY OF BURLINGTON 69KV CLAY CENTER JUNCTION 115KV	55.4 -0.0109 -0.28282 16.5 -0.01102 -0.2827
WERE	CITY OF IOLA 69KV	27.428 -0.29372 WERE	CNTRLPL2 34.500 115KV	99 -0.00779 -0.28593
WERE	CITY OF IOLA 69KV	27.428 -0.29372 WERE	COFFEY COUNTY NO. 2 SHARPE 69KV	19.98 -0.0109 -0.28282
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 NPPD 27.428 -0.29372 MIDW	COL.COG7 115.00 115KV COLBY 115KV	75 -0.00471 -0.28901 12.01502 -0.00798 -0.28574
WERE	CITY OF IOLA 69KV	27.428 -0.29372 NPPD	COOPER1G 22.000 345KV	535.747 -0.00509 -0.28863
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 NPPD 27.428 -0.29372 NPPD	CRETE G 34.500 115KV D.HENRYG 34.500 115KV	15.7 -0.00528 -0.28844 18 -0.00521 -0.28851
WERE	CITY OF IOLA 69KV	27.428 -0.29372 NPPD	DENVER G 34.500 115KV	33.909 -0.00521 -0.28851
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 NPPD 27.428 -0.29372 EMDE	EGY CTRG 13.800 115KV ELK RIVER 345KV	54 -0.00522 -0.2885 44.986 -0.0074 -0.28632
WERE	CITY OF IOLA 69KV	27.428 -0.29372 EMBE 27.428 -0.29372 WERE	EMPORIA ENERGY CENTER 345KV	610 -0.01091 -0.28281
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 NPPD 27.428 -0.29372 OPPD	FAIRBRYG 34.500 115KV FREM 8G 13.800 69KV	15.3 -0.00603 -0.28769 90 -0.00465 -0.28907
WERE	CITY OF IOLA 69KV	27.428 -0.29372 OPPD	FT CAL1G 22.000 4KV	376 -0.00466 -0.28906
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 NPPD 27.428 -0.29372 NPPD	GENTLM1G 23.000 230KV GENTLM2G 24.000 345KV	461.318 -0.00567 -0.28805 430.5264 -0.00571 -0.28801
WERE	CITY OF IOLA 69KV	27.428 -0.29372 MKEC 27.428 -0.29372 MKEC	GRAY COUNTY WIND FARM 115KV	110 -0.00998 -0.28374
			GREAT PLAINS ENERGY WIND	
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 KACP 27.428 -0.29372 NPPD	GENERATION AT SPEARVILLE 230KV GT-2 G 13.800 115KV	100 -0.00907 -0.28465 40 -0.00513 -0.28859
WERE	CITY OF IOLA 69KV	27.428 -0.29372 KACP	HAWTHORN 161KV	485.2 -0.00514 -0.28858
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 WERE 27.428 -0.29372 WERE	HOLTON 115KV HUTCHINSON ENERGY CENTER 115KV	12.2 -0.0093 -0.28442 257.9033 -0.01361 -0.28011
WERE	CITY OF IOLA 69KV	27.428 -0.29372 WERE	HUTCHINSON ENERGY CENTER 69KV	30 -0.01361 -0.28011
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 KACP 27.428 -0.29372 KACP	IATAN 345KV IATAN 345KV	371 -0.00627 -0.28745 1806 -0.00627 -0.28745
WERE	CITY OF IOLA 69KV	27.428 -0.29372 WERE	JEFFREY ENERGY CENTER 230KV	440 -0.00978 -0.28394
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 WERE 27.428 -0.29372 MKEC	JEFFREY ENERGY CENTER 345KV JUDSON LARGE 115KV	874 -0.00976 -0.28396 95.37077 -0.01 -0.28372
WERE	CITY OF IOLA 69KV	27.428 -0.29372 MIDW	KNOLL 115KV	75.60001 -0.01088 -0.28284
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 MIPU 27.428 -0.29372 WERE	LAKE ROAD 34KV LAWRENCE ENERGY CENTER 230KV	92 -0.00538 -0.28834 223.9929 -0.00883 -0.28489
WERE	CITY OF IOLA 69KV	27.428 -0.29372 OPPD	N OMA 1G 13.800 2KV	48.5 -0.00472 -0.289
WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV		N OMA 2G 13.800 2KV	80.59999 -0.00471 -0.28901
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV		N OMA 3G 13.800 2KV N OMA 4G 15.000 2KV	80.59999 -0.00471 -0.28901 107.4 -0.00471 -0.28901
WERE	CITY OF IOLA 69KV	27.428 -0.29372 OPPD	N OMA 5G 20.000 4KV	173.9 -0.00471 -0.28901
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 NPPD 27.428 -0.29372 KACY	N.PLATTG 13.800 115KV NEARMAN 161KV	15.107 -0.00563 -0.28809 77 -0.00553 -0.28819
WERE	CITY OF IOLA 69KV	27.428 -0.29372 KACY	NEARMAN 20KV	235 -0.00553 -0.28819
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 OPPD 27.428 -0.29372 OPPD	NEBCTY1G 18.000 4KV NEBCTY2G 23.000 345KV	466 -0.00493 -0.28879 503 -0.00493 -0.28879
WERE	CITY OF IOLA 69KV	27.428 -0.29372 NPPD	PLATTE1G 13.800 115KV	69.44599 -0.00514 -0.28858
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 MKEC 27.428 -0.29372 KACY	PRATT 3 115.00 115KV QUINDARO 161KV	12.276 -0.01379 -0.27993 117.0069 -0.00552 -0.2882
WERE	CITY OF IOLA 69KV	27.428 -0.29372 KACY	QUINDARO 69KV	177.0069 -0.00552 -0.2882
WERE	CITY OF IOLA 69KV	27.428 -0.29372 NPPD 27.428 -0.29372 NPPD	SHELDN1G 13.800 115KV SHELDN2G 13.800 115KV	68.40001 -0.00528 -0.28844
	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 NPPD 27.428 -0.29372 MIPU	SIBLEY 161KV	80.56 -0.00528 -0.28844 228.5508 -0.00471 -0.28901
WERE	CITY OF IOLA 69KV	27.428 -0.29372 MIPU	SIBLEY 69KV	25.36536 -0.0048 -0.28892
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 NPPD 27.428 -0.29372 MIDW	SIDNEY 4 230.00 230KV SMOKEY HILLS 34KV	19.008 -0.00558 -0.28814 50 -0.0118 -0.28192
WERE	CITY OF IOLA 69KV	27.428 -0.29372 OKGE	SOONER 138KV	535 -0.00487 -0.28885
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 OKGE 27.428 -0.29372 OKGE	SOONER 345KV SOUTH 4TH ST 69KV	537 -0.00482 -0.2889 12.71973 -0.00507 -0.28865
WERE	CITY OF IOLA 69KV	27.428 -0.29372 WERE	SOUTH SENECA 115KV	11.2 -0.00916 -0.28456
WERE	CITY OF IOLA 69KV	27.428 -0.29372 WERE	TECUMSEH ENERGY CENTER 115KV CITY OF WINFIELD 69KV	133 -0.01026 -0.28346
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 WERE 27.428 -0.29372 WERE	EVANS ENERGY CENTER 138KV	31.2 -0.02156 -0.27216 560 -0.02025 -0.27347
WERE	CITY OF IOLA 69KV	27.428 -0.29372 WERE	GILL ENERGY CENTER 138KV	155 -0.0223 -0.27142
WERE WERE	CITY OF IOLA 69KV CITY OF IOLA 69KV	27.428 -0.29372 WERE 27.428 -0.29372 WERE	GILL ENERGY CENTER 69KV CITY OF AUGUSTA 69KV	52 -0.02238 -0.27134 20 -0.04919 -0.24453
	in the second se	puce and Sink Operating Points in the study models where limit	de e fe elle come let estille el	0.04010 0.24400

WERE CITY OF IOLA 69KV 27.428 0.29372 WERE CITY OF AUGUSTA 69K1
Maximum Decrement and Maximum Increment were determine from the Souce and Sink Operating Points in the study models where limiting facility was identified.
Factor = Source GSF - Sink GSF.
Redispatch Amount = Relief Amount / Factor

 Upgrade:
 RIVERSIDE STATION - TULSA POWER STATION 138KV CKT 1

 Limiting Facility
 RIVERSIDE STATION - TULSA POWER STATION 138KV CKT 1

 Direction:
 FROM->TO

 Line Outage
 OAKS EAST TAP - RIVERSIDE STATION 138KV CKT 1

 Flowgate:
 2007AG2AFS81TT21105P

 Date Redispatch Needed
 Starting 2010 6/1 - 10/1 Until EOC of Upgrade

Season Flowgate Identified									
Reservation 1283682	Relief Amount 24.9	Aggregate Relief Amount 37.6							
1286446 Source Control Area	Source	37.6 Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)
AEPW	TULSA POWER STATION 138KV	320	-0.20901		COGENTRIX 345KV	865		-0.22566	167
AEPW AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 138KV TULSA POWER STATION 138KV	80 320 320	-0.20901 -0.20901	WFEC	COGENTRIX 345KV HUGO 138KV MUSKOGEE 345KV	865 440 1548	0.00673	-0.21574	167 174 174
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320 320	-0.20901 -0.20901	OKGE	REDBUD 345KV SEMINOLE 138KV	233.6274 478.9435	0.00657	-0.21558 -0.21562	174
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901	WFEC	HUGO 138KV MUSKOGEE 345KV	440 1548	0.00673	-0.21574 -0.21612	174
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80	-0.20901	OKGE	REDBUD 345KV SEMINOLE 138KV	233.6274 478.9435	0.00657	-0.21558 -0.21562	174
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901 -0.20901	OKGE	ANADARKO 138KV HORSESHOE LAKE 138KV	371.055 796	0.0053	-0.21451 -0.21439	175 175
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901 -0.20901	OKGE	MCCLAIN 138KV SEMINOLE 345KV	470 1019	0.00601	-0.21435 -0.21502	175 175
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901 -0.20901	AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	287 712			175 175
AEPW AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 69KV TULSA POWER STATION 69KV	320 80 80	-0.20901 -0.20901	WFEC	TINKER 5G 138KV ANADARKO 138KV HORSESHOE LAKE 138KV	60 371.055 796	0.0055	-0.21453 -0.21451 -0.21439	175 175 177
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901	OKGE	MCCLAIN 138KV SEMINOLE 345KV	470 1019	0.00534	-0.21435 -0.21502	175
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80	-0.20901	1 AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	287 712	0.00541	-0.21442	175
	TULSA POWER STATION 69KV TULSA POWER STATION 138KV	80 320	-0.20901 -0.20901	AEPW	TINKER 5G 138KV COMANCHE 138KV	60 145	0.00552 0.00513	-0.21453 -0.21414	175 176
AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901	OKGE	COMANCHE 69KV MUSKOGEE 161KV	60 166	0.00436	-0.21337	176
AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901	OKGE	MUSTANG 138KV MUSTANG 69KV	351 90			176 176
AEPW AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320 320	-0.20901 -0.20901	OKGE	SMITH COGEN 138KV SPGCK1&2 13.200 345KV WEATHERFORD 34KV	106 78 148	0.00509 0.00447 0.00459	-0.21348	176 176 176
AEPW AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901	1 AEPW	COMANCHE 138KV COMANCHE 69KV	148 145 60	0.00513		176 176
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80 80	-0.20901 -0.20901	OKGE	MUSKOGEE 161KV MUSTANG 138KV	166 351	0.00436		176
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901		MUSTANG 69KV SMITH COGEN 138KV	90 106	0.00502	-0.21403 -0.2141	176 176
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901	AEPW	SPGCK1&2 13.200 345KV WEATHERFORD 34KV	78 148	0.00447	-0.21348 -0.2136	176 176
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901 -0.20901	AEPW	AES 161KV ARSENAL HILL 138KV	320 455	0.00303	-0.21204	177 177
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901 -0.20901	SPS	ARSENAL HILL 69KV CUNNINGHAM 115KV	83.6289 181			177
AEPW AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320 320	-0.20901 -0.20901	1 AEPW	CUNNINGHAM 230KV EASTMAN 138KV FPLWND2 34KV	302.6 155 59	0.00298 0.00332 0.00366	-0.21199 -0.21233 -0.21267	177 177 177
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320 320	-0.20901 -0.20901	SPS	HOBBS_PLT2 118.000 115KV HOBBS_PLT3 118.000 230KV	300 210		-0.21199 -0.21199	177
	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320 320	-0.20901 -0.20901	SPS	JONES 230KV KNOXLEE 138KV	486 225	0.00314	-0.21215 -0.21231	177
AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901	1 AEPW	LEBROCK 345KV LIEBERMAN 138KV	164.9999 158	0.00331	-0.21232 -0.2121	177
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901 -0.20901		LP-MACK2 69KV MADOX 115KV	60 152.3726	0.00315		177
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901 -0.20901	SPS	MORLND 138KV MUSTANG 115KV	315.0128 300	0.00365	-0.21266 -0.212	177
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901 -0.20901	AEPW	MUSTANG 230KV PIRKEY GENERATION 138KV	460 288 120	0.00299	-0.212 -0.21232 -0.21193	177
AEPW AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320 320	-0.20901 -0.20901	WFEC	SAN JUAN 230KV SLEEPING BEAR 138KV TOLK 230KV	80 1019.82	0.00292 0.00367 0.00291		177 177 177
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320 320	-0.20901 -0.20901	1 AEPW	WELSH 345KV WILKES 138KV	1044 410.603	0.00367	-0.21268 -0.21246	177
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 69KV	320 80	-0.20901	AEPW	WILKES 345KV AES 161KV	308 320	0.00338	-0.21239	177
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901	AEPW	ARSENAL HILL 138KV ARSENAL HILL 69KV	455 83.6289	0.00303	-0.21204 -0.21204	177
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901	SPS	CUNNINGHAM 115KV CUNNINGHAM 230KV	181 302.6	0.00298	-0.21199	177
AEPW AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80 80	-0.20901	OKGE	FPLWND2 34KV	155 59 300	0.00332	-0.21233 -0.21267 -0.21199	177 177 177
AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV TUL SA POWER STATION 69KV	80 80 80	-0.20901 -0.20901	1 SPS	HOBBS_PLT2 118.000 115KV HOBBS_PLT3 118.000 230KV JONES 230KV	210 486	0.00298	-0.21199 -0.21199 -0.21215	177
AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901	AEPW	KNOXLEE 138KV LEBROCK 345KV	225 164.9999		-0.21231 -0.21232	177
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901		LIEBERMAN 138KV LP-MACK2 69KV	158 60		-0.2121 -0.21216	177 177
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901	WFEC	MADOX 115KV MORLND 138KV	152.3726 315.0128	0.00298	-0.21266	177
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901	1 SPS	MUSTANG 115KV MUSTANG 230KV	300 460		-0.212 -0.212	177
AEPW AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80 80	-0.20901 -0.20901	1 SPS	PIRKEY GENERATION 138KV SAN JUAN 230KV SLEEPING BEAR 138KV	288 120 80			177 177 177
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80 80	-0.20901 -0.20901	SPS	TOLK 230KV WELSH 345KV	1019.82 1044	0.00367	-0.21268 -0.21192 -0.21268	177
	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901	AEPW AEPW	WILKES 138KV WILKES 345KV	410.603 308	0.00345		177
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901	SPS	BLACKHAWK 115KV CAPROCK 0KV	220 80	0.00288	-0.21189	178 178
	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901 -0.20901	AEPW	DOLET HILLS 345KV FITZHUGH 161KV	370 116.9			178 178
AEPW AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320 320	-0.20901 -0.20901	SPS	HARRINGTON 230KV NICHOLS 115KV NICHOLS 230KV	1040 147 147	0.00247	-0.21144 -0.21148 -0.21145	178 178 178
	TULSA POWER STATION 138KV TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320 320	-0.20901 -0.20901	SPS	PLANTX 115KV PLANTX 230KV	205 189		-0.21145 -0.21191 -0.21189	178 178 178
	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320 320	-0.20901 -0.20901	OKGE	SOONER 345KV STEER WATER 115KV	537 80	0.00186	-0.21087	178
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 69KV	320 80	-0.20901	I SPS I SPS	WILWIND 230KV BLACKHAWK 115KV	160 220	0.00246	-0.21147 -0.21132	170 170
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901	I SPS I CELE	CAPROCK 0KV DOLET HILLS 345KV	80 370	0.00288	-0.21189 -0.21177	170 170
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901	SPS	FITZHUGH 161KV HARRINGTON 230KV	116.9 1040	0.00224	-0.21125 -0.21144	170
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80	-0.20901 -0.20901	SPS	NICHOLS 115KV NICHOLS 230KV	147 147	0.00244	-0.21148 -0.21145	17: 17:
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80 80	-0.20901 -0.20901	1 SPS	PLANTX 115KV PLANTX 230KV SOONER 345KV	205 189 537	0.00288	-0.21191 -0.21189 -0.21087	17: 17: 17:
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 69KV TULSA POWER STATION 69KV	80 80 80	-0.20901 -0.20901	1 SPS	STEER WATER 115KV WILWIND 230KV	80 160	0.00253	-0.21154 -0.21147	173
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901 -0.20901	CELE	ACADIA 138KV CITY OF HOUMA SUB 115KV	174 95	0.00134	-0.21035	179
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901	CELE CELE	EVANGELINE 230KV G7EVAN 22.000 138KV	234 165	0.00149	-0.2105 -0.21048	179 179
AEPW AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 138KV	320 320	-0.20901	CELE	RODEMACHER 230KV TECHE 138KV	991 291.2301	0.00166	-0.21067 -0.21029	179 179

AEPW	TULSA POWER STATION 69KV	80		CELE	ACADIA 138KV	174 0.00		179
AEPW	TULSA POWER STATION 69KV	80		_EPA	CITY OF HOUMA SUB 115KV	95 0.00		
AEPW	TULSA POWER STATION 69KV	80		CELE	EVANGELINE 230KV	234 0.00		179
AEPW	TULSA POWER STATION 69KV	80		CELE	G7EVAN 22.000 138KV	165 0.00		
AEPW	TULSA POWER STATION 69KV	80		CELE	RODEMACHER 230KV	991 0.00		179
AEPW	TULSA POWER STATION 69KV	80		CELE	TECHE 138KV	291.2301 0.00		
AEPW	TULSA POWER STATION 138KV	320		SWPA	JONESBORO 161KV	63 -0.00		180
AEPW	TULSA POWER STATION 138KV	320		AEPW	OEC 345KV	450 -0.00		
AEPW	TULSA POWER STATION 138KV	320		OKGE	SOONER 138KV	535 -0.00		180
AEPW	TULSA POWER STATION 69KV	80		SWPA	JONESBORO 161KV	63 -0.00		
AEPW	TULSA POWER STATION 69KV	80		AEPW	OEC 345KV	450 -0.00		
AEPW	TULSA POWER STATION 69KV	80		OKGE	SOONER 138KV	535 -0.00		180
AEPW	TULSA POWER STATION 138KV	320		SWPA	SIKESTON 161KV	235 -0.00		181
AEPW	TULSA POWER STATION 69KV	80		SWPA	SIKESTON 161KV	235 -0.00		181
AEPW	TULSA POWER STATION 138KV	320		NERE	BPU - CITY OF MCPHERSON 115KV	126.416 -0.00		182
AEPW	TULSA POWER STATION 138KV	320		NERE	EMPORIA ENERGY CENTER 345KV	610 -0.00		
AEPW	TULSA POWER STATION 138KV	320		NERE	EVANS ENERGY CENTER 138KV	560 -0.00		182
AEPW	TULSA POWER STATION 138KV	320		NERE	GILL ENERGY CENTER 138KV	155 -0.00		
AEPW	TULSA POWER STATION 138KV	320		WERE	GILL ENERGY CENTER 69KV	75 -0.00		182
AEPW	TULSA POWER STATION 138KV	320		NERE	HUTCHINSON ENERGY CENTER 115KV	333 -0.00		
AEPW	TULSA POWER STATION 138KV	320		NERE	JEFFREY ENERGY CENTER 230KV	440 -0.00		
AEPW	TULSA POWER STATION 138KV	320		NERE	JEFFREY ENERGY CENTER 345KV	874 -0.00		
AEPW	TULSA POWER STATION 138KV	320		NERE	LAWRENCE ENERGY CENTER 230KV	224.0591 -0.00		182
AEPW	TULSA POWER STATION 138KV	320		OMPA	OMPA-PONCA CITY 69KV	152.3933 -0.00		182
AEPW	TULSA POWER STATION 138KV	320	-0.20901 V	WERE	TECUMSEH ENERGY CENTER 115KV	133 -0.00	64 -0.2063	182
AEPW	TULSA POWER STATION 69KV	80		NERE	BPU - CITY OF MCPHERSON 115KV	126.416 -0.00		182
AEPW	TULSA POWER STATION 69KV	80		NERE	EMPORIA ENERGY CENTER 345KV	610 -0.00		
AEPW	TULSA POWER STATION 69KV	80		NERE	EVANS ENERGY CENTER 138KV	560 -0.00		182
AEPW	TULSA POWER STATION 69KV	80		NERE	GILL ENERGY CENTER 138KV	155 -0.00		182
AEPW	TULSA POWER STATION 69KV	80		WERE	GILL ENERGY CENTER 69KV	75 -0.00		182
AEPW	TULSA POWER STATION 69KV	80		NERE	HUTCHINSON ENERGY CENTER 115KV	333 -0.00		182
AEPW	TULSA POWER STATION 69KV	80		WERE	JEFFREY ENERGY CENTER 230KV	440 -0.00		
AEPW	TULSA POWER STATION 69KV	80		NERE	JEFFREY ENERGY CENTER 345KV	874 -0.00		182
AEPW	TULSA POWER STATION 69KV	80		NERE	LAWRENCE ENERGY CENTER 230KV	224.0591 -0.00		182
AEPW	TULSA POWER STATION 69KV	80		OMPA	OMPA-PONCA CITY 69KV	152.3933 -0.00		
AEPW	TULSA POWER STATION 69KV	80		NERE	TECUMSEH ENERGY CENTER 115KV	133 -0.00		7 182
AEPW	TULSA POWER STATION 138KV	320		EMDE	ELK RIVER 345KV	149.986 -0.00		7 183
AEPW	TULSA POWER STATION 69KV	80		MDE	ELK RIVER 345KV	149.986 -0.00		7 183
AEPW	TULSA POWER STATION 138KV	320		AEPW	TONTITOWN 161KV	140 -0.00		184
AEPW	TULSA POWER STATION 69KV	80		AEPW	TONTITOWN 161KV	140 -0.00		184
AEPW	TULSA POWER STATION 138KV	320		MDE	ASBURY 161KV	192 -0.00		
AEPW	TULSA POWER STATION 138KV	320		MDE	LARUSSEL 161KV	100 -0.00		185
AEPW	TULSA POWER STATION 69KV	80		MDE	ASBURY 161KV	192 -0.00		
AEPW	TULSA POWER STATION 69KV	80		MDE	LARUSSEL 161KV	100 -0.00		185
AEPW	TULSA POWER STATION 138KV	320		AEPW	FLINT CREEK 161KV	428 -0.00		
AEPW	TULSA POWER STATION 138KV	320		MDE	RIVERTON 161KV	94.59314 -0.00		
AEPW	TULSA POWER STATION 138KV	320		MDE	STATE LINE 161KV	520 -0.00		2 186
AEPW	TULSA POWER STATION 69KV	80		AEPW	FLINT CREEK 161KV	428 -0.00		186
AEPW	TULSA POWER STATION 69KV	80		MDE	RIVERTON 161KV	94.59314 -0.00		
AEPW	TULSA POWER STATION 69KV	80		MDE	STATE LINE 161KV	520 -0.00		2 186
AEPW	TULSA POWER STATION 138KV	320		AEPW	NORTHEASTERN STATION 345KV	625 -0.00		
AEPW AEPW	TULSA POWER STATION 69KV TULSA POWER STATION 138KV	80 320		AEPW GRDA	NORTHEASTERN STATION 345KV GRDA1 161KV	625 -0.00 180 -0.01		5 188 3 190
AEPW						194 -0.01		
AEPW	TULSA POWER STATION 138KV TULSA POWER STATION 69KV	320		GRDA	GRDA1 345KV GRDA1 161KV			2 190 3 190
AEPW	TULSA POWER STATION 69KV	80 80		GRDA GRDA	GRDA1 161KV	180 -0.01 194 -0.01		2 190
AEPW	TULSA POWER STATION 69KV	320		AEPW	NORTHEASTERN STATION 138KV	194 -0.01 480 -0.01		9 190
AEPW	TULSA POWER STATION 138KV	320 80		AEPW	NORTHEASTERN STATION 138KV	480 -0.01		197
	aximum Increment were determine from the So					480 -0.01	0.1909	197
maximum pedement and Ma	aximum morement were determine from the St	ruce and offic Operating Points	m ne stud	y models wriere ilmii	nig racinty was lutilitieu.			

Factor = Source GSF - Sink GSF Redispatch Amount = Relief Amount / Factor

 Upgrade:
 ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3

 Limiting Facility
 ROSE HILL (ROSEHL3X) 345/138/13.8KV TRANSFORMER CKT 1

 Direction:
 FROM-3TO

 Line Outage
 ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 1

 Flowgate
 2007A62AFS81T1 19832/10SP

 Date Redispatch Needed
 3207A62AFS81T1 19832/10SP

 Season Flowgate Identified
 2010 Summer Peak

Relief Amount

Season Flowgate Identified									
Reservation	Relief Amount	Aggregate Relief Amount							
1281706		11.1							
1285893	1.2	11.1							
1286201	6.5	11.1		r					
Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)
	GILL ENERGY CENTER 138KV	84.99999			ELK RIVER 345KV	44.986	0.09278	-0.29882	37
	GILL ENERGY CENTER 69KV	48	-0.20698	EMDE	ELK RIVER 345KV	44.986	0.09278	-0.29976	37
	WACO 138KV	30			ELK RIVER 345KV	44.986	0.09278	-0.28807	39
	GETTY 69KV	35	-0.18272		ELK RIVER 345KV	44.986	0.09278	-0.2755	40
	GILL ENERGY CENTER 138KV	84.99999			CITY OF BURLINGTON 69KV	55.4	0.04789	-0.25393	44
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	0.04789	-0.25393	44
	GILL ENERGY CENTER 69KV	48			CITY OF BURLINGTON 69KV	55.4	0.04789	-0.25487	44
	GILL ENERGY CENTER 69KV	48	-0.20698		COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	0.04789	-0.25487	44
	WACO 138KV	30			CITY OF BURLINGTON 69KV	55.4	0.04789	-0.24318	46
	WACO 138KV	30			COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	0.04789	-0.24318	46
	GETTY 69KV	35	-0.18272		CITY OF BURLINGTON 69KV	55.4	0.04789	-0.23061	48
	GETTY 69KV	35			COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	0.04789	-0.23061	48
	GILL ENERGY CENTER 69KV	48	-0.20698		ASBURY 161KV	192	0.00939	-0.21637	51
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		ARIES 161KV	18.33311	0.00658	-0.21262	52
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		ASBURY 161KV	192	0.00939	-0.21543	52
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604		BULL CREEK 161KV	61.6	0.00841	-0.21445	52
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		LARUSSEL 161KV	100	0.00682	-0.21286	52
	GILL ENERGY CENTER 138KV	84.99999			RIVERTON 161KV	100.0327	0.00771	-0.21375	52
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		RIVERTON 69KV	44.07887	0.00719	-0.21323	52
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		SOUTH HARPER 161KV	67.00598	0.00717	-0.21321	52
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		STATE LINE 161KV	520	0.00733	-0.21337	52
	GILL ENERGY CENTER 69KV	48			ARIES 161KV	18.33311	0.00658	-0.21356	52
	GILL ENERGY CENTER 69KV	48			BULL CREEK 161KV	61.6	0.00841	-0.21539	52
	GILL ENERGY CENTER 69KV	48	-0.20698		HAWTHORN 161KV	517.7498	0.0053	-0.21228	52
	GILL ENERGY CENTER 69KV	48	-0.20698		LARUSSEL 161KV	100	0.00682	-0.2138	
	GILL ENERGY CENTER 69KV	48	-0.20698		MONTROSE 161KV	359.7142	0.00608	-0.21306	52
	GILL ENERGY CENTER 69KV	48			NEARMAN 161KV	//	0.00544		52
	GILL ENERGY CENTER 69KV	48	-0.20698		NEARMAN 20KV	235	0.00544	-0.21242	52
WERE	GILL ENERGY CENTER 69KV	48	-0.20698	KACY	QUINDARO 161KV	129.4176	0.00547	-0.21245	52
	GILL ENERGY CENTER 69KV	48	-0.20698	KACY	QUINDARO 69KV	136.3562	0.0055	-0.21248	52
	GILL ENERGY CENTER 69KV	48			RIVERTON 161KV	100.0327	0.00771	-0.21469	52
	GILL ENERGY CENTER 69KV	48	-0.20698	EMDE	RIVERTON 69KV	44.07887	0.00719	-0.21417	52
	GILL ENERGY CENTER 69KV	48		MIPU	SIBLEY 161KV	228.9597	0.00535	-0.21233	52
	GILL ENERGY CENTER 69KV	48	-0.20698		SIBLEY 69KV	45.99999	0.00529	-0.21227	52
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 -0.20698		SOUTH HARPER 161KV	67.00598 520	0.00717	-0.21415 -0.21431	52 52
	GILL ENERGY CENTER 138KV	84,99999			STATE LINE 161KV CITY OF HIGGINSVILLE 69KV	36	0.00733		52
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		HAWTHORN 161KV	517,7498	0.00522	-0.21126 -0.21134	53
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 -0.20604		LAKE ROAD 161KV LAKE ROAD 34KV	35 92	0.00258	-0.20862 -0.20862	53 53
	GILL ENERGY CENTER 138KV	84.99999	-0.20604			359.7142		-0.20862	53
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		MONTROSE 161KV NEARMAN 161KV	359.7142	0.00544		53
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		NEARMAN 20KV	235	0.00544		53
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		QUINDARO 161KV	129,4176	0.00544	-0.21148	53
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		QUINDARO 181KV	129.4176	0.00547	-0.21151	53
	GILL ENERGY CENTER 138KV	84.99999			SIBLEY 161KV	136.3562	0.00535		
	GILL ENERGY CENTER 138KV	84.99999	-0.20604		SIBLEY 69KV	45.99999	0.00535	-0.21139	53
	GILL ENERGY CENTER 136KV	48			CITY OF HIGGINSVILLE 69KV	40.99999	0.00529	-0.21133	53
	GILL ENERGY CENTER 69KV	48			IATAN 345KV	1806	0.00522	-0.2122	53
	GILL ENERGY CENTER 69KV	48			IATAN 345KV	371	0.00192	-0.2089	53
WERE	GILL ENERGY CENTER BURY	48	*0.20698	NACE	INTIMI NUMBER	3/1	0.00192	-0.2089	53

	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20698 MIPU -0.20698 MIPU	LAKE ROAD 161KV LAKE ROAD 34KV	35 92	0.00258	-0.20956 -0.20956	53 53
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 138KV	48 84.9999	-0.20698 AEPW -0.20604 OPPD	NORTHEASTERN STATION 345KV CASS 1G 15.000 345KV	625 42.51929	-0.00099	-0.20856 -0.20505	53 54
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 OPPD	CASS 2G 15.000 345KV	52.99999	-0.00099	-0.20505	54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 NPPD -0.20604 AEPW	COOPER1G 22.000 345KV FLINT CREEK 161KV	551.2802 428	-0.00034 0.0007	-0.2057 -0.20674	54 54
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.20604 OPPD -0.20604 OPPD	FREM 8G 13.800 69KV FT CAL1G 22.000 4KV	90 376	-0.00146	-0.20458 -0.20497	54 54
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 KACP	IATAN 345KV	371	0.00192	-0.20796	54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 KACP -0.20604 OPPD	IATAN 345KV N OMA 1G 13.800 2KV	1806 48.5	-0.00192	-0.20796 -0.20497	54 54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 OPPD -0.20604 OPPD	N OMA 2G 13.800 2KV N OMA 3G 13.800 2KV	80.59999 80.59999	-0.00105	-0.20499 -0.20499	54 54
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 OPPD	N OMA 4G 15.000 2KV	107.4	-0.00105	-0.20499	54
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 OPPD -0.20604 OPPD	N OMA 5G 20.000 4KV NEBCTY1G 18.000 4KV	173.9 466	-0.00105 -0.00087	-0.20499 -0.20517	54 54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 OPPD -0.20604 AEPW	NEBCTY2G 23.000 345KV NORTHEASTERN STATION 345KV	503 625	-0.00087 0.00158	-0.20517 -0.20762	54 54
WERE	GILL ENERGY CENTER 138KV	84.99999 48	-0.20604 AEPW	TONTITOWN 161KV	140	0.00011	-0.20615	54
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20698 OPPD	CASS 1G 15.000 345KV CASS 2G 15.000 345KV	42.51929 52.99999	-0.00099	-0.20599 -0.20599	54 54
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20698 NPPD -0.20698 NPPD	COL.COG7 115.00 115KV COOPER1G 22.000 345KV	75 551.2802	-0.00208	-0.2049 -0.20664	54 54
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 AEPW -0.20698 AEPW	FITZHUGH 161KV	125.4	-0.00236	-0.20462	54
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20698 OPPD	FLINT CREEK 161KV FREM 8G 13.800 69KV	428 90	0.0007 -0.00146		54 54
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20698 OPPD -0.20698 OPPD	FT CAL1G 22.000 4KV N OMA 1G 13.800 2KV	376 48.5	-0.00107	-0.20591 -0.20591	54 54
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 OPPD -0.20698 OPPD	N OMA 2G 13.800 2KV N OMA 3G 13.800 2KV	80.59999 80.59999	-0.00105	-0.20593 -0.20593	54 54
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 OPPD	N OMA 4G 15.000 2KV	107.4	-0.00105	-0.20593	54
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 OPPD -0.20698 OPPD	N OMA 5G 20.000 4KV NEBCTY1G 18.000 4KV	173.9 466	-0.00105	-0.20593 -0.20611	54 54
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20698 OPPD -0.20698 NPPD	NEBCTY2G 23.000 345KV SHELDN1G 13.800 115KV	503 68,40001	-0.00087	-0.20611 -0.20475	54 54
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 NPPD	SHELDN2G 13.800 115KV	81	-0.00223	-0.20475	54
	GILL ENERGY CENTER 69KV WACO 138KV	48 30	-0.20698 AEPW -0.19529 EMDE	TONTITOWN 161KV ASBURY 161KV	140 192	0.00011	-0.20709 -0.20468	54 54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 OKGE -0.20604 AEPW	AES 161KV ARSENAL HILL 138KV	320 455	-0.00304	-0.203 -0.20127	55 55
WERE	GILL ENERGY CENTER 138KV	84.99999		ARSENAL HILL 69KV	90	-0.00478	-0.20126	55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.20604 NPPD	BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV	45.19951	-0.00324 -0.00324	-0.2028 -0.2028	55 55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 NPPD -0.20604 AEPW	BPS ST3G 13.800 115KV COGENTRIX 345KV	49.99482 222.0669	-0.00324 -0.00472	-0.2028 -0.20132	55 55
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 NPPD -0.20604 NPPD	COL.COG7 115.00 115KV	75 34.32393	-0.00208	-0.20396 -0.20272	55 55
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 NPPD	DENVER G 34.500 115KV EGY CTRG 13.800 115KV	54	-0.00329	-0.20275	55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 AEPW -0.20604 NPPD	FITZHUGH 161KV GT-2 G 13.800 115KV	125.4 40	-0.00236	-0.20368 -0.20261	55 55
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 AEPW -0.20604 WERE	KNOXLEE 138KV LAWRENCE ENERGY CENTER 230KV	225 223,9294	-0.00527 -0.00381	-0.20077 -0.20223	55 55
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 AEPW -0.20604 OKGE	LIEBERMAN 138KV	174	-0.00487	-0.20117	55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 OKGE	MUSKOGEE 161KV MUSKOGEE 345KV	166 1548	-0.00391 -0.00447	-0.20213 -0.20157	55 55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 AEPW -0.20604 AEPW	NORTHEASTERN STATION 138KV OEC 345KV	480 390,4081	-0.00372 -0.003	-0.20232 -0.20304	55 55
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 AEPW	PIRKEY GENERATION 138KV	288	-0.00528	-0.20076	55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 NPPD -0.20604 NPPD	PLATTE1G 13.800 115KV SHELDN1G 13.800 115KV	71.51868 68.40001	-0.0035 -0.00223	-0.20254 -0.20381	55 55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 NPPD -0.20604 AEPW	SHELDN2G 13.800 115KV TULSA POWER STATION 138KV	81 129.8887	-0.00223 -0.00453	-0.20381 -0.20151	55 55
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 OKGE	AES 161KV	320	-0.00304	-0.20394	55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 AEPW -0.20698 AEPW	ARSENAL HILL 138KV ARSENAL HILL 69KV	455 90	-0.00477	-0.20221 -0.2022	55 55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 NPPD -0.20698 NPPD	BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV	80 45.19951	-0.00324 -0.00324	-0.20374 -0.20374	55 55
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 NPPD	BPS ST3G 13.800 115KV	49.99482	-0.00324	-0.20374	55
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20698 AEPW -0.20698 NPPD	COGENTRIX 345KV DENVER G 34.500 115KV	222.0669 34.32393	-0.00472 -0.00332	-0.20226 -0.20366	55 55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 AEPW -0.20698 NPPD	EASTMAN 138KV EGY CTRG 13.800 115KV	356.7947 54	-0.00531 -0.00329	-0.20167 -0.20369	55 55
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 NPPD -0.20698 AEPW	GT-2 G 13.800 115KV KNOXLEE 138KV	40 225	-0.00343 -0.00527		55 55
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 WERE	LAWRENCE ENERGY CENTER 230KV	223.9294	-0.00381	-0.20317	55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 AEPW -0.20698 AEPW	LEBROCK 345KV LIEBERMAN 138KV	517.1024 174	-0.0053 -0.00487	-0.20168	55 55
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 OKGE -0.20698 OKGE	MUSKOGEE 161KV MUSKOGEE 345KV	166 1548	-0.00391	-0.20307 -0.20251	55 55
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 AEPW	NORTHEASTERN STATION 138KV	480	-0.00372	-0.20326	55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 AEPW -0.20698 AEPW	OEC 345KV PIRKEY GENERATION 138KV	390.4081 288	-0.003 -0.00528	-0.20398 -0.2017	55 55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 NPPD -0.20698 AEPW	PLATTE1G 13.800 115KV TULSA POWER STATION 138KV	71.51868 129.8887	-0.0035 -0.00453	-0.20348 -0.20245	55 55
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 AEPW -0.20698 AEPW -0.20698 AEPW	WELSH 345KV	1044	-0.00594	-0.20104	55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20698 AEPW	WILKES 138KV WILKES 345KV	410.8099 308	-0.00549 -0.0054	-0.20158	55 55
	WACO 138KV WACO 138KV		-0.19529 KACP -0.19529 EMDE	BULL CREEK 161KV LARUSSEL 161KV	61.6 100	0.00841		55 55
WERE	WACO 138KV WACO 138KV	30	-0.19529 KACP -0.19529 KACY	MONTROSE 161KV QUINDARO 161KV	359.7142 129.4176	0.00608	-0.20137	55 55
WERE	WACO 138KV	30	-0.19529 KACY	QUINDARO 69KV	136.3562	0.0055	-0.20079	55
WERE	WACO 138KV WACO 138KV	30 30	-0.19529 EMDE -0.19529 EMDE	RIVERTON 161KV RIVERTON 69KV	100.0327 44.07887	0.00771	-0.203 -0.20248	55 55
	WACO 138KV WACO 138KV	30	-0.19529 MIPU -0.19529 EMDE	SOUTH HARPER 161KV STATE LINE 161KV	67.00598 520	0.00717	-0.20246 -0.20262	
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 AEPW	EASTMAN 138KV	356.7947	-0.00531	-0.20073	56
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.20604 NPPD -0.20604 NPPD	GENTLM1G 23.000 230KV GENTLM2G 24.000 345KV	463 443.3608	-0.00664 -0.00684	-0.1994 -0.1992	
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999		JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV	440 874	-0.00738 -0.0073	-0.19866	
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 AEPW	LEBROCK 345KV	517.1024	-0.0053	-0.20074	56
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.20604 NPPD -0.20604 WERE	SIDNEY 4 230.00 230KV TECUMSEH ENERGY CENTER 115KV	19.3852 133	-0.00642 -0.00837	-0.19767	56 56
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.20604 AEPW -0.20604 AEPW	WELSH 345KV WILKES 138KV	1044 410.8099	-0.00594 -0.00549	-0.2001 -0.20055	56 56
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV	84.99999	-0.20604 AEPW -0.20698 WERE	WILKES 345KV EMPORIA ENERGY CENTER 345KV	308	-0.0054	-0.20064	56
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 NPPD	GENTLM1G 23.000 230KV	610 463	-0.00945 -0.00664	-0.19753 -0.20034	56 56
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20698 NPPD -0.20698 WERE	GENTLM2G 24.000 345KV JEFFREY ENERGY CENTER 230KV	443.3608 440	-0.00684 -0.00738	-0.20014 -0.1996	56 56
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20698 WERE -0.20698 NPPD	JEFFREY ENERGY CENTER 345KV SIDNEY 4 230.00 230KV	874 19.3852	-0.0073	-0.19968	56 56
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 WERE	TECUMSEH ENERGY CENTER 115KV	133	-0.00837	-0.19861	56
	WACO 138KV WACO 138KV	30 30	-0.19529 KACP -0.19529 KACP	CITY OF HIGGINSVILLE 69KV HAWTHORN 161KV	36 517.7498	0.00522	-0.20051 -0.20059	56 56
WERE	WACO 138KV WACO 138KV		-0.19529 KACP	IATAN 345KV IATAN 345KV	371 1806	0.00192		56 56
WERE	WACO 138KV	30	-0.19529 MIPU	LAKE ROAD 161KV	35	0.00258	-0.19787	56
	WACO 138KV WACO 138KV		-0.19529 MIPU -0.19529 KACY	LAKE ROAD 34KV NEARMAN 161KV	92 77	0.00258		56 56
WERE	WACO 138KV WACO 138KV	30	-0.19529 KACY -0.19529 MIPU	NEARMAN 20KV SIBLEY 161KV	235 228.9597	0.00544	-0.20073	56
WERE	WACO 138KV	30	-0.19529 MIPU	SIBLEY 69KV	45.99999	0.00535		
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.20604 WERE -0.20604 MKEC	CHANUTE 69KV CLIFTON 115KV	54.8 65		-0.19618	57 57
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 WERE	EMPORIA ENERGY CENTER 345KV	610	-0.00945	-0.19659	57

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WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV	84.99999 48	-0.20604 EMDE -0.20698 WERE	MRWYG11 34.500 230KV CHANUTE 69KV	100 54.8	-0.01008	-0.19596 -0.19534	57 57
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 MKEC	CLIFTON 115KV	65	-0.00986	-0.19712	57
WERE WERE	GILL ENERGY CENTER 69KV WACO 138KV	48	-0.20698 EMDE -0.19529 OPPD	MRWYG11 34.500 230KV CASS 1G 15.000 345KV	100 42.51929	-0.01008	-0.1969 -0.1943	57 57
	WACO 138KV		-0.19529 OPPD	CASS 2G 15.000 345KV	52.99999	-0.00099	-0.1943	57
	WACO 138KV	30		COOPERIG 22.000 345KV	551.2802	-0.00034	-0.19495	57
	WACO 138KV WACO 138KV	30	-0.19529 AEPW -0.19529 OPPD	FLINT CREEK 161KV FREM 8G 13.800 69KV	428 90	-0.00146	-0.19599 -0.19383	57 57
WERE	WACO 138KV	30	-0.19529 OPPD	FT CAL1G 22.000 4KV	376	-0.00107	-0.19422	57
WERE WERE	WACO 138KV WACO 138KV	30	-0.19529 OPPD -0.19529 OPPD	N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV	48.5 80.59999	-0.00107	-0.19422 -0.19424	57 57
	WACO 138KV		-0.19529 OPPD	N OMA 3G 13.800 2KV	80.59999	-0.00105		57
WERE	WACO 138KV	30		N OMA 4G 15.000 2KV	107.4	-0.00105	-0.19424	57
	WACO 138KV WACO 138KV	30	-0.19529 OPPD -0.19529 OPPD	N OMA 5G 20.000 4KV NEBCTY1G 18.000 4KV	173.9 466	-0.00105	-0.19424 -0.19442	57 57
WERE	WACO 138KV	30	-0.19529 OPPD	NEBCTY2G 23.000 345KV	503	-0.00087	-0.19442	57
	WACO 138KV WACO 138KV	30	-0.19529 AEPW -0.19529 AEPW	NORTHEASTERN STATION 345KV TONTITOWN 161KV	625 140	0.00158	-0.19687 -0.1954	57 57
	GETTY 69KV	35		ASBURY 161KV	192	0.00939		58
	GETTY 69KV	35	-0.18272 KACP	BULL CREEK 161KV	61.6	0.00841	-0.19113	58
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV	84.99999 48	-0.20604 OKGE -0.20698 OKGE	SEMINOLE 138KV SEMINOLE 138KV	334.858 334.858	-0.01555 -0.01555	-0.19049 -0.19143	58 58
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 OKGE	SEMINOLE 345KV	1019	-0.01586	-0.19112	58
	WACO 138KV WACO 138KV	30	-0.19529 OKGE -0.19529 AEPW	AES 161KV ARSENAL HILL 138KV	320 455	-0.00304		58 58
	WACO 138KV	30		ARSENAL HILL 130KV	90	-0.00477		58
	WACO 138KV		-0.19529 NPPD	BPS GT1G 13.800 115KV	80	-0.00324	-0.19205	58
	WACO 138KV WACO 138KV	30	-0.19529 NPPD -0.19529 NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	45.19951 49.99482	-0.00324 -0.00324	-0.19205 -0.19205	58 58
WERE	WACO 138KV	30	-0.19529 AEPW	COGENTRIX 345KV	222.0669	-0.00472	-0.19057	58
	WACO 138KV WACO 138KV	30	-0.19529 NPPD -0.19529 NPPD	COL.COG7 115.00 115KV DENVER G 34.500 115KV	75 34.32393	-0.00208	-0.19321 -0.19197	58 58
	WACO 138KV WACO 138KV		-0.19529 NPPD	EGY CTRG 13.800 115KV	34.32393	-0.00332	-0.19197	58
	WACO 138KV		-0.19529 AEPW	FITZHUGH 161KV	125.4	-0.00236	-0.19293	58
WERE WERE	WACO 138KV WACO 138KV	30	-0.19529 NPPD -0.19529 WERE	GT-2 G 13.800 115KV LAWRENCE ENERGY CENTER 230KV	40 223.9294	-0.00343	-0.19186 -0.19148	58 58
WERE	WACO 138KV	30	-0.19529 OKGE	MUSKOGEE 161KV	166	-0.00391	-0.19138	58
WERE	WACO 138KV WACO 138KV	30	-0.19529 OKGE	MUSKOGEE 345KV	1548	-0.00447	-0.19082	58
	WACO 138KV WACO 138KV	30	-0.19529 AEPW -0.19529 AEPW	NORTHEASTERN STATION 138KV OEC 345KV	480 390.4081	-0.00372 -0.003	-0.19157 -0.19229	58 58
WERE	WACO 138KV	30	-0.19529 NPPD	PLATTE1G 13.800 115KV	71.51868	-0.0035	-0.19179	58
	WACO 138KV WACO 138KV	30	-0.19529 NPPD -0.19529 NPPD	SHELDN1G 13.800 115KV SHELDN2G 13.800 115KV	68.40001 81	-0.00223	-0.19306 -0.19306	58 58
WERE	WACO 138KV	30	-0.19529 AEPW	TULSA POWER STATION 138KV	129.8887	-0.00453	-0.19076	58
WERE	GETTY 69KV	35	-0.18272 KACP	CITY OF HIGGINSVILLE 69KV	36	0.00522	-0.18794	59
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18272 KACP -0.18272 EMDE	HAWTHORN 161KV LARUSSEL 161KV	517.7498 100	0.0053	-0.18802 -0.18954	59 59
WERE	GETTY 69KV	35	-0.18272 KACP	MONTROSE 161KV	359.7142	0.00608	-0.1888	59
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18272 KACY -0.18272 KACY	NEARMAN 161KV NEARMAN 20KV	77 235	0.00544	-0.18816 -0.18816	59
WERE	GETTY 69KV	35	-0.18272 KACY	QUINDARO 161KV	129.4176	0.00544	-0.18819	59 59
WERE	GETTY 69KV	35	-0.18272 KACY	QUINDARO 69KV	136.3562	0.0055	-0.18822	59
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18272 EMDE -0.18272 EMDE	RIVERTON 161KV RIVERTON 69KV	100.0327 44.07887	0.00771	-0.19043 -0.18991	59 59
	GETTY 69KV		-0.18272 MIPU	SIBLEY 161KV	228.9597	0.00535	-0.18807	59
WERE	GETTY 69KV		-0.18272 MIPU	SIBLEY 69KV	45.99999	0.00529	-0.18801	59
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18272 MIPU -0.18272 EMDE	SOUTH HARPER 161KV STATE LINE 161KV	67.00598 520	0.00717	-0.18989 -0.19005	59 59
WERE	GILL ENERGY CENTER 138KV		-0.20604 AEPW	COMANCHE 138KV	145	-0.01733	-0.18871	59
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 AEPW -0.20604 OKGE	COMANCHE 69KV HORSESHOE LAKE 138KV	60 796	-0.01725	-0.18879 -0.18905	59 59
	GILL ENERGY CENTER 138KV		-0.20604 OKGE	MCCLAIN 138KV	470	-0.01776		59
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 OKGE	MUSTANG 138KV	351	-0.01832	-0.18772	59
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604 OKGE -0.20604 OKGE	MUSTANG 69KV REDBUD 345KV	51.72168 43.60958	-0.01836 -0.01654	-0.18768 -0.1895	59 59
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 OKGE	SEMINOLE 345KV	1019	-0.01586	-0.19018	59
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.20604 OKGE -0.20604 MIDW	SMITH COGEN 138KV SMOKEY HILLS 34KV	106	-0.01819	-0.18785 -0.18808	59 59
	GILL ENERGY CENTER 138KV	84.99999		SOUTHWESTERN STATION 138KV	287	-0.01796	-0.18864	
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 AEPW	SOUTHWESTERN STATION 138KV	712	-0.0174	-0.18864	59
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 WERE -0.20698 AEPW	CNTRLPL2 34.500 115KV COMANCHE 138KV	99 145	-0.01896		59 59
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 AEPW	COMANCHE 69KV	60	-0.01725	-0.18973	59
	GILL ENERGY CENTER 69KV		-0.20698 OKGE -0.20698 OKGE	HORSESHOE LAKE 138KV	796 470	-0.01699 -0.01776		59
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48		MCCLAIN 138KV MUSTANG 138KV	351	-0.01776		59 59
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 OKGE	MUSTANG 69KV	51.72168	-0.01836	-0.18862	59
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20698 OKGE -0.20698 OKGE	REDBUD 345KV SMITH COGEN 138KV	43.60958 106	-0.01654 -0.01819	-0.19044 -0.18879	59 59
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 MIDW	SMOKEY HILLS 34KV	25	-0.01796	-0.18902	59
WERE	GILL ENERGY CENTER 69KV		-0.20698 AEPW	SOUTHWESTERN STATION 138KV	287	-0.0174		59
	GILL ENERGY CENTER 69KV WACO 138KV	48 30	-0.20698 AEPW -0.19529 AEPW	SOUTHWESTERN STATION 138KV EASTMAN 138KV	712 356.7947	-0.0174 -0.00531	-0.18958 -0.18998	59 59
	WACO 138KV		-0.19529 NPPD	GENTLM1G 23.000 230KV	463	-0.00664	-0.18865	59
WERE WERE	WACO 138KV WACO 138KV	30	-0.19529 NPPD -0.19529 WERE	GENTLM2G 24.000 345KV JEFFREY ENERGY CENTER 230KV	443.3608 440	-0.00684	-0.18845 -0.18791	59 59
WERE	WACO 138KV	30	-0.19529 WERE	JEFFREY ENERGY CENTER 345KV	874	-0.0073	-0.18799	59
	WACO 138KV WACO 138KV	30	-0.19529 AEPW -0.19529 AEPW	KNOXLEE 138KV LEBROCK 345KV	225 517.1024	-0.00527 -0.0053	-0.19002 -0.18999	59 59
WERE	WACO 138KV	30	-0.19529 AEPW	LIEBERMAN 138KV	174	-0.00487	-0.19042	59
WERE	WACO 138KV	30		PIRKEY GENERATION 138KV	288	-0.00528	-0.19001	59
	WACO 138KV WACO 138KV	30	-0.19529 AEPW -0.19529 AEPW	WELSH 345KV WILKES 138KV	1044 410.8099	-0.00594 -0.00549	-0.18935 -0.1898	59 59
WERE	WACO 138KV	30	-0.19529 AEPW	WILKES 345KV	308	-0.0054	-0.18989	59
	GETTY 69KV	35 35	-0.18272 KACP -0.18272 KACP	IATAN 345KV IATAN 345KV	1806 371	0.00192	-0.18464 -0.18464	60
WERE	GETTY 69KV	35	-0.18272 MIPU	LAKE ROAD 161KV	35	0.00258	-0.1853	60
	GETTY 69KV	35	-0.18272 MIPU	LAKE ROAD 34KV NORTHEASTERN STATION 345KV	92	0.00258	-0.1853	
WERE WERE	GETTY 69KV GILL ENERGY CENTER 138KV		-0.18272 AEPW -0.20604 OKGE	NORTHEASTERN STATION 345KV CENTENIAL WIND 34KV	625 120	-0.00158	-0.1843 -0.18426	60
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 WERE	CNTRLPL2 34.500 115KV	99	-0.01896	-0.18708	60
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.20604 WERE -0.20604 MIDW	HUTCHINSON ENERGY CENTER 115KV KNOLL 115KV	230 75.60001	-0.02132 -0.02029	-0.18472 -0.18575	60
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604 OKGE	SPGCK1&2 13.200 345KV	78	-0.02065	-0.18539	60
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 OKGE -0.20698 WERE	CENTENIAL WIND 34KV	120	-0.02178	-0.1852	60
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20698 WERE -0.20698 MIDW	HUTCHINSON ENERGY CENTER 115KV KNOLL 115KV	230 75.60001	-0.02132	-0.18566 -0.18669	60
WERE	GILL ENERGY CENTER 69KV	48	-0.20698 OKGE	SPGCK1&2 13.200 345KV	78	-0.02065	-0.18633	60
	WACO 138KV WACO 138KV	30	-0.19529 MKEC -0.19529 WERE	CLIFTON 115KV EMPORIA ENERGY CENTER 345KV	65 610	-0.00986	-0.18543 -0.18584	60
WERE	WACO 138KV	30	-0.19529 EMDE	MRWYG11 34.500 230KV	100	-0.01008	-0.18521	60
WERE WERE	WACO 138KV GETTY 69KV	30 35	-0.19529 WERE -0.18272 OPPD	TECUMSEH ENERGY CENTER 115KV CASS 1G 15.000 345KV	133 42.51929	-0.00837	-0.18692 -0.18173	60 61
	GETTY 69KV		-0.18272 OPPD	CASS 1G 15.000 345KV CASS 2G 15.000 345KV	42.51929 52.99999	-0.00099		61
WERE	GETTY 69KV	35	-0.18272 NPPD	COOPER1G 22.000 345KV	551.2802	-0.00034	-0.18238	61
	GETTY 69KV GETTY 69KV	35 35	-0.18272 AEPW -0.18272 OPPD	FLINT CREEK 161KV FREM 8G 13.800 69KV	428 90	-0.00146	-0.18342 -0.18126	61
	GETTY 69KV	35	-0.18272 OPPD	FT CAL1G 22.000 4KV	376	-0.00107	-0.18165	61
WERE	GETTY 69KV	35	-0.18272 OPPD	N OMA 1G 13.800 2KV	48.5	-0.00107	-0.18165	61
WERE			-0.18272 OPPD	N OMA 2G 13.800 2KV	80.59999	-0.00105	-0.18167	61
WERE WERE	GETTY 69KV	35 35		N OMA 3G 13.800 2KV	80.59999	-0.00105	-0.18167	R1
WERE WERE WERE WERE	GETTY 69KV GETTY 69KV GETTY 69KV	35 35	-0.18272 OPPD -0.18272 OPPD	N OMA 3G 13.800 2KV N OMA 4G 15.000 2KV	107.4	-0.00105	-0.18167 -0.18167	
WERE WERE WERE WERE WERE	GETTY 69KV GETTY 69KV GETTY 69KV	35 35 35	-0.18272 OPPD -0.18272 OPPD -0.18272 OPPD	N OMA 4G 15.000 2KV N OMA 5G 20.000 4KV	107.4 173.9	-0.00105 -0.00105	-0.18167 -0.18167	61 61
WERE WERE WERE WERE WERE WERE WERE	GETTY 69KV GETTY 69KV GETTY 69KV	35 35 35 35 35	-0.18272 OPPD -0.18272 OPPD	N OMA 4G 15.000 2KV	107.4	-0.00105	-0.18167 -0.18167 -0.18185 -0.18185	61 61 61 61
WERE WERE WERE WERE WERE WERE WERE WERE	GETTY 69KV GETTY 69KV GETTY 69KV GETTY 69KV GETTY 69KV	35 35 35 35 35 35 35	-0.18272 OPPD -0.18272 OPPD -0.18272 OPPD -0.18272 OPPD -0.18272 OPPD	N OMA 4G 15.000 2KV N OMA 5G 20.000 4KV NEBCTY1G 18.000 4KV	107.4 173.9 466	-0.00105 -0.00105 -0.00087	-0.18167 -0.18167 -0.18185 -0.18185 -0.18283	61 61 61 61

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WERE	GILL ENERGY CENTER 69KV	48	-0.20698		A. M. MULLERGREN GENERATOR 115KV	63		-0.18154	61
WERE WERE	GILL ENERGY CENTER 69KV WACO 138KV	30	-0.20698 -0.19529	WERE	FPLWND2 34KV CHANUTE 69KV	54.8	-0.02285 -0.01164	-0.18365	61
WERE WERE	GETTY 69KV		-0.18272 -0.18272		AES 161KV BPS GT1G 13.800 115KV	320 80	-0.00304	-0.17968 -0.17948	62
WERE WERE	GETTY 69KV	35	-0.18272 -0.18272	NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	45.19951		-0.17948	62
WERE	GETTY 69KV	35	-0.18272	NPPD	COL.COG7 115.00 115KV	75	-0.00208	-0.18064	62
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18272 -0.18272		DENVER G 34.500 115KV EGY CTRG 13.800 115KV	34.32393 54	-0.00332	-0.1794 -0.17943	62
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18272 -0.18272		FITZHUGH 161KV GT-2 G 13.800 115KV	125.4 40		-0.18036 -0.17929	62 62
WERE	GETTY 69KV	35	-0.18272	WERE	LAWRENCE ENERGY CENTER 230KV	223.9294	-0.00381	-0.17891	62
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18272 -0.18272		MUSKOGEE 161KV NORTHEASTERN STATION 138KV	166 480	-0.00391	-0.17881 -0.179	62
WERE WERE	GETTY 69KV GETTY 69KV		-0.18272 -0.18272		OEC 345KV PLATTE1G 13.800 115KV	390.4081 71.51868		-0.17972 -0.17922	62 62
WERE	GETTY 69KV	35	-0.18272	NPPD	SHELDN1G 13.800 115KV	68.40001	-0.00223	-0.18049	62
WERE	GETTY 69KV	35	-0.18272	NPPD	SHELDN2G 13.800 115KV	81	-0.00223	-0.18049	62
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999			A. M. MULLERGREN GENERATOR 115KV CIMARRON RIVER 115KV	63		-0.1806 -0.17962	62
WERE	GILL ENERGY CENTER 69KV	48	-0.20698	MKEC	CIMARRON RIVER 115KV	44	-0.02642	-0.18056	62
WERE WERE	GILL ENERGY CENTER 69KV WACO 138KV		-0.20698 -0.19529		SOONER 345KV HORSESHOE LAKE 138KV		-0.02855 -0.01699	-0.17843 -0.1783	62
WERE WERE	WACO 138KV WACO 138KV	30	-0.19529 -0.19529		REDBUD 345KV SEMINOLE 138KV		-0.01654 -0.01555		62
WERE	WACO 138KV	30	-0.19529	OKGE	SEMINOLE 345KV	1019	-0.01586	-0.17943	62
WERE WERE	GETTY 69KV GETTY 69KV		-0.18272 -0.18272		ARSENAL HILL 138KV ARSENAL HILL 69KV	455 90	-0.00477	-0.17795 -0.17794	63
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18272 -0.18272	AEPW	COGENTRIX 345KV EASTMAN 138KV	222.0669 356.7947		-0.178 -0.17741	63
WERE	GETTY 69KV	35	-0.18272	NPPD	GENTLM1G 23.000 230KV	463	-0.00664	-0.17608	63
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18272 -0.18272		GENTLM2G 24.000 345KV KNOXLEE 138KV	443.3608 225	-0.00527	-0.17588 -0.17745	63
WERE WERE	GETTY 69KV		-0.18272 -0.18272	AEPW	LEBROCK 345KV LIEBERMAN 138KV	517.1024 174	-0.0053	-0.17742 -0.17785	63
WERE	GETTY 69KV	35	-0.18272	OKGE	MUSKOGEE 345KV	1548	-0.00447	-0.17825	63
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18272 -0.18272	AEPW	PIRKEY GENERATION 138KV TULSA POWER STATION 138KV	288 129.8887	-0.00528 -0.00453	-0.17744 -0.17819	63 63
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18272 -0.18272	AEPW	WELSH 345KV WILKES 138KV	1044	-0.00594 -0.00549		63
WERE	GETTY 69KV	35	-0.18272	AEPW	WILKES 345KV	308	-0.0054	-0.17732	63
WERE WERE	GILL ENERGY CENTER 138KV WACO 138KV	84.99999 30	-0.19529	WERE	SOONER 345KV CNTRLPL2 34.500 115KV		-0.01896	-0.17749 -0.17633	63
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.19529	AEPW	COMANCHE 138KV COMANCHE 69KV	145	-0.01733	-0.17796 -0.17804	63
WERE	WACO 138KV	30	-0.19529	OKGE	MCCLAIN 138KV	470	-0.01776	-0.17753	63
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.19529	OKGE	MUSTANG 138KV MUSTANG 69KV		-0.01836	-0.17697 -0.17693	63
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.19529	OKGE	SMITH COGEN 138KV SMOKEY HILLS 34KV		-0.01819		63
WERE	WACO 138KV	30	-0.19529	AEPW	SOUTHWESTERN STATION 138KV	287	-0.0174	-0.17789	63
WERE WERE	WACO 138KV GETTY 69KV		-0.19529 -0.18272		SOUTHWESTERN STATION 138KV CLIFTON 115KV	712 65		-0.17789 -0.17286	63
WERE WERE	GETTY 69KV GETTY 69KV		-0.18272 -0.18272		JEFFREY ENERGY CENTER 345KV JEFFREY ENERGY CENTER 230KV	610	-0.00945	-0.17327 -0.17534	64 64
WERE	GETTY 69KV	35	-0.18272	WERE	JEFFREY ENERGY CENTER 345KV	874	-0.0073	-0.17542	64
WERE WERE	GETTY 69KV WACO 138KV	35 30	-0.18272 -0.19529		TECUMSEH ENERGY CENTER 115KV CENTENIAL WIND 34KV	133 120	-0.00837 -0.02178	-0.17435 -0.17351	64
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.19529 -0.19529		HUTCHINSON ENERGY CENTER 115KV KNOLL 115KV	75.60001		-0.17397 -0.175	64 64
WERE	WACO 138KV	30	-0.19529	OKGE	SPGCK1&2 13.200 345KV	78	-0.02065	-0.17464	64
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18272 -0.18272		CHANUTE 69KV MRWYG11 34.500 230KV	54.8 100	-0.01164 -0.01008	-0.17108 -0.17264	65 65
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20698 -0.20698		GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV	36 95 93536	-0.03596 -0.03614		65 65
WERE	WACO 138KV	30	-0.19529	OKGE	FPLWND2 34KV	59	-0.02285	-0.17244	65
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20604	MKEC	GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV	95.93536	-0.03596 -0.03614		66
WERE	GILL ENERGY CENTER 69KV	48	-0.20698	OKGE	SOONER 138KV	535	-0.03874	-0.16824	66
WERE	WACO 138KV	30	-0.19529		A. M. MULLERGREN GENERATOR 115KV	63		-0.16985	66
WERE WERE	WACO 138KV GETTY 69KV		-0.19529 -0.18272		CIMARRON RIVER 115KV COMANCHE 138KV		-0.02642 -0.01733		66
WERE WERE	GETTY 69KV	35 35	-0.18272 -0.18272		COMANCHE 69KV HORSESHOE LAKE 138KV	60 796	-0.01725 -0.01699		67 67
WERE	GETTY 69KV	35	-0.18272	OKGE	REDBUD 345KV	43.60958	-0.01654	-0.16618	67
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18272 -0.18272	OKGE	SEMINOLE 138KV SEMINOLE 345KV	334.858	-0.01555 -0.01586	-0.16686	67
WERE WERE	GETTY 69KV	35	-0.18272 -0.18272		SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	287 712		-0.16532 -0.16532	67 67
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20604	OKGE	SOONER 138KV	535	-0.03874	-0.1673	67
WERE WERE	WACO 138KV GETTY 69KV		-0.19529 -0.18272	WERE	SOONER 345KV CNTRLPL2 34.500 115KV		-0.01896		67 68
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18272 -0.18272	OKGE	MCCLAIN 138KV MUSTANG 138KV	470	-0.01776 -0.01832	-0.16496 -0.1644	68
WERE	GETTY 69KV		-0.18272		MUSTANG 69KV		-0.01836	-0.16436	68
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18272 -0.18272	MIDW	SMITH COGEN 138KV SMOKEY HILLS 34KV	25	-0.01819 -0.01796	-0.16476	68
WERE WERE	GETTY 69KV GETTY 69KV		-0.18272 -0.18272	OKGE	CENTENIAL WIND 34KV HUTCHINSON ENERGY CENTER 115KV	120	-0.02178 -0.02132		69 69
WERE	GETTY 69KV	35	-0.18272	MIDW	KNOLL 115KV	75.60001	-0.02029	-0.16243	69
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18272 -0.18272	OKGE	SPGCK1&2 13.200 345KV FPLWND2 34KV	59	-0.02065 -0.02285	-0.15987	69
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.19529 -0.19529		GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV	36 95.93536	-0.03596 -0.03614	-0.15933 -0.15915	70 70
WERE WERE	GETTY 69KV GETTY 69KV		-0.18272 -0.18272	MKEC	A. M. MULLERGREN GENERATOR 115KV CIMARRON RIVER 115KV		-0.02642		71 71
WERE WERE	WACO 138KV GETTY 69KV	30 35	-0.19529 -0.18272	OKGE	SOONER 138KV SOONER 345KV	535	-0.03874 -0.02855	-0.15655	71 72
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18272 -0.18272	MKEC	GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV	36	-0.03596 -0.03614	-0.14676	76
WERE	GETTY 69KV	35	-0.18272	OKGE	SOONER 138KV	535	-0.03874	-0.14398	77
OKGE WERE	SOUTH 4TH ST 69KV HUTCHINSON ENERGY CENTER 115KV		-0.03239 -0.02132		ELK RIVER 345KV ELK RIVER 345KV	44.986	0.09278	-0.12517	89 98
OKGE	SPGCK3&4 13.200 345KV	111	-0.02065	EMDE	ELK RIVER 345KV	44.986	0.09278	-0.11343	98
WERE OKGE	BPU - CITY OF MCPHERSON 115KV MUSTANG 69KV	232 54.27831	-0.01836	EMDE	ELK RIVER 345KV ELK RIVER 345KV	44.986 44.986	0.09278	-0.11179 -0.11114	100 100
OKGE OKGE	HORSESHOE LAKE 138KV MCCLAIN 138KV	64 50	-0.01699 -0.01776		ELK RIVER 345KV ELK RIVER 345KV	44.986 44.986		-0.10977 -0.11054	101 101
MIDW AEPW	SMOKEY HILLS 34KV	75	-0.01798	EMDE	ELK RIVER 345KV	44.986	0.09278	-0.11074	101
	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	350 152	-0.0174	EMDE	ELK RIVER 345KV ELK RIVER 345KV	44.986 44.986	0.09278	-0.11018 -0.11018	101 101
AEPW	OOO THILD TELL TO THE TOUR	62	-0.01709	EMDE	ELK RIVER 345KV ELK RIVER 345KV	44.986 44.986		-0.10987 -0.10927	101 102
AEPW OKGE	TINKER 5G 138KV COLBY 115KV		-0.01640	REMDE					
AEPW OKGE MIDW OKGE	TINKER 5G 138KV COLBY 115KV REDBUD 345KV	36.41598 1156.39	-0.01654	EMDE	ELK RIVER 345KV	44.986		-0.10932	102
AEPW OKGE MIDW OKGE OKGE WERE	TINKER 5G 138KV COLBY 115KV REDBUD 345KV SEMINOLE 138KV ABILENE ENERGY CENTER 115KV	36.41598 1156.39 200.142 66	-0.01654 -0.01555 -0.01325	EMDE EMDE EMDE	ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV	44.986 44.986	0.09278	-0.10932 -0.10833 -0.10603	103 105
AEPW OKGE MIDW OKGE OKGE WERE	TINKER SÖ 138KV COLBY 115KV REDBUD 345KV SEMINÖLE 138KV ABILENE ENERGY CENTER 115KV GILL ENERGY CENTER 138KV	36.41598 1156.39 200.142	-0.01654 -0.01555 -0.01325 -0.20604	EMDE EMDE EMDE WERE	ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV EVANS ENERGY CENTER 138KV	44.986	0.09278 0.09278 0.10039	-0.10932 -0.10833 -0.10603 -0.10565	103
AEPW OKGE MIDW OKGE OKGE WERE WERE WERE AEPW	TINKER 5G 138KV COLBY 115KV REDBUD 346KV SEMINOLE 138KV GILL ENERGY CENTER 115KV GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV KIOWA 345KV	36.41598 1156.39 200.142 66 84.99999 48 1336.177	-0.01654 -0.01555 -0.01325 -0.20604 -0.20698 -0.01199	EMDE EMDE EMDE WERE WERE	ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV ELK RIVER 345KV	44.986 44.986 560 560 44.986	0.09278 0.09278 0-0.10039 0-0.10039 0.09278	-0.10932 -0.10833 -0.10603 -0.10565 -0.10659 -0.10477	103 105 105 105 106
AEPW OKGE MIDW OKGE OKGE WERE WERE WERE	TINKER SG 138KV COLBY 115KV REDBUD 345KV SEMINOLE 138KV ABILENE ENERGY CENTER 115KV GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV	36.41598 1156.39 200.142 66 84.99999 48 1336.177	-0.01654 -0.01555 -0.01325 -0.20604 -0.20698 -0.01164 -0.00945	EMDE EMDE EMDE WERE WERE EMDE EMDE	ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV	44.986 44.986 560 560 44.986 44.986	0.09278 0.09278 0-0.10039 0-0.10039 0.09278	-0.10932 -0.10833 -0.10603 -0.10565 -0.10659 -0.10477 -0.10442 -0.10223	103 105 105 105

WERE	TECUMSEH ENERGY CENTER 69KV	41		ELK RIVER 345KV	44.986	0.09278 -0.10092	110
WERE	JEFFREY ENERGY CENTER 230KV	54		ELK RIVER 345KV	44.986	0.09278 -0.10016	111
WERE	JEFFREY ENERGY CENTER 345KV	108	-0.0073 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.10008	111
NPPD	KINGSLYG 13.800 115KV	47.95929	-0.00677 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09955	112
NPPD	SIDNEY 4 230.00 230KV	230.6148	-0.00642 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.0992	112
AEPW	LONESTAR POWER PLANT 69KV	50	-0.00556 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09834	113
AEPW	WILKES 138KV	52.19009	-0.00549 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09827	113
AEPW	ARSENAL HILL 138KV	337.2		ELK RIVER 345KV	44.986	0.09278 -0.09755	114
NPPD	CANADY1G 13.800 115KV	125	-0.00535 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09813	114
AEPW	COGENTRIX 345KV	671.9331	-0.00472 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.0975	114
AEPW	EASTMAN 138KV	128.2153	-0.00531 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09809	114
AEPW	KNOXLEE 138KV	176		ELK RIVER 345KV	44.986	0.09278 -0.09805	114
AEPW	LEBROCK 345KV	179.8976	-0.0053 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09808	114
AEPW	LIEBERMAN 138KV	45.99999	-0.00487 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09765	114
AEPW	TULSA POWER STATION 138KV	177.1113	-0.00453 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09731	114
AEPW	TULSA POWER STATION 69KV	80		ELK RIVER 345KV	44.986	0.09278 -0.09731	114
AEPW	FULTON 115KV	153	-0.00431 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09709	115
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.00381 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09659	115
NPPD	AINSWN1G 34.500 115KV	49.59249	-0.00359 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09637	116
NPPD	BPS ST3G 13.800 115KV	40.00518	-0.00324 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09602	116
NPPD	BURDIC3G 13.800 115KV	54	-0.00343 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09621	116
NPPD	GT-3 G 13.800 115KV	40	-0.00343 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09621	116
NPPD	HEBRON G 13.800 115KV	52	-0.00346 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09624	116
AEPW	OEC 345KV	1756.622	-0.003 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09578	116
NPPD	SHELDONG 13.800 115KV	52	-0.00223 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09501	117
OPPD	FREM 1G 13.800 69KV	40	-0.00146 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09424	118
OPPD	JONES 1G 13.800 69KV	59.3	-0.00109 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09387	119
OPPD	JONES 2G 13.800 69KV	59.3	-0.00109 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09387	119
AEPW	MID-CONTINENT 138KV	142.11	-0.00119 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09397	119
OPPD	SARPY 1G 13.800 69KV	55.3	-0.00113 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09391	119
OPPD	SARPY 2G 13.800 69KV	55.3	-0.00115 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09393	119
OPPD	SARPY 3G 13.800 4KV	49.17342	-0.00109 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09387	119
OPPD	SARPY 4G 13.800 161KV	48.1	-0.00109 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09387	119
OPPD	SARPY 5G 13.800 161KV	48.1	-0.00109 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09387	119
AEPW	ELKIN_GN 1 13.800 69KV	60	0.00006 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09272	120
AEPW	TONTITOWN 161KV	186.12	0.00011 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09267	120
KACP	IATAN 345KV	129	0.00192 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.09086	123
MIPU	LAKE ROAD 161KV	91	0.00258 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.0902	124
KACP	MARSHALL 161KV	54.1	0.00428 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.0885	126
KACP	HAWTHORN 161KV	245,2502	0.0053 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08748	127
KACY	KAW 69KV	242	0.00552 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08726	128
KACP	NORTHEAST 13KV	223	0.00545 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08733	128
KACP	NORTHEAST 161KV	224	0.00545 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08733	128
KACY	QUINDARO 161KV	107.5824	0.00547 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08731	128
MIPU	ARIES 161KV	576.6669	0.00658 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.0862	129
MIPU	GREENWOOD 161KV	255.8	0.00648 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.0863	129
MIPU	RALPH GREEN 69KV	73.7	0.00655 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08623	129
EMDE	LARUSSEL 161KV	171	0.00682 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08596	130
MIPU	SOUTH HARPER 161KV	247.994	0.00717 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08561	130
EMDE	STATE LINE 161KV	90	0.00733 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08545	130
EMDE	RIVERTON 161KV	182.9673	0.00771 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08507	131
KACP	BULL CREEK 161KV	246.4	0.00841 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08437	132
KACP	PAOLA 5 161.00 161KV	82.5	0.00827 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08451	132
· · ·		02.0			44.000		102
KACP	PAOLA COMBUSTION TURBINES 161KV	76	0.00827 EMDE	ELK RIVER 345KV	44.986	0.09278 -0.08451	132
	HUTCHINSON ENERGY CENTER 115KV	214	-0.02132 WERE	CITY OF BURLINGTON 69KV	55.4	0.04789 -0.06921	161
WERE							
WERE OKGE	SPGCK3&4 13.200 345KV	111	-0.02065 WERE	CITY OF BURLINGTON 69KV	55.4	0.04789 -0.06854	163

Factor = Source GSF - Sink GSF Redispatch Amount = Relief Amount / Factor

 Upgrade:
 ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3

 Limiting Facility
 ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 1

 Direction:
 FROM-3TO

 Line Outage
 ROSE HILL (ROSEHL3X) 345/138/13.8KV TRANSFORMER CKT 1

 Flowgate
 2007A62AFS81T1 1973/210SP

 Date Redispatch Needed
 3007A62AFS81T1 1973/210SP

 Season Flowgate Identified
 2010 Summer Peak

Relief Amount

Reservation	Relief Amount	Aggregate Relief Amount							
1281706	3.4	11.1							
1285893	1.2	11.1							
1286201	6.5	11.1							
Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	EMDE	ELK RIVER 345KV	44.986	0.09274		37
WERE	GILL ENERGY CENTER 69KV	48	-0.20689	EMDE	ELK RIVER 345KV	44.986	0.09274	-0.29963	37
WERE	WACO 138KV	30	-0.1952	EMDE	ELK RIVER 345KV	44.986	0.09274	-0.28794	39
WERE	GETTY 69KV	35	-0.18264	EMDE	ELK RIVER 345KV	44.986	0.09274	-0.27538	40
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	WERE	CITY OF BURLINGTON 69KV	55.4	0.04787	-0.25382	44
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	WERE	COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	0.04787	-0.25382	44
WERE	GILL ENERGY CENTER 69KV	48	-0.20689	WERE	CITY OF BURLINGTON 69KV	55.4	0.04787	-0.25476	44
WERE	GILL ENERGY CENTER 69KV	48	-0.20689	WERE	COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	0.04787	-0.25476	44
WERE	WACO 138KV	30	-0.1952	WERE	CITY OF BURLINGTON 69KV	55.4	0.04787	-0.24307	46
WERE	WACO 138KV	30	-0.1952	WERE	COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	0.04787	-0.24307	46
WERE	GETTY 69KV	35	-0.18264	WERE	CITY OF BURLINGTON 69KV	55.4	0.04787	-0.23051	48
WERE	GETTY 69KV	35	-0.18264		COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	0.04787		48
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		ASBURY 161KV	192	0.00939		51
WERE	GILL ENERGY CENTER 138KV	84,99999	-0.20595	MIPU	ARIES 161KV	18.33311	0.00657	-0.21252	52
WERE	GILL ENERGY CENTER 138KV	84,99999	-0.20595	EMDE	ASBURY 161KV	192	0.00939		52
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	KACP	BULL CREEK 161KV	61.6	0.0084		52
WERE	GILL ENERGY CENTER 138KV	84,99999	-0.20595		LARUSSEL 161KV	100	0.00682		52
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		RIVERTON 161KV	100.0327	0.0077		52
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		RIVERTON 69KV	44.07887	0.00718		52
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		SOUTH HARPER 161KV	67.00598	0.00717		52
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		STATE LINE 161KV	520	0.00732		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		ARIES 161KV	18.33311	0.00657		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		BULL CREEK 161KV	61.6	0.0084		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		HAWTHORN 161KV	517.7498	0.00529		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		LARUSSEL 161KV	100	0.00323		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		MONTROSE 161KV	359.7142	0.00607		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		NEARMAN 161KV	77	0.00544		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		NEARMAN 20KV	235	0.00544		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		QUINDARO 161KV	129.4176	0.00544		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		QUINDARO 181KV	136.3562	0.00547		52
WERE		48	-0.20689			136.3362	0.00549		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		RIVERTON 161KV RIVERTON 69KV	44.07887	0.0077	-0.21407	52
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20689		SIBLEY 161KV	228.9597	0.00718		52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		SIBLEY 161KV SIBLEY 69KV	228.9597 45.99999	0.00534		52
		48	-0.20689						52
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		SOUTH HARPER 161KV	67.00598	0.00717		52
WERE	GILL ENERGY CENTER 69KV	48			STATE LINE 161KV	520			
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		CITY OF HIGGINSVILLE 69KV	36	0.00522		53
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		HAWTHORN 161KV	517.7498	0.00529		53
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		LAKE ROAD 161KV	35	0.00258		53
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		LAKE ROAD 34KV	92	0.00258		53
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		MONTROSE 161KV	359.7142	0.00607		53
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		NEARMAN 161KV	77	0.00544		53
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		NEARMAN 20KV	235	0.00544		53
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		QUINDARO 161KV	129.4176	0.00547		53
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		QUINDARO 69KV	136.3562	0.00549		53
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		SIBLEY 161KV	228.9597	0.00534		53
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595		SIBLEY 69KV	45.99999	0.00529		53
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		CITY OF HIGGINSVILLE 69KV	36	0.00522		53
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		IATAN 345KV	371	0.00192		53
WERE	GILL ENERGY CENTER 69KV	48	-0.20689	KACP	IATAN 345KV	1806	0.00192	-0.20881	53

WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20689 MIPU -0.20689 MIPU	LAKE ROAD 161KV LAKE ROAD 34KV	92		-0.20947 -0.20947	
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 138KV	48	-0.20689 AEPW -0.20595 OPPD	NORTHEASTERN STATION 345KV CASS 1G 15.000 345KV	625 42.51929	-0.00099	-0.20847	53 54
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 OPPD	CASS 2G 15.000 345KV	52.99999	-0.00099	-0.20496	54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.20595 NPPD -0.20595 AEPW	COOPER1G 22.000 345KV FLINT CREEK 161KV	551.2802 428	0.0003	-0.20561 -0.20665	54 54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.20595 OPPD -0.20595 OPPD	FREM 8G 13.800 69KV FT CAL1G 22.000 4KV	90 376	-0.00146	-0.20449 -0.20488	54 54
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 KACP	IATAN 345KV	1806	0.00192	-0.20787	54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.20595 KACP -0.20595 OPPD	N OMA 1G 13.800 2KV	371 48.5	-0.00107	-0.20787 -0.20488	54 54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20595 OPPD -0.20595 OPPD	N OMA 2G 13.800 2KV N OMA 3G 13.800 2KV	80.59999 80.59999	-0.00105	-0.2049 -0.2049	54 54
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 OPPD	N OMA 4G 15.000 2KV	107.4	-0.00105	-0.2049	54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20595 OPPD -0.20595 OPPD	N OMA 5G 20.000 4KV NEBCTY1G 18.000 4KV	173.9 466	-0.00105	-0.2049 -0.20508	54 54
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.20595 OPPD -0.20595 AEPW	NEBCTY2G 23.000 345KV NORTHEASTERN STATION 345KV	503 625	-0.00087		54 54
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 AEPW	TONTITOWN 161KV	140	0.00011	-0.20606	54
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20689 OPPD -0.20689 OPPD	CASS 1G 15.000 345KV CASS 2G 15.000 345KV	42.51929 52.99999	-0.00099	-0.2059 -0.2059	54 54
WERE	GILL ENERGY CENTER 69KV		-0.20689 NPPD	COL.COG7 115.00 115KV	75	-0.00208	-0.20481	54
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20689 NPPD -0.20689 AEPW	COOPER1G 22.000 345KV FITZHUGH 161KV	551.2802 125.4	-0.00034	-0.20655 -0.20453	54 54
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20689 AEPW -0.20689 OPPD	FLINT CREEK 161KV FREM 8G 13.800 69KV	428 90	0.0007	-0.20759 -0.20543	54 54
WERE	GILL ENERGY CENTER 69KV	48	-0.20689 OPPD	FT CAL1G 22.000 4KV	376	-0.00107	-0.20582	54
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20689 OPPD -0.20689 OPPD	N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV	48.5 80.59999	-0.00103		54 54
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20689 OPPD -0.20689 OPPD	N OMA 3G 13.800 2KV N OMA 4G 15.000 2KV	80.59999 107.4	-0.00105		54 54
WERE	GILL ENERGY CENTER 69KV	48	-0.20689 OPPD	N OMA 5G 20.000 4KV	173.9	-0.00105	-0.20584	54
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20689 OPPD -0.20689 OPPD	NEBCTY1G 18.000 4KV NEBCTY2G 23.000 345KV	466 503	-0.00087		54 54
WERE WERE	GILL ENERGY CENTER 69KV	48	-0.20689 NPPD -0.20689 NPPD	SHELDN1G 13.800 115KV SHELDN2G 13.800 115KV	68.40001	-0.00223		54 54
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20689 AEPW	TONTITOWN 161KV	81 140	0.00011	-0.207	54
WERE WERE	WACO 138KV GILL ENERGY CENTER 138KV	30 84.99999	-0.1952 EMDE -0.20595 OKGE	ASBURY 161KV AES 161KV	192 320	-0.00304	-0.20459 -0.20291	54 55
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 AEPW	ARSENAL HILL 138KV	455	-0.00477	-0.20118	55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.20595 AEPW -0.20595 NPPD	BPS GT1G 13.800 115KV			-0.20271	55 55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20595 NPPD -0.20595 NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	45.19951 49.99482	-0.00324	-0.20271 -0.20271	55 55
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 AEPW	COGENTRIX 345KV	222.0669	-0.00472	-0.20123	55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.20595 NPPD -0.20595 NPPD	COL.COG7 115.00 115KV DENVER G 34.500 115KV	75 34.32393	-0.00208 -0.00332	-0.20263	55 55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.90000	-0.20595 NPPD -0.20595 AEPW	EGY CTRG 13.800 115KV FITZHUGH 161KV	54 125.4	-0.00329		55 55
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 NPPD	GT-2 G 13.800 115KV	40	-0.00343	-0.20252	55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.20595 AEPW -0.20595 WERE	KNOXLEE 138KV LAWRENCE ENERGY CENTER 230KV	223.9294	-0.00526 -0.00381	-0.20214	55 55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.20595 AEPW -0.20595 AEPW	LEBROCK 345KV LIEBERMAN 138KV	517.1024 174	-0.00529 -0.00487		55 55
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 OKGE	MUSKOGEE 161KV	166	-0.0039	-0.20205	55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20595 OKGE -0.20595 AEPW	MUSKOGEE 345KV NORTHEASTERN STATION 138KV	1548 480	-0.00447		55 55
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 AEPW	OEC 345KV	390.4081	-0.00299	-0.20296	55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20595 AEPW -0.20595 NPPD	PIRKEY GENERATION 138KV PLATTE1G 13.800 115KV	288 71.51868	-0.00528 -0.0035	-0.20067 -0.20245	55 55
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20595 NPPD -0.20595 NPPD	SHELDN1G 13.800 115KV SHELDN2G 13.800 115KV	68.40001 81	-0.00223 -0.00223	-0.20372 -0.20372	55 55
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 AEPW	TULSA POWER STATION 138KV	129.8887	-0.00453	-0.20142	55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20689 OKGE -0.20689 AEPW	AES 161KV ARSENAL HILL 138KV	320 455	-0.00304	-0.20385 -0.20212	55 55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20689 AEPW -0.20689 NPPD	ARSENAL HILL 69KV BPS GT1G 13.800 115KV	90	-0.00478	-0.20211 -0.20365	55 55
WERE	GILL ENERGY CENTER 69KV	48	-0.20689 NPPD	BPS GT2G 13.800 115KV	45.19951	-0.00324	-0.20365	55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20689 NPPD -0.20689 AEPW	BPS ST3G 13.800 115KV COGENTRIX 345KV	49.99482 222.0669		-0.20365 -0.20217	55 55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20689 NPPD -0.20689 AEPW	DENVER G 34.500 115KV EASTMAN 138KV	34.32393 356.7947	-0.00332	-0.20357	55 55
WERE	GILL ENERGY CENTER 69KV	48	-0.20689 NPPD	EGY CTRG 13.800 115KV	54	-0.00329	-0.2036	55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20689 NPPD -0.20689 AEPW	GT-2 G 13.800 115KV KNOXLEE 138KV	40 225	-0.00343		55 55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20689 WERE -0.20689 AEPW	LAWRENCE ENERGY CENTER 230KV LEBROCK 345KV	223.9294 517.1024	-0.00381	-0.20308	55 55
WERE	GILL ENERGY CENTER 69KV	48	-0.20689 AEPW	LIEBERMAN 138KV	174	-0.00487	-0.20202	55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20689 OKGE -0.20689 OKGE	MUSKOGEE 161KV MUSKOGEE 345KV	166 1548	-0.0039		55 55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.20689 AEPW -0.20689 AEPW	NORTHEASTERN STATION 138KV OEC 345KV	480 390,4081	-0.00372		55 55
WERE	GILL ENERGY CENTER 69KV	48	-0.20689 AEPW	PIRKEY GENERATION 138KV	288	-0.00528	-0.20161	55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20689 NPPD -0.20689 AEPW	PLATTE1G 13.800 115KV TULSA POWER STATION 138KV	71.51868 129.8887	-0.0035 -0.00453	-0.20339 -0.20236	55 55
WERE	GILL ENERGY CENTER 69KV		-0.20689 AEPW	WELSH 345KV	1044	-0.00593	-0.20096	55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20689 AEPW -0.20689 AEPW	WILKES 138KV WILKES 345KV	410.8099 308		-0.2014 -0.20149	55 55
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.1952 EMDE	BULL CREEK 161KV LARUSSEL 161KV	61.6 100	0.0084		55 55
WERE	WACO 138KV	30	-0.1952 KACP	MONTROSE 161KV	359.7142	0.00607	-0.20127 -0.20067	55
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.1952 KACY	QUINDARO 161KV QUINDARO 69KV	136.3562	0.00549	-0.20069	55 55
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.1952 EMDE -0.1952 EMDE	RIVERTON 161KV RIVERTON 69KV	100.0327 44.07887	0.0077	-0.2029 -0.20238	55 55
WERE	WACO 138KV	30	-0.1952 MIPU	SOUTH HARPER 161KV	67.00598	0.00717	-0.20237	55 55
WERE WERE	WACO 138KV GILL ENERGY CENTER 138KV	30 84.99999	-0.1952 EMDE -0.20595 AEPW	STATE LINE 161KV EASTMAN 138KV		-0.00531		56
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.20595 NPPD -0.20595 NPPD	GENTLM1G 23.000 230KV GENTLM2G 24.000 345KV	463	-0.00664	-0.19931 -0.19911	56 56
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.20595 WERE -0.20595 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV		-0.00738	-0.19857 -0.19865	56 56
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 NPPD	SIDNEY 4 230.00 230KV	19.3852	-0.00642	-0.19953	56
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.20595 WERE -0.20595 AEPW	TECUMSEH ENERGY CENTER 115KV WELSH 345KV	133 1044	-0.00837 -0.00593		56 56
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595 AEPW	WILKES 138KV WILKES 345KV	410.8099	-0.00549	-0.20046	56
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV	48	-0.20595 AEPW -0.20689 WERE	EMPORIA ENERGY CENTER 345KV			-0.19744	56 56
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.20689 NPPD -0.20689 NPPD	GENTLM1G 23.000 230KV GENTLM2G 24.000 345KV	463 443.3608	-0.00664	-0.20025 -0.20005	56 56
WERE	GILL ENERGY CENTER 69KV	48	-0.20689 WERE	JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV	440	-0.00738	-0.19951	56
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20689 NPPD	SIDNEY 4 230.00 230KV			-0.20047	56 56
WERE WERE	GILL ENERGY CENTER 69KV WACO 138KV	48 30	-0.20689 WERE -0.1952 KACP	TECUMSEH ENERGY CENTER 115KV CITY OF HIGGINSVILLE 69KV	133 36	-0.00837	-0.19852 -0.20042	56 56
WERE	WACO 138KV	30	-0.1952 KACP	HAWTHORN 161KV	517.7498	0.00529	-0.20049	56
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.1952 KACP	IATAN 345KV IATAN 345KV	371 1806	0.00192	-0.19712 -0.19712	56 56
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.1952 MIPU	LAKE ROAD 161KV LAKE ROAD 34KV	35	0.00258	-0.19778 -0.19778	56 56
		30		NEARMAN 161KV		0.00254		56
WERE	WACO 138KV	30	-0.1952 KACY					
WERE WERE WERE	WACO 138KV WACO 138KV WACO 138KV	30 30 30	-0.1952 KACY -0.1952 MIPU	NEARMAN 20KV SIBLEY 161KV	235 228.9597	0.0054	-0.20064 -0.20054	56 56
WERE WERE WERE WERE	WACO 138KV WACO 138KV WACO 138KV WACO 138KV	30 30 30	-0.1952 KACY -0.1952 MIPU -0.1952 MIPU	NEARMAN 20KV SIBLEY 161KV SIBLEY 69KV	235 228.9597 45.99999	0.00544 0.00534 0.00529	-0.20064 -0.20054 -0.20049	56 56
WERE WERE WERE	WACO 138KV WACO 138KV WACO 138KV	30 30 30 84.99999 84.99999	-0.1952 KACY -0.1952 MIPU	NEARMAN 20KV SIBLEY 161KV	235 228.9597 45.99999 54.8 65	0.00544 0.00534 0.00529	-0.20064 -0.20054 -0.20049 -0.19431 -0.1961	56

Column C	WERE	GILL ENERGY CENTER 138KV	84 99999	₃0 2059F	EMDE	MRWYG11 34.500 230KV	100	±0.01007	₌0.19588	
Column	WERE	GILL ENERGY CENTER 69KV	48	-0.20689	WERE	CHANUTE 69KV	54.8	-0.01164	-0.19525	5
100 100	WERE	GILL ENERGY CENTER 69KV	48	-0.20689	EMDE	MRWYG11 34.500 230KV	100	-0.01007	-0.19682	5
Column	WERE	WACO 138KV	30	-0.1952	OPPD	CASS 2G 15.000 345KV	52.99999	-0.00099	-0.19421	5
Column										5
Column										5
Color Colo	WERE	WACO 138KV	30	-0.1952	OPPD	N OMA 1G 13.800 2KV	48.5	-0.00107	-0.19413	5
Column	WERE	WACO 138KV	30	-0.1952	OPPD	N OMA 3G 13.800 2KV	80.59999	-0.00105	-0.19415	5
March Marc	WERE	WACO 138KV	30	-0.1952	OPPD	N OMA 5G 20.000 4KV	173.9	-0.00105	-0.19415	5
MODITION				-0.1952	OPPD					5
STATE OF COLUMN 100	WERE WERE					NORTHEASTERN STATION 345KV				5
10 1 1 1 1 1 1 1 1 1 1 1 1	WERE	GETTY 69KV	35	-0.18264		ASBURY 161KV				5
Section Sect	WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	OKGE	SEMINOLE 138KV	334.858	-0.01554	-0.19041	5
Column	WERE	GILL ENERGY CENTER 69KV	48	-0.20689	OKGE	SEMINOLE 345KV	1019	-0.01585	-0.19104	5
WAST 1907										5
ACCOUNTY										5
MARCHAND	WERE	WACO 138KV		-0.1952	NPPD					5
Miles	WERE	WACO 138KV	30	-0.1952	AEPW	COGENTRIX 345KV	222.0669	-0.00472	-0.19048	5
MARCH MACCO MACC	WERE	WACO 138KV	30	-0.1952	NPPD	DENVER G 34.500 115KV	34.32393	-0.00332	-0.19188	5
MACCO 1807										5
WARD WAND DESIGN THE ADMINISTRATION THE ADM	WERE	WACO 138KV	30	-0.1952	NPPD	GT-2 G 13.800 115KV	40	-0.00343	-0.19177	5
WACCI SECULATION	WERE	WACO 138KV	30	-0.1952	OKGE	MUSKOGEE 161KV	166	-0.0039	-0.1913	5
MACH	WERE	WACO 138KV	30	-0.1952	AEPW	NORTHEASTERN STATION 138KV	480	-0.00372	-0.19148	5
MAC-1889	WERE	WACO 138KV	30	-0.1952	NPPD	PLATTE1G 13.800 115KV	71.51868	-0.0035	-0.1917	<u> </u>
THE COLOR 1	WERE					SHELDN1G 13.800 115KV		-0.00223	-0.19297	5
SEET PROV. 50 C. C. C. C. C. C. C. C	WERE	WACO 138KV	30	-0.1952	AEPW	TULSA POWER STATION 138KV	129.8887	-0.00453	-0.19067	5
WATER SETT YORK	WERE	GETTY 69KV	35	-0.18264	KACP	HAWTHORN 161KV	517.7498	0.00529	-0.18793	5
Section Sect	WERE	GETTY 69KV	35	-0.18264	KACP	MONTROSE 161KV	359.7142	0.00607	-0.18871	5
WEST GETTY BROW S. G. LEDGE LOVE S. G. G. G. G. LEDGE LOVE S. G. G. G. G. LEDGE LOVE S. G. G. G. G. G. LEDGE LOVE S. G.										5
Sept	WERE	GETTY 69KV	35	-0.18264	KACY	QUINDARO 161KV	129.4176	0.00547	-0.18811	5
STATE	WERE	GETTY 69KV	35	-0.18264	EMDE	RIVERTON 161KV	100.0327	0.0077	-0.19034	5
WERE GETT GENY 35 0.1504 AND 0.0007 AND 0.000	WERE	GETTY 69KV	35	-0.18264	MIPU	SIBLEY 161KV	228.9597	0.00534	-0.18798	5
SEED SEED RESPONDED SEEDING										5
MERCAND COLL DERROY CENTER 1889										5
WERE GLI LENROY CENTER ISBNY \$4.99990 0.2005 (AVERT 1.000000 1.000000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.000000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.0000000 1.0000000000	WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	AEPW	COMANCHE 69KV	60	-0.01724	-0.18871	5
WERE	WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	OKGE	MCCLAIN 138KV	470	-0.01776	-0.18819	5
WERE OLL EMERCY CENTER 18W 84.09999 2009 DOCE SEMBOLE 36W 1019 0.01585 0.1901 WERE CALL EMERCY CENTER 18W 84.09994 2009 CALL EMERCY CENTER 18W 84.09994 CALL EMERCY CENTER 18W 89.001995 CALL EMERCY CENTER 18W 84.09994 CALL EMERCY CENTER 18W 89.001995 CALL EMERCY CENTER 18W 84.001995 CALL EMERCY CENTER 18W	WERE									5
WERE GILL EMERGY CENTER 1880Y	WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	OKGE	REDBUD 345KV	43.60958	-0.01653	-0.18942	5
WERE GILL ENERGY CENTER 1880Y 64.99996 0.2009 (APW SOUTHWESTERN STATON 1880Y 712 0.01738 0.18658	WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	OKGE	SMITH COGEN 138KV	106	-0.01818	-0.18777	5
WERE GILL ENERGY CENTER 680V	WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	AEPW	SOUTHWESTERN STATION 138KV	712	-0.01739	-0.18856	5
WERE GILL ENRROY CENTER 808V	WERE	GILL ENERGY CENTER 69KV	48	-0.20689	WERE	CNTRLPL2 34.500 115KV	99	-0.01896	-0.18793	5
WERE GILL ENERGY CENTER 896V	WERE	GILL ENERGY CENTER 69KV				COMANCHE 69KV				5
WERE OIL EMPROY CENTER RINKY 48 2,00000 OKCE MUSTANG 180KY 51.716 2,01053 1,0105										5
WERE OIL EMERCY CENTER ROWY 48 0.20080 OKGE REDBUD 346YV 4.500006 0.01603. 0.10006 WERE OIL EMERCY CENTER ROWY 48 0.20080 OKGE SMTH COGEN 138KV 100 0.001618 0.18871 WERE OIL EMERCY CENTER ROWY 48 0.20080 OKGE SMTH COGEN 138KV 22 0.01792 0.10804 WERE OIL EMERCY CENTER ROWY 48 0.20080 OKGE SMTH COGEN 138KV 22 0.01793 0.10804 WERE OIL EMERCY CENTER ROWY 48 0.20080 OKGE SMTH COGEN 138KV 22 0.01793 0.10804 WERE OIL EMERCY CENTER ROWY 48 0.20080 OKGE SMTH COGEN 138KV 22 0.01793 0.10804 WERE WAGO 138KV 30 0.01962 OKGE SMTH COGEN 14 0.0000	WERE	GILL ENERGY CENTER 69KV	48	-0.20689	OKGE	MUSTANG 138KV	351	-0.01831	-0.18858	5
WERE GILL ENERGY CENTER 686V 48 0.2086 MIDW SMOKEY HILLS 34KV 25 0.01796 0.18948	WERE	GILL ENERGY CENTER 69KV	48	-0.20689	OKGE	REDBUD 345KV	43.60958	-0.01653	-0.19036	5
WERE GILL ENERGY CENTER 68KY	WERE	GILL ENERGY CENTER 69KV	48	-0.20689	MIDW	SMOKEY HILLS 34KV	25	-0.01795	-0.18894	5
WERE WACO 138V		GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV								5
WERE WACO 138KV 30 -0.1952/WERE JEFFREY ENRORY CHENTRE 238KV 440 -0.0073 -0.1878 WERE WACO 138KV 30 -0.1952/WERE JEFFREY ENRORY CHENTRE 238KV 874 -0.0073 -0.1879 WERE WACO 138KV 30 -0.1952/WERE JEFFREY ENRORY CHENTRE 238KV 874 -0.0073 -0.1879 WERE WACO 138KV 30 -0.1952/WERE JEFFREY ENRORY CHENTRE 238KV 874 -0.0073 -0.1879 WERE WACO 138KV 30 -0.1952/AEPW LEBROCK MARKV 571 (0.00529 -0.1899) WERE WACO 138KV 30 -0.1952/AEPW LEBROCK MARKV 571 (0.00529 -0.1899) WERE WACO 138KV 30 -0.1952/AEPW LEBROCK MARKV 571 (0.00529 -0.1899) WERE WACO 138KV 30 -0.1952/AEPW WERE S13KKV 410,00093 -0.1897 WERE WACO 138KV 30 -0.1952/AEPW WERE S13KKV 410,00093 -0.00594 -0.1897 WERE WACO 138KV 30 -0.1952/AEPW WILKES 138KV 410,00093 -0.00594 -0.1897 WERE WACO 138KV 30 -0.1952/AEPW WILKES 138KV 410,00093 -0.00594 -0.1897 WERE GETTY 69KV 30 -0.1952/AEPW WILKES 138KV 30 -0.00594 -0.1897 WERE GETTY 69KV 35 -0.1556/AKCP IATA 346KV 1870 MIN 346KV 371 -0.00792 -0.18466 WERE GETTY 69KV 35 -0.1556/AKCP IATA 346KV 1870 MIN 346KV 371 -0.00792 -0.18466 WERE GETTY 69KV 35 -0.1556/AEPW NOW S1 -0.1556/AEPW NOW	WERE			-0.1952	AEPW	EASTMAN 138KV				5
WERE WACD 138KV 30 -0.1962/WERE JEFFREY NERGY CENTER 345KV 57.0.00528 -0.19694 WERE WACD 138KV 30 -0.1962/AEPW LEBROCK 345KV 57.1.024 -0.00528 -0.19694 WERE WACD 138KV 30 -0.1962/AEPW LEBROCK 345KV 57.1.024 -0.00528 -0.19691 WERE WACD 138KV 30 -0.1962/AEPW LEBROCK 345KV 57.1.024 -0.00528 -0.19693 WERE WACD 138KV 30 -0.1962/AEPW PIRKEY GENERATION 138KV 288 -0.00528 -0.19692 WERE WACD 138KV 30 -0.1962/AEPW WILLES 138KV 288 -0.00528 -0.19692 WERE WACD 138KV 30 -0.1962/AEPW WILLES 138KV 40.00528 -0.19692 WERE WACD 138KV 30 -0.1962/AEPW WILLES 138KV 40.00528 -0.19692 WERE WACD 138KV 30 -0.1962/AEPW WILLES 138KV 40.00528 -0.00528 -0.19692 WERE WACD 138KV 30 -0.1962/AEPW WILLES 138KV 40.00528 -0.00528 -0.19692 WERE GETTY 66KV 30 -0.1962/AEPW WILLES 138KV 40.00528 -0.00528 -0.19692 WERE GETTY 66KV 30 -0.1962/AEPW WILLES 136KV 50.00152 -0.19662 WERE GETTY 66KV 30 -0.1962/AEPW WILLES 136KV 50.00152 -0.19662 WERE GETTY 66KV 30 -0.1962/AEPW WILLES 136KV 50.00152 -0.19662 WERE GETTY 66KV 30 -0.1962/AEPW WILLES 136KV 50.00152 -0.19662 WERE GETTY 66KV 30 -0.1962/AEPW WILLES 136KV 50.00152 -0.19662 WERE GETTY 66KV 30 -0.1962/AEPW WILLES 136KV 50.00152 -0.19662 WERE GILL ENERGY CENTER 136KV 84.99999 -0.2069/GKGE CENTENAL WIND 34KV 92 -0.00258 -0.19622 WERE GILL ENERGY CENTER 136KV 84.99999 -0.2069/GKGE CENTENAL WIND 34KV 120 -0.00277 -0.19418 WERE GILL ENERGY CENTER 136KV 84.99999 -0.2069/GKGE CENTENAL WIND 34KV 120 -0.00277 -0.19419 WERE GILL ENERGY CENTER 136KV 84.99999 -0.2069/GKGE CENTENAL WIND 34KV 120 -0.00278 -0.19699 WERE GILL ENERGY CENTER 136KV 84.99999 -0.2069/GKGE CENTENAL WIND 34KV 120 -0.00278 -0.19699 WERE GILL ENERGY CENTER 136KV 84.99999 -0.2069/GKGE CENTENAL WIND 34KV 120 -0.00278 -0.19699 WERE GILL ENERGY CENTER 136KV 84.99999 -0.2069/GKGE CENTENAL WIND 34KV 120 -0.00278 -0.19699 WERE GILL ENERGY CENTER 136KV 84.99999 -0.2069/GKGE CENTENAL WIND 34KV 120 -0.00278 -0.19699 WERE GILL ENERGY CENTER 136KV 84.99999 -0.2069/GKGE CENTENAL WIND 34KV 120 -0.00278 -0.19699 WERE GILL ENERGY CENTER 136KV 84.99999 -0.2069/	WERE	WACO 138KV	30	-0.1952	NPPD	GENTLM2G 24.000 345KV	443.3608	-0.00684	-0.18836	5
WERE WACD 138KV 30 -0.1992 AEPW LEBROCK 346KV 517.1024 0.00528 -0.19991 WERE WACD 138KV 30 -0.1992 AEPW PIRKEY GENERATION 138KV 174 -0.00487 -0.19032 WERE WACD 138KV 30 -0.1992 AEPW PIRKEY GENERATION 138KV 288 -0.00528 -0.19992 WERE WACD 138KV 30 -0.1992 AEPW WILKES 134KV 1044 -0.00593 -0.1992 WERE WACD 138KV 30 -0.1992 AEPW WILKES 134KV 410.8099 -0.00549 -0.18971 WERE GETTY 69KV 30 -0.1992 AEPW WILKES 134KV 410.8099 -0.00549 -0.18971 WERE GETTY 69KV 33 -0.1292 AEPW WILKES 134KV 50 -0.0054 -0.18971 WERE GETTY 69KV 33 -0.1292 AEPW WILKES 134KV 50 -0.0054 -0.18971 WERE GETTY 69KV 33 -0.1292 AEPW WILKES 134KV 50 -0.0054 -0.18971 WERE GETTY 69KV 33 -0.1292 AEPW WILKES 134KV 50 -0.0054 -0.18971 WERE GETTY 69KV 33 -0.1292 AEPW WILKES 134KV 50 -0.0054 -0.18971 WERE GETTY 69KV 33 -0.1292 AEPW WILKES 134KV 50 -0.0054 -0.18972 WERE GETTY 69KV 33 -0.1292 AEPW WILKES 134KV 50 -0.0054 -0.18972 WERE GETTY 69KV 33 -0.1292 AEPW WILKES 134KV 50 -0.0054 -0.18972 WERE GETTY 69KV 33 -0.1292 AEPW WILKES 134KV 50 -0.0054 -0.18972 WERE GETTY 69KV 33 -0.1292 AEPW WILKES 134KV 50 -0.0054 -0.18922 WERE GETTY 69KV 33 -0.1292 AEPW 10 -0.0054 -0.18972 WERE GILL ENREGY CENTER 138KV 84 99999 0.20580 KGE CENTENAL WIND 34KV 50 -0.00528 -0.18922 WERE GILL ENREGY CENTER 138KV 84 99999 0.20580 KGE CENTENAL WIND 34KV 50 -0.00528 -0.18922 WERE GILL ENREGY CENTER 138KV 84 99999 0.20580 KGE CENTENAL WIND 34KV 50 -0.00528 -0.18929 WERE GILL ENREGY CENTER 138KV 84 99999 0.20580 KGE HUTCHINSON ENREGY CENTER 115KV 75 0.00521 -0.18629 WERE GILL ENREGY CENTER 138KV 84 99999 0.20580 KGE HUTCHINSON ENREGY CENTER 115KV 75 0.0050 -0.18629 WERE GILL ENREGY CENTER 138KV 84 99999 0.20580 KGE ENTENAL WIND 34KV 50 -0.00528 -0.18639 WERE GILL ENREGY CENTER 68KV 84 99999 0.20580 KGE ENTENAL WIND 34KV 50 -0.00528 -0.18639 WERE GILL ENREGY CENTER 68KV 84 9.00580 KGE ENTENAL WIND 34KV 75 0.00010 -0.00228 -0.18639 WERE GILL ENREGY CENTER 68KV 84 9.00580 KGE ENTENAL WIND 34KV 97 0.00000 -0.00228 -0.18639 WERE GILL ENREGY CENTER 68KV 94 9.00580 KGE ENTENAL WIND 34KV 97 0.0	WERE	WACO 138KV	30	-0.1952	WERE	JEFFREY ENERGY CENTER 345KV	874	-0.0073	-0.1879	5
WERE WACD 138KV 30 -0.1962/AEPW ILBERMAN 138KV 288 -0.00528 -0.1993/ WERE WACD 138KV 30 -0.1962/AEPW WELSH 345KV 1044 -0.00593 -0.1993/ WERE WACD 138KV 30 -0.1962/AEPW WELSH 345KV 1044 -0.00593 -0.1993/ WERE WACD 138KV 30 -0.1962/AEPW WELSH 345KV 1044 -0.00593 -0.1993/ WERE WACD 138KV 30 -0.1962/AEPW WELSH 345KV 1046 -0.00593 -0.1993/ WERE WACD 138KV 30 -0.1962/AEPW WILKES 138KV 1006 -0.0054 -0.1991/ WERE GETTY 69KV 30 -0.1962/AEPW WILKES 345KV 1006 -0.0054 -0.1989 WERE GETTY 69KV 35 -0.1865/ WERE GETTY 69KV 35 -0.1866/ACPP IATAN 346KV 1006 -0.00192 -0.1865/ WERE GETTY 69KV 35 -0.18626/ACPP IATAN 346KV 371 -0.0192 -0.1865/ WERE GETTY 69KV 35 -0.18626/AEPW ILLARE ROAD 164KV 35 -0.00525 -0.1865/ WERE GETTY 69KV 35 -0.18626/AEPW ILLARE ROAD 164KV 35 -0.00525 -0.1862/ WERE GETTY 69KV 35 -0.18626/AEPW ILLARE ROAD 164KV 35 -0.00525 -0.1862/ WERE GETTY 69KV 35 -0.18626/AEPW ILLARE ROAD 164KV 35 -0.00525 -0.1862/ WERE GETTY 69KV 36 -0.00526 -0.00526 -0.1862/ WERE GETTY 69KV 55 -0.00526 -0.00526 -0.00526 -0.00526 -0.1862/ WERE GETTY 69KV 55 -0.00526 -0.00526 -0.00526 -0.00526 -0.00526 -0.1862/ WERE GETTY 69KV 56 -0.0052	WERE	WACO 138KV	30	-0.1952	AEPW	KNOXLEE 138KV LEBROCK 345KV	517.1024	-0.00529	-0.18991	5
WERE WACO 138KV 30 0.1952 AEPW WELSH 345KV 1416-896 0.0054 0.19927	WERE	WACO 138KV WACO 138KV	30 30	-0.1952	AEPW	LIEBERMAN 138KV	174	-0.00487	-0.19033	5
WERE WACO 138KV 30 -0.1952 AFFW WILKES 345KV 308 -0.0054 -0.1896 WERE GETTY 69KV 35 -0.18264 ACAP IATAN 345KV 371 0.00192 -0.18456 WERE GETTY 69KV 35 -0.18264 ACAP IATAN 345KV 371 0.00192 -0.18456 WERE GETTY 69KV 35 -0.18264 AMPU LAKE ROAD 161KV 32 0.00258 -0.18522 WERE GETTY 69KV 35 -0.18264 AMPU LAKE ROAD 161KV 92 0.00258 -0.18522 WERE GETTY 69KV 35 -0.18264 AMPU LAKE ROAD 34KV 92 0.00258 -0.18522 WERE GETTY 69KV 35 -0.18264 AMPU LAKE ROAD 34KV 92 0.00258 -0.18522 WERE GILL ENERGY CENTER 138KV 8.9 9999 -0.20595 OKGE CENTENIAL WIND 34KV 120 -0.02177 -0.18418 MERE GILL ENERGY CENTER 138KV 8.9 9999 -0.20595 WERE CONTRULY 23.500 115KV 99 -0.18418 MERE GILL ENERGY CENTER 138KV 8.9 9999 -0.20595 WERE HUTCHINSON ENERGY CENTER 115KV 230 -0.02132 -0.18468 MERE GILL ENERGY CENTER 138KV 8.9 9999 -0.20595 WERE HUTCHINSON ENERGY CENTER 115KV 230 -0.02132 -0.18468 MERE GILL ENERGY CENTER 138KV 8.9 9999 -0.20595 WERE HUTCHINSON ENERGY CENTER 115KV 230 -0.02132 -0.18567 MERE GILL ENERGY CENTER 158KV 8.9 9999 -0.20595 OKGE SPCK182 13.200 345KV 78 -0.02024 -0.18567 MERE GILL ENERGY CENTER 69KV 4.9 -0.20689 OKGE SPCK182 13.200 345KV 78 -0.02054 -0.18512 MERE GILL ENERGY CENTER 69KV 4.9 -0.20689 OKGE SPCK182 13.200 345KV 78 -0.02054 -0.18512 MERE GILL ENERGY CENTER 69KV 4.9 -0.20689 OKGE SPCK182 13.200 345KV 78 -0.02054 -0.18512 MERE GILL ENERGY CENTER 69KV 4.9 -0.20689 OKGE SPCK182 13.200 345KV 78 -0.02054 -0.18513 MERE GILL ENERGY CENTER 69KV 4.9 -0.20689 OKGE SPCK182 13.200 345KV 78 -0.02054 -0.18515 MERE GILL ENERGY CENTER 69KV 4.9 -0.20689 OKGE SPCK182 13.200 345KV 78 -0.02054 -0.18515 MERE GILL ENERGY CENTER 69KV 4.9 -0.20689 OKGE SPCK182 13.200 345KV 78 -	WERE	WACO 138KV	30	-0.1952	AEPW	WELSH 345KV	1044	-0.00593	-0.18927	
WERE GETTY 69KV 35 -0.18264 ACP	WERE	WACO 138KV	30	-0.1952	AEPW	WILKES 345KV	308	-0.0054	-0.1898	5
WERE GETTY 69KV 35 -0.18264 MIPU LAKE ROAD 34KV 92 0.00258 -0.18252	WERE	GETTY 69KV	35	-0.18264	KACP	IATAN 345KV	371	0.00192	-0.18456	6
WERE GETTY 69KV S.5 -0.1826/4 AFPW NORTHEASTERN STATION 345KV 6.25 0.00158 -0.18422	WERE	GETTY 69KV	35	-0.18264	MIPU	LAKE ROAD 34KV	92	0.00258	-0.18522	6
WERE GILL ENERGY CENTER 138KV 84 99999 -0.20958 WERE CNTRLPL2 34.500 115KV 99 -0.01698 -0.16969	WERE		35	-0.18264	AEPW	NORTHEASTERN STATION 345KV CENTENIAL WIND 34KV	625	0.00158	-0.18422	6
WERE GILL ENERGY CENTER 138KV 84 99999 -0.20998/MIDW KNOLL 115KV 75.0001 -0.00228 -0.16867	WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	WERE	CNTRLPL2 34.500 115KV	99	-0.01896	-0.18699	6
WERE GILL ENERGY CENTER 69KV	WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	MIDW	KNOLL 115KV	75.60001	-0.02028	-0.18567	(
WERE GILL ENERGY CENTER 69KV 48 -0.20889/WERE HUTCHINSON ENERGY CENTER 115KV 230 -0.02132 -0.18557	WERE	GILL ENERGY CENTER 69KV	48	-0.20689	OKGE	CENTENIAL WIND 34KV	120	-0.02177	-0.18512	6
WERE GILL ENERGY CENTER 69KV	WERE	GILL ENERGY CENTER 69KV	48	-0.20689	MIDW	KNOLL 115KV	230	-0.02132	-0.18557	6
WERE WACO 138KV 30 -0.1952/WERE EMPORIA ENERGY CENTER 345KV 610 -0.00645 -0.16575	WERE	GILL ENERGY CENTER 69KV	48	-0.20689	OKGE	SPGCK1&2 13.200 345KV	78	-0.02064	-0.18625	6
WERE WACO 138VV 30 -0.1952/WERE TECUMSEH ENERGY CENTER 115KV 13.3 -0.00837 -0.18683 WERE GETTY 69KV 35 -0.18264 OPPD CASS 10 15.000 345KV 42.51929 -0.00093 -0.18165 WERE GETTY 69KV 35 -0.18264 OPPD CASS 20 15.000 345KV 52.99999 -0.00099 -0.18165 WERE GETTY 69KV 35 -0.18264 APPD COOPER 107 22.000 345KV 55.12802 -0.00034 -0.18163 WERE GETTY 69KV 35 -0.18264 APPD FILT CREEK 161KV 428 0.0007 -0.18334 WERE GETTY 69KV 35 -0.18264 APPD FIREM 96 1.800 69KV 90 -0.00144 -0.18116 WERE GETTY 69KV 35 -0.18264 OPPD FTCM 10.1800 69KV 376 -0.00107 -0.18157 WERE GETTY 69KV 35 -0.18264 OPPD FTCM 10.1800 69KV 376 -0.00107 -0.18157 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 10.1800 67KV 45.5 -0.00107 -0.18157 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 10.1800 67KV 80.59999 -0.00105 -0.18157 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 20.13800 2KV 80.59999 -0.00105 -0.18159 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 40.15.000 2KV 107.4 -0.00105 -0.18159 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 40.15.000 2KV 107.4 -0.00105 -0.18159 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 40.50.000 2KV 107.4 -0.00105 -0.18159 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 40.50.000 2KV 107.4 -0.00105 -0.18159	WERE	WACO 138KV	30	-0.1952	WERE	EMPORIA ENERGY CENTER 345KV	610	-0.00945	-0.18575	6
WERE GETTY 69KV 35 -0.18264 MPPD CASS 2G 15.000 345KV 52.9999 -0.00099 -0.19165	WERE	WACO 138KV	30	-0.1952	WERE	TECUMSEH ENERGY CENTER 115KV	133	-0.00837	-0.18683	6
WERE GETTY 69KV 35 -0.18264 MPPD COOPER1G 22.000 345KV 55.12802 -0.00034 0.1823	WERE	GETTY 69KV	35	-0.18264	OPPD	CASS 2G 15.000 345KV	52.99999	-0.00099	-0.18165	(
WERE GETTY 69KV 35 -0.18264 OPPD FREM 8G 13.800 69KV 90 -0.00146 -0.16116 WERE GETTY 69KV 35 -0.18264 OPPD FT CAL 16 22.000 4KV 376 -0.00107 -0.18157 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 1G 13.800 2KV 48.5 -0.00107 -0.18157 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 2G 13.800 2KV 80.59999 -0.00105 -0.18159 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 2G 13.800 2KV 80.59999 -0.00105 -0.18159 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 4G 15.000 2KV 107.4 -0.00105 -0.18159 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 4G 15.000 2KV 107.4 -0.00105 -0.18159 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 4G 15.000 2KV 107.4 -0.00105 -0.18159	WERE	GETTY 69KV	35	-0.18264	NPPD	COOPER1G 22.000 345KV	551.2802	-0.00034	-0.1823	(
WERE GETTY 69KV 35 - 0.18264 OPPD N OMA 16 13.800 2KV 48.5 - 0.00107 - 0.18157 WERE GETTY 69KV 35 - 0.18264 OPPD N OMA 26 13.800 2KV 80.59998 - 0.00105 - 0.18159 WERE GETTY 69KV 35 - 0.18264 OPPD N OMA 36 13.800 2KV 80.59998 - 0.00105 - 0.18159 WERE GETTY 69KV 35 - 0.18264 OPPD N OMA 46 15.000 2KV 107.4 - 0.00105 - 0.18159 WERE GETTY 69KV 35 - 0.18264 OPPD N OMA 46 15.000 2KV 177.3 - 0.00105 - 0.18159	WERE	GETTY 69KV	35	-0.18264	OPPD	FREM 8G 13.800 69KV	90	-0.00146	-0.18118	(
WERE GETTY 69KV 35 -0.18264 OPPD N OMA 3G 13.800 2KV 80.59998 -0.00103 -0.18159 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 4G 15.000 2KV 107.4 -0.00103 -0.18159 WERE GETTY 69KV 35 -0.18264 OPPD N OMA 4G 50.000 4KV 173.9 -0.00109 -0.18159	WERE	GETTY 69KV	35	-0.18264	OPPD	N OMA 1G 13.800 2KV	48.5	-0.00107	-0.18157	(
WERE GETTY 69KV 35 -0.18264 OPPD N OMA 5G 20.000 4KV 173.9 -0.00105 -0.18159	WERE	GETTY 69KV	35	-0.18264	OPPD	N OMA 3G 13.800 2KV	80.59999	-0.00105	-0.18159	6
THERE INTERVALUE AND ADDRESS OF THE PROPERTY O	WERE	GETTY 69KV	35	-0.18264	OPPD	N OMA 5G 20.000 4KV	173.9	-0.00105	-0.18159	6
	WERE	GETTY 69KV	35	-0.18264	OPPD	NEBCTY1G 18.000 4KV	466	-0.00087	-0.18177	6
WERE GETTY 69KV 35 -0.18264 AEV TONITIOWN 161KV 140 0.00011 -0.18275	WERE	GETTY 69KV	35	-0.18264	AEPW	TONTITOWN 161KV	140	0.00011	-0.18275	6

		I							
WERE	GILL ENERGY CENTER 69KV	48	-0.20689		A. M. MULLERGREN GENERATOR 115KV	63		-0.18146	61
WERE WERE	GILL ENERGY CENTER 69KV WACO 138KV	30		WERE	FPLWND2 34KV CHANUTE 69KV	54.8	-0.02284 -0.01164	-0.18356	61
WERE WERE	GETTY 69KV		-0.18264 -0.18264		AES 161KV BPS GT1G 13.800 115KV	320 80		-0.1796 -0.1794	62
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18264	NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	45.19951		-0.1794 -0.1794	62
WERE	GETTY 69KV	35	-0.18264	NPPD	COL.COG7 115.00 115KV	75	-0.00208	-0.18056	62
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18264 -0.18264		DENVER G 34.500 115KV EGY CTRG 13.800 115KV	34.32393 54	-0.00332	-0.17932 -0.17935	62
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18264 -0.18264		FITZHUGH 161KV GT-2 G 13.800 115KV	125.4 40		-0.18028 -0.17921	62 62
WERE	GETTY 69KV	35	-0.18264	WERE	LAWRENCE ENERGY CENTER 230KV	223.9294	-0.00381	-0.17883	62
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18264 -0.18264	AEPW	MUSKOGEE 161KV NORTHEASTERN STATION 138KV	166 480		-0.17874 -0.17892	62
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18264 -0.18264	AEPW	OEC 345KV PLATTE1G 13.800 115KV	390.4081 71.51868		-0.17965 -0.17914	62
WERE	GETTY 69KV	35	-0.18264	NPPD	SHELDN1G 13.800 115KV	68.40001	-0.00223	-0.18041	62
WERE	GETTY 69KV	35	-0.18264	NPPD	SHELDN2G 13.800 115KV	81	-0.00223	-0.18041	62
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20595		A. M. MULLERGREN GENERATOR 115KV CIMARRON RIVER 115KV	63	-0.02543	-0.18052 -0.17955	62
WERE	GILL ENERGY CENTER 69KV	48	-0.20689	MKEC	CIMARRON RIVER 115KV	44	-0.0264	-0.18049	62
WERE WERE	GILL ENERGY CENTER 69KV WACO 138KV	48	-0.20689 -0.1952		SOONER 345KV HORSESHOE LAKE 138KV	537 796		-0.17835 -0.17822	62
WERE WERE	WACO 138KV WACO 138KV	30	-0.1952 -0.1952	OKGE	REDBUD 345KV SEMINOLE 138KV	43.60958	-0.01653 -0.01554	-0.17867 -0.17966	62
WERE	WACO 138KV	30	-0.1952	OKGE	SEMINOLE 345KV	1019	-0.01585	-0.17935	62
WERE WERE	GETTY 69KV GETTY 69KV		-0.18264 -0.18264		ARSENAL HILL 138KV ARSENAL HILL 69KV	455 90	-0.00477 -0.00478	-0.17786	63
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18264 -0.18264		COGENTRIX 345KV EASTMAN 138KV	222.0669 356.7947		-0.17792 -0.17733	63
WERE	GETTY 69KV	35	-0.18264	NPPD	GENTLM1G 23.000 230KV	463	-0.00664	-0.176	63
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18264 -0.18264		GENTLM2G 24.000 345KV KNOXLEE 138KV	443.3608 225		-0.1758 -0.17738	63
WERE WERE	GETTY 69KV	35 35	-0.18264 -0.18264		LEBROCK 345KV LIEBERMAN 138KV	517.1024 174	-0.00529 -0.00487	-0.17735 -0.17777	63
WERE	GETTY 69KV	35	-0.18264	OKGE	MUSKOGEE 345KV	1548	-0.00447	-0.17817	63
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18264 -0.18264	AEPW	PIRKEY GENERATION 138KV TULSA POWER STATION 138KV	288 129.8887	-0.00528 -0.00453	-0.17736 -0.17811	63
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18264 -0.18264	AEPW	WELSH 345KV WILKES 138KV	1044	-0.00593 -0.00549		63
WERE	GETTY 69KV	35	-0.18264	AEPW	WILKES 345KV	308	-0.0054	-0.17724	63
WERE WERE	GILL ENERGY CENTER 138KV WACO 138KV	84.99999 30	-0.1952	WERE	SOONER 345KV CNTRLPL2 34.500 115KV		-0.01896		63
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.1952 -0.1952	AEPW	COMANCHE 138KV COMANCHE 69KV	145	-0.01732	-0.17788	63
WERE	WACO 138KV	30		OKGE	MCCLAIN 138KV	470	-0.01776	-0.17744	63
WERE WERE	WACO 138KV WACO 138KV	30 30		OKGE	MUSTANG 138KV MUSTANG 69KV	351 51.72168	-0.01831 -0.01835	-0.17689 -0.17685	63
WERE WERE	WACO 138KV WACO 138KV	30 30		OKGE	SMITH COGEN 138KV SMOKEY HILLS 34KV	106 25	-0.01818 -0.01795		63
WERE	WACO 138KV	30	-0.1952	AEPW	SOUTHWESTERN STATION 138KV	712	-0.01739	-0.17781	63
WERE WERE	WACO 138KV GETTY 69KV	30 35	-0.1952 -0.18264	AEPW MKEC	SOUTHWESTERN STATION 138KV CLIFTON 115KV	287 65	-0.01739 -0.00985		63
WERE WERE	GETTY 69KV GETTY 69KV		-0.18264 -0.18264		EMPORIA ENERGY CENTER 345KV JEFFREY ENERGY CENTER 230KV	610	-0.00945	-0.17319 -0.17526	64 64
WERE	GETTY 69KV	35	-0.18264	WERE	JEFFREY ENERGY CENTER 345KV	874	-0.0073	-0.17534	64
WERE WERE	GETTY 69KV WACO 138KV	35 30	-0.18264 -0.1952		TECUMSEH ENERGY CENTER 115KV CENTENIAL WIND 34KV	133 120	-0.00837 -0.02177	-0.17427 -0.17343	64
WERE WERE	WACO 138KV WACO 138KV	30 30	-0.1952 -0.1952		HUTCHINSON ENERGY CENTER 115KV KNOLL 115KV	230 75.60001		-0.17388 -0.17492	64 64
WERE	WACO 138KV	30	-0.1952	OKGE	SPGCK1&2 13.200 345KV	78	-0.02064	-0.17456	64
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18264 -0.18264		CHANUTE 69KV MRWYG11 34.500 230KV	54.8 100	-0.01164 -0.01007	-0.171 -0.17257	65 65
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.20689 -0.20689		GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV	36 95 93536	-0.03594 -0.03612		65 65
WERE	WACO 138KV	30	-0.1952	OKGE	FPLWND2 34KV	59	-0.02284	-0.17236	65
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.20595	MKEC	GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV		-0.03594 -0.03612	-0.16983	66
WERE	GILL ENERGY CENTER 69KV	48	-0.20689	OKGE	SOONER 138KV	535	-0.03872	-0.16817	66
WERE	WACO 138KV	30	-0.1952		A. M. MULLERGREN GENERATOR 115KV	63		-0.16977	66
WERE WERE	WACO 138KV GETTY 69KV	30 35	-0.18264	AEPW	CIMARRON RIVER 115KV COMANCHE 138KV		-0.01732	-0.1688 -0.16532	66
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18264 -0.18264	AEPW	COMANCHE 69KV HORSESHOE LAKE 138KV	60 796	-0.01724		67
WERE WERE	GETTY 69KV GETTY 69KV		-0.18264 -0.18264		REDBUD 345KV SEMINOLE 138KV	43.60958	-0.01653 -0.01554	-0.16611 -0.1671	67 67
WERE	GETTY 69KV	35	-0.18264	OKGE	SEMINOLE 345KV	1019	-0.01585	-0.16679	67
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18264 -0.18264		SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	287	-0.01739	-0.16525 -0.16525	67
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.20595	OKGE	SOONER 138KV	535			67
WERE WERE	WACO 138KV GETTY 69KV		-0.1952 -0.18264	WERE	SOONER 345KV CNTRLPL2 34.500 115KV		-0.01896		67 68
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18264 -0.18264	OKGE	MCCLAIN 138KV MUSTANG 138KV	351	-0.01776 -0.01831	-0.16433	68
WERE	GETTY 69KV		-0.18264		MUSTANG 69KV SMITH COGEN 138KV		-0.01835	-0.16429	68
WERE WERE	GETTY 69KV	35	-0.18264 -0.18264	MIDW	SMOKEY HILLS 34KV	25	-0.01818 -0.01795	-0.16469	68 68
WERE WERE	GETTY 69KV GETTY 69KV	35 35	-0.18264 -0.18264	WERE	CENTENIAL WIND 34KV HUTCHINSON ENERGY CENTER 115KV		-0.02177 -0.02132		69
WERE WERE	GETTY 69KV GETTY 69KV	35		MIDW	KNOLL 115KV SPGCK182 13.200 345KV	75.60001	-0.02028	-0.16236	69
WERE	GETTY 69KV	35	-0.18264	OKGE	FPLWND2 34KV	59	-0.02064 -0.02284		70
WERE WERE	WACO 138KV WACO 138KV	30 30			GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV	36 95.93536	-0.03594 -0.03612	-0.15926 -0.15908	70
WERE	GETTY 69KV	35	-0.18264		A. M. MULLERGREN GENERATOR 115KV	63		-0.15721	71
WERE	GETTY 69KV	35	-0.18264	MKEC	CIMARRON RIVER 115KV	44	-0.0264	-0.15624	71
WERE WERE	WACO 138KV GETTY 69KV		-0.1952 -0.18264		SOONER 138KV SOONER 345KV		-0.03872 -0.02854	-0.15648 -0.1541	71 72
WERE WERE	GETTY 69KV GETTY 69KV	35	-0.18264 -0.18264	MKEC	GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV	36	-0.03594 -0.03612	-0.1467	76 76
WERE	GETTY 69KV	35	-0.18264	OKGE	SOONER 138KV	535	-0.03872	-0.14392	77
OKGE WERE	SOUTH 4TH ST 69KV HUTCHINSON ENERGY CENTER 115KV		-0.03237 -0.02132		ELK RIVER 345KV ELK RIVER 345KV		0.09274	-0.12511 -0.11406	98
OKGE WERE	SPGCK3&4 13.200 345KV BPU - CITY OF MCPHERSON 115KV		-0.02064		ELK RIVER 345KV ELK RIVER 345KV		0.09274		98
OKGE	MUSTANG 69KV	54.27831	-0.01835	EMDE	ELK RIVER 345KV	44.986	0.09274	-0.11109	100
OKGE OKGE	HORSESHOE LAKE 138KV MCCLAIN 138KV	50	-0.01698 -0.01776	EMDE	ELK RIVER 345KV ELK RIVER 345KV	44.986 44.986		-0.10972 -0.1105	101
MIDW AEPW	SMOKEY HILLS 34KV	75	-0.01795	EMDE	ELK RIVER 345KV	44.986 44.986	0.09274	-0.11069 -0.11013	101
	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	350	-0.01739	EMDE	ELK RIVER 345KV ELK RIVER 345KV	44.986	0.09274	-0.11013	101
AEPW			-0.01708		ELK RIVER 345KV ELK RIVER 345KV	44.986 44.986	0.09274	-0.10982 -0.10922	101
AEPW OKGE MIDW	TINKER 5G 138KV COLBY 115KV		-0.01648	EMDE					
AEPW OKGE MIDW OKGE	TINKER 5G 138KV COLBY 115KV REDBUD 345KV	36.41598 1156.39	-0.01648 -0.01653	EMDE	ELK RIVER 345KV	44.986	0.09274	-0.10927	102
AEPW OKGE MIDW OKGE OKGE WERE	TINKER 5G 138KV COLBY 115KV REDBUD 345KV SEMINOLE 138KV ABILENE ENERGY CENTER 115KV	36.41598 1156.39 200.142 66	-0.01648 -0.01653 -0.01554 -0.01324	EMDE EMDE	ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV	44.986 44.986	0.09274	-0.10927 -0.10828 -0.10598	103 105
AEPW OKGE MIDW OKGE OKGE WERE WERE WERE	TINKER 5G 138KV COLBY 115KV REDBUD 345KV SEMINOLE 138KV	36.41598 1156.39 200.142	-0.01648 -0.01653 -0.01554 -0.01324 -0.20598	EMDE EMDE EMDE WERE	ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV	44.986	0.09274 0.09274 -0.10035	-0.10927 -0.10828 -0.10598 -0.1056	103 105 105 105
AEPW OKGE MIDW OKGE OKGE WERE WERE WERE AEPW	TINKER 5G 138KV COLBY 115KV REDBUD 346KV SEMINOLE 138KV GILL ENERGY CENTER 115KV GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV KIOWA 345KV	36.41598 1156.39 200.142 66 84.99999 48 1336.177	-0.01648 -0.01653 -0.01554 -0.01324 -0.20598 -0.20688	EMDE EMDE EMDE WERE WERE	ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV ELK RIVER 345KV	44.986 44.986 560 560 44.986	0.09274 0.09274 -0.10035 -0.10035 0.09274	-0.10927 -0.10828 -0.10598 -0.1056 -0.10654 -0.10473	103 105 105 105 100
AEPW OKGE MIDW OKGE OKGE WERE WERE WERE	TINKER SG 138KV COLBY 115KV REDBUD 345KV SEMINOLE 138KV ABILENE ENERGY CENTER 115KV GILL ENERGY CENTER 138KV GILL ENERGY CENTER 69KV	36.41598 1156.39 200.142 66 84.99999 48 1336.177	-0.01648 -0.01653 -0.01554 -0.01324 -0.20598 -0.20689 -0.01164 -0.00948	EMDE EMDE EMDE WERE WERE EMDE	ELK RIVER 345KV ELK RIVER 345KV ELK RIVER 345KV EVANS ENERGY CENTER 138KV EVANS ENERGY CENTER 138KV	44.986 44.986 560 560 44.986 44.986	0.09274 0.09274 -0.10035 -0.10035 0.09274	-0.10927 -0.10828 -0.10598 -0.1056 -0.10654 -0.10473 -0.10438 -0.10219	103 105 105 105

WERE	110 111 111 111 112 112 112 113 113 114 114 114 114 114 114
WERE JEFFREY ENERGY CENTER 345KV 108 -0.0073 EMDE ELK RIVER 345KV 44.986 0.09274 0.10004	111 112 112 113 113 114 114 114 114 114 114
NPPD	1122 113 113 114 114 114 114 114 114 114
NPPD SIDNEY 4 230.00 230KV 230.6148 -0.00042 EMDE ELK RIVER 345KV 44.986 0.09274 0.09916 AEPW LONESTAR POWER PLANT 69KV 50.00055 EMDE ELK RIVER 345KV 44.986 0.09274 0.09916 AEPW WILKES 138KV 52.19009 -0.00496 EMDE ELK RIVER 345KV 44.986 0.09274 0.09821 AEPW ARSENAL HILL 138KV 33.72 -0.00477 EMDE ELK RIVER 345KV 44.986 0.09274 0.09821 NPPD CANADYIG 13.800 115KV 125 -0.00534 EMDE ELK RIVER 345KV 44.986 0.09274 0.09802 AEPW COGENTRIX 345KV 67.9331 -0.00472 EMDE ELK RIVER 345KV 44.986 0.09274 0.09802	112 113 113 114 114 114 114 114 114 114
AEPW	1133 1134 1144 1144 1144 1144 1144 1144
AEPW WILKES 138KV 52,19009 -0.00549 EMDE ELK RIVER 345KV 44,986 0.09274 -0.09823 AEPW ARSENAL HILL 138KV 337.2 -0.00477 EMDE ELK RIVER 345KV 44,996 0.09274 -0.09514 NPPD CANADY1G 13,800 115KV 125 -0.00534 EMDE ELK RIVER 345KV 44,996 0.09274 -0.09918 AEPW COGENTRIX 345KV 671,9331 -0.00472 EMDE ELK RIVER 345KV 44,996 0.09274 -0.09746	113 114 114 114 114 114 114
AEPW ARSENAL HILL 138KV 337.2 -0.0077 EMDE ELK RIVER 345KV 44.986 0.0274 -0.09751 NPPD CANADYIG 13.800 115KV 125 -0.0053 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09078 AEPW COCENTRIX 345KV 67.9331 -0.00472 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09078	114 114 114 114 114 114 114
NPPD CANADYIG 13.800 115KV 125 -0.00534 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09808 AEPW COGENTRIX 345KV 671.9331 -0.00472 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09746	114 114 114 114 111
AEPW COGENTRIX 345KV 671.9331 -0.00472 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09746	114 114 114 114
	114 114 114
AFRICA A 0.000	114 114
AEPW EASTMAN 138KV 128.2153 -0.00531EMDE ELK RIVER 345KV 44.980 0.09274 -0.09805	114
AEPW KNOXLEE 138KV 176 -0.00526 EMDE ELK RIVER 345KV 44.986 0.09274 -0.098	
AEPW LEBROCK 345KV 179.8976 -0.00529 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09803	44
AEPW LIEBERMAN 138KV 45.99999 -0.00487 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09761	114
AEPW TULSA POWER STATION 138KV 177.1113 -0.00453 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09727	114
AEPW TULSA POWER STATION 69KV 80 -0.00453 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09727	114
AEPW FULTON 115KV 153 -0.00431 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09705	115
WERE LAWRENCE ENERGY CENTER 230KV 45.07056 -0.00381 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09655	115
NPPD AINSWN1G 34.500 115KV 49.59249 -0.00358 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09632	116
NPPD BPS ST3G 13.800 115KV 40.00518 -0.00324 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09598	116
NPPD BURDIC3G 13.800 115KV 54 -0.00343[EMDE ELK RIVER 345KV 44.986] 0.09274 -0.09617	116
NPPD GT-3 G 13.800 115KV 40 -0.00343[EMDE ELK RIVER 345KV 44.986 0.09274 -0.09617]	116
NPPD HEBRON G 13.800 115KV 521-0.00346 EMDE ELK RIVER 345KV 44.986 0.09274 -0.0962	116
AEPW OEC 345KV 1756 622 -0.00299 EMDE ELK RIVER 345KV 44.986 (0.09274 -0.09573)	116
NPPD SHELDONG 13.800 115KV 52 - 0.00223 EMDE ELK RIVER 345KV 44.986 0.09274 - 0.09497	117
10	118
OPPD JONES (G. 13.00.0 99NV 910 -0.0019 EILK RIVER 3-95NV 94-9.009 1 0.09274 -0.09818) OPPD JONES (G. 13.00.0 69KV 5.9.3 -0.0109 EILK RIVER 3-95KV 44.986 0.09274 -0.09818)	119
OPPD JONES 2G 13.800 69KV 59.3 -0.00109/EMDE ELK RIVER 345KV 44.986 0.09274 -0.09383	119
OFFD 30-05-26 13-00 08RV 39-3 -0.0019/mDE ELK-RIVER 345RV 44-986 0.09274 -0.09383 AEPW MID-CONTINENT 138RV 14.1 -0.00119/EMDE ELK-RIVER 345RV 44-986 0.09274 -0.09393	119
REFW INDUCTION 136NV 142.11 -0.00113[EMDE ELK-NIVER 345NV 44.986 0.09274 -0.09387] OPPD SARPY (5 13.800 68KV 55.3 -0.00113[EMDE ELK-NIVER 345KV 44.986 0.09274 -0.09387]	119
OPPD SARPY 26 13.800 69kV 95.31 -0.00115 EMDE ELK RIVER 345kV 44.986 0.09274 -0.09389	119
	119
	119
	119
AEPW ELKIN_GN 1 13.800 69KV 60 0.00006 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09268	120
AEPW TONTITOWN 161KV	120
KACP IATAN 345KV 129 0.00192 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09082	123
MIPU LAKE ROAD 161KV 91 0.00258 EMDE ELK RIVER 345KV 44.986 0.09274 -0.09016	124
KACP MARSHALL 161KV 54.1 0.00428 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08846	126
KACP HAWTHORN 161KV 245.2502 0.00529 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08745	127
KACY KAW 69KV 242 0.00552 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08722	128
KACP NORTHEAST 13KV 223 0.00544 EMDE ELK RIVER 345KV 44.986 0.09274 -0.0873	128
KACP NORTHEAST 161KV 224 0.00544 EMDE ELK RIVER 345KV 44.986 0.09274 -0.0873	128
KACY QUINDARO 161KV 107.5824 0.00547 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08727	128
MIPU ARIES 161KV 576.6669 0.00657 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08617	129
MIPU GREENWOOD 161KV 255.8 0.00648 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08626	129
MIPU RALPH GREEN 69KV 73.7 0.00655 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08619	129
EMDE LARUSSEL 161KV 171 0.00682 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08592	130
MIPU SOUTH HARPER 161KV 247.994 0.00717 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08557	130
EMDE STATE LINE 161KV 90 0.00732 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08542	130
EMDE RIVERTON 161KV 182.9673 0.0077 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08504	131
KACP BULL CREEK 161KV 246.4 0.0084 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08434	132
KACP PAOLA 5 161.00 161KV 82.5 0.00827 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08447	132
KACP PAOLA COMBUSTION TURBINES 161KV 76 0.00827 EMDE ELK RIVER 345KV 44.986 0.09274 -0.08447	132
WERE HUTCHINSON ENERGY CENTER 115KV 214 -0.02132 WERE CITY OF BURLINGTON 69KV 55.4 0.04787 -0.06919	161
OKGE SPGCK3&4 13.200 345KV 111 -0.02064 WERE CITY OF BURLINGTON 69KV 55.4 0.04787 -0.06851	163
WERE HUTCHINSON ENERGY CENTER 115KV 214 -0.02132 EMDE ASBURY 161KV 192 0.00939 -0.03071	363
Maximum Decrement and Maximum Increment were determine from the Souce and Sink Operating Points in the study models where limiting facility was identified.	

Aggregate Relief Amount

Factor = Source GSF - Sink GSF Redispatch Amount = Relief Amount / Factor

SEVENTEENTH () 138/69/11 295KV TRANSFORMER CKT 2 SEVENTEENTH (17TH 4X) 138/69/11 295KV TRANSFORMER CKT 1 FROM->TO EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 2007AG2AFS81T3212210SP Starting 2010 61 - 10/1 Until EOC of Upgrade 2010 Summer Peak Upgrade: Limiting Facility Direction: Line Outage:

GILL ENERGY CENTER 69K\
GILL ENERGY CENTER 69K\

GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV

Flowgate: Date Redispatch Needed Season Flowgate Identified

GSF Factor Source Control Area Source Maximum Increment (MW) GSF Sink Control Area Sink Maximum Decrement (MW) Aggregate Redispatch Amount (MW) Sink

CITY OF BURLINGTON 69KV

COFFEY COUNTY NO. 2 SHARPE 69KV

ELK RIVER 346KV

ELK RIVER 346KV

ELK RIVER 345KV

EWANS ENERGY CENTER 136KV

ARIES 161KV

ARIES 161KV

ARSENAL HILL 136KV

ARSENAL HILL 69KV

ASBURY 161KV

BPS GT1G 13.800 115KV

BPS GT2G 13.800 115KV

BPS GT2G 13.800 115KV

CASS 16 15.000 346KV

CASS 26 15.000 346KV

CASS 27 15.00 346KV

CENTENIAL WIND 34KV

CENTENIAL WIND 34KV

CENTENIAL WIND 34KV GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
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GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV 55.4 0.00174 -0.10957 19.98 0.00174 -0.10957 19.98 0.00132 -0.10915 60 0.00132 -0.10915 60 0.00325 -0.11108 320 -0.0002 -0.1108 320 -0.0002 -0.1076 39665 0.00066 -0.10844 455 -0.00023 -0.1076 90 -0.00023 -0.1076 3 WERE 3 WERE 3 EMDE 3 WERE 3 WERE 3 OKGE 3 MIPU 3 AEPV 3 AEPV 3 EMDE 192 0.00028 -0.10811 80 -0.0003 -0.178 45.19851 -0.0003 -0.178 45.99862 -0.0003 -0.1078 61.8 0.00073 -0.10786 61.8 0.00073 -0.10786 52.99999 0.00003 -0.10786 52.99999 0.00003 -0.10786 53.8 0.00054 -0.10837 36 0.0005 -0.10833 15.5 0.00056 -0.10833 15.5 0.00056 -0.10833 15.5 0.00056 -0.10786 22.13008 -0.0003 -0.10786 22.13008 -0.0003 -0.10786 3 NPPD 3 NPPD 3 NPPD 3 KACP 3 OPPD 3 OPPD 3 OKGE 3 WERE 3 KACP GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV CHANUTE 69KV
CITY OF HIGGINSVILLE 69KV
CLAY CENTER JUNCTION 115KV
CLIFTON 115KV GILL ENERGY CENTER 69K\
GILL ENERGY CENTER 69K\ GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV WERE CODENTRIX 345KV
COLCOGY 115.00 115KV
COLCOGY 115.00 115KV
COMANCHE 138KV
COMANCHE 69KV
COOPER1G 22.000 345KV
D.HENRYG 34.500 115KV
DENVER G 34.500 115KV GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV
GILL ENERGY CENTER 69KV 221.3008 3 AEPW 3 NPPD 3 AEPW 33 NPPD 33 NPPD 33 NPPD 33 NPPD 34 AEPW 35 NPPD 35 AEPW 36 AEPW 36 AEPW -0.00032 -0.00018 75 -0.00018 -0.10765 145 -0.00088 -0.10695 60 -0.00087 -0.10696 551.2802 0.00014 -0.10797 18 -0.00035 -0.10748 34.32393 -0.00036 -0.10748 567.324 -0.00026 -0.10748 GILL ENERGY CENTER 69KV.
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DENVER G 3-9500 TISKV
EASTMAN TSKV
EASTMAN TSKV
TETZHUCH 161KV
FITZHUCH 161KV
FITZHUCH 161KV
FILMT GREEK 161KV
FPLWND2 34KV
FREM BG 13 800 69KV
FT GALI G 2 2000 4KV
GENTLIMG 24.000 346KV
GENTLIMG 24.000 346KV
GT Z G 13.800 115KV
HAWTHORN 161KV
HORSESHOE LAKE 138KV
HORSESHOE LAKE 138KV
HORSESHOE LAKE 69KV
HUTCHINSON ENERGY CENTER 115KV
HUTCHINSON ENERGY CENTER 115KV 125.4 -0.00017 -0.10766 428 -0.0001 -0.10773 5.4 -0.0001 -0.10773 428 -0.0001 -0.10773 59 -0.00105 -0.10678 90 -0.00007 -0.10776 276 0 -0.10783 GILL ENERGY CENTER 69KV
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GILL ENERGY CENTER 69KV -0.1078 -0.1078 -0.1078 -0.1078 40 517.7923 GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV 3 OKGE 3 OKGE 3 OKGE 3 WERE -0.000 -0.000 -0.000

HUTCHINSON ENERGY CENTER 69KV ATAN 345KV

IATAN 3496V JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV KNOXLEE 138KV LAKE ROAD 161KV LAKE ROAD 34KV LARUSSEL 161KV

3 WERE

48 -0.10783 WERE 48 -0.10783 AEPW 48 -0.10783 MIPU 48 -0.10783 MIPU 48 -0.10783 EMDE

275,4319

-0.00006

-0.10861 -0.10758 -0.10829 35 0.00046 -0.10829 92 0.00046 -0.10829 100 0.00018 -0.10801

1806 0.0005 440 0.0007

874 0.00078 282 -0.00025 35 0.00046

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WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.10783 WERE -0.10783 AEPW	LAWRENCE ENERGY CENTER 230KV LEBROCK 345KV	223.9286 517.0293	-0.00083	-0.10866 -0.10757	48 48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.10783 AEPW -0.10783 OKGE	LIEBERMAN 138KV MCCLAIN 138KV	174 470	-0.00024	-0.10759 -0.10709	48 48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 KACP	MONTROSE 161KV	359.7056	0.00057	-0.1084	48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.10783 EMDE -0.10783 OKGE	MRWYG11 34.500 230KV MUSKOGEE 161KV	100 166	-0.00005	-0.10788 -0.10755	48 48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 OKGE	MUSKOGEE 345KV	1548	-0.0003	-0.10753	48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV			MUSTANG 138KV MUSTANG 69KV	351 52.52197	-0.00075 -0.00076	-0.10708 -0.10707	48
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.10783 OPPD	N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV	48.5 80.59999	0.00002	-0.10785 -0.10785	48 48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 OPPD	N OMA 3G 13.800 2KV	80.59999	0.00002	-0.10785	48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.10783 OPPD -0.10783 OPPD	N OMA 4G 15.000 2KV N OMA 5G 20.000 4KV	107.4 173.9	0.00002	-0.10785 -0.10785	48 48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 KACY	NEARMAN 161KV	77	0.00065	-0.10848	48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.10783 KACY -0.10783 OPPD	NEARMAN 20KV NEBCTY1G 18.000 4KV	235 466	0.00065	-0.10848 -0.10788	48 48
WERE	GILL ENERGY CENTER 69KV		-0.10783 OPPD	NEBCTY2G 23.000 345KV	503	0.00005	-0.10788	48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.10783 AEPW -0.10783 AEPW	NORTHEASTERN STATION 138KV NORTHEASTERN STATION 345KV	480 625	-0.00029	-0.10754 -0.10771	48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 AEPW	OEC 345KV	293.1376	-0.00026	-0.10757	48
	GILL ENERGY CENTER 69KV		-0.10783 EMDE -0.10783 AEPW	OZARK BEACH 161KV PIRKEY GENERATION 138KV	16 288	-0.00012	-0.10795 -0.10757	48 48
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.10783 NPPD -0.10783 KACY	PLATTE1G 13.800 115KV QUINDARO 161KV	71.51868 129.4143	-0.00042 0.00065	-0.10741	48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 KACY	QUINDARO 69KV	136.3627	0.00065	-0.10848	48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.10783 OKGE -0.10783 EMDE	REDBUD 345KV RIVERTON 161KV	42.0956 99.9177	-0.0007 0.00017	-0.10713 -0.108	48 48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 EMDE	RIVERTON 69KV	44.07541	0.00017	-0.108	48
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.10783 OKGE -0.10783 OKGE	SEMINOLE 138KV SEMINOLE 345KV	334.8975 1019	-0.00067 -0.00067	-0.10716 -0.10716	48 48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 NPPD	SHELDN1G 13.800 115KV	68.40001	-0.00006	-0.10777	48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.10783 NPPD -0.10783 MIPU	SHELDN2G 13.800 115KV SIBLEY 161KV	81 228.9514	-0.00006 0.00058	-0.10777 -0.10841	48 48
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.10783 MIPU -0.10783 NPPD	SIBLEY 69KV SIDNEY 4 230.00 230KV	45.99999 19.3852	0.00058	-0.10841	48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 OKGE	SMITH COGEN 138KV	106	-0.00097 -0.00075	-0.10708	48
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.10783 MIDW -0.10783 MIPU	SMOKEY HILLS 34KV SOUTH HARPER 161KV	25 67.06152	-0.00064 0.00071	-0.10719 -0.10854	48 48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 AEPW	SOUTHWESTERN STATION 138KV	712	-0.00088	-0.10695	48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.10783 AEPW -0.10783 OKGE	SOUTHWESTERN STATION 138KV SPGCK182 13 200 345KV	287 78	-0.00088	-0.10695 -0.107	48 48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 EMDE	STATE LINE 161KV	520	0.00017	-0.108	48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.10783 WERE -0.10783 AEPW	TECUMSEH ENERGY CENTER 115KV TONTITOWN 161KV	133 140	-0.00084	-0.10867 -0.10771	48 48
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 AEPW	TULSA POWER STATION 138KV	147	-0.00032	-0.10751	48
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.10783 AEPW -0.10783 AEPW	WELSH 345KV WILKES 138KV	1044 410.4529	-0.00028 -0.00026	-0.10755 -0.10757	48 48
WERE	GILL ENERGY CENTER 69KV		-0.10783 AEPW -0.10783 WERE	WILKES 345KV	308	-0.00026	-0.10757	48
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.10783 WERE -0.10783 MIDW	CITY OF AUGUSTA 69KV KNOLL 115KV	20 75.60001	-0.0012 -0.00224	-0.10663 -0.10559	49
WERE	GILL ENERGY CENTER 69KV		-0.10783 OKGE -0.10783 OKGE	SOONER 138KV	535	-0.00221	-0.10562	49
WERE	GILL ENERGY CENTER 69KV			SOONER 345KV	537	-0.00116	-0.10667	49
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.10783 MKEC -0.10783 MKEC	A. M. MULLERGREN GENERATOR 115KV CIMARRON RIVER 115KV	63	-0.00424	-0.10359 -0.10176	50 51
WERE	GILL ENERGY CENTER 69KV	48	-0.10783 MKEC	GRAY COUNTY WIND FARM 115KV	36	-0.00972	-0.10176	53
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.10783 MKEC -0.10783 WERE	JUDSON LARGE 115KV CITY OF WINFIELD 69KV	95.97768 31.2	-0.0098 -0.01726	-0.09803 -0.09057	53 57
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 WERE	EVANS ENERGY CENTER 138KV	560	0.00325	-0.08518	61
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.08193 WERE -0.08193 EMDE	CITY OF BURLINGTON 69KV ELK RIVER 345KV	55.4 44.986	0.00174	-0.08367 -0.08325	62 62
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 WERE	EMPORIA ENERGY CENTER 345KV	610	0.00118	-0.08311	62
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 OKGE -0.08193 AEPW	AES 161KV ARSENAL HILL 138KV	320 455	-0.0002	-0.08173 -0.0817	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 AEPW	ARSENAL HILL 69KV	90	-0.00023	-0.0817	63
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 EMDE -0.08193 NPPD	ASBURY 161KV BPS GT1G 13.800 115KV	192	-0.00028	-0.08221 -0.0819	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 NPPD	BPS GT2G 13.800 115KV	45.19951	-0.00003	-0.0819	63
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.08193 NPPD -0.08193 KACP	BPS ST3G 13.800 115KV BULL CREEK 161KV	49.99482 61.6	-0.00003 0.00073	-0.0819 -0.08266	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 OPPD	CASS 1G 15.000 345KV	42.51929	0.00003	-0.08196 -0.08196	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.08193 OPPD -0.08193 WERE	CASS 2G 15.000 345KV CHANUTE 69KV	52.99999 54.8	0.00003	-0.08196	63 63
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.08193 KACP -0.08193 MKEC	CITY OF HIGGINSVILLE 69KV CLIFTON 115KV	36 65	0.0005 -0.00017	-0.08243 -0.08176	63 63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 AEPW	COGENTRIX 345KV	221.3008	-0.00032	-0.08161	63
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 NPPD -0.08193 NPPD	COL.COG7 115.00 115KV COOPER1G 22.000 345KV	75 551.2802	-0.00018 0.00014	-0.08175 -0.08207	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 NPPD	DENVER G 34.500 115KV	34.32393	-0.00036	-0.08157	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 AEPW -0.08193 NPPD	EASTMAN 138KV EGY CTRG 13.800 115KV	356.7324 54	-0.00026 -0.00035	-0.08167 -0.08158	63
WERE	GILL ENERGY CENTER 138KV			FITZHUGH 161KV	125.4	-0.00017	-0.08176	63
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.08193 AEPW -0.08193 OPPD	FLINT CREEK 161KV FREM 8G 13.800 69KV	428 90	-0.0001 -0.00007	-0.08183 -0.08186	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 OPPD	FT CAL1G 22.000 4KV	376	0	-0.08193	63
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.08193 KACP	GT-2 G 13.800 115KV HAWTHORN 161KV	40 517.7923	0.0006	-0.08253	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.08193 WERE -0.08193 WERE	HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 69KV	275.4319 30	-0.00001 -0.00006	-0.08192 -0.08187	63 63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 KACP	IATAN 345KV	1806	0.00059	-0.08252	63
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 KACP -0.08193 WERE	JEFFREY ENERGY CENTER 230KV	371 440	0.00059	-0.08252 -0.08268	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 WERE	JEFFREY ENERGY CENTER 345KV	874	0.00078	-0.08271	63
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 AEPW -0.08193 MIPU	KNOXLEE 138KV LAKE ROAD 161KV	282 35	-0.00025 0.00046	-0.08168 -0.08239	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 MIPU	LAKE ROAD 34KV	92	0.00046	-0.08239	63
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.08193 WERE	LARUSSEL 161KV LAWRENCE ENERGY CENTER 230KV	100 223.9286	0.00018	-0.08211 -0.08276	63
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.08193 AEPW -0.08193 AEPW	LEBROCK 345KV LIEBERMAN 138KV	517.0293 174	-0.00026 -0.00024	-0.08167 -0.08169	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 KACP	MONTROSE 161KV	359.7056	0.00057	-0.0825	63
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 EMDE -0.08193 OKGE	MRWYG11 34.500 230KV MUSKOGEE 161KV	100 166	-0.00005	-0.08198 -0.08165	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 OKGE	MUSKOGEE 345KV	1548	-0.0003	-0.08163	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 OPPD -0.08193 OPPD	N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV	48.5 80.59999	0.00002	-0.08195 -0.08195	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 OPPD	N OMA 3G 13.800 2KV	80.59999	0.00002	-0.08195	63
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 OPPD	N OMA 4G 15.000 2KV N OMA 5G 20.000 4KV	107.4 173.9	0.00002	-0.08195 -0.08195	63
WERE	GILL ENERGY CENTER 138KV		-0.08193 KACY	NEARMAN 161KV	77	0.00065	-0.08258 -0.08258	63
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 OPPD	NEARMAN 20KV NEBCTY1G 18.000 4KV	235 466	0.00065	-0.08258 -0.08198	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999		NEBCTY2G 23.000 345KV NORTHEASTERN STATION 138KV	503 480	0.00005	-0.08198 -0.08164	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 AEPW	NORTHEASTERN STATION 345KV	625	-0.00012	-0.08181	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.08193 AEPW -0.08193 AEPW	OEC 345KV PIRKEY GENERATION 138KV	293.1376 288	-0.00026 -0.00026	-0.08167 -0.08167	63 63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 NPPD	PLATTE1G 13.800 115KV	71.51868	-0.00042	-0.08151	63
	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.08193 KACY -0.08193 KACY	QUINDARO 161KV QUINDARO 69KV	129.4143 136.3627	0.00065	-0.08258 -0.08258	63
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 EMDE	RIVERTON 161KV	99.9177	0.00017	-0.0821	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 EMDE -0.08193 NPPD	RIVERTON 69KV SHELDN1G 13.800 115KV	44.07541 68.40001	-0.00017	-0.0821 -0.08187	63
WERE	GILL ENERGY CENTER 138KV		-0.08193 NPPD	SHELDN2G 13.800 115KV	81	-0.00006	-0.08187	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.08193 MIPU -0.08193 MIPU	SIBLEY 161KV SIBLEY 69KV	228.9514 45.99999	0.00058	-0.08251 -0.08251	63

WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 MIPU -0.08193 EMDE	SOUTH HARPER 161KV STATE LINE 161KV	67.06152 520	0.00071		63
WERE	GILL ENERGY CENTER 138KV		-0.08193 WERE	TECUMSEH ENERGY CENTER 115KV	133	0.00084	-0.08277	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 AEPW -0.08193 AEPW	TONTITOWN 161KV TULSA POWER STATION 138KV	140 147	-0.00012 -0.00032		63
WERE	GILL ENERGY CENTER 138KV		-0.08193 AEPW	WELSH 345KV	1044	-0.00028	-0.08165	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999		WILKES 138KV WILKES 345KV	410.4529 308	-0.00026	-0.08167 -0.08167	63
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 OKGE -0.08193 AEPW	CENTENIAL WIND 34KV	120 145	-0.00096		64
WERE	GILL ENERGY CENTER 138KV	84.99999		COMANCHE 138KV COMANCHE 69KV		-0.00088 -0.00087		64
WERE	GILL ENERGY CENTER 138KV	84.99999		FPLWND2 34KV	59	-0.00105	-0.08088	64
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 NPPD -0.08193 NPPD	GENTLM1G 23.000 230KV GENTLM2G 24.000 345KV	463 443.0568	-0.00101	-0.08092 -0.08089	64
WERE	GILL ENERGY CENTER 138KV		-0.08193 OKGE	HORSESHOE LAKE 138KV			-0.08121	64
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 OKGE -0.08193 OKGE	MCCLAIN 138KV MUSTANG 138KV	470 351	-0.00074	-0.08119 -0.08118	64 64
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 OKGE	MUSTANG 69KV	52.52197	-0.00076	-0.08117	64
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 OKGE -0.08193 OKGE	REDBUD 345KV SEMINOLE 138KV	42.0956 334.8975	-0.0007 -0.00067	-0.08123 -0.08126	64
WERE	GILL ENERGY CENTER 138KV		-0.08193 OKGE	SEMINOLE 345KV	1019	-0.00067	-0.08126	64
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 OKGE -0.08193 MIDW	SMITH COGEN 138KV SMOKEY HILLS 34KV	106 25	-0.00075	-0.08118 -0.08129	64 64
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 OKGE	SOONER 345KV	537	-0.00116	-0.08077	64
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.08193 AEPW -0.08193 AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	712 287	-0.00088	-0.08105 -0.08105	64 64
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.08193 OKGE	SPGCK1&2 13.200 345KV	78	-0.00083	-0.0811	64
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.08193 MIDW -0.08193 OKGE	KNOLL 115KV SOONER 138KV	75.60001 535	-0.00224 -0.00221		65 65
		04.00000	0.00100 0102		000	U.UULL I	0.07072	
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999		A. M. MULLERGREN GENERATOR 115KV CIMARRON RIVER 115KV	63 44	-0.00424	-0.07769 -0.07586	67
WERE	WACO 138KV		-0.07327 WERE	EVANS ENERGY CENTER 138KV	560	0.00325		68
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 WERE	CITY OF BURLINGTON 69KV	55.4	0.00174	-0.07501 -0.07459	69
WERE	WACO 138KV	30	-0.07327 EMDE	ELK RIVER 345KV ASBURY 161KV	44.986 192	0.00028	-0.07355	69 70
WERE	WACO 138KV	30	-0.07327 KACP	BULL CREEK 161KV	61.6	0.00073	-0.074	70
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 WERE -0.07327 KACP	CHANUTE 69KV CITY OF HIGGINSVILLE 69KV	54.8 36	0.00054	-0.07381 -0.07377	70 70
WERE	WACO 138KV		-0.07327 NPPD	COOPER1G 22.000 345KV	551.2802	0.00014		70
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 WERE -0.07327 KACP	EMPORIA ENERGY CENTER 345KV HAWTHORN 161KV	610 517.7923	0.00118	-0.07445 -0.07387	70 70
WERE	WACO 138KV	30	-0.07327 KACP	IATAN 345KV	371	0.00059	-0.07386	70
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 KACP -0.07327 WERE	JEFFREY ENERGY CENTER 230KV	1806 440	0.00059	-0.07386 -0.07402	70
WERE	WACO 138KV	30	-0.07327 WERE	JEFFREY ENERGY CENTER 345KV	874	0.00078	-0.07405	70
WERE WERE	WACO 138KV WACO 138KV		-0.07327 MIPU -0.07327 MIPU	LAKE ROAD 161KV LAKE ROAD 34KV	35 92	0.00046		70 70
WERE	WACO 138KV	30	-0.07327 EMDE	LARUSSEL 161KV	100	0.00018	-0.07345	70
WERE WERE	WACO 138KV WACO 138KV		-0.07327 WERE -0.07327 KACP	LAWRENCE ENERGY CENTER 230KV MONTROSE 161KV	223.9286 359.7056	0.00083	-0.0741 -0.07384	70 70
WERE	WACO 138KV	30	-0.07327 KACY	NEARMAN 161KV	77	0.00065	-0.07392	70
WERE WERE	WACO 138KV WACO 138KV		-0.07327 KACY -0.07327 KACY	NEARMAN 20KV QUINDARO 161KV	235 129.4143	0.00065		70 70
WERE	WACO 138KV	30	-0.07327 KACY	QUINDARO 69KV	136.3627	0.00065	-0.07392	70
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 EMDE -0.07327 EMDE	RIVERTON 161KV RIVERTON 69KV	99.9177 44.07541	0.00017		70
WERE	WACO 138KV		-0.07327 MIPU	SIBLEY 161KV	228.9514	0.00017		70
WERE	WACO 138KV		-0.07327 MIPU	SIBLEY 69KV	45.99999	0.00058		70
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 MIPU -0.07327 EMDE	SOUTH HARPER 161KV STATE LINE 161KV	67.06152 520	0.00071	-0.07398 -0.07344	70
WERE	WACO 138KV		-0.07327 WERE	TECUMSEH ENERGY CENTER 115KV	133	0.00084		70
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 OKGE -0.07327 AEPW	AES 161KV ARSENAL HILL 138KV	320 455	-0.0002		71 71
WERE	WACO 138KV		-0.07327 AEPW	ARSENAL HILL 69KV		-0.00023		71
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 NPPD -0.07327 NPPD	BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV	80 45,19951	-0.00003	-0.07324 -0.07324	71 71
WERE	WACO 138KV	30	-0.07327 NPPD	BPS ST3G 13.800 115KV	49.99482	-0.00003	-0.07324	71
WERE	WACO 138KV WACO 138KV	30	-0.07327 OPPD -0.07327 OPPD	CASS 1G 15.000 345KV CASS 2G 15.000 345KV	42.51929 52.99999	0.00003	-0.0733 -0.0733	71 71
WERE	WACO 138KV	30	-0.07327 MKEC	CLIFTON 115KV	65	-0.00017	-0.0731	71
WERE WERE	WACO 138KV WACO 138KV		-0.07327 AEPW -0.07327 NPPD	COGENTRIX 345KV COL.COG7 115.00 115KV	221.3008 75	-0.00032		71 71
WERE	WACO 138KV	30	-0.07327 AEPW	COMANCHE 138KV	145	-0.00088	-0.07239	71
WERE WERE	WACO 138KV WACO 138KV		-0.07327 AEPW -0.07327 NPPD	DENVER G 34.500 115KV		-0.00087 -0.00036		71 71
WERE	WACO 138KV	30	-0.07327 AEPW	EASTMAN 138KV	356.7324	-0.00026	-0.07301	71
WERE WERE	WACO 138KV WACO 138KV		-0.07327 NPPD -0.07327 AEPW	EGY CTRG 13.800 115KV FITZHUGH 161KV	54 125.4	-0.00035 -0.00017		71 71
WERE	WACO 138KV	30	-0.07327 AEPW	FLINT CREEK 161KV	428	-0.00017		71
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 OPPD -0.07327 OPPD	FREM 8G 13.800 69KV FT CAL1G 22.000 4KV	90 376	-0.00007	-0.0732 -0.07327	71 71
WERE	WACO 138KV		-0.07327 NPPD	GT-2 G 13.800 115KV	40	-0.0004		71
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 OKGE -0.07327 WERE	HORSESHOE LAKE 138KV			-0.07255 -0.07326	71
WERE	WACO 138KV	30	-0.07327 WERE	HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 69KV			-0.07321	71 71
WERE	WACO 138KV	30	-0.07327 AEPW -0.07327 AEPW	KNOXLEE 138KV LEBROCK 345KV	E12.0000		-0.07302	71
WERE WERE	WACO 138KV WACO 138KV		-0.07327 AEPW	LIEBERMAN 138KV			-0.07301 -0.07303	71 71
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 OKGE -0.07327 EMDE	MCCLAIN 138KV MRWYG11 34.500 230KV	470 100	-0.00074 0.00005	-0.07253 -0.07332	71 71
WERE	WACO 138KV	30	-0.07327 OKGE	MUSKOGEE 161KV	166	-0.00028	-0.07299	71
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 OKGE -0.07327 OKGE	MUSKOGEE 345KV MUSTANG 138KV	1548 351	-0.0003 -0.00075	-0.07297 -0.07252	71 71
WERE	WACO 138KV	30	-0.07327 OKGE	MUSTANG 69KV	52.52197	-0.00076	-0.07251	71
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 OPPD -0.07327 OPPD	N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV		0.00002	-0.07329 -0.07329	71 71
WERE	WACO 138KV	30	-0.07327 OPPD	N OMA 3G 13.800 2KV	80.59999	0.00002	-0.07329	71
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 OPPD -0.07327 OPPD	N OMA 4G 15.000 2KV N OMA 5G 20.000 4KV			-0.07329 -0.07329	71 71
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 OPPD	NEBCTY1G 18.000 4KV			-0.07329 -0.07332	71
WERE	WACO 138KV	30	-0.07327 OPPD -0.07327 AEPW	NEBCTY2G 23.000 345KV	503	0.00005	-0.07332	71
WERE WERE	WACO 138KV WACO 138KV		-0.07327 AEPW -0.07327 AEPW	NORTHEASTERN STATION 138KV NORTHEASTERN STATION 345KV			-0.07298 -0.07315	71 71
WERE WERE	WACO 138KV	30	-0.07327 AEPW	OEC 345KV	293.1376	-0.00026	-0.07301	71
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 AEPW -0.07327 NPPD	PIRKEY GENERATION 138KV PLATTE1G 13.800 115KV	288 71.51868		-0.07301 -0.07285	71 71
WERE	WACO 138KV	30	-0.07327 OKGE	REDBUD 345KV	42.0956	-0.0007	-0.07257	71
WERE WERE	WACO 138KV WACO 138KV		-0.07327 OKGE -0.07327 OKGE	SEMINOLE 138KV SEMINOLE 345KV	334.8975 1019	-0.00067 -0.00067		71 71
WERE	WACO 138KV	30	-0.07327 NPPD	SHELDN1G 13.800 115KV	68.40001	-0.00006	-0.07321	71
WERE WERE	WACO 138KV WACO 138KV	30	-0.07327 NPPD -0.07327 OKGE	SHELDN2G 13.800 115KV SMITH COGEN 138KV	81 106	-0.00006	-0.07321 -0.07252	71 71
WERE	WACO 138KV	30	-0.07327 MIDW	SMOKEY HILLS 34KV	25	-0.00064	-0.07263	71
WERE WERE	WACO 138KV WACO 138KV		-0.07327 AEPW -0.07327 AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV		-0.00088	-0.07239 -0.07239	71 71
WERE	WACO 138KV	30	-0.07327 OKGE	SPGCK1&2 13.200 345KV	78	-0.00083	-0.07244	71
WERE	WACO 138KV WACO 138KV	30	-0.07327 AEPW -0.07327 AEPW	TONTITOWN 161KV TULSA POWER STATION 138KV	140 147	-0.00012 -0.00032	-0.07315 -0.07295	71 71
WERE		30	-0.07327 AEPW	WELSH 345KV	1044	-0.00028	-0.07299	71
WERE	WACO 138KV				410.4529	-0.00026	-0.07301	71
WERE WERE WERE	WACO 138KV WACO 138KV		-0.07327 AEPW -0.07327 AEPW	WILKES 138KV WILKES 345KV		-0.00026		71
WERE WERE WERE WERE	WACO 138KV WACO 138KV GILL ENERGY CENTER 138KV	30 84.99999	-0.07327 AEPW -0.08193 MKEC	WILKES 345KV GRAY COUNTY WIND FARM 115KV	308 36	-0.00026 -0.00972	-0.07301 -0.07221	72
WERE WERE WERE	WACO 138KV WACO 138KV	30 84.99999 84.99999	-0.07327 AEPW	WILKES 345KV	308 36 95.97768	-0.00026 -0.00972	-0.07301 -0.07221 -0.07213	
WERE WERE WERE WERE WERE WERE WERE WERE	WACO 138KV WACO 138KV GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV WACO 138KV WACO 138KV	30 84.99999 84.99999 30 30	-0.07327 AEPW -0.08193 MKEC -0.08193 MKEC -0.07327 OKGE -0.07327 OKGE	WILKES 345KV GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV CENTENIAL WIND 34KV FPLWND2 34KV	308 36 95.97768 120 59	-0.00026 -0.00972 -0.0098 -0.00096 -0.00105	-0.07301 -0.07221 -0.07213 -0.07231 -0.07222	72 72 72 72
WERE WERE WERE WERE WERE WERE WERE	WACO 138KV WACO 138KV GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV WACO 138KV	30 84,99999 84,99999 30 30	-0.07327 AEPW -0.08193 MKEC -0.08193 MKEC -0.07327 OKGE	WILKES 345KV GRAY COUNTY WIND FARM 115KV JUDSON LARGE 115KV CENTENIAL WIND 34KV	308 36 95.97768 120 59	-0.00026 -0.00972 -0.0098 -0.00096 -0.00105	-0.07301 -0.07221 -0.07213 -0.07231 -0.07222 -0.07226	72 72 72

WERE	WACO 138KV	30	-0.0732		SOONER 345KV			-0.07211	72
WERE	WACO 138KV	30		7 MIDW	KNOLL 115KV	75.60001			73
WERE	WACO 138KV	30	-0.0732	7 OKGE	SOONER 138KV	535	-0.00221	-0.07106	73
									l
WERE	WACO 138KV	30	-0.0732	7 MKEC	A. M. MULLERGREN GENERATOR 115KV	63	-0.00424	-0.06903	75
WERE	WACO 138KV	30		7 MKEC	CIMARRON RIVER 115KV		-0.00607		77
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.0819	3 WERE	CITY OF WINFIELD 69KV	31.2	-0.01726	-0.06467	80
WERE	WACO 138KV	30	-0.0732	7 MKEC	GRAY COUNTY WIND FARM 115KV	36	-0.00972	-0.06355	81
WERE	WACO 138KV	30	-0.0732	7 MKEC	JUDSON LARGE 115KV	95.97768	-0.0098	-0.06347	82
Maximum Decrement and	Maximum Increment were determine from the S	ouce and Sink Operating Points	in the st	udy models where lin	niting facility was identified.				
Factor = Source GSF - Sin	k GSF								
Redispatch Amount = Relie	of Amount / Factor								
•									

 Upgrade:
 SEVENTEENTH () 138/69/11.295KV TRANSFORMER CKT 2

 Limiting Facility
 SEVENTEENTH (17TH 4X) 138/69/11.295KV TRANSFORMER CKT 1

 Direction:
 FROM->TO

 Line Outage
 CHISHOLM (CHISLMIX) 138/69/13.2KV TRANSFORMER CKT 1

 Flowgate:
 Date Redispatch Needed

 Starting 2010 6/1 - 10/1 Until EOC of Upgrade

 Season Flowgate Identified
 2010 Summer Peak

Season Flowgate Identified	2010 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount							
1281706 1286201	1.7	4.8							
								_	
Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.09579 -0.09579	WERE WERE	CITY OF AUGUSTA 69KV CHANUTE 69KV	20 54.8	0.00415	-0.09994 -0.09738	48 49
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	WERE	CITY OF BURLINGTON 69KV	55.4	0.00276	-0.09855	49
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579		COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 345KV	19.98 44.986	0.00276	-0.09855 -0.09894	49 49
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	OKGE	AES 161KV	320	-0.00014	-0.09565	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	AEPW	ARIES 161KV ARSENAL HILL 138KV	17.69665 455	-0.00049	-0.09628 -0.09552	50 50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579		ARSENAL HILL 69KV ASBURY 161KV	90 192	-0.00027 0.00065	-0.09552 -0.09644	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	NPPD	BPS GT1G 13.800 115KV	80	-0.00025	-0.09554	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	NPPD NPPD	BPS GT2G 13.800 115KV BPS ST3G 13.800 115KV	45.19951 49.99482	-0.00025	-0.09554 -0.09554	50 50
WERE	GILL ENERGY CENTER 69KV		-0.09579		BULL CREEK 161KV CASS 1G 15.000 345KV	61.6	0.0006	-0.09639	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579	OPPD OPPD	CASS 1G 15.000 345KV CASS 2G 15.000 345KV	42.51929 52.99999	-0.00015 -0.00015	-0.09564 -0.09564	50 50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48		KACP AEPW	CITY OF HIGGINSVILLE 69KV COGENTRIX 345KV	36 221.3008	-0.00038	-0.09617 -0.09558	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	NPPD	COL.COG7 115.00 115KV	75	-0.00034	-0.09545	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	NPPD AEPW	COOPER1G 22.000 345KV EASTMAN 138KV	551.2802 356.7324	-0.00006	-0.09573 -0.09549	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579		EMPORIA ENERGY CENTER 345KV	610	-0.00025	-0.09554	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	AEPW	FITZHUGH 161KV FLINT CREEK 161KV	125.4 428	-0.0001 0.0001	-0.09569 -0.09589	50 50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		FREM 8G 13.800 69KV FT CAL1G 22.000 4KV	90 376	-0.00023	-0.09556 -0.09562	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	KACP	HAWTHORN 161KV	517.7923	0.0004	-0.09619	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		IATAN 345KV IATAN 345KV	371 1806	0.00023	-0.09602 -0.09602	50 50
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	WERE	JEFFREY ENERGY CENTER 230KV	440 874	-0.00025 -0.00025	-0.09554 -0.09554	50
WERE	GILL ENERGY CENTER 69KV		-0.09579		JEFFREY ENERGY CENTER 345KV KNOXLEE 138KV	282	-0.00025	-0.09549	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.09579 -0.09579	MIPU	LAKE ROAD 161KV LAKE ROAD 34KV	35 92	0.00021	-0.096 -0.096	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	EMDE	LARUSSEL 161KV	100	0.00045	-0.09624	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		LAWRENCE ENERGY CENTER 230KV LEBROCK 345KV	223.9286 517.0293	-0.00014	-0.09593 -0.09549	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	AEPW	LIEBERMAN 138KV	174	-0.00027	-0.09552	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		MONTROSE 161KV MUSKOGEE 161KV	359.7056 166	-0.00044	-0.09623 -0.09563	50 50
WERE WERE	GILL ENERGY CENTER 69KV		-0.09579 -0.09579		MUSKOGEE 345KV N OMA 1G 13.800 2KV	1548 48.5	-0.0002	-0.09559 -0.09563	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	OPPD	N OMA 2G 13.800 2KV	80.59999	-0.00016	-0.09563	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		N OMA 3G 13.800 2KV N OMA 4G 15.000 2KV	80.59999 107.4	-0.00016	-0.09563 -0.09563	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	OPPD	N OMA 5G 20.000 4KV	173.9	-0.00016	-0.09563	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		NEARMAN 161KV NEARMAN 20KV	77 235	0.00043	-0.09622 -0.09622	50 50
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	OPPD	NEBCTY1G 18.000 4KV NEBCTY2G 23.000 345KV	466 503	-0.00014	-0.09565 -0.09565	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	AEPW	NORTHEASTERN STATION 138KV	480	-0.00003	-0.09576	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	AEPW AEPW	NORTHEASTERN STATION 345KV OFC 345KV	625 293.1376	-0.00016	-0.09595 -0.09569	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	AEPW	PIRKEY GENERATION 138KV	288	-0.0003	-0.09549	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579		QUINDARO 161KV QUINDARO 69KV	129.4143 136.3627	0.00043	-0.09622 -0.09622	50 50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.09579 -0.09579		RIVERTON 161KV RIVERTON 69KV	99.9177 44.07541	0.0005	-0.09629 -0.09627	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	NPPD	SHELDN1G 13.800 115KV	68.40001	-0.00026	-0.09553	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	NPPD MIPU	SHELDN2G 13.800 115KV SIBLEY 161KV	81 228.9514	-0.00026	-0.09553 -0.09619	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	MIPU	SIBLEY 69KV	45.99999	0.0004	-0.09619	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		SOUTH HARPER 161KV STATE LINE 161KV	67.06152 520	0.00053	-0.09632 -0.09627	50 50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579	WERE AEPW	TECUMSEH ENERGY CENTER 115KV TONTITOWN 161KV	133 140	0.00018	-0.09597 -0.09586	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	AEPW	TULSA POWER STATION 138KV	147	-0.00019	-0.0956	50
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.09579 -0.09579		WELSH 345KV WILKES 138KV	1044 410.4529	-0.00033	-0.09546 -0.09548	50 50
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	AEPW	WILKES 345KV	308	-0.0003	-0.09549	50
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		CENTENIAL WIND 34KV CLIFTON 115KV	120 65	-0.00126 -0.00077	-0.09453 -0.09502	51 51
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48 48	-0.09579 -0.09579	AEPW AEPW	COMANCHE 138KV COMANCHE 69KV	145 60	-0.00113	-0.09466 -0.09467	51 51
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	NPPD	D.HENRYG 34.500 115KV	18	-0.00052	-0.09527	51
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	NPPD NPPD	DENVER G 34.500 115KV EGY CTRG 13.800 115KV	34.32393 54	-0.00052 -0.00052	-0.09527 -0.09527	51 51
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	OKGE	FPLWND2 34KV	59	-0.00134	-0.09445	51
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579		GENTLM1G 23.000 230KV GENTLM2G 24.000 345KV	463 443.0568	-0.00114		51 51
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	NPPD	GT-2 G 13.800 115KV HORSESHOF I AKE 138KV	40 796	-0.00056	-0.09523	51 51
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	WERE	HUTCHINSON ENERGY CENTER 115KV	275.4319	-0.00191	-0.09388	51
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		HUTCHINSON ENERGY CENTER 69KV MCCLAIN 138KV	30 470	-0.00195 -0.001	-0.09384 -0.09479	51 51
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	EMDE	MRWYG11 34.500 230KV	100	-0.00079	-0.095	51
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	OKGE	MUSTANG 138KV MUSTANG 69KV	351 52.52197	-0.00103	-0.09476 -0.09476	51 51
WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579	NPPD	PLATTE1G 13.800 115KV	71.51868	-0.00058	-0.09521	51
WERE WERE	GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	OKGE	REDBUD 345KV SEMINOLE 138KV	42.0956 334.8975	-0.00091 -0.00088	-0.09488 -0.09491	51 51
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		SEMINOLE 345KV SIDNEY 4 230.00 230KV	1019 19.3852	-0.00089	-0.0949 -0.09469	51 51
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	OKGE	SMITH COGEN 138KV	106	-0.00102	-0.09477	51
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 -0.09579		SMOKEY HILLS 34KV SOONER 138KV	25 535	-0.00193 -0.00213	-0.09386 -0.09366	51 51
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	OKGE	SOONER 345KV	537	-0.00154	-0.09425	51
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 -0.09579	AEPW	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	712 287	-0.00112	-0.09467 -0.09467	51 51
WERE	GILL ENERGY CENTER 69KV	48	-0.09579	OKGE	SPGCK1&2 13.200 345KV	78	-0.00114	-0.09465	51

WERE	GILL ENERGY CENTER 69KV	40	-0.09579 MIDW	KNOLL 115KV	75.60001	0.00200	-0.09281	52
WERE	GILL ENERGY CENTER 69KV	48	-0.09579 MKEC	A. M. MULLERGREN GENERATOR 115KV	75.60001	-0.00298	-0.09281	52
WERE	GILL ENERGY CENTER 69KV	48	-0.09579 MKEC -0.09579 MKEC -0.09579 MKEC	CIMARRON RIVER 115KV	44	-0.00552	-0.09027	53
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV	48	-0.09579 MKEC	JUDSON LARGE 115KV		-0.00843 -0.00849	-0.0873	55 55
WERE WERE	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.09579 WERE -0.09579 WERE	EVANS ENERGY CENTER 138KV CITY OF WINFIELD 69KV	560 31.2	-0.00905 -0.01206		56 57
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 WERE -0.06374 EMDE	CITY OF BURLINGTON 69KV ELK RIVER 345KV	55.4 44.986	0.00276	-0.0665 -0.06689	72
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 WERE -0.06374 EMDE	CHANUTE 69KV ASBURY 161KV	54.8 192	0.00159		74 75
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 KACP -0.06374 KACP	BULL CREEK 161KV CITY OF HIGGINSVILLE 69KV	61.6 36	0.0006	-0.06434	75
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 AEPW	FLINT CREEK 161KV	428	0.0001	-0.06384	75
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.06374 KACP -0.06374 KACP	HAWTHORN 161KV IATAN 345KV	517.7923 1806	0.0004	-0.06414 -0.06397	75 75
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.06374 KACP -0.06374 MIPU	IATAN 345KV LAKE ROAD 161KV	371 35	0.00023	-0.06397 -0.06395	75 75
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 MIPU -0.06374 EMDE	LAKE ROAD 34KV LARUSSEL 161KV	92 100	0.00021	-0.06395 -0.06419	75 75
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 WERE -0.06374 KACP	LAWRENCE ENERGY CENTER 230KV MONTROSE 161KV	223.9286 359.7056	0.00014	-0.06388 -0.06418	75
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 KACY	NEARMAN 161KV NEARMAN 20KV	77	0.00043	-0.06417	75
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 KACY -0.06374 AEPW	NORTHEASTERN STATION 345KV	235 625	0.00043 0.00016	-0.06417 -0.0639	75 75
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 KACY -0.06374 KACY	QUINDARO 161KV QUINDARO 69KV	129.4143 136.3627	0.00043	-0.06417 -0.06417	75 75
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 EMDE -0.06374 EMDE	RIVERTON 161KV RIVERTON 69KV	99.9177 44.07541	0.0005		75 75
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 MIPU -0.06374 MIPU	SIBLEY 161KV SIBLEY 69KV	228.9514 45.99999	0.0004	-0.06414 -0.06414	75 75
WERE WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 MIPU	SOUTH HARPER 161KV	67.06152	0.00053	-0.06427	75
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 EMDE -0.06374 WERE	STATE LINE 161KV TECUMSEH ENERGY CENTER 115KV	520 133	0.00048	-0.06392	75 75
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 OKGE	TONTITOWN 161KV AES 161KV		0.00007 -0.00014	-0.0636	75 76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.06374 AEPW -0.06374 AEPW	ARSENAL HILL 138KV ARSENAL HILL 69KV	455 90	-0.00027 -0.00027	-0.06347 -0.06347	76 76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 NPPD -0.06374 NPPD	BPS GT1G 13.800 115KV BPS GT2G 13.800 115KV			-0.06349	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 NPPD -0.06374 OPPD	BPS ST3G 13.800 115KV CASS 1G 15.000 345KV		-0.00025	-0.06349	76
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 OPPD	CASS 2G 15.000 345KV	52.99999	-0.00015	-0.06359	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 MKEC -0.06374 AEPW	CLIFTON 115KV COGENTRIX 345KV	65 221.3008			76 76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 NPPD -0.06374 NPPD	COL.COG7 115.00 115KV COOPER1G 22.000 345KV	75 551.2802	-0.00034 -0.00006	-0.0634 -0.06368	76 76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 NPPD -0.06374 AEPW	DENVER G 34.500 115KV EASTMAN 138KV	34.32393 356.7324	-0.00052 -0.0003		76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 NPPD -0.06374 WERE	EGY CTRG 13.800 115KV EMPORIA ENERGY CENTER 345KV	54 610	-0.00052 -0.00025		76
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 AEPW	FITZHUGH 161KV	125.4	-0.0001	-0.06364	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 OPPD -0.06374 OPPD	FREM 8G 13.800 69KV FT CAL1G 22.000 4KV	90 376	-0.00023 -0.00017	-0.06357	76 76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 NPPD -0.06374 WERE	GT-2 G 13.800 115KV JEFFREY ENERGY CENTER 230KV	40 440	-0.00056 -0.00025	-0.06318 -0.06349	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 WERE -0.06374 AEPW	JEFFREY ENERGY CENTER 345KV KNOXLEE 138KV	874 282	-0.00025 -0.0003		76 76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 AEPW	LEBROCK 345KV LIEBERMAN 138KV	517.0293	-0.0003	-0.06344	76
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 EMDE	MRWYG11 34.500 230KV	100	-0.00079	-0.06295	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 OKGE -0.06374 OKGE	MUSKOGEE 161KV MUSKOGEE 345KV	166 1548	-0.00016 -0.0002		76 76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 OPPD -0.06374 OPPD	N OMA 1G 13.800 2KV N OMA 2G 13.800 2KV	48.5 80.59999	-0.00016 -0.00016	-0.06358 -0.06358	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 OPPD -0.06374 OPPD	N OMA 3G 13.800 2KV N OMA 4G 15.000 2KV	80.59999 107.4	-0.00016 -0.00016	-0.06358 -0.06358	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 OPPD	N OMA 5G 20.000 4KV NEBCTY1G 18.000 4KV	173.9 466	-0.00016	-0.06358 -0.0636	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 OPPD	NEBCTY2G 23.000 345KV NORTHEASTERN STATION 138KV		-0.00014	-0.0636	76
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 AEPW	OEC 345KV	293.1376	-0.0001	-0.06364	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 AEPW -0.06374 NPPD	PIRKEY GENERATION 138KV PLATTE1G 13.800 115KV	288 71.51868	-0.0003 -0.00058		76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.06374 NPPD -0.06374 NPPD	SHELDN1G 13.800 115KV SHELDN2G 13.800 115KV	68.40001 81	-0.00026 -0.00026	-0.06348 -0.06348	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 AEPW	TULSA POWER STATION 138KV WELSH 345KV		-0.00019 -0.00033	-0.06355	76
WERE WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 AEPW	WILKES 138KV	410.4529 308	-0.00031		76
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 OKGE	WILKES 345KV CENTENIAL WIND 34KV	120	-0.0003 -0.00126	-0.06248	76
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 AEPW	COMANCHE 138KV COMANCHE 69KV	145 60	-0.00113 -0.00112		77
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 OKGE -0.06374 NPPD	FPLWND2 34KV GENTLM1G 23,000 230KV	59 463	-0.00134 -0.00114	-0.0624 -0.0626	77
WERE	GILL ENERGY CENTER 138KV	84.99999 84.99999	-0.06374 NPPD	GENTLM2G 24.000 345KV HORSESHOE LAKE 138KV	443.0568 796	0.0000	0.00000	77
WERE WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 OKGE -0.06374 OKGE -0.06374 OKGE	MCCLAIN 138KV MUSTANG 138KV	470		-0.06274	77
WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 OKGE	MUSTANG 69KV	52.52197	-0.00103		77
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 OKGE -0.06374 OKGE	REDBUD 345KV SEMINOLE 138KV	334.8975	-0.00088		77
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 OKGE -0.06374 OKGE	SEMINOLE 345KV SMITH COGEN 138KV			-0.06285 -0.06272	77
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV		-0.06374 OKGE -0.06374 AEPW	SOONER 345KV SOUTHWESTERN STATION 138KV		-0.00154 -0.00112		77
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 AEPW -0.06374 OKGE	SOUTHWESTERN STATION 138KV SPGCK1&2 13.200 345KV	287		-0.06262	77
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.06374 WERE	HUTCHINSON ENERGY CENTER 115KV	275.4319	-0.00191	-0.06183	78
WERE WERE	GILL ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	84.99999	-0.06374 WERE -0.06374 OKGE	HUTCHINSON ENERGY CENTER 69KV SOONER 138KV	535	-0.00213	-0.06179 -0.06161	78 78
WERE WERE	GILL ENERGY CENTER 138KV WACO 138KV	30	-0.06374 MIDW -0.05817 WERE	KNOLL 115KV CITY OF BURLINGTON 69KV		0.00276	-0.06093	79 79
WERE	WACO 138KV		-0.05817 EMDE	ELK RIVER 345KV		0.00315		79
WERE WERE	GILL ENERGY CENTER 138KV WACO 138KV		-0.06374 MKEC -0.05817 WERE	A. M. MULLERGREN GENERATOR 115KV CHANUTE 69KV	63 54.8	-0.00453 0.00159		81
WERE	WACO 138KV	30	-0.05817 EMDE	ASBURY 161KV	192	0.00065	-0.05882	82
WERE WERE	WACO 138KV WACO 138KV	30	-0.05817 KACP -0.05817 KACP	BULL CREEK 161KV CITY OF HIGGINSVILLE 69KV	61.6 36	0.0006		82 82
WERE WERE	WACO 138KV WACO 138KV	30	-0.05817 KACP -0.05817 KACP	HAWTHORN 161KV IATAN 345KV	517.7923 371	0.0004 0.00023	-0.0584	82 82
WERE WERE	WACO 138KV WACO 138KV	30	-0.05817 KACP -0.05817 MIPU	IATAN 345KV LAKE ROAD 161KV	1806	0.00023	-0.0584	82 82
WERE WERE	WACO 138KV WACO 138KV	30		LAKE ROAD 34KV LARUSSEL 161KV	92 100	0.00021	-0.05838	82
WERE	WACO 138KV	30	-0.05817 KACP	MONTROSE 161KV NEARMAN 161KV	359.7056		-0.05861	82
WERE WERE	WACO 138KV WACO 138KV	30	-0.05817 KACY	NEARMAN 20KV	77 235	0.00043	-0.0586 -0.0586	82 82
WERE WERE	WACO 138KV WACO 138KV	30	-0.05817 KACY -0.05817 KACY	QUINDARO 161KV QUINDARO 69KV	129.4143 136.3627	0.00043	-0.0586	
WERE WERE	WACO 138KV WACO 138KV	30	-0.05817 EMDE -0.05817 EMDE	RIVERTON 161KV RIVERTON 69KV	99.9177 44.07541	0.0005		82 82
WERE WERE	WACO 138KV WACO 138KV	30	-0.05817 MIPU -0.05817 MIPU	SIBLEY 161KV SIBLEY 69KV	228.9514 45.99999	0.0004	-0.05857	82 82
WERE	WACO 138KV WACO 138KV WACO 138KV	30	-0.05817 MIPU -0.05817 EMDE	SOUTH HARPER 161KV STATE LINE 161KV	67.06152		-0.0587	82 82 82
WERE	WADOU IOONY	30	-0.00017 EWIDE	STATE LINE TOTAL	520	0.00048	-0.05865	82

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WERE	GILL ENERGY CENTER 138KV		-0.06374 MK	KEC C	CIMARRON RIVER 115KV	44	-0.00552	-0.05822	83
	WACO 138KV	30			ES 161KV	320 455	-0.00014		83
	WACO 138KV		-0.05817 AE		RSENAL HILL 138KV		-0.00027	-0.0579	83
	WACO 138KV WACO 138KV	30	-0.05817 AE -0.05817 NP		RSENAL HILL 69KV BPS GT1G 13.800 115KV	90	-0.00027		83
	WACO 138KV				BPS GT2G 13.800 115KV	45.19951	-0.00025	-0.05792	83
	WACO 138KV	30			BPS ST3G 13.800 115KV	49.99482	-0.00025	-0.05792	8.
	WACO 138KV	30			CASS 1G 15.000 345KV	49.99462	-0.00025	-0.05792	83
	WACO 138KV	30			ASS 2G 15.000 345KV	52.99999	-0.00015	-0.05802	83
	WACO 138KV	30			COGENTRIX 345KV	221.3008	-0.00013	-0.05796	83
	WACO 138KV	30			OL.COG7 115.00 115KV	75	-0.00021	-0.05783	83
	WACO 138KV	30			OOPER1G 22.000 345KV	551.2802	-0.00006		83
WERE	WACO 138KV	30	-0.05817 AE		ASTMAN 138KV	356.7324	-0.0003	-0.05787	83
	WACO 138KV		-0.05817 WE		MPORIA ENERGY CENTER 345KV	610	-0.00025	-0.05792	83
WERE	WACO 138KV	30			ITZHUGH 161KV	125.4	-0.0001	-0.05807	83
WERE	WACO 138KV	30	-0.05817 AE	PW F	LINT CREEK 161KV	428	0.0001	-0.05827	83
WERE	WACO 138KV	30	-0.05817 OP	PPD F	REM 8G 13.800 69KV	90	-0.00023	-0.05794	83
WERE	WACO 138KV	30	-0.05817 OP	PPD F	T CAL1G 22.000 4KV	376	-0.00017	-0.058	83
	WACO 138KV	30	-0.05817 WE	ERE J	EFFREY ENERGY CENTER 230KV	440	-0.00025	-0.05792	83
	WACO 138KV				EFFREY ENERGY CENTER 345KV	874	-0.00025	-0.05792	83
	WACO 138KV	30			NOXLEE 138KV	282	-0.0003	-0.05787	83
	WACO 138KV	30			AWRENCE ENERGY CENTER 230KV	223.9286	0.00014	-0.05831	83
	WACO 138KV	30			EBROCK 345KV	517.0293	-0.0003	-0.05787	83
	WACO 138KV	30			IEBERMAN 138KV	174	-0.00027		83
	WACO 138KV	30			MUSKOGEE 161KV	166	-0.00016		83
	WACO 138KV		-0.05817 OK		MUSKOGEE 345KV	1548	-0.0002		83
	WACO 138KV	30			I OMA 1G 13.800 2KV	48.5	-0.00016	-0.05801	83
	WACO 138KV	30			I OMA 2G 13.800 2KV	80.59999	-0.00016	-0.05801	83
WERE	WACO 138KV	30			OMA 3G 13.800 2KV	80.59999	-0.00016		83
	WACO 138KV		-0.05817 OP -0.05817 OP		OMA 4G 15.000 2KV	107.4	-0.00016		83
	WACO 138KV				I OMA 5G 20.000 4KV	173.9 466	-0.00016		83
	WACO 138KV				IEBCTY1G 18.000 4KV		-0.00014		83
	WACO 138KV WACO 138KV	30			IEBCTY2G 23.000 345KV IORTHEASTERN STATION 138KV	503 480	-0.00014	-0.05803 -0.05814	83
	WACO 138KV	30			IORTHEASTERN STATION 136KV	625	0.00016	-0.05833	83
	WACO 138KV		-0.05817 AE		DEC 345KV	293.1376	-0.00016	-0.05833	83
	WACO 138KV	30		:PW E	PIRKEY GENERATION 138KV	293.1376	-0.0001	-0.05787	83
	WACO 138KV	30			SHELDNIG 13.800 115KV	68.40001	-0.00026	-0.05787	83
	WACO 138KV WACO 138KV	30			SHELDN2G 13.800 115KV	81	-0.00026	-0.05791	83
	WACO 138KV	30			ECUMSEH ENERGY CENTER 115KV	133	0.00020	-0.05835	83
	WACO 138KV	30			ONTITOWN 161KV	140	0.00007	-0.05824	83
	WACO 138KV	30			ULSA POWER STATION 138KV	147	-0.00019	-0.05798	83
	WACO 138KV		-0.05817 AE		VELSH 345KV	1044	-0.00033	-0.05784	83
	WACO 138KV				VILKES 138KV	410.4529	-0.00031	-0.05786	83
	WACO 138KV				VILKES 345KV	308	-0.0003		83
	WACO 138KV	30			CLIFTON 115KV	65	-0.00077	-0.0574	84
WERE	WACO 138KV	30	-0.05817 AE	PW C	COMANCHE 138KV	145	-0.00113	-0.05704	84
WERE	WACO 138KV	30	-0.05817 AE	PW C	COMANCHE 69KV	60	-0.00112		84
	WACO 138KV	30			DENVER G 34.500 115KV	34.32393	-0.00052	-0.05765	84
	WACO 138KV				GY CTRG 13.800 115KV	54	-0.00052		84
	WACO 138KV				SENTLM1G 23.000 230KV	463	-0.00114		84
	WACO 138KV	30			SENTLM2G 24.000 345KV	443.0568	-0.00117	-0.057	84
	WACO 138KV	30			GT-2 G 13.800 115KV	40	-0.00056		84
	WACO 138KV	30		KGE F	IORSESHOE LAKE 138KV	796	-0.00095	-0.05722	84
	WACO 138KV	30		KGE N	ICCLAIN 138KV	470	-0.001	-0.05717	84
	WACO 138KV	30			MRWYG11 34.500 230KV	100	-0.00079		84
	WACO 138KV	30			MUSTANG 138KV	351	-0.00103	-0.05714	84
	WACO 138KV	30			MUSTANG 69KV	52.52197	-0.00103	-0.05714	84
	WACO 138KV	30			PLATTE1G 13.800 115KV	71.51868	-0.00058	-0.05759	84
	WACO 138KV	30			REDBUD 345KV	42.0956	-0.00091	-0.05726	84
	WACO 138KV WACO 138KV	30			SEMINOLE 138KV SEMINOLE 345KV	334.8975 1019	-0.00088		84
	WACO 138KV WACO 138KV						-0.00089		84
	WACO 138KV WACO 138KV		-0.05817 OK -0.05817 AE		MITH COGEN 138KV	106 712		-0.05715	84
	WACO 138KV WACO 138KV	30			SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	287	-0.00112		84
	WACO 138KV WACO 138KV	30			SPGCK1&2 13.200 345KV	287 78	-0.00112	-0.05705	84
	WACO 138KV	30			CENTENIAL WIND 34KV	120	-0.00114	-0.05703	85
	WACO 138KV WACO 138KV		-0.05817 OK -0.05817 OK		PLWND2 34KV	120 59	-0.00126	-0.05683	85
	WACO 138KV				GOONER 345KV	537	-0.00154	-0.05663	85
	WACO 138KV	30			HUTCHINSON ENERGY CENTER 115KV	275.4319	-0.00191	-0.05626	86
	WACO 138KV WACO 138KV	30		ERE H	UTCHINSON ENERGY CENTER 115KV	275.4519	-0.00191	-0.05622	86
	WACO 138KV	30			SOONER 138KV	535	-0.00193	-0.05604	86
	GILL ENERGY CENTER 138KV	84.99999			GRAY COUNTY WIND FARM 115KV	36	-0.00213	-0.05531	87
	GILL ENERGY CENTER 138KV	84.99999			UDSON LARGE 115KV	95.97768	-0.00849		87
WERE	WACO 138KV		-0.05817 MID		NOLL 115KV	75.60001	-0.00298		87
	GILL ENERGY CENTER 138KV		-0.06374 WE		VANS ENERGY CENTER 138KV	560	-0.00230		88
		04.00000	2.0007 - 1772		The state of the s	300	3.00000	0.00-100	
WERE	WACO 138KV	30	-0.05817 MK	KEC A	. M. MULLERGREN GENERATOR 115KV	63	-0.00453	-0.05364	90
	GILL ENERGY CENTER 138KV		-0.06374 WE		CITY OF WINFIELD 69KV			-0.05168	93
	ximum Increment were determine from the Se					01.2			

Maximum Decrement and Maximum Increment were determine from the Souce and Sink Operating Points in the study models where limiting facility was identified. Factor = Source GSF - Sink GSF Redispatch Amount = Relief Amount / Factor

Upgrade: SILOAM CITY - SILOAM SPRINGS 161KV CKT 1
Limiting Facility SILOAM CITY - SILOAM SPRINGS 161KV CKT 1
Direction: FROM->TO
Line Outage CHAMIBER SPRINGS - CLARKSVILLE 345KV CKT 1
2007AG2AFS81T613310SP
2007AG2AFS81T613310SP
2016 Acid Spring 2016 (7 1 101 Unil EOC of Upgrade
Season Flowgate Identified
2010 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount							
1286446	3.4	3.4							
Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935	GRDA	KERR 161KV	27	0.08778	-0.40713	8
	ELKIN_GN 1 13.800 69KV	60	-0.31935	GRDA	SALINA 161KV	39.30963	0.08778	-0.40713	8
	ELKIN_GN 1 13.800 69KV		-0.31935		GRDA1 161KV	190	0.06685	-0.3862	9
	ELKIN_GN 1 13.800 69KV	60	-0.31935		GRDA1 345KV	203.0309		-0.37897	9
	ELKIN_GN 1 13.800 69KV	60			KERR 115KV	27	0.07908	-0.39843	9
	ELKIN_GN 1 13.800 69KV	60			MUSKOGEE 161KV	166	0.03892	-0.35827	9
	ELKIN_GN 1 13.800 69KV	60	-0.31935		PENSACOLA 161KV	22	0.04408	-0.36343	9
	ELKIN_GN 1 13.800 69KV	60			PENSACOLA 69KV	33	0.04787	-0.36722	9
AEPW	TONTITOWN 161KV	186.12	-0.28778		KERR 115KV	27	0.07908	-0.36686	9
AEPW	TONTITOWN 161KV	186.12	-0.28778		KERR 161KV	27	0.08778	-0.37556	9
AEPW	TONTITOWN 161KV	186.12	-0.28778		SALINA 161KV	39.30963	0.08778	-0.37556	9
	ELKIN_GN 1 13.800 69KV	60			AES 161KV	320	0.01416	-0.33351	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		ANADARKO 138KV	371.0778	0.02199	-0.34134	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		ARSENAL HILL 138KV	455	0.00936	-0.32871	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		ARSENAL HILL 69KV	90	0.00937	-0.32872	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		BAYOU RAMOS 138KV	33.07825	0.00353	-0.32288	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		BLACKHAWK 115KV	220	0.0147	-0.33405	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		BOOMER 69KV	24	0.02867	-0.34802	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		CAPROCK 0KV	80	0.01614	-0.33549	10
	ELKIN_GN 1 13.800 69KV	60			CENTENIAL WIND 34KV	44	0.02214	-0.34149	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		CHANUTE 69KV	54.8	0.00446	-0.32381	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		CITY OF AUGUSTA 69KV	20	0.00739	-0.32674	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		CITY OF BURLINGTON 69KV	55.4	0.00437	-0.32372	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		CITY OF ERIE 69KV	4	0.00446	-0.32381	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		CITY OF FREDONIA 69KV	5.269998	0.00875	-0.3281	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		CITY OF MULVANE 69KV	9.729	0.00748	-0.32683	10
	ELKIN_GN 1 13.800 69KV	60			CITY OF WINFIELD 69KV	31.2	0.01235	-0.3317	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		CLAY CENTER JUNCTION 115KV	16.5	0.00386	-0.32321	10
	ELKIN_GN 1 13.800 69KV	60	-0.31935		CNTRLPL2 34.500 115KV	99	0.00694	-0.32629	10
	ELKIN_GN 1 13.800 69KV	60			COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	0.00437	-0.32372	10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935	AEPW	COGENTRIX 345KV	865	0.03203	-0.35138	10

T. EDIN	Trucky Children and Children		L a a coord a Emily	DOMESTIC CONTRACT				
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 AEPW -0.31935 AEPW	COMANCHE 138KV COMANCHE 69KV	60		-0.34096 3 -0.34103	
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 SPS -0.31935 SPS	CUNNINGHAM 115KV CUNNINGHAM 230KV	181 302.6	0.01639		10 10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 SPS	CZ 69KV	39	0.01551	-0.33486	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 CELE -0.31935 AEPW	DOLET HILLS 345KV EASTMAN 138KV	370 157.549	0.00849		
AEPW AFPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 EMDE -0.31935 WERE	ELK RIVER 345KV EMPORIA ENERGY CENTER 345KV	44.986 610	0.00572		10 10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 CELE	EVANGELINE 230KV	234	0.00445	-0.3238	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 WERE -0.31935 AEPW	EVANS ENERGY CENTER 138KV FITZHUGH 161KV	560 125.4	0.00739	-0.32674 -0.32956	
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 OKGE -0.31935 CELE	FPLWND2 34KV G1COLUMB 13.800 138KV	16 12.7	0.0218		10 10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 CELE	G1WKRAFT 13.800 230KV	55	0.00648	-0.32583	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 CELE -0.31935 WERE	G7EVAN 22.000 138KV GILL ENERGY CENTER 138KV	165 155	0.00439		10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60 60	-0.31935 WERE -0.31935 SPS	GILL ENERGY CENTER 69KV HARRINGTON 230KV	52 1040	0.00759		10 10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 SPS	HOBBS_PLT2 118.000 115KV	300	0.01639	-0.33574	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 SPS -0.31935 OKGE	HOBBS_PLT3 118.000 230KV HORSESHOE LAKE 138KV	210 796	0.01639	-0.33574 -0.3433	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 OKGE -0.31935 SPS	HORSESHOE LAKE 69KV	16 11	0.02442		10
AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 WFEC	HUBRCO2 69KV HUGO 138KV	440	0.01475		10 10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 WERE -0.31935 WERE	HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 69KV	257.9033 30	0.00594		
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 LEPA -0.31935 SPS	JONES 230KV	24 486	0.00328	-0.32263	10 10
AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 AEPW	KNOXLEE 138KV	282	0.01026		10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 AEPW -0.31935 AEPW	LEBROCK 345KV LIEBERMAN 138KV	367.1163 174	0.01031		10
AEPW	ELKIN_GN 1 13.800 69KV		-0.31935 AEPW	LONESTAR POWER PLANT 69KV	27	0.01081	-0.33016	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60		LP-BRND2 69KV LP-MACK2 69KV	20 60	0.01681	-0.33616	10 10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 SPS -0.31935 SPS	MADOX 115KV MAJESTC_WND3115.00 115KV	153.1479 8	0.01639	-0.33574 -0.33432	10 10
AEPW	ELKIN_GN 1 13.800 69KV FLKIN_GN 1 13.800 69KV	60	-0.31935 OKGE	MCCLAIN 138KV	470	0.02308	-0.34243	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 WFEC -0.31935 OKGE	MORLND 138KV MUSKOGEE 345KV	320.7559 1548		-0.3482	10 10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60		MUSTANG 115KV MUSTANG 138KV	300 351	0.01643		10 10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 SPS	MUSTANG 230KV	460	0.01641	-0.33576	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 SPS	MUSTANG 69KV NICHOLS 115KV	90 147	0.02313	-0.33446	10 10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 SPS -0.31935 AEPW	NICHOLS 230KV NORTHEASTERN STATION 138KV	147 480		-0.3344	10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 AEPW	NORTHEASTERN STATION 345KV	625	0.02984	-0.34919	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 AEPW -0.31935 OMPA	OEC 345KV OMPA-KAW 69KV	555.4863 26.99778	0.03177		
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 OMPA -0.31935 OMPA	OMPA-KINGFISHER BOWMAN 69KV OMPA-LAVERNE 69KV	8	0.02202	-0.34137 -0.34119	10 10
AEPW	ELKIN_GN 1 13.800 69KV		-0.31935 OMPA	OMPA-MANGUM 69KV	6	0.02086		10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 OMPA	OMPA-PAWHUSKA NORTHEAST 138KV	7	0.02911	-0.34846	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60 60	-0.31935 OMPA -0.31935 AEPW	OMPA-PONCA CITY 69KV PIRKEY GENERATION 138KV	153 288	0.02157	-0.34092	10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 SPS	PLANTX 115KV	205	0.01618	-0.33553	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 SPS -0.31935 OKGE	PLANTX 230KV REDBUD 345KV	189 11.79899	0.01614	-0.33549 -0.34379	
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 CELE	RODEMACHER 230KV	991	0.00498	-0.32433	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 SPS -0.31935 OKGE	SAN JUAN 230KV SEMINOLE 138KV	120 329.1385	0.01624		
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 OKGE -0.31935 SPS	SEMINOLE 345KV SIDRCH 69KV	1019 20	0.02305		10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 OKGE	SMITH COGEN 138KV	106	0.02315	-0.3425	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 OKGE -0.31935 OKGE	SOONER 138KV SOONER 345KV	535 537	0.02212		
AEPW AFPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 OKGE -0.31935 AEPW	SOUTH 4TH ST 69KV SOUTHWESTERN STATION 138KV	12.71973 287	0.02115	-0.3405 -0.34122	10 10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 AEPW	SOUTHWESTERN STATION 138KV	712	0.02187	-0.34122	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 OKGE -0.31935 OKGE	SPGCK1&2 13.200 345KV SPGCK3&4 13.200 345KV	78 12	0.02269		
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 SPS -0.31935 CELE	STEER WATER 115KV TECHE 138KV	80 291.0071	0.01531		10 10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 OKGE -0.31935 SPS	TINKER 5G 138KV	60	0.02339	-0.34274	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 SPS -0.31935 AEPW	TOLK 230KV TULSA POWER STATION 138KV	1019.998 240.0898		-0.33557	
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 AEPW -0.31935 AEPW	WEATHERFORD 34KV WELSH 345KV	12 1044	0.02125		10 10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 AEPW	WILKES 138KV	410.8666	0.01068	-0.33003	10
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60		WILKES 345KV WILWIND 230KV	308 160	0.01051		10
AEPW AEPW	TONTITOWN 161KV	186.12 186.12	-0.28778 GRDA -0.28778 GRDA	GRDA1 161KV GRDA1 345KV	190 203.0309	0.06685	-0.35463 -0.3474	10 10
AEPW	TONTITOWN 161KV	186.12	-0.28778 OKGE	MUSKOGEE 161KV	166	0.03892	-0.3267	10
AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV	186.12	-0.28778 AEPW -0.28778 GRDA	NORTHEASTERN STATION 138KV PENSACOLA 161KV	480 22	0.03713	-0.32491 -0.33186	
AEPW AEPW	TONTITOWN 161KV ELKIN_GN 1 13.800 69KV	186.12	-0.28778 GRDA -0.31935 EMDE	PENSACOLA 69KV ASBURY 161KV	33 192	0.04787	-0.33565 -0.29845	10
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 LEPA	CITY OF HOUMA SUB 115KV	95	0.00316	-0.32251	11
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 WERE -0.31935 AEPW	CITY OF IOLA 69KV ELLIS 69KV	6	-0.00896	-0.31039	<u>11</u>
AEPW AFPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 WERE -0.31935 WERE	HOLTON 115KV JEFFREY ENERGY CENTER 230KV	12.2 440	0.00202		11
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 WERE	JEFFREY ENERGY CENTER 345KV	874	0.00292	-0.32227	11
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV		-0.31935 SWPA -0.31935 WERE	JONESBORO 161KV LAWRENCE ENERGY CENTER 230KV		-0.00298	-0.31637 -0.32139	11 11
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 SWPA -0.31935 EMDE	PARAGOULD 69KV RIVERTON 161KV		-0.00283	-0.31652	11 11
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 EMDE	RIVERTON 69KV	43.98939	-0.02305	-0.2963	11
AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV	60	-0.31935 SWPA -0.31935 WERE	SIKESTON 161KV SOUTH SENECA 115KV			-0.31679 -0.32109	<u>11</u>
AEPW AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 WERE -0.31935 LEPA	TECUMSEH ENERGY CENTER 115KV WATERLOO SUB 230KV	133	0.00238	-0.32173 -0.32253	11 11
AEPW	ELKIN_GN 1 13.800 69KV TONTITOWN 161KV	186.12	-0.28778 OKGE	AES 161KV	320	0.01416	-0.30194	11
AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV	186.12 186.12	-0.28778 WFEC -0.28778 AEPW	ANADARKO 138KV ARSENAL HILL 138KV	371.0778 455	0.02199	-0.30977 6 -0.29714	11
AEPW	TONTITOWN 161KV	186.12	-0.28778 AEPW	ARSENAL HILL 69KV	90	0.00937	-0.29715	11
AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV		-0.28778 SPS -0.28778 GRDA	BLACKHAWK 115KV BOOMER 69KV		0.02867	-0.30248 -0.31645	
AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV	186.12 186.12	-0.28778 SPS -0.28778 OKGE	CAPROCK 0KV CENTENIAL WIND 34KV	80 44	0.01614	-0.30392 -0.30992	11 11
AEPW	TONTITOWN 161KV	186.12	-0.28778 WERE	CITY OF AUGUSTA 69KV	20	0.00739	-0.29517	11
AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV	186.12	-0.28778 WERE -0.28778 WERE	CITY OF FREDONIA 69KV CITY OF MULVANE 69KV	5.269998 9.729	0.00875		
AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV	186.12	-0.28778 WERE -0.28778 WERE	CITY OF WINFIELD 69KV CNTRLPL2 34.500 115KV	31.2	0.01235		11 11
	TONTITOWN 161KV	186.12	-0.28778 AEPW	COGENTRIX 345KV	865	0.03203	-0.31981	11
AEPW	TONTITOWN 161KV		-0.28778 AEPW -0.28778 AEPW	COMANCHE 138KV COMANCHE 69KV			-0.30946	
AEPW AEPW	TONTITOWN 161KV							11
AEPW AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV	186.12	-0.28778 SPS	CUNNINGHAM 115KV	181 302 6	0.01639		
AEPW AEPW AEPW AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV	186.12 186.12 186.12	-0.28778 SPS -0.28778 SPS -0.28778 SPS	CUNNINGHAM 230KV CZ 69KV	302.6 39	0.01638	-0.30416 -0.30329	11 11
AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV	186.12 186.12 186.12 186.12	-0.28778 SPS -0.28778 SPS	CUNNINGHAM 230KV CZ 69KV DOLET HILLS 345KV EASTMAN 138KV	302.6 39	0.01638 0.01551 0.00849	-0.30416 -0.30329	11
AEPW AEPW AEPW AEPW AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV	186.12 186.12 186.12 186.12 186.12 186.12	-0.28778 SPS -0.28778 SPS -0.28778 SPS -0.28778 SPS -0.28778 CELE	CUNNINGHAM 230KV CZ 69KV DOLET HILLS 345KV	302.6 39 370 157.549 560	0.01638 0.01551 0.00849 0.01033 0.00739	-0.30416 -0.30329 -0.29627	11 11 11

Column									
Company Comp	AEPW AEPW	TONTITOWN 161KV TONTITOWN 161KV			FPLWND2 34KV GILL ENERGY CENTER 138KV	16 155			11
Column									11
Column	AEPW	TONTITOWN 161KV	186.12	-0.28778 SPS	HOBBS_PLT2 118.000 115KV	300	0.01639	-0.30417	11
Column C	AEPW	TONTITOWN 161KV			HORSESHOE LAKE 138KV	796			11
Column									11
Commonweight Comm		TONTITOWN 161KV	186.12	-0.28778 WFEC	HUGO 138KV	440	0.01855	-0.30633	11
Company Comp	AEPW	TONTITOWN 161KV	186.12	-0.28778 AEPW	KNOXLEE 138KV	282	0.01026	-0.29804	11
Company Comp									11
The company	AEPW				LONESTAR POWER PLANT 69KV				11
Company	AEPW	TONTITOWN 161KV	186.12	-0.28778 SPS	LP-MACK2 69KV	60			11
The Trans and						153.1479 8			11
1.00					MCCLAIN 138KV			-0.31086	11
March Control March Marc	AEPW	TONTITOWN 161KV	186.12	-0.28778 OKGE	MUSKOGEE 345KV	1548	0.02885	-0.31663	11
March Marc									11
April			186.12	-0.28778 SPS			0.01641		11
March Marc	AEPW	TONTITOWN 161KV	186.12	-0.28778 SPS	NICHOLS 115KV	147	0.01511	-0.30289	11
### OPEN CONTINUE NO. 19.1 2-per page. 2									11
1									11
APPLICATION NOTITION NOTITIO	AEPW	TONTITOWN 161KV	186.12	-0.28778 OMPA	OMPA-KINGFISHER BOWMAN 69KV	8	0.02202	-0.3098	11
TOTAL TOTA									11
TOTAL TOTA	AFPW	TONTITOWN 161KV	186.12	-0.28778 OMPA	OMPA-PAWHUSKA NORTHEAST 138KV	7	0.02911	-0.31689	11
Common No. Com	AEPW	TONTITOWN 161KV	186.12	-0.28778 OMPA	OMPA-PONCA CITY 69KV		0.02157	-0.30935	11
Control Cont	AEPW	TONTITOWN 161KV	186.12	-0.28778 SPS	PLANTX 115KV	205	0.01618	-0.30396	11
March Company March March Company March March Company March									11 11
APPLICATION 100 10	AEPW	TONTITOWN 161KV	186.12	-0.28778 SPS	SAN JUAN 230KV	120	0.01624	-0.30402	11
PROPERTY PROPERTY 19.0 CASTON STATE SATE COMMENT 19.0 CASTON STATE	AEPW	TONTITOWN 161KV	186.12	-0.28778 OKGE	SEMINOLE 345KV	1019	0.02305	-0.31083	11
Common New York									11 11
Control Cont	AEPW	TONTITOWN 161KV	186.12	-0.28778 OKGE	SOONER 138KV	535	0.02212	-0.3099	11
Common New York Common New	AEPW	TONTITOWN 161KV	186.12	-0.28778 OKGE	SOUTH 4TH ST 69KV	12.71973	0.02115	-0.30893	11
Company Comp									11
ADDITION TOTAL T	AEPW	TONTITOWN 161KV	186.12	-0.28778 OKGE	SPGCK1&2 13.200 345KV	78	0.02269	-0.31047	11
Common New	AEPW	TONTITOWN 161KV	186.12	-0.28778 SPS	STEER WATER 115KV	80	0.01531	-0.30309	11
Sept									11
APP CONTIONS SOLV 18.1 2.0771 APP WILES SOLV 3.04 2014 2027 1.07									11
ACRES TOMITTOWN SERVEY 180.12 - 2017FF (APPW) 180.12 - 2017FF (AEPW	TONTITOWN 161KV	186.12	-0.28778 AEPW	WELSH 345KV	1044	0.01149	-0.29927	11
APPW					WILKES 138KV WILKES 345KV				11
ALPAN CLAN CALL TASKS SRAY					WILWIND 230KV				11
ELENG (ST 11.800 DBW)									
SEPV			60	-0.31935 EMDE	LARUSSEL 161KV	100	-0.03197	-0.28738	12
APPW	AEPW	ELKIN_GN 1 13.800 69KV	60 60	-0.31935 EMDE -0.31935 EMDE	LARUSSEL 161KV OZARK BEACH 161KV	100 16	-0.03197 -0.04176	-0.28738 -0.27759	12 12 12
APPW	AEPW AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV TONTITOWN 161KV	60 60 60 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 LEPA	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV BAYOU RAMOS 138KV	100 16 538 33.07825	-0.03197 -0.04176 -0.02799 0.00353	-0.28738 -0.27759 -0.29136 -0.29131	12 12 12 12
APPW	AEPW AEPW AEPW AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN, GN 1 13.800 69KV TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV	60 60 60 186.12 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV BAYOU RAMOS 138KV CHANUTE 69KV CITY OF BURLINGTON 69KV	100 16 538 33.07825 54.8	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00437	-0.28738 -0.27759 -0.29136 -0.29131 -0.29224 -0.29215	12 12 12 12 12 12
AFPW	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV TONTITOWN 161KV	60 60 186.12 186.12 186.12 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 WERE -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV BAYOU RAMOS 138KV CHANUTE 66KV CITY OF BURLINGTON 66KV CITY OF ERIE 66KV CITY OF FUNDA SUB 115KV	100 16 538 33.07825 54.8 55.4	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00437	-0.28738 -0.27759 -0.29136 -0.29131 -0.29224 -0.29215 -0.29224	12 12 12 12 12 12 12 12 12
AFPW TOMITTOWN ISINV 186.12 0.25779 AFPW ELLIS BROV 61 0.00584 0.27862 1.	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN_GN 1 13.800 69KV ELKIN_GN 1 13.800 69KV TONITIOWN 161KV	60 60 60 186.12 186.12 186.12 186.12 186.12	0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 WERE -0.28778 WERE -0.28778 WERE -0.28778 WERE -0.28778 WERE -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV BAYOU RAMOS 138KV CHANUTE 69KV CITY OF BURLINGTON 69KV CITY OF FRIE 69KV CITY OF HOUMA SUB 115KV CITY OF HOUMA SUB 115KV CITY OF ICAL 69KV	100 16 538 33.07825 54.8 55.4 4 95	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00437 0.00446 0.00316	-0.28738 -0.27759 -0.29136 -0.29131 -0.29224 -0.29215 -0.29224 -0.29094 -0.28883	12 12 12 12 12 12 12 12 12 12 12
AEPW TOMITOWN BINV 1861.2 0.2977 CELE EVANCELINE 2300V 234 0.0044 0.2022 1.1	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GN 1 13.800 69KV ELKIN, GN 1 13.800 69KV TONTTOWN 161KV	60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 LEPA -0.28778 WERE -0.2878 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV BAYOL RANDOS 138KV CHANUTE 69KV CITY OF BURLINGTON 69KV CITY OF FUR 69KV CITY OF HOUMA SUB 115KV CITY OF CRIT 69KV CLAY CENTER JUNCTION 115KV CLAY CENTER JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 69KV	100 16 538 33.07825 54.8 55.4 4 95 10.2 16.5 19.98	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00437 0.00446 0.00316 0.00105 0.00386 0.00437	-0.28738 -0.27759 -0.29136 -0.29214 -0.29215 -0.29224 -0.29224 -0.29094 -0.28883 -0.29164 -0.29215	12 12 12 12 12 12 12 12 12 12 12 12 12 1
AEPW TONTTOWN 161KV 186.13 0.29776CEEE GTOCULAR 13.800 138KV 12.7 0.00371 0.29148 1.1 AEPW TONTTOWN 161KV 186.13 0.29776CEEE GTOCULAR 13.800 138KV 19.0 0.0044 0.20371 0.0044 0.20371 1.1 AEPW TONTTOWN 161KV 186.13 0.29776CEEE GTOKWARY 13.0035KV 18.0 0.0044 0.20371 1.1 AEPW TONTTOWN 161KV 186.13 0.29776CEEE GTOKWARY 13.0035KV 18.0 0.0044 0.20371 1.1 AEPW TONTTOWN 161KV 186.13 0.29776CEEE GTOKWARY 13.0035KV 18.0 0.0044 0.20371 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE HUTCHNOON ENERGY CENTER 115KV 2.27.003, 0.00594 0.20372 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE HUTCHNOON ENERGY CENTER 115KV 2.0 0.00594 0.20372 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE HUTCHNOON ENERGY CENTER 15KV 2.0 0.00594 0.20376 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE HUTCHNOON ENERGY CENTER 15KV 2.0 0.00594 0.20376 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 2.0 0.00594 0.20376 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 3.0 0.00594 0.20376 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 3.0 0.00594 0.20376 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.29776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.203776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.203776WERE MERCY CENTER 25KV 2.2 0.00594 0.2036 0.2036 1.1 AEPW TONTTOWN 161KV 186.13 0.203776WERE MERCY CENTER 25KV 2.2 0.	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GN 1 13.800 69KV ELKIN, GN 1 13.800 69KV TONTTOWN 161KV	60 60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 LEPA -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV BAYOL RANDOS 139KV CHANUTE 69KV CITY OF BURLINGTON 69KV CITY OF FUR 69KV CITY OF HOUMA SUB 115KV CLTY OF JOHN 69KV CLAY CENTER JUNCTION 115KV CLAY CENTER JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 345KV ELK RIVER 345KV	100 16 538 33.07825 54.8 55.4 95 10.2 16.5 19.8 44.986	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00437 0.00446 0.00316 0.00105 0.00386 0.00437 0.00572	-0.28738 -0.27759 -0.29136 -0.29214 -0.29224 -0.29224 -0.29094 -0.28883 -0.29164 -0.29215 -0.2935	122 122 122 122 122 122 122 122 122 122
AEPW TONTTOWN 161KV 1610. 2 02779 CEE 07524N 22.00 138KV 156 0.00438 0.22277 1.1 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE HUCTON 1750KW 1517 0.2000 1.2277 1.1 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE HUCTON 1750KW 1517 0.2000 1.2277 1.1 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE HUCTON 1750KW 1517 0.2000 1.2277 1.1 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE HUCTON 1750KW 1.2 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 4.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 4.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 6.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 6.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 6.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 6.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 6.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 6.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 6.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 6.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 1616.1 0.22779 WERE JEFFRY ENGRY CENTER 200KV 7.4 AEPW TONTTOWN 161KV 7.4 AEPW JEFFRY SE	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 113.800 69KV ELKIN, GM 113.800 69KV TOMTTOWN 161KV	60 60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.28776 LEPA -0.28777 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RAMOS 138KY CHANUTE 69KV CITY OF ERILE 69KV CITY OF FERILE 69KV CITY OF FOLOMA SUB 115KV CITY OF IOLA 69KV CLAY CENTER JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELLIS 69KV ELLIS 69KV ELLIS 69KV	100 166 538 33.07825 54.8 55.4, 4 4 95 10.2 16.5, 19.98 44.986 6 6	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00437 0.00446 0.00316 0.0036 0.00437 0.00572 -0.00896	-0.28738 -0.27759 -0.29136 -0.29131 -0.29224 -0.29224 -0.29094 -0.28883 -0.29164 -0.29215 -0.29215 -0.2935 -0.27882 -0.29142	122 121 122 122 122 122 122 122 122 122
AEPW TONTTOWN 161KV 1861.2 0.28778 WERE HUTCHINSON ENERGY CENTER 1196V 25.7903 0.00594 0.28297 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE HUTCHINSON CENTER 230KV 26 0.00528 0.25297 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE HUTCHINSON CENTER 230KV 26 0.00528 0.25297 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE LEVER 250KV 1870 0.00528 0.25297 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE LEVER 250KV 1870 0.00528 0.25297 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE LEVER 250KV 1870 0.00528 0.25280 0.25281 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE LEVER 250KV 1870 0.00528 0.25281 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE LEVER 250KV 1870 0.00528 0.25281 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE LEVER 250KV 1870 0.00528 0.25281 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE SIGNON 161KV 1861.2 0.28778 WERE LEVER 250KV 1870 0.00528 0.25281 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE SIGNON 161KV 1861.2 0.28778 WERE LEVER 250KV 1870 0.00528 0.25281 1.1 AEPW TONTTOWN 161KV 1861.2 0.28778 WERE SIGNON 161KV 1861.2	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 113.800 69KV ELKIN, GM 113.800 69KV TOMTTOWN 161KV	60 60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28776 LEPA -0.28777 WERE -0.28777 GELE -0.28777 GELE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CITY OF ERILE 69KV CITY OF ERILE 69KV CITY OF FOLIAM SUB 115KV CITY OF JOLIAM SUB 115KV COTY OF JOLIAM SUB 115KV COTY OF JOLIAM SUB 115KV COTY OF JOLIAM SUB 115KV ELIS 69KV ELIS 69KV EVANGELINE 230KV EVANGELINE 230KV EVANGELINE 230KV	100 166 538 33.07825 54.8 55.4 4 95 10.2 10.2 19.8 4.998 6 6 6 100 234	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00446 0.00316 0.00105 0.00386 0.00457 -0.00896 0.00346 0.00346	-0.28738 -0.27759 -0.29136 -0.29214 -0.29224 -0.29224 -0.29094 -0.28833 -0.29164 -0.29215 -0.29235 -0.27882 -0.27882 -0.29242 -0.29242 -0.29242 -0.29242	122 122 122 122 122 122 122 122 122 122
AEPW TONTTOWN 161V 186.12 -0.2879 WERE MUTCHISCON ENERGY CENTER 68V 26 0.00584 0.29372 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 WERE JEPREY ENERGY CENTER 200V 44.0 0.0024 0.20608 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 WERE JEPREY ENERGY CENTER 200V 44.0 0.0024 0.20608 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 WERE JEPREY ENERGY CENTER 200V 44.0 0.0024 0.20608 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 WERE JEPREY ENERGY CENTER 200V 44.0 0.0024 0.20608 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 WERE JEPREY ENERGY CENTER 200V 27.0 0.0004 0.2880 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 GENER JEPREY SERVICE ENERGY CENTER 200V 27.0 0.0004 0.2880 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 GENER JEPREY SERVICE ENERGY CENTER 200V 9.0 0.0004 0.2880 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 GENER JEPREY SERVICE ENERGY CENTER 200V 9.0 0.0004 0.2880 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 GENER JEPREY SERVICE ENERGY CENTER 200V 9.0 0.0004 0.2880 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 GENER JEPREY SERVICE ENERGY CENTER 200V 9.0 0.0004 0.2880 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 GENER JEPREY SERVICE ENERGY CENTER 200V 9.0 0.0004 0.2880 1.1 AEPW TONTTOWN 161V 186.12 -0.2879 GENER JEPREY SERVICE ENERGY CENTER 158V 29.0 0.0007 0.0	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 113.800 69KV ELKIN, GM 113.800 69KV TOMTTOWN 161KV	60 60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28776 LEPA -0.28777 WERE -0.28777 GELE -0.28777 GELE -0.28777 GELE -0.28777 GELE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CHANUTE 69KV CITY OF ERILE 69KV CITY OF ERILE 69KV CITY OF FOLDA 69KV CITY OF JOLA 69KV CLAY CENTER JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 346KV ELKI 696KV EVANGELINE 230KV GYMENEL 18.00 138KV GIOLIUM SI. 380 138KV	100 100 100 5388 54.8 54.8 4 9 10.2 10.2 19.8 4.9,98 6 6 10 12 12,7 55,5	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00437 0.00446 0.00316 0.0036 0.0	-0.28738 -0.27759 -0.29136 -0.29131 -0.29214 -0.2924 -0.2924 -0.2928 -0.29164 -0.2935 -0.27882 -0.29142 -0.2923 -0.29142 -0.2923 -0.29148	122 122 122 122 122 122 122 122 122 122
APPW TONTTOWN 161KV 186.12 - 0.28778/WERE JEFFREY ENERGY CENTER 230KV 540 0.00291 0.29069 1.1	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 WERE -0.28778 WERE -0.28778 WERE -0.28778 WERE -0.28778 WERE -0.28778 EMDE -0.28778 EMDE -0.28778 EMDE -0.28778 WERE -0.28778 WERE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV BAYOL RANDOS 138KV CHANUTE 69KV CITY OF ERILINGTON 69KV CITY OF ERILINGTON 69KV CITY OF FERILINGTON 150KV CITY OF FOLA 89KV CITY OF FOLA 89KV CLAY CENTER JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 349KV ELMORIA ENERGY CENTER 345KV EWDRIA ENERGY CENTER 345KV EVANGELINE 230KV GTOCULIMB 13.800 138KV GTÜCKAN 22.000 138KV GTÜCKAN 22.000 138KV	100 166 538 33,07825 54.8 65.4 4 4 4 95 10.2 16.5 19.98 44.986 6 610 2244 12.7 55 165	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00437 0.00446 0.00316 0.00386 0.00437 0.00572 -0.00896 0.00364 0.00445 0.00445 0.00445 0.00448	-0.28738 -0.27759 -0.29136 -0.29131 -0.29224 -0.29215 -0.29244 -0.29246 -0.2935 -0.27882 -0.29164 -0.29215 -0.29148 -0.29217 -0.29223 -0.29148 -0.29223 -0.29426 -0.29223	12 12 12 12 12 12 12 12 12 12 12 12 12 1
AFPW TONTTOWN 161KV 186.12 0.28778 WERE LANCE DENROY CENTER 7.20KV 23.986 0.00004 0.28862 11.	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 EMDE -0.28778 EMDE -0.28778 GELE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV BAYOL RANDOS 138KV CHANUTE 69KV CITY OF ERILINGTON 69KV CITY OF FERILINGTON 69KV CITY OF FERILINGTON 69KV CITY OF FOLANDA SUB 115KV CITY OF FOLANDA SUB 115KV CITY OF FOLANDA SUB 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 346KV ELK RIVER 346KV ELK SORV EMPORA ENERGY CENTER 345KV EVANGELINE 230KV GTOLIMB 13.800 138KV GTOLIMB 13.800 138KV GTOLIMB 15.800 230KV HUTCHINSON ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 19KV	100 166 538 33,07825 54.8 45.4 4 4 4 9 10.2 16.5 19.8 44,986 6 610 2344 12.7 56 165 165 165 165	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00437 0.00316 0.00316 0.00316 0.00316 0.00316 0.0036 0.	-0.28738 -0.27759 -0.29131 -0.29224 -0.29224 -0.29224 -0.29034 -0.2915 -0.2915 -0.2935 -0.27882 -0.29148 -0.2923 -0.29148 -0.2923 -0.2935 -0.2	122 122 123 124 125 126 127 127 128 129 129 129 120 120 120 120 120 120 120 120 120 120
AEPW TONTTOWN 161KV 196.12 0.28778 WPA PARAGOLD 69KV 15.5 .0.0263 .0.1263 .0	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 WERE -0.28778 WERE -0.28778 WERE -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV BAYOL RANDOS 138KV CHANUTE 69KV CITY OF ERILIGATON 169KV CITY OF FERILIGATON 69KV CITY OF FERILIGATON 69KV CITY OF FOLKA 69KV CITY OF FOLKA 69KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 346KV STATE 181K 181KV GTOOLIMB 13.800 138KV GTOOLIMB 13.800 138KV GTOOLIMB 13.800 138KV GTOOLIMB 15.800 138KV HUTCHINSON ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 19KV RICH 181KP HUTCHINSON ENERGY CENTER 69KV RICH SUB 69KV JEFFREY ENERGY CENTER 206KV	100 166 538 33,07825 54.8 55.4 4 95 10.2 16.5 19.8 44.96 610 224 12.7 55 165 165 12.7 55 165 165 17.7 55 165 17.7 55 185 185 185 185 185 185 185 185 185	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00437 0.00316 0.00105 0.00376 0.00376 0.00364 0.00439 0.00439 0.00439 0.00592 0.00594 0.00594	-0.28738 -0.27759 -0.29136 -0.29136 -0.2924 -0.29224 -0.2925 -0.290164 -0.29215 -0.29164 -0.29215 -0.29164 -0.29216 -0.29164 -0.29164 -0.29164 -0.29164 -0.29164 -0.29164 -0.2917 -0.29148 -0.29148 -0.29164 -0.2917 -0.29164 -0.2923 -0.29148 -0.2923 -0.29148 -0.2921 -0.292	122 122 123 124 125 126 127 127 128 129 129 129 120 120 120 120 120 120 120 120 120 120
AEPW TONITIOWN 161KV 1861.2 0.28778 CELE RODEMACHER 230KV 991 0.00498 0.28226 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA SIKESTON 161KV 236 0.00260 0.28522 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA SIKESTON 161KV 11.2 0.00174 0.29862 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA SIKESTON 161KV 11.2 0.00174 0.29862 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA SIKESTON 161KV 12.2 0.00174 0.29862 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA SIKESTON 161KV 12.2 0.00174 0.29862 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA SIKESTON 161KV 158 0.00234 0.20616 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA CARTHAGE 69KV 12.2 0.00247 0.29891 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA CARTHAGE 69KV 12.2 0.00247 0.29891 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA CARTHAGE 69KV 12.2 0.00247 0.29891 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA CARTHAGE 69KV 190 0.00347 0.29891 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA CARTHAGE 69KV 190 0.00347 0.29891 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA CARTHAGE 69KV 190 0.00347 0.29891 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA CARTHAGE 69KV 190 0.00347 0.00347 0.29891 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA CARTHAGE 69KV 190 0.00347 0.00349 0.28479 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA CARTHAGE 69KV 190 0.00347 0.00349 0.28479 11 AEPW TONITIOWN 161KV 1861.2 0.28778 WPA CARTHAGE 69KV 190 0.00347 0.00349 0.0	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.28778 LEPA -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CITY OF ERIE 69KV CITY OF FOUNDA SUB 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 39KV ELK RIVER 39KV ELK RIVER 39KV EVANSELINE 230KV GTEVAN 22 000 138KV GTEVAN 22 000 138KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 19KV RICH SUB 18 69KV JEFFREY ENERGY CENTER 29KV JEFFREY ENERGY CENTER 29KV JEFFREY ENERGY CENTER 29KV JEFFREY ENERGY CENTER 28KV JUEFFREY ENERGY CENTER 28KV JUEFFREY ENERGY CENTER 39KV	100 166 538 33,07825 54.8 55.4 4 4 4 95 10.2 16.5 19.8 44.96 6 610 224 12.7 55 165 12.2 257,903 30 244 440 874	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00316 0.00437 0.00437 -0.00896 0.00364 0.00316 0.00405 0.00364 0.00364 0.00405 0.00594 0.00594 0.00594 0.00592 0.00592 -0.00592	-0.28738 -0.27759 -0.29136 -0.29136 -0.29136 -0.2924 -0.2924 -0.2924 -0.29015 -0.2925 -0.29164 -0.2925 -0.29164 -0.2927 -0.29182 -0.29148 -0.2923 -0.29148 -0.2923 -0.29148 -0.2923 -0.29148 -0.2923 -0.29148 -0.2923 -0.2903	122 122 123 124 125 126 127 127 128 129 129 129 129 129 129 129 129 129 129
AEPW TONITIOWN 161KV 186.12 -0.28778/WERE SOUTH SENECA 115KV 11.2 0.00174 -0.28952 11. AEPW TONITIOWN 161KV 186.12 -0.28778/WERE TECUMSEH ENRIGY CENTER 115KV 21.00.00238 -0.29166 11. AEPW TONITIOWN 161KV 186.12 -0.28778/WERE TECUMSEH ENRIGY CENTER 115KV 13.0 0.00238 -0.29166 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA WARELOO SUB 25KW 0 0.00318 -0.29066 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 162 -0.02034 -0.28686 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.2 -0.0203 -0.28686 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29868 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29868 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29868 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29868 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29868 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29868 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29869 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29879 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29879 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29879 11. AEPW TONITIOWN 161KV 186.12 -0.28778/LIEPA ASBURY 161KV 19.0 0.00038 -0.29879 11. AEPW TONITIOWN 161KV 19.0 0.00038 -0.28878/LIEPA ASBURY 161KV 19.0 0.00038 -0.28878 -0.18878 -0.18878 -0.28878 -0	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31935 EMDE -0.28776 LEPA -0.28777 WERE -0.28777 GELE -0.28777 GELE -0.28777 GELE -0.28777 GELE -0.28777 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KY CHANUTE 69KV CITY OF ERILE 69KV CITY OF ERILE 69KV CITY OF FOLK 165KV CITY OF FOLK 165KV CITY OF FOLK 165KV COFFEY COUNTY NO. 2 SHARPE 69KV ELLIS 69KV ELLIS 69KV ELLIS 69KV EVANGELINE 230KV GTWARTE 13.800 239KV GTWARTE 13.800 239KV GTWARTE 15.800 239KV HOLTON 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JONESBORO 161KV JONESBORO 161KV JONESBORO 161KV	100 100 100 3307828 54.8 54.8 4.9 9. 10.2 10.2 10.2 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3	-0.03197 -0.04176 -0.02799 0.00353 0.00446 0.00376 0.00437 0.00457 -0.00896 0.00364 0.00457 0.00648 0.00458 0.00594 0.00594 0.00594 0.00292 -0.00298	-0.28738 -0.29739 -0.29136 -0.29131 -0.29214 -0.29224 -0.2924 -0.2935 -0.2916 -0.2916 -0.2916 -0.29142 -0.29142 -0.29142 -0.29426 -0.2921 -0.29372	122 122 123 124 125 126 127 127 127 127 127 127 127 127 127 127
AEPW TONTITOWN 161KV 186.12 -0.28778 (EEE TECHE 138KV 29.1 0.07078 -0.29156 11. AEPW TONTITOWN 161KV 186.12 -0.28778 (EEE TECHE 138KV 13.3 0.00238 -0.2916 11. AEPW TONTITOWN 161KV 186.12 -0.28778 (EEPA WATERLOO SUB 230KV 6 0.00318 -0.20096 11. AEPW TONTITOWN 161KV 186.12 -0.28778 (EMDE ASURY 161KV 192 -0.0009 1.00318 -0.20096 11. AEPW TONTITOWN 161KV 186.12 -0.28778 (EMDE ASURY 161KV 192 -0.0029 -0.002847 -0.20031 11. AEPW TONTITOWN 161KV 186.12 -0.28778 (EMDE ASURY 161KV 100 -0.00347 -0.20031 11. AEPW TONTITOWN 161KV 186.12 -0.28778 (EMDE ASURY 161KV 100 -0.003197 -0.0	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12 186.12	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.28776 LEPA -0.28777 WERE -0.28777 EMDE -0.28777 GELE -0.28777 GELE -0.28777 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CHYOTO SERVICE 161KV CHYOTO SERVICE 161KV CITY OF BURLINGTON 69KV CITY OF ERIE 69KV CITY OF FOLIA 69KV ELLIS 69KV ELKRIVER 31KS JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELKRIVER 31KS JUNCTION 115KV EVANGELINE 230KV EVANGELINE 230KV GTEVAN 220 OR 138KV HOLTON 115KV HOLTON 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 34KV JONESBORO 161KV LAWRENCE ENERGY CENTER 230KV JEFFREY ENERGY CENTER 34KV JONESBORO 161KV LAWRENCE ENERGY CENTER 230KV PARAGOULD 69KV PARAGOULD 69KV RODEMACHER 230KV	100 100 166 3307825 54.8 55.4 95.1 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10	-0.03197 -0.03197 -0.02179 -0.02799 0.00353 0.00446 0.00437 0.00416 0.00316 0.00316 0.00316 0.00316 0.00316 0.00316 0.00316 0.0032 -0.00896 0.0036 0.0036 0.0036 0.0037 0.00672 0.00594 0.00594 0.00204 0.00204 0.00204 0.00208	-0.28738 -0.29739 -0.29139 -0.29131 -0.29244 -0.29245 -0.29245 -0.29164 -0.29165 -0.29162 -0.29142 -0.29142 -0.29142 -0.29142 -0.29148 -0.29216	122 122 123 124 125 126 127 127 127 127 127 127 127 127 127 127
AEPW TONTTOWN 1616V 186.12 -0.28778 EMDE ASBURY 1616V 192 -0.0206 1.	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 186.12	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RAMOS 138KV CHANUTE 69KV CHYOTO FERILE 69KV CITY OF ERILE 69KV CITY OF ERILE 69KV CITY OF JOLA 69KV CITY OF JOLA 69KV CITY OF JOLA 69KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 346KV ELKINER 346KV ELKINER 346KV ELKINER 346KV EVANGELINE 230KV GTWENTEN 15.800 230KV HOLTON 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JANESON ENERGY CENTER 230KV	100 100 150 150 150 150 150 150 150 160 160 160 160 160 160 160 160 160 16	-0.03197 -0.04176 -0.07999 -0.04176 -0.02799 -0.0036 -0.00446 -0.004476	-0.28738 -0.29136 -0.29131 -0.29215 -0.29224 -0.29224 -0.29245 -0.29164 -0.29164 -0.29164 -0.29164 -0.29164 -0.29164 -0.29164 -0.29164 -0.29164 -0.29169 -0.29169 -0.29169 -0.29169 -0.29169 -0.29169 -0.29169 -0.29169 -0.29169 -0.2923 -0.29169 -0.2923 -0.29169 -0.2923 -0.29169 -0.2923	122 122 123 124 125 126 127 127 127 127 127 127 127 127 127 127
AEPW TONTITOWN 161KV 186.12 0.28778 EWPA CARTHAGE 69KV 20 0.02847 0.25931 1: AEPW TONTITOWN 161KV 186.12 0.28778 EMDE LARUSSEL 161KV 100 0.02317 -0.25931 1: AEPW TONTITOWN 161KV 186.12 0.28778 EMDE RIVERTON 161KV 190.2537 0.01982 0.26762 1: AEPW TONTITOWN 161KV 186.12 0.28778 EMDE RIVERTON 69KV 43,98939 0.0298 -0.26743 1: AEPW TONTITOWN 161KV 186.12 0.28778 EMDE RIVERTON 69KV 43,98939 0.0298 -0.2679 1: AEPW TONTITOWN 161KV 186.12 0.28778 EMDE STATE LINE 161KV 538 -0.02798 -0.2596 1: AEPW TONTITOWN 161KV 186.12 0.28778 EMDE STATE LINE 161KV 538 -0.02798 -0.2596 1: AEPW TONTITOWN 161KV 186.12 0.28778 EMDE STATE LINE 161KV 538 -0.02798 -0.25979 1: AEPW TONTITOWN 161KV 171 -0.03197 GRDA KERR 161KV 27 0.08778 -0.11975 2: AEPW CARTHAGE 69KV 171 -0.03197 GRDA KERR 161KV 39,9066 30,90678 -0.11975 2: AEPW CARTHAGE 69KV 12 -0.02847 GRDA KERR 161KV 39,9066 30,90678 -0.11625 2: AEPW ELKIN GN 113,800 69KV 12 -0.02847 GRDA SALINA 161KV 39,9066 30,9078 -0.11625 2: AEPW ELKIN GN 113,800 69KV 60 -0.31935 AEPW FLINT CREEK 161KV 39,9066 30,08778 -0.11577 2: AEPW ELKIN GN 113,800 69KV 60 -0.31935 AEPW FLINT CREEK 161KV 39,9066 30,08778 -0.11577 2: AEPW ELKIN GN 113,800 69KV 60 -0.31935 AEPW FLINT CREEK 161KV 39,9066 30,08778 -0.11577 2: AEPW ELKIN GN 113,800 69KV 60 -0.31935 AEPW FLINT CREEK 161KV 39,9066 30,08778 -0.11625 3: AEPW ELKIN GN 113,800 69KV 60 -0.31935 AEPW FLINT CREEK 161KV 39,9066 30,08778 -0.10666 3: ASBURY 161KV 2: 0.02096 GRDA KERR 161KV 39,9066 30,08778 -0.10666 3: ASBURY 161KV 2: 0.02096 GRDA KERR 161KV 39,9066 30,08778 -0.10666 3: ASBURY 161KV 2: 0.02096 GRDA KERR 161KV 39,9066 30,08778 -0.10666 3: ASBURY 161KV 2: 0.02096 GRDA KERR 161KV 39,9066 30,08778 -0.10666 3: ASBURY 161KV 39,0966 30,08778 -0.10666 3: ASBURY 161KV 39	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.28776 LEPA -0.28776 WERE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 WERE -0.28778 CELE -0.28778 WERE -0.28778 GELE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDS 138KV CHANUTE 69KV CHANUTE 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF FOLIAM SUB 115KV CITY OF JOUNTY NO. 2 SHARPE 69KV ELLIS 98KV ELK RIVER 31KS 10 S18KV STATE 15 STAT	100 166 538 33,07825 54.8 45.4 54.4 95.6 10.2 10.2 10.5 19.98 44.966 610 224 12.7 56 165.5 12.2 25.9033 32.4 440 674 674 674 675 991 225,999 991 235	-0.03197 (0.00000000000000000000000000000000000	-0.28738 -0.29136 -0.29131 -0.29215 -0.29224 -0.29224 -0.29224 -0.29235 -0.29164 -0.29235 -0.29164 -0.29236 -0.29164 -0.29237 -0.29169 -0.2917 -0.29189 -0.2917 -0.29189 -0.29189 -0.29189 -0.29189 -0.29189 -0.29189 -0.29189	122 122 123 124 125 126 127 127 128 129 129 129 129 129 129 129 129 129 129
AEPW TONTITOWN 161KV 168.12 -0.2878'EMDE RIVERTON 161KV 190.2537' -0.01986' -0.26782' 1: AEPW TONTITOWN 161KV 168.12 -0.2878'EMDE RIVERTON 69KV 43,98039' -0.26782' 1: AEPW TONTITOWN 161KV 168.12 -0.2878'EMDE STATE LINE 161KV 538 -0.02798' -0.25969' 1: AEPW TONTITOWN 161KV 168.12 -0.2878'EMDE OZARK BEACH 161KV 16.0-0.0278' -0.25969' 1: EMDE LARUSSEL 161KV 171 -0.0319'GRDA KERR 161KV 27 0.08778' -0.11975' 2: EMDE LARUSSEL 161KV 171 -0.0319'GRDA KERR 161KV 39.39085' 0.08778' -0.11975' 2: SWPA CARTHAGE 69KV 112 -0.0284'GRDA KERR 161KV 39.39085' 0.08778' -0.11625' 2: EMDE STATE LINE 161KV 72 -0.0284'GRDA KERR 161KV 39.39085' 0.08778' -0.11625' 2: EMDE STATE LINE 161KV 72 -0.0284'GRDA KERR 161KV 39.39085' 0.08778' -0.11625' 2: EMDE STATE LINE 161KV 72 -0.0284'GRDA KERR 161KV 39.39085' 0.08778' -0.11625' 2: EMDE STATE LINE 161KV 72 -0.0279'GRDA KERR 161KV 39.39085' 0.08778' -0.11577' 2: EMDE STATE LINE 161KV 72 -0.0279'GRDA KERR 161KV 39.39085' 0.08778' -0.11577' 2: EMDE STATE LINE 161KV 72 -0.0279'GRDA KERR 161KV 39.39085' 0.08778' -0.11577' 2: EMDE LARUSSEL 161KV 171 -0.0319'GRDA KERR 161KV 39.39085' 0.08778' -0.11577' 2: EMDE LARUSSEL 161KV 171 -0.0319'GRDA KERR 161KV 39.39085' 0.08778' -0.11577' 2: EMDE ASBURY 161KV 22 -0.0279'GRDA KERR 161KV 39.39085' 0.08778' -0.11577' 39. EMDE ASBURY 161KV 22 -0.0299'GRDA KERR 161KV 39.39085' 0.08778' -0.10868' 33. SWPA CARTHAGE 69KV 112 -0.0299'GRDA KERR 161KV 39.39085' 0.08778' -0.10868' 33. SWPA CARTHAGE 69KV 12 -0.0299'GRDA KERR 161KV 39.39085' 0.08778' -0.10868' 33. EMDE RIVERTON 161KV 92.74631' 0.01996'GRDA KERR 161KV 39.39085' 0.08778' -0.10868' 33. EMDE RIVERTON 161KV 92.74631' 0.01996'GRDA KERR 161KV 39.39085' 0.08778' -0.10868' 33. EMDE RIVERTON 161KV 92.74631' 0.01996'GRDA KERR 161KV 39.39085' 0.08778' -0.10764' 33. EMDE RIVERTON 161KV 92.74631' 0.01996'GRDA KERR 161KV 39.39085' 0.08778' -0.10764' 33. EMDE RIVERTON 161KV 92.74631' 0.01996'GRDA KERR 161KV 92.700998' -0.107099' 3.09999' 3.099999' 3.099999' 3.0999999' 3.09999999' 3.099999999999999	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.28776 LEPA -0.28776 WERE -0.28777 WERE -0.28778 GELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDS 138KV CHANUTE 69KV CHANUTE 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF FOLK 89KV CITY OF JOURNA SUB 115KV CITY OF JOURNA SUB 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 31KD 100 115KV ELK RIVER 31KD 100 115KV EVANGELINE 230KV STOKE 115KV	100 16: 538 3.07825 64.8 4.9 4.9 95: 10.2 16.5 19.98 4.996 6 6100 234 12.7 56 112.2 25.9033 3.32 23.929 5.5 5.9 91 223,953 11,12 235,953	-0.03197 (0.00000000000000000000000000000000000	-0.28738 -0.27759 -0.29136 -0.29131 -0.29244 -0.29215 -0.29284 -0.29265 -0.28823 -0.29164 -0.29215 -0.2935 -0.29164 -0.2935 -0.29164 -0.2935 -0.29164 -0.2936 -0.2936 -0.2936 -0.2936 -0.2936 -0.2936 -0.29372 -0.29372 -0.29372 -0.29372 -0.29372 -0.29386 -0.29068 -0.29068 -0.29068 -0.29068 -0.29068 -0.29068 -0.29068 -0.29068 -0.29076 -0.28485 -0.29276 -0.2852 -0.2852 -0.28952 -0.28952 -0.29166 -0.29016	122 121 122 122 123 124 125 126 127 127 128 129 129 129 129 120 120 120 120 120 120 120 120 120 120
AFPW	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.31936 EMDE -0.31933 EMDE -0.31933 EMDE -0.31933 EMDE -0.28776 LEPA -0.28776 WERE -0.28777 WERE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDS 138KV CHANUTE 69KV CHANUTE 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF FOLK 89KV CITY OF FOLK 89KV CITY OF FOLK 89KV CLAY CENTER JUNCTION 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 34KS EL	100 16: 538 3.07825 64.8 4.94 4.95 10.2 16.5 19.98 4.966 6 6 6100 234 12.7 55 239 30 24 25 25 25 25 25 21 21 21 21 21 21 21 21 21 21 21 21 21	-0.031974 -0.04176 -0.04176 -0.02798 -0.04176 -0.02798 -0.00365 -0.00446 -0.00466 -0.00466 -0.00466 -0.00466 -0.00466 -0.004666 -0.004666 -0.004666 -0.004666 -0.004666 -0.004666 -0.0046666 -0.00466666 -0.004666666 -0.0046666666666666666666666666666666666	-0.2873 -0.2914 -0.2883 -0.2915	122 122 123 124 125 126 127 127 128 129 129 129 129 129 129 129 129 129 129
AEPW TONTITOWN 161KV 168.12 -0.2878[EMDE OZARK BEACH 161KV 16] -0.04176 -0.24602 1.1 EMDE LARUSSEL 161KV 17] -0.03187[GRDA KERR 161KV 27] 0.70176 -0.11875 2.2 EMDE LARUSSEL 161KV 17] -0.03187[GRDA KERR 161KV 39.3963 0.06778 -0.11875 2.2 SWPA CARTHAGE 96KV 12 -0.02847[GRDA KERR 161KV 39.3963 0.06778 -0.11825 2.2 SWPA CARTHAGE 96KV 12 -0.02847[GRDA SALINA 161KV 39.3963 0.06778 -0.11825 2.2 EMDE STATE LINE 161KV 72 -0.02798[GRDA SALINA 161KV 39.3963 0.06778 -0.11825 2.2 EMDE STATE LINE 161KV 72 -0.02798[GRDA SALINA 161KV 39.3963 0.06778 -0.11827 2.2 EMDE STATE LINE 161KV 72 -0.02798[GRDA SALINA 161KV 39.3963 0.06778 -0.11827 2.2 EMDE LARUSSEL 161KV 72 -0.02798[GRDA SALINA 161KV 39.3963 0.06778 -0.11827 2.2 EMDE LARUSSEL 161KV 72 -0.02798[GRDA SALINA 161KV 39.3963 0.06778 -0.11827 2.2 EMDE LARUSSEL 161KV 171 -0.03197[GRDA KERR 161KV 27.06798 0.01172 2.2 EMDE ASBURY 161KV 2.1 -0.0294[GRDA KERR 161KV 2.7 0.07908 0.011105 3.3 EMDE ASBURY 161KV 2.1 -0.0294[GRDA SALINA 161KV 39.3963 0.06778 0.01688 3.3 EMDE ASBURY 161KV 2.1 -0.0294[GRDA SALINA 161KV 39.3963 0.06778 0.01688 3.3 EMDE ASBURY 161KV 3.2 -0.0284[GRDA KERR 161KV 39.3963 0.06778 0.01688 3.3 EMDE RIVERTON 161KV 9.2 -0.0284[GRDA KERR 161KV 39.3963 0.06778 0.01688 3.3 EMDE RIVERTON 161KV 9.2 -0.0284[GRDA KERR 161KV 39.3963 0.06778 0.01688 3.3 EMDE RIVERTON 161KV 9.2 -0.0284[GRDA KERR 161KV 39.3963 0.06778 0.01688 3.3 EMDE RIVERTON 161KV 9.2 -0.0284[GRDA KERR 161KV 39.3963 0.06778 0.01676 3.3 EMDE RIVERTON 161KV 9.2 -0.0284[GRDA KERR 161KV 39.3968] 0.06778 0.01676 3.3 EMDE RIVERTON 161KV 9.2 -0.0284[GRDA KERR 161KV 9.2 0.06778 0.01678 0.	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN GN 1 13.800 BBKV ELKIN GN 1 13.800 BBKV ELKIN GN 1 13.800 BBKV TONTTOWN 161KV	600 600 600 600 600 600 600 600 600 600	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 WERE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RAMOS 138KY CHANUTE 69KV CHANUTE 69KV CITY OF ERILE 69KV CITY OF ERILE 69KV CITY OF FOLIA 69KV CITY OF FOLIA 69KV COFFEY COUNTY NO. 2 SHARPE 69KV ELLIS 69KV ELK RIVER 346KV ELKRIVER 346KV ELLIS 69KV EVANGELINE 230KV GTWARTET 13.800 230KV HOLTON 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 69KV RICON LUB 69KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 34KV JONESBORO 161KV SOUTH SENEGGY CENTER 230KV FECHE 138KV TECHE 138KV TECHE 138KV TECHE 138KV TECHE 138KV TECHE 138KV ASBURY 161KV CARTHAGE 69KV LARUSSER HANGE 69KV LARUSSER LENKV	100 100 100 100 100 100 100 100 100 100	-0.03197 (0.00200 0.00	0.28738	122 122 123 124 125 126 127 127 128 129 129 129 129 129 129 129 129 129 129
EMDE	АЕРW АЕРW АЕРW АЕРW АЕРW АЕРW АЕРW АЕРW	ELKIN GN 1 13.800 BBKV ELKIN GN 1 13.800 BBKV ELKIN GN 1 13.800 BBKV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 WERE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KY CHANUTE 69KV CHYOTO FERILE 69KV CITY OF ERILE 69KV CITY OF ERILE 69KV CITY OF FOLIAM SUB 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELLIS 69KV ELK RIVER 346KV ELK RIVER 346KV ELLIS 69KV EVANGELINE 230KV GTONGELINE 230KV GTONGELINE 230KV GTONGELINE 230KV GTONGELINE 230KV GTONGELINE 30KV GTONGELINE 30KV HOLTON 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 230KV JEFFREY BERGY CENTER 230KV JEFFREY BERGY CENTER 230KV JEFFREY BERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JONESBORO 161KV LAWRENCE BERGY CENTER 115KV WATERLOO SUB 230KV ASBURY 161KV KABURY 161KV KABURY 161KV KABURY 161KV KIVERTON 161KV KIVERTON 161KV KIVERTON 161KV KIVERTON 161KV KIVERTON 161KV KIVERTON 161KV	100 100 100 100 100 100 100 100 100 100	-0.03197 (0.00484	0.2873 0.2914 0.2924 0.	122 122 123 124 125 126 127 127 128 129 129 129 129 129 129 129 129 129 129
SWPA CARTHAGE 69RV 12 0.02847GRDA KERR 161KV 27 0.08776 0.11625 22 22 23 23 24 24 24 24	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN GN 1 13.800 BBKV ELKIN GN 1 13.800 BBKV ELKIN GN 1 13.800 BBKV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 WERE -0.28778 EMDE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 WERE -0.28778 EMDE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KY CHANUTE 69KV CHYOTO FERILE 69KV CITY OF ERILE 69KV CITY OF FERILE 69KV CITY OF FOLK 160KY CITY OF FOLK 160KY COFFEY COUNTY NO. 2 SHARPE 69KV ELLIS 69KV ELK RIVER 346KV ELK RIVER 346KV ELLIS 69KV EVANGELINE 230KV GTONE 150KY GTOWN 150KY GTOWN 150KY GTOWN 150KY HOLTON 115KV JEFFREY ENERGY CENTER 230KV JANENCE BENEGY CENTER 115KV WATERLOD SUB 230KV ASBURY 161KV VALUS SUB 230KV ASBURY 161KV VALUS SUB 230KV ASBURY 161KV VALUS SUB 230KV VALUS SUB 230KV ASBURY 161KV VALUS SUB 250KV VALUS SUB 250	100 100 100 100 100 100 100 100 100 100	-0.03197 (-0.031	0.287382912912912912912912912912912912912912912	122 122 123 124 125 126 127 127 127 127 127 127 127 127 127 127
EMDE	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.31936 EMDE -0.31933 EMDE -0.31933 EMDE -0.31933 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 WERE -0.28778 EMPA -0.28778 EMPA -0.28778 EMPA -0.28778 EMDE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CHYO FERLE 69KV CITY OF BURLINGTON 69KV CITY OF FOLK 69KV CITY OF FOLK 69KV CITY OF FOLK 69KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 350KV GYMER 50KV EVANGELINE 230KV GYMER 50KV EVANGELINE 230KV GYMER 50KV EVANGELINE 230KV GYMER 50KV EVANGELINE 230KV GYMER 60KV EVANGELINE 230KV GYMER 60KV EVANGELINE 230KV GYMER 60KV EVANGELINE 60KV EVANGELINE 230KV GYMER 60KV EVANGELINE 230KV GYMER 60KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 60KV HUTCHINSON ENERGY CENTER 80KV HUTCHINSON ENERGY CENTER 80KV LAWRENCE SHERCY CENTER 230KV AUGUST 60KV EVANGELINE 230KV ROGEMACHER 230KV ROGEMACHER 230KV ROGEMACHER 230KV ROGEMACHER 230KV TECH 130KV TECH 150KV TECH 150KV TECH 150KV TECH 150KV RIVERTON 161KV	100 166 538 33.07825 64.8 43.4 44 95 10.2 16.5 19.8 44.996 6 6100 2344 12.7 55 142.2 23.7 244 440 63 223.923 30 24 440 63 223.923 30 24 440 63 223.923 63 65 11.2 2910.071	-0.03197 (0.00320 -0.003191 -0.003191 -0.003191 -0.003191 -0.003181 -0.004461 -0.00319	0.28783 2910 2913 2910 2913 2912 2913 2912 2913 2912 2913 2913	122 122 123 124 125 126 127 127 128 129 129 129 129 129 129 129 129 129 129
AEPW ELKIN GN I 13.800 69KV 60 0.3193/AEPW FLINT CREEK 161KV 429 0.20736 0.112 33 EMDE LARUSSEL 161KV 171 0.0219/GRDA KERR 115KV 272 0.09736 0.1105 33 EMDE ASBURY 161KV 21 0.0209/GRDA KERR 161KV 327 0.09776 0.10868 33 SWPA CARTHAGE 69KV 21 0.0209/GRDA KERR 161KV 39.39063 0.09776 0.10868 33 SWPA CARTHAGE 69KV 12 0.0209/GRDA KERR 115KV 27 0.09776 0.10756 33 EMDE RIVERTON 161KV 92.74631 0.01996/GRDA KERR 115KV 27 0.07996 0.10756 33 EMDE RIVERTON 161KV 92.74631 0.02306/GRDA SALINA 161KV 39.39063 0.09776 0.10764 33 EMDE RIVERTON 161KV 92.74631 0.02306/GRDA SALINA 161KV 39.39063 0.09776 0.10769 33 EMDE RIVERTON 161KV 22.101661 0.02306/GRDA SALINA 161KV 39.39063 0.09776 0.10763 33 EMDE RIVERTON 169KV 22.101661 0.02306/GRDA SALINA 161KV 39.39063 0.09776 0.11083 33 EMDE RIVERTON 169KV 22.01061 0.02306/GRDA SALINA 161KV 39.39063 0.09776 0.11083 33 EMDE RIVERTON 169KV 22.01061 0.02306/GRDA KERR 115KV 27 0.07908 0.10707 33 EMDE RIVERTON 169KV 22.01061 0.02306/GRDA KERR 115KV 27 0.07908 0.10707 33 EMDE RIVERTON 169KV 22.01061 0.02306/GRDA KERR 115KV 27 0.07908 0.09098 33 EMDE RIVERTON 169KV 22.01061 0.02306/GRDA KERR 115KV 27 0.07908 0.09098 33 EMDE RIVERTON 169KV 22.01061 0.02306/GRDA KERR 115KV 27 0.07908 0.09098 33 EMDE LARUSSEL 161KV 171 0.03197/GRDA GRDA KERR 115KV 27 0.07908 0.09098 33 EMDE RIVERTON 169KV 92.74631 0.0096/GRDA KERR 115KV 92.70 0.00978 0.00969 33 EMDE RIVERTON 169KV 92.74631 0.0096/GRDA KERR 115KV 92.70 0.00978 0.00969 33 EMDE RIVERTON 169KV 92.74631 0.0096/GRDA KERR 115KV 92.70 0.00978 0.00969 33 EMDE RIVERON 169KV 92.74631 0.0096/GRDA KERR 115KV 92.70 0.00978 0.00969 33 EMDE RIVERON 169KV 92.74631 0.0096/GRDA KERR 115KV 92.70 0.00978 0.00969 33 EMDE RIVERON 169KV 92.74631 0.0096/GRDA KERR 115KV 92.70 0.00978 0.00969 33 EMDE RIVERON 169KV 92.74631 0.0096/GRDA KERR 115KV 92	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31933 EMDE -0.31933 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 EMDE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 WERE -0.28778 EMDE -0.03197 GRDA -0.03197 GRDA -0.03197 GRDA	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF FOLK 69KV CITY OF FOLK 69KV CITY OF FOLK 69KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 34KV ELK RIVER 34KV ELK RIVER 34KV ELK RIVER 34KV EVANGELINE 230KV GTWARF 113.800 230KV GTWARF 230KV GTWARF 230KV GTWARF 113.800 230KV GTWARF 230KV CHANGELINE 230KV CHANG	100 166 538 3307825 64.8 43.4 44 955 10.2 16.5 19.98 44.966 60 6100 234 42.7 55 12.2 234 44.0 66.7 224 24 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	-0.03197 (0.00284 - 0.00284 - 0.00284 - 0.00284 - 0.00284 - 0.00284 - 0.00284 - 0.00284 - 0.00284 - 0.0038 - 0.0048 - 0.0038 - 0.0048 - 0.0038 - 0.0048 - 0.0038 - 0.0048 - 0.0038 - 0.0048 - 0.0038 - 0.0048 - 0.	0.2878.00 (2.2016) 0.2874.00 (2.2016) 0.2878.00 (2.2016) 0.2913 (2.2016) 0.2913 (2.2016) 0.2913 (2.2016) 0.2913 (2.2016) 0.2924 (2.2016) 0.292	122 122 123 124 125 126 127 127 128 129 129 129 129 129 129 120 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 120
EMDE	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TOMITIOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 WERE -0.28778 GELE -0.28778 WERE -0.28778 GELE -0.28778 WERE -0.28778 GELE -0.28778 WERE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 EMDE -0.03197 GRDA -0.02447 GRDA -0.024947 GRDA	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CHYO FERLE 69KV CITY OF BURLINGTON 69KV CITY OF JOURNA SUB 115KV COFFEC YOUNTY NO. 2 SHARPE 69KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 350KV GYNER 250KV EVANGELINE 250KV GYNER 250KV HOLTON 116KV HUTCHIRSON ENERGY CENTER 115KV HUTCHIRSON ENERGY CENTER 86KV HUTCHIRSON ENERGY CENTER 86KV HUTCHIRSON ENERGY CENTER 86KV HUTCHIRSON ENERGY CENTER 86KV HUTCHIRSON ENERGY CENTER 250KV JEFFREY ENERGY CENTER 250KV JEFFREY ENERGY CENTER 250KV JEFREY ENERGY CENTER 250KV JEFREY ENERGY CENTER 250KV FROEMACHER 250KV RODEMACHER 250KV RODEMACHER 250KV SKESTON 161KV SOUTH SENECA 116KV TECHE 136KV TECHE 136KV TECHE 150KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV	100 166 538 33.07825 64.8 43.64 44 95 10.2 16.5, 19.98 44.996 66 6100 234 42.7 55 12.2 25,9033 30 24 440 63 223,925 63 24 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	-0.031972 -0.031972 -0.031972 -0.023193 -0.002382	0.28783 2010 2010 2010 2010 2010 2010 2010 201	122 122 123 124 125 126 127 127 128 129 129 129 120 120 121 120 121 121 121 121 121 121
EMDE	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN GN 1 13.800 69KV ELKIN GN 1 13.800 69KV ELKIN GN 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 WERE -0.28778 EMDE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 WERE -0.28778 EMDE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KY CHANUTE 69KV CITY OF ERILE 69KV CITY OF ERILE 69KV CITY OF FERILE 69KV CITY OF FOLKA 69KV COFFEY COUNTY NO. 2 SHARPE 69KV ELLIS 69KV ELK RIVER 34KS ELK RIVER	100 100 100 100 100 100 100 100 100 100		0.287382912912912912912912912912912912912912912	122 122 123 124 125 126 127 127 127 127 127 127 127 127 127 127
EMDE	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN GN 1 13.800 69KV ELKIN GN 1 13.800 69KV ELKIN GN 1 13.800 69KV TONTTOWN 161KV TONTTOWN 161	600 600 600 600 600 600 600 600 600 600	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 WERE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 WERE -0.28778 EMDE -0.03197 GRDA -0.02947 GRDA -0.02947 GRDA -0.02947 GRDA -0.02947 GRDA -0.02947 GRDA	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RAMOS 138KY CHANUTE 69KV CHANUTE 69KV CITY OF ERILE 69KV CITY OF PERILE 69KV CITY OF FOLLA 69KV CITY OF FOLLA 69KV CITY OF FOLLA 69KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 346KV EVANGELINE 230KV GTWARE 230KV GTWARE 230KV GTWARE 230KV GTWARE 230KV GTWARE 230KV GTWARE 230KV HOLTON 115KV HOLTON 115KV HOLTON 115KV HOLTON 115KV HOLTON 115KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 115KV KURLEN 161KV SOUTH SENEGY CENTER 230KV TECHE 138KV KERR 161KV	100 100 100 100 100 100 100 100 100 100		0.2878.2879.2914.0.2904.0.2905.0.2914.0.2905.0.2914.0.2905.0.2914	122 122 123 124 125 126 127 127 127 127 127 127 127 127 127 127
EMDE	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN GN 1 13.800 69KV ELKIN GN 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.28778 WERE -0.28778 EMDE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDS 138KV CHANUTE 69KV CITY OF BURLINGTON 69KV CITY OF FRIE 69KV CITY OF FRIE 69KV CITY OF FRIE 70KT 161KV COFFEY COUNTY NO. 25 HARPE 69KV ELK RIVER 39KW ELK RIVER 39KW ELK RIVER 39KW ELK RIVER 39KW GFEVAN BEACH 20KW GFEVAN BEACH 20KW GFEVAN 22 000 138KV GFEVAN 22 000 138KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 39KV HUTCHINSON ENERGY CENTER 30KV HUTCHINSON ENERGY CENTER 30KV HUTCHINSON ENERGY CENTER 30KV HUTCHINSON ENERGY CENTER 30KV FEFREY ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 15KV FERRO 161KV SOUTH SENECA 116KV KERR 161KV	100 100 100 100 100 100 100 100 100 100	-0.03197	0.28783 20 20 20 20 20 20 20 20 20 20 20 20 20	122 122 123 124 125 126 127 127 127 127 127 127 127 127 127 127
EMDE	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.28778 WERE -0.28778 EMDE -0.28778 EMDE -0.28778 EMDE -0.28778 EMDE -0.28778 EMDE -0.28778 WERE -0.28778 GELLE -0.28778 WERE -0.28778 EMDE -0.28778 GRDA -0.02947 GRDA -0.02949 GRDA -0.02947 GRDA -0.02947 GRDA -0.02947 GRDA	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CHYO FERLE 69KV CITY OF FERLE 69KV CITY OF FERLE 69KV CITY OF FILOLAND SUB 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 356KV EVANGELINE 230KV GTWARTET 13.800 230KV JEFFREY ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 346KV JONESBORD 161KV JEFFREY ENERGY CENTER 346KV JONESBORD 161KV JONESBORD 161KV LAWRENGE BERKY CENTER 346KV SKESTON 116KF 230KV SKIESTON 116KF 230KV SKIESTON 116KF 230KV SKIESTON 116KF 230KV SKIESTON 116KF 230KV TECHMESH ENERGY CENTER 115KV WATERLO SUBE 230KV TECHMESH 161KV SALINA 161KV RIVERTON 98KV STATE LINE 161KV SALINA 161KV SALINA 161KV KERR 115KV	100 166 538 33.07825 54.8 44.9 44 95. 10.2 16.5.5 19.98 44.986 66 6101 2344 12.7 55. 12.2 23.3 30.0 24.4 44.0 63.3 22.3929 5.5.5 23.2 291.073 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2		0.28783 2910 2910 2910 2910 2910 2910 2910 2910	122 122 123 124 125 126 127 127 128 129 129 129 120 120 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 120
EMDE	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.31935 EMDE -0.28778 WERE -0.28778 EMDE -0.28778 WERE -0.28778 EMDE -0.28778 WERE -0.28778 WERE -0.28778 EMDE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CHYO FERLE 69KV CITY OF BURLINGTON 69KV CITY OF JED 161KV CITY OF JED 161KV CITY OF JED 161KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 346KV ELK RIVER 350KV GOFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 350KV GOFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 350KV GOFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 350KV GOFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 350KV GOFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 350KV GOFFEY COUNTY NO. 3 SHARPE 69KV HOLTON 115KV HOLTON 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 350KV JONESBORO 161KV LUTRENDE ENERGY CENTER 350KV JONESBORO 161KV LUTRENDE ENERGY CENTER 350KV SAGUTH 56NECA 115KV TECH 138KV TECH 158KV TECH 158KV TECH 158KV TECH 158KV TECH 158KV TECH 158KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV KERR 161KV SALINA 161KV	100 166 538 33.07825 54.8 45.8 45.8 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2		0.28789 0.2913 0.29216 0.2936 0.2936 0.2936 0.2936 0.2936 0.2937	122 122 123 124 125 126 127 127 128 129 129 129 129 129 129 120 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 120
EMDE	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV ELKIN, GM 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 EMDE -0.28778 EMDE -0.28778 EMDE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 WERE -0.28778 EMDE -0.28778 GRDA -0.02947 GRDA	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CHYO FERLE 69KV CITY OF BURLINGTON 69KV CITY OF FERLE 69KV CITY OF FOLKA 69KV CITY OF FILE 69KV ELK RIVER 39KV ELK RIVER 39KV ELK RIVER 39KV ELK RIVER 39KV EVANGELINE 230KV GYORGELINE 230KV GYORGELINE 230KV GYEVAN 220 OT 138KV HOLTON 115KV HOLTON 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 39KV JUFFEREY ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 15KV NOEMACHER 236KV SIKESTON 161KV SERE 161KV RERE 161KV SALINA 161KV KERR 161KV	100 166 538 33.07825 54.8 44.9 44 95. 10.2 16.5, 19.98 44.986 66 6101 2344 12.7 55. 12.2 23.3 30.0 24.4 44.0 63.3 22.3 92.0 12.2 12.3 12.3 13.0 14.3 15.5 16.5 16.5 17.5 18.5 19.5 19.5 19.5 19.5 19.5 19.5 19.5 19	-0.03197	0.28789 0.2913 0.2924 0.2913 0.2924 0.2936 0.2936 0.2936 0.2936 0.2924 0.2937 0.2924 0.2937 0.2924 0.2937 0.2924 0.2937 0	122 122 123 124 125 126 127 127 128 129 129 129 120 120 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 120
EMDE RIVERTON 1616V 92.74631 0.01986]GRDA KERR 115KV 27 0.07908 0.09894 3- AEPW ELLIS 69KV 20 -0.09896]GRDA KERR 161KV 27 0.08798 -0.09674 33 AEPW ELLIS 69KV 20 -0.00896]GRDA SALINA 161KV 39.30963 0.06778 -0.09674 33 SWPA CARTHAGE 69KV 12 -0.02347/GRDA GRDA 1161KV 190 0.06683 -0.09532 38 EMDE ISTATE LINE 161KV 72 -0.02739/GRDA GRDA 1161KV 190 0.06683 -0.09484 33	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN GN 1 13.800 69KV ELKIN GN 1 13.800 69KV TONTTOWN 161KV TONTT	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.28778 WERE -0.28778 EMDE -0.03197 GRDA -0.0309 GRDA -0.00309 GRDA	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDS 138KV CHANUTE 69KV CHANUTE 69KV CITY OF BERINGTON 169KV CITY OF FRIE 69KV CITY OF FOLIAM SUB 115KV CITY OF FOLIAM SUB 115KV CITY OF FOLIAM SUB 115KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 39KV ELVANGELINE 230KV GTEVAN 22 000 139KV HOTCHINSON ENERGY CENTER 115KV HOTCHINSON ENERGY CENTER 115KV HOTCHINSON ENERGY CENTER 39KV HOTCHINSON ENERGY CENTER 39KV USEFFEEY ENERGY CENTER 230KV JEFFEEY ENERGY CENTER 39KV KROD SUB 69KV LAWRENCE ENERGY CENTER 230KV JEFFEEY ENERGY CENTER 230KV JEFFEEY ENERGY CENTER 30KV SIEFFEEY SHERGY CENTER 30KV JEFFEEY ENERGY CENTER 30KV JEFFEEY ENERGY CENTER 30KV JEFFEEY ENERGY CENTER 30KV JONESBORD 61KV LAWRENCE ENERGY CENTER 15KV TECHE 138KV TECHE 138KV SOUTH SENECA 115KV TECHE 15KV TECHE 15KV KERR 115KV	100 166 538 33.07825 54.8 4.9 4.4 9.6 10.2 16.5 19.8 44.996 6 6 6 6 10.2 234 12.7 6 6 6 6 10.2 234 244 244 440 67 7 11.2 257,9033 6 10.2 200 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10	-0.031973 0.003478 0.0035 0.004478 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.0035 0.004378 0.004378 0.004378 0.004378 0.0043	0.28783 29 29 29 29 29 29 29 29 29 29 29 29 29	122 122 123 124 125 126 127 127 128 129 129 129 120 120 121 121 121 121 121 121 121 121
AEFW ELLIS 69KV 20 0.096GRDA SALINA 161KV 39.30963 0.09778 0.09674 33 SWPA CARTHAGE 69KV 12 -0.02947 GRDA GRDA1 161KV 190 0.06682 -0.09532 34 EMDE STATE LINE 161KV 72 -0.0279GRDA GRDA1 161KV 190 0.06685 -0.09484 33	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN GN 1 13.800 69KV ELKIN GN 1 13.800 69KV TONTTOWN 161KV TONTT	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.28778 WERE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 WERE -0.28778 EMDE -0.02396 GRDA	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDS 138KV CHANUTE 69KV CHANUTE 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF FOLK 69KV ELLIS 69KV ELK RIVER 30KV ELK 71KF 23KV EVANSELINE 23KV GTEVAN 22 100 136KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 19KV HUTCHINSON ENERGY CENTER 29KV JEFFREY ENERGY CENTER 29KV JEFFREY ENERGY CENTER 29KV JEFFREY ENERGY CENTER 20KV JEFFREY ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 20KV JEFFREY ENERGY CENTER 15KV TECHE 138KV TECHE 136KV TECHE 136KV TECHE 15KV ASBURY 161KV ASBURY 161KV ASBURY 161KV SALINA 161KV KERR 161KV SALINA 161KV KERR 116KV	100 16: 538 33.07825 64.8 43.4 44.4 44.96 10.2 16.5.5 19.98 44.996 6 6 10.2 234 234 24.7 55.7 55.7 25.9 25.9 25.9 26.7 27.7 39.30963 27.7 27.7 27.7 39.30963 20.55 25.8 25.9 26.7 27.7 27.7 39.30963 27.7 27.7 39.30963 27.7 27.7 39.30963 27.7 27.7 39.30963 27.7 27.7 39.30963 27.7 27.7 39.30963 27.7 27.7 39.30963 27.7 27.7 39.30963 27.7 27.7 39.30963 27.7 39.30963 27.7 39.30963 27.7 39.30963 27.7 39.30963 27.7 39.30963	-0.031972 -0.031972 -0.04176 -0.021972 -0.00246 -0.	0.28788 2016 10 2892 2016 10 2892 20 2	122 122 123 124 125 126 127 127 128 129 129 129 129 129 129 121 129 129 129
SWPA CARTHAGE 696V 12 -0.0287/GRDA GRDA1 161KV 190 -0.0688 -0.09532 31 EMDE STATE LINE 161KV 72 -0.0279/GRDA GRDA1 161KV 190 -0.0688 -0.09532 33	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN GN 1 13.800 69KV ELKIN GN 1 13.800 69KV TONTTOWN 161KV TONTT	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.28778 WERE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 CELE -0.28778 WERE -0.28778 EMDE	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDS 138KV CHANUTE 69KV CHANUTE 69KV CITY OF BURLINGTON 69KV CITY OF BURLINGTON 69KV CITY OF FOLK 69KV ELLIS 69KV ELK RIVER 35K 50 136KV GOORDER 236KV GOORDER 236KV GOORDER 236KV GOORDER 236KV GOORDER 236KV GOORDER 236KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 69KV RICH 15 15KV HUTCHINSON ENERGY CENTER 236KV JONESBORD 61KV LEFFREY ENERGY CENTER 236KV JONESBORD 61KV LAWRENCE ENERGY CENTER 236KV SOUTH SENERGY CENTER 35KV AND 15KK 50K 50K 50K 50K 50K 50K 50K 50K 50K	100 16: 538 33.07825 64.8 4.9 65.4 10.2 16.5 19.8 16.5 19.8 44.96 6 6 610 234 42.7 85 112.2 25.7 85 12.2 26.2 85 12.2 26.2 85 12.2 27.2 85 12	-0.03197	0.28789 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29162 0.29164 0.2916	122 122 123 124 125 126 127 127 128 129 129 129 129 129 129 121 129 129 120 121 120 121 121 121 121 121 121 121
1	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN GN 1 13.800 69KV ELKIN GN 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 WERE -0.28778 GELE -0.28778 WERE -0.28778 GELE -0.28778 WERE -0.28778 EMDE -0.28778 GEDA -0.03197 GRDA -0.03197 GRDA -0.02994 GRDA -0.02995 GRDA -0.02996 GRDA	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV BAYOU RANDOS 138KV CHANUTE 69KV CHYO FERLE 69KV CITY OF FERLE 69KV CITY OF FERLE 69KV CITY OF FILM 50KV CITY OF FILM 50KV CITY OF FILM 50KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 39KV ELK RIVER 39KV ELK RIVER 39KV EVANGELINE 230KV GYONGELINE 230KV GYONGELINE 230KV GYONGELINE 230KV GYEVAN 220 OR 138KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 39KV JUFFREY ENERGY ENTER 39KV JUFFREY ENERGY ENTER 39KV JUFFREY ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 15KV VANERGY ENERGY ENERGY ENERGY 15KV VANERGY ENERGY ENERGY ENERGY 15KV VANERGY ENERGY ENER	100 166 538 33.07825 54.8 4.9 4.4 9.5 10.2 16.5 19.8 44.98 6 6 6 6101 234 12.7 55 12.2 257 931 30.071 12.2 291 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.	-0.03197	0.2878 9 2978 9 2078 9 2078 9 2078 9 2078 9 2078 9 2078 9 2078 9 2078 9 2078 9 2078 9	122 122 123 124 125 126 127 127 128 129 129 129 120 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 121 120 120
	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	ELKIN GN 1 13.800 69KV ELKIN GN 1 13.800 69KV TONTTOWN 161KV	60 60 60 60 60 60 60 60 60 60 60 60 60 6	-0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.31936 EMDE -0.28778 LEPA -0.28778 WERE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 GELE -0.28778 WERE -0	LARUSSEL 161KV OZARK BEACH 161KV STATE LINE 161KV BAYOU RANDS 138KV CHANUTE 69KV CITY OF BURLINGTON 99KV CITY OF ERIE 69KV CITY OF FOLKA 69KV CITY OF FOLKA 69KV CITY OF FOLKA 69KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 31KD 100 NT 15KV COFFEY COUNTY NO. 2 SHARPE 69KV ELK RIVER 31KD 100 NT 15KV EVANGELINE 230KV GYONGELINE 230KV GYONGELINE 230KV GYEVAN 220 OT 138KV HOLTON 115KV HOLTON 115KV HUTCHINSON ENERGY CENTER 115KV HUTCHINSON ENERGY CENTER 36KV JUFFEREY ENERGY ENTER 346KV JUFFEREY ENERGY CENTER 346KV JUFFEREY ENERGY CENTER 15KV HUTCHINSON ENERGY CENTER 15KV WASHALOUS US 230KV ACRUSSEL 161KV KERR 161KV SALINA 161KV SALINA 161KV KERR 161KV SALINA 161KV KERR 115KV KERR 115K	100 166 538 33.07825 54.8 4.9 4.4 9.5 10.2 16.5 19.8 14.986 6 6 10.0 23.4 12.7 55.6 12.2 25.7 0.03 30 24.4 44.0 63 22.3 9.9 25.7 26.5 10.5 10.5 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7	-0.03197	0.28789 0.2914 0.2902 0.2914 0.2915 0.2914 0.2915 0.2914 0.2915 0	122 122 123 124 125 126 127 128 129 129 129 120 120 121 120 121 120 121 121 121 122 122

Color Colo									
Column	SWPA SWPA		29	-0.00264 GRDA			0.08778	-0.09042	3
Column									3
Color Colo	SWPA	MALDEN 69KV	17	-0.00258 GRDA	KERR 161KV	27	0.08778	-0.09036	3
Column	SWPA	POPLAR BLUFF 69KV	32	-0.00407 GRDA	KERR 161KV	27	0.08778	-0.09185	3
Color									3
Column		RIVERTON 69KV	22.01061	-0.02305 GRDA		190	0.06685		3
Color	WERE	CITY OF IOLA 69KV	27.428	0.00105 GRDA	KERR 161KV	27	0.08778	-0.08673	3
Column	WERE EMDE								3
Company									3 4
Column	CELE	ACADIA 138KV	1322	0.00396 GRDA	SALINA 161KV	39.30963	0.08778	-0.08382	4
Color Colo		BAYOU RAMOS 138KV BAYOU RAMOS 138KV			KERR 161KV SALINA 161KV				4
Company Comp	WERE								4
Property	WERE	EMPORIA ENERGY CENTER 345KV	201	0.00364 GRDA	KERR 161KV	27	0.08778	-0.08414	4
A	LEPA				KERR 161KV				4
Color									4
STATES S	WERE	JEFFREY ENERGY CENTER 230KV	54	0.0029 GRDA	SALINA 161KV	39.30963	0.08778	-0.08488	4
Color	WERE	JEFFREY ENERGY CENTER 345KV	108	0.00292 GRDA	SALINA 161KV	39.30963	0.08778	-0.08486	4
The column									4
The part 1.00 1.0		TECHE 138KV				27			4
Company Comp	CELE	TECHE 34KV		0.00378 GRDA	KERR 161KV	27	0.08778	-0.084	4
Manufact Hardware Hardware	WERE		23 28						4
Control Cont	WERE	TECUMSEH ENERGY CENTER 115KV		0.00238 GRDA	SALINA 161KV	39.30963	0.08778	-0.0854	4
March Marc	WERE	TECUMSEH ENERGY CENTER 69KV		0.0024 GRDA	SALINA 161KV	39.30963	0.08778	-0.08538	4
Column	WERE								4
Comparison	WERE	BPU - CITY OF MCPHERSON 115KV	232	0.00548 GRDA	KERR 161KV	27	0.08778	-0.0823	4
Color Of The Bill (1997) Color C	WERE	CHANUTE 69KV	41.1	0.00446 GRDA	KERR 161KV	27	0.08778	-0.08332	4
Color	WERE WERE	CITY OF ERIE 69KV	22.53	0.00446 GRDA	KERR 161KV		0.08778	-0.08332	4
Cold	WERE	CITY OF ERIE 69KV		0.00446 GRDA	SALINA 161KV	39.30963	0.08778	-0.08332	4
Comparing process 10 Comparing process	CELE	D.G. HUNTER POWER STATION 138KV	125.1	0.00482 GRDA	SALINA 161KV	39.30963	0.08778	-0.08296	4
CELE OCEAN DESCRIPTION									4
Common	CELE	G6EVAN 13.800 138KV	114	0.00439 GRDA	KERR 161KV	27	0.08778	-0.08339	4
WARD WITCHISCON DERENT (1807) 160,000 00000 160,000 16	CELE	G7EVAN 22.000 138KV	33.00002	0.00439 GRDA	KERR 161KV	27	0.08778	-0.08339	4
CORPORNING MICHIEF 1807 1909 1000									4
SEARCH S	WERE SWPA	HUTCHINSON ENERGY CENTER 115KV							4
Color	SWPA	KENNETT 69KV	29	-0.00264 GRDA	KERR 115KV		0.07908	-0.08172	4
SOMPA POPLAR BLUFF 60KV 22 COMPS						27			4
FIREDER PROPERTON SERVEY 2,51000 0,0000									4
CELE SOCKEMACHER 2004 190 0.0006 GRAPA 190 190 CONSIGNADA 190 CONS	EMDE	RIVERTON 69KV	22.01061	-0.02305 GRDA	GRDA1 345KV	203.0309	0.05962	-0.08267	4
WARE GETTY GROV	CELE		196	0.00498 GRDA					4
WEER GETTY NEW 33 00 00070 (PRIDA SALINA 1916V 39.0005 0.08778 0.08078									4
WEER GILL NERROY CENTR RISKY M. 99990 ODF-GRADA SALANA SINV 93.000 ODF-T-Q - O.0000 OFF-T-Q - O.0000 OFF-T-Q - O.0000 OTF-T-Q	WERE	GETTY 69KV	35	0.00705 GRDA	SALINA 161KV	39.30963	0.08778	-0.08073	4
OURSE OLL BERGOY CENTER 680Y	WERE	GILL ENERGY CENTER 138KV		0.00748 GRDA	SALINA 161KV				4
ENDER									4
WEER MACO 1386V 30 0.00776 GRDA RERR 1616V 27 0.00776 0.00071 0.00	EMDE	LARUSSEL 161KV	171	-0.03197 GRDA	PENSACOLA 69KV	33	0.04787	-0.07984	4
AFPWIND ARSENAL HELL 1386V 3372 0.0098/GRDA RESR 1616V 27 0.06774 0.07642 4.07	WERE	WACO 138KV	30	0.00747 GRDA	KERR 161KV	27	0.08778		4
AEPW ARSENAL HILL 138KV 337 2 0.00994 GRDA SALMA 161KV 29.20903 0.0778 0.0780 0				0.00747 GRDA 0.00936 GRDA					4
AEPW	AEPW							-0.08031	
AEPW LIEBERMAN 138KV		ARSENAL HILL 138KV	337.2		SALINA 161KV	27 39.30963	0.08778	-0.08031 -0.07842 -0.07842	4
AEPW		CITY OF IOLA 69KV FULTON 115KV	337.2 27.428 153	0.00105 GRDA 0.0087 GRDA	SALINA 161KV KERR 115KV KERR 161KV	27 39.30963 27 27	0.08778 0.08778 0.07908 0.08778	-0.08031 -0.07842 -0.07842 -0.07803 -0.07908	4 4
AEPW	AEPW AEPW AEPW	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV	337.2 27.428 153 153	0.00105 GRDA 0.0087 GRDA 0.0087 GRDA	SALINA 161KV KERR 115KV KERR 161KV SALINA 161KV	27 39.30963 27 27 39.30963	0.08778 0.08778 0.07908 0.08778 0.08778	-0.08031 -0.07842 -0.07842 -0.07803 -0.07908 -0.07908	4
WERE JEFFREY ENREGY CENTER 230KV 108 0.00236 GRDA KERR 115KV 27 0.07908 0.07616 0.00236 GRDA KERR 115KV 27 0.07908 0.07616 0.07616 0.00236 GRDA KERR 115KV 27 0.07908 0.07616	AEPW AEPW AEPW	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV	337.2 27.428 153 153 45.9999 45.9999	0.00105 GRDA 0.0087 GRDA 0.0087 GRDA 0.00954 GRDA 0.00954 GRDA	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV	27 39.3063 27 27 27 39.3063 27 39.30963	0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778	-0.08031 -0.07842 -0.07842 -0.07803 -0.07908 -0.07908 -0.07824 -0.07824	4 4 4 4 4 4
	AEPW AEPW AEPW EMDE AEPW	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV RIVERTON 161KV EASTMAN 138KV	337.2 27.428 153 153 45.99999 45.99999 92.74631 327.461	0.00105 GRDA 0.0087 GRDA 0.0087 GRDA 0.00954 GRDA 0.00954 GRDA -0.01986 GRDA 0.01033 GRDA	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 246KV KERR 161KV	27 39.3063 27 27 39.3063 27 39.3063 203.3099 27	0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778 0.05962 0.08778	-0.08031 -0.07842 -0.07842 -0.07803 -0.07908 -0.07908 -0.07824 -0.07824 -0.07948	4 4 4 4 4 4 4 4
APPW NOVLEE 138V 119 0.01028 GRDA SALINA 161KV 39.3985 0.09776 0.077762 4.079762	AEPW AEPW AEPW EMDE AEPW AEPW WERE	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERHAN 138KV RIVERTON 151KV EASTMAN 138KV LEASTMAN 138KV JEFFREY EMERGY CENTER 230KV	337.2 27.428 153 153 45.9999 45.9999 92.74631 327.461	0.00105 GRDA 0.0087 GRDA 0.0087 GRDA 0.00954 GRDA 0.00954 GRDA 0.01986 GRDA 0.01033 GRDA 0.01033 GRDA 0.01033 GRDA	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV KERR 161KV KERR 115KV	27 39.39963 27 27 39.3963 27 39.3963 203.0909 27 39.3963 203.9993	0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778 0.05962 0.08778 0.08778 0.07908	-0.08031 -0.07842 -0.07843 -0.07908 -0.07908 -0.07908 -0.07824 -0.07824 -0.07948 -0.07745 -0.07618	4 4 4 4 4 4 4 4 4
AEPW LEBROCK 346KV 329,8837 0.01031 GRDA KERR 161KV 9.2 0.6877 0.07747 4.0	AEPW AEPW AEPW EMDE AEPW AEPW WERE WERE	CITY OF IOLA 66KV FULTON 116KV FULTON 116KV FULTON 116KV LIEBERMAN 138KV LIEBERMAN 138KV RIVERTON 161KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 346KV	337.2 27.428 1533 153 45.9999 45.9999 92.74631 327.461 54 168	0.00105 GRDA 0.0087 GRDA 0.0087 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.01033 GRDA 0.01033 GRDA 0.0029 GRDA 0.0029 GRDA	SALINA 161KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV KERR 161KV KERR 161KV KERR 151KV KERR 115KV KERR 115KV	27 39.3963 27 27 39.3963 39.3963 29.3939 203.03039 27 39.3963 29.3953 27 27	0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778 0.05962 0.08778 0.08778 0.07908 0.07908	-0.08031 -0.07842 -0.07843 -0.07908 -0.07908 -0.07824 -0.07824 -0.07745 -0.07745 -0.07618	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
AEPW LEBROCK 345KV 329.837 01031 GRDA SALINA 161KV 39.30963 0.08778 0.07747 0.07067 0.07067 0.07067 0.07067 0.07067 0.07067 0.07067 0.07067 0.07067 0.07068 0.07067 0.07068 0.07067 0.07068 0.07067 0.07068 0.07067 0.07068 0.07067 0.07068 0.07068 0.07067 0.07068 0.07067 0.07068 0.07067 0.07068 0.07067 0.07068 0.07071 0.07068 0.07071 0.07068 0.07071 0.07068 0.07068 0.08778 0.07071 0.07078 0.0708	AEPW AEPW AEPW EMDE AEPW AEPW WERE WERE AEPW AEPW AEPW AEPW AEPW	CITY OF IOLA 66KV FULTON 116KV FULTON 116KV FULTON 116KV LIEBERMAN 138KV LIEBERMAN 138KV RIVERTON 161KV EASTMAN 138KV EASTMAN 13	337.2 27.428 163 163 45.9999 45.9999 92.74631 327.461 54 108 119	0.00105 GRDA 0.0087 GRDA 0.0087 GRDA 0.0087 GRDA 0.00954 GRDA 0.00954 GRDA 0.01033 GRDA 0.01033 GRDA 0.01033 GRDA 0.0029 GRDA 0.0029 GRDA 0.01026 GRDA	SALINA 161KV KERR 151KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV KERR 161KV KERR 161KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV	27 30.3963 27 27 27 33.3963 27 33.3963 20.3039 27 39.3963 27 27 27 27 27 29 39.3963	0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778 0.05962 0.08778 0.07908 0.07908 0.07908 0.08778	-0.08031 -0.07842 -0.07842 -0.07803 -0.07908 -0.07908 -0.07824 -0.07824 -0.07745 -0.07745 -0.07618 -0.07752 -0.07752	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
WERE TECUMSEH ENERGY CENTER 09KV	AEPW AEPW AEPW EMDE AEPW WERE AEPW WERE WERE AEPW WERE AEPW WERE AEPW WERE AEPW WERE AEPW WERE	CITY OF IOLA 66KV FULTON 116KV FULTON 116KV FULTON 116KV LIEBERMAN 138KV LIEBERMAN 138KV RIVERTON 161KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 246KV KNOXLE 138KV KNOXLE 138KV KNOXLE 136KV LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	337.2 27.428 153 153 45.99999 45.99999 92.74631 327.461 54 108 119 45.00714 329.887	0.00105 GRDA 0.0087 GRDA 0.0087 GRDA 0.0087 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.01033 GRDA 0.01033 GRDA 0.0029 GRDA 0.0029 GRDA 0.01026 GRDA 0.01026 GRDA 0.01026 GRDA 0.01026 GRDA	SALINA 161KV KERR 151KV KERR 151KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV KERR 161KV KERR 151KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 115KV	27 30.3963 27 27 27 33.3963 27 33.3963 20.30393 27 39.3963 27 27 27 27 27 27 27 27 27 27 27 27 27	0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.09790 0.08778 0.07908 0.08778 0.07908	-0.08031 -0.07842 -0.07843 -0.07908 -0.07908 -0.07908 -0.07924 -0.07745 -0.07745 -0.07618 -0.07752 -0.07752 -0.07752	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
AEPW WERE ABILENE ENREGY CENTER 115KV 52.134Z 0.01082 GRDA SALINA 151KV 39.3063 0.06778 0.0771 6 CELE ACADIA 138KV 160.0042 GRDA KERR 115KV 270.0798 0.07578 0.0778 1 CELE ACADIA 138KV 1322 0.00363 GRDA KERR 115KV 270.0798 0.07512 6 LEPA BAYOU RAMOS 138KV 24.24.27 0.00363 GRDA KERR 115KV 270.0798 0.07555 6 WERE CHANUTE 69KV 41.1 0.00446 GRDA KERR 115KV 270.0798 0.07555 6 WERE CHANUTE 69KV 22.53 0.00446 GRDA KERR 115KV 270.0798 0.07642 6 WERE CHANUTE 69KV 22.53 0.00446 GRDA KERR 115KV 270.0798 0.07642 6 WERE CHYOT 6 FRIE 69KV 22.53 0.00446 GRDA KERR 115KV 270.0798 0.07642 6 AEPW ELLIS 69KV 20.00066 GRDA KERR 115KV 190 0.06685 0.07581 6 AEPW ELLIS 69KV 20.00066 GRDA KERR 115KV 190 0.06685 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.06685 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.06685 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.06685 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.06685 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.06685 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 GRDA KERR 115KV 190 0.00066 0.07581 6 AEPW ELLIS 69KV 190 0.00066 0.00066 GRDA KERR 115KV 190 0.00066 0.000	AEPW AEPW EMDE AEPW EMDE AEPW WERE AEPW WERE WERE AEPW WERE AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERNAN 138KV LIEBERNAN 138KV LIEBERNAN 138KV RÜVERTON 161KV EASTMAN 136KV EASTMAN 136KV EASTMAN 136KV JEFFREY BENEGY CENTER 230KV JEFFREY BENEGY CENTER 345KV KNOXLEE 138KV LENOXLE 138KV LAWRENCE BENEGY CENTER 230KV LEBROCK 345KV LEBROCK 345KV	337.2 27.428 153 153 45.9999 92.74631 37.461 37.461 108 119 119 45.00714 329.8837 329.8837	0.00105 GRDA 0.0087 GRDA 0.0087 GRDA 0.0087 GRDA 0.00854 GRDA 0.00954 GRDA 0.00954 GRDA 0.01033 GRDA 0.01033 GRDA 0.0029 GRDA 0.0029 GRDA 0.0029 GRDA 0.01033 GRDA 0.0029 GRDA 0.01036 GRDA 0.01036 GRDA 0.01036 GRDA 0.01036 GRDA 0.01037 GRDA	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	27 39.3963 27 27 39.3963 27 39.3963 203.0309 27 39.3963 27 27 27 27 39.3963 27 27 27 27 27 27 27 39.3963	0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.07908 0.08778 0.07908 0.08778 0.08778 0.08778	-0.08031 -0.07842 -0.07843 -0.07908 -0.07908 -0.07908 -0.07824 -0.07824 -0.07745 -0.07745 -0.077616 -0.07752 -0.077704 -0.077747 -0.077747	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
WERE	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 136KV EASTMAN 136KV JEFREY BERGY CENTER 230KV JEFREY ENERGY CENTER 345KV KNOXLEE 138KV LEGOOK 345KV LEBROCK 345KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV	337.2 27.428 153 153 153 45.99999 45.99999 92.74631 327.461 108 119 119 45.00714 329.8837 329.8837	0.0016/GRDA 0.0087/GRDA 0.0087/GRDA 0.0087/GRDA 0.00954/GRDA 0.00954/GRDA 0.00954/GRDA 0.01938/GRDA 0.01033/GRDA 0.01033/GRDA 0.01033/GRDA 0.00282/GRDA 0.00282/GRDA 0.01033/GRDA 0.01033/GRDA 0.01034/GRDA 0.01034/GRDA 0.01034/GRDA 0.01034/GRDA 0.01034/GRDA	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	27 39.3993 27 27 39.3993 27 39.3093 203.0399 27 27 39.3993 27 27 39.3993 27 27 27 27 27 27 27 27 27 27 27 27 27	0.08778 0.08778 0.08798 0.08778 0.08778 0.08778 0.08778 0.05962 0.08778 0.07908 0.07908 0.07908 0.08778 0.08778 0.08778 0.08778	-0.08031 -0.07842 -0.07843 -0.07908 -0.07908 -0.07924 -0.07824 -0.07745 -0.077616 -0.07752 -0.077747 -0.077747 -0.077747 -0.077747 -0.07767 -0.07767	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
LEPA	AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEPW	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTAMA 138KV EASTAMA 138KV EASTAMA 138KV EASTAMA 138KV LEASTAMA 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV KNOXLEE 138KV KNOXLEE 136KV LEBROCK 345KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 115KV TITECUMSEH ENERGY CENTER 69KV WILKES 138KV WILKES 138KV	337.2 27.428 153 153 153 45.99999 45.99999 92.74631 327.461 1327.461 108 119 119 45.00714 329.8837 28 41 52.13342 62.13342	0.0016 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.01988 GRDA 0.01033 GRDA 0.01033 GRDA 0.01033 GRDA 0.01033 GRDA 0.0029 GRDA 0.0029 GRDA 0.01028 GRDA 0.01028 GRDA 0.01038 GRDA 0.0038 GRDA 0.0038 GRDA 0.0038 GRDA 0.0038 GRDA 0.0038 GRDA	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	27 39.39963 27 27 39.39963 27 39.39963 203.03096 27 39.30963 27 27 27 27 27 27 27 27 27 27	0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.05962 0.08778 0.07908 0.07908 0.08778 0.07908 0.08778 0.07908 0.08778 0.07908 0.08778 0.07908 0.08778 0.07908	-0.08031 -0.07842 -0.07842 -0.07803 -0.07908 -0.07908 -0.07824 -0.07745 -0.07745 -0.077616 -0.077616 -0.07762 -0.07774 -0.07767 -0.07767 -0.077668 -0.077668 -0.077668 -0.07771 -0.07771 -0.07771	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
WERE	AEPW AEPW EMDE AEPW EMDE AEPW WERE AEPW WERE AEPW AEPW WERE WERE WERE AEPW WERE AEPW AEPW AEPW AEPW AEPW WERE AEPW WERE	CITY OF IOLA 66KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV LEBACK 34KV KNOXLE 138KV KNOXLE 138KV LAWRENCE ENERGY CENTER 230KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 115KV WILKE 138KV	337.2 27.428 27.428 1533 45.99999 45.99999 92.74631 327.461 54 108 119 45.00714 329.8837 28.8837 28.84 41 52.13442 52.13342 66.66	0.0016 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.01998 GRDA 0.011033 GRDA 0.011033 GRDA 0.01033 GRDA 0.00222 GRDA 0.01028 GRDA 0.01028 GRDA 0.01028 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.00238 GRDA 0.00248 GRDA 0.00248 GRDA 0.00248 GRDA 0.00248 GRDA 0.00248 GRDA 0.00248 GRDA 0.0028 GRDA 0.0028 GRDA 0.0028 GRDA	SALINA 161KV KERR 151KV KERR 151KV SALINA 161KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV KERR 115KV	27 30.3963 27 27 27 33.3963 20.30963 20.30963 27 27 27 27 27 39.3963 29.3963 27 27 27 27 27 27 27 27 39.3963 27 27 27 27 27 39.3963	0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.07908 0.07908 0.07908	-0.08031 -0.07842 -0.07842 -0.07803 -0.07908 -0.07908 -0.07908 -0.07624 -0.07745 -0.07745 -0.077618 -0.07762 -0.07767 -0.07767 -0.07767 -0.07767 -0.07668 -0.077747 -0.077747 -0.077747 -0.07767 -0.07668 -0.07668 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
WERE EMPORIA ENERGY CENTER 345KV 201 0.00364GRDA KERR 115KV 27 0.07908 -0.07544 4	AEPW AEPW EMDE AEPW EMDE AEPW WERE AEPW WERE AEPW AEPW WERE WERE AEPW WERE AEPW AEPW AEPW AEPW AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	CITY OF IOLA 66KV FULTON 116KV FULTON 116KV FULTON 116KV FULTON 116KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV KNOXLEE 138KV KNOXLEE 138KV KNOXLEE 136KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 69KV WILKEE 136KV	337.2 27.428 1533 1533 45.99999 45.99999 45.99999 327.461 327.461 54 108 119 45.00714 329.837 28 41 52.13342 62.13342 66.66	0.0010 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.011033 GRDA 0.011033 GRDA 0.01033 GRDA 0.00292 GRDA 0.00292 GRDA 0.01026 GRDA 0.01026 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01041 GRDA 0.0024 GRDA 0.0024 GRDA 0.00258 GRDA 0.0026 GRDA 0.0026 GRDA 0.01068 GRDA 0.01068 GRDA 0.01068 GRDA 0.01068 GRDA 0.01068 GRDA 0.0042 GRDA	SALINA 161KV KERR 151KV KERR 151KV SALINA 161KV KERR 161KV KERR 161KV KERR 115KV	27 30.3963 27 27 27 33.3963 23.3963 20.303963 27, 27 27 27 27 27 29 39.3963 29	0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.0878 0.05962 0.08778 0.07908 0.07908 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.07908 0.07908 0.08778 0.07908	0.08031 -0.07842 -0.07842 -0.07803 -0.07908 -0.07908 -0.07908 -0.07824 -0.07824 -0.07745 -0.07745 -0.077745 -0.07766 -0.07767 -0.07668 -0.0771 -0.07618 -0.07711 -0.07618	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
CELE EVANGELINE 230KV 191 0.00443 (GRDA KERR 115KV 27 0.07908 -0.07469 6	AEPW AEPW EMDE AEPW EMDE AEPW WERE AEPW WERE AEPW WERE AEPW WERE AEPW WERE AEPW AEPW AEPW AEPW WERE	CITY OF IOLA 66KV FULTON 116KV FULTON 116KV FULTON 116KV FULTON 116KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV KNOXLE 138KV KNOXLE 138KV KNOXLE 136KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 115KV WILKES 136KV WILKES 136KV WILKES 136KV WILKES 136KV WILKES 136KV AGADIA 136KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV	337.2 27.428 1533 1533 45.99999 45.99999 45.99999 45.99999 45.99997 327.461 54 119 45.00714 329.8837 288 411 52.13342 62.13342 61.1322 24.92175 41.11	0.0010 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.011033 GRDA 0.011033 GRDA 0.01033 GRDA 0.00292 GRDA 0.00292 GRDA 0.01028 GRDA 0.01028 GRDA 0.01028 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.0024 GRDA 0.00246 GRDA 0.00258 GRDA 0.0026 GRDA 0.0026 GRDA 0.01068 GRDA 0.01068 GRDA 0.01068 GRDA 0.0046 GRDA 0.00353 GRDA	SALINA 161KV KERR 151KV KERR 151KV SALINA 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV KERR 115KV	27 30.39963 27 27 39.39963 20.30909 27 39.39963 27 27 27 27 39.39963 27 27 27 27 27 27 27 27 27 27 27 27 27	0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778 0.08778 0.05962 0.07908 0.07908 0.07908 0.07908 0.07908 0.08778 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908	0.08031 -0.07842 -0.07842 -0.07803 -0.07908 -0.07908 -0.07924 -0.07824 -0.07745 -0.07745 -0.07761 -0.07767 -0.07668 -0.07747 -0.07747 -0.07747 -0.07747 -0.07747 -0.07748 -0.07748 -0.07752 -0.07752 -0.07768	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
CELE G7EVAN 22 000 138KV 33,00002 0.00438]GRDA KERR 115KV 27 0.07908 -0.07469 4 LEPA IRION SUB 68KV 20 0.00328]GRDA KERR 115KV 27 0.07908 -0.0758 4 EMDE LARUSSEL 161KV 171 -0.03197GRDA PENSACOLA 161KV 22 0.04408 -0.07606 4 EMDE STATE LINE 161KV 72 -0.02798]GRDA PENSACOLA 161KV 32 0.04408 -0.07606 4 CELE TECHE 138KV 80.99292 0.00378]GRDA KERR 115KV 27 0.07908 -0.0753 4 CELE TECHE 34KV 80.99292 0.00378]GRDA KERR 115KV 27 0.07908 -0.0753 4 WERE BPU - CITY OF MCPHERSON 115KV 23 0.00548]GRDA KERR 115KV 27 0.07908 -0.0753 4 CELE D.G. HUNTER POWER \$TATION 138KV 125.1 0.00482]GRDA KERR 115KV 27 0.07908 -0.0736 4 WERE HUTCHINSON EN	AEPW AEPW AEPW BMDE AEPW AEPW WERE AEPW WERE AEPW AEPW WERE AEPW WERE AEPW WERE AEPW WERE AEPW WERE AEPW WERE LEPA AEPW WERE AEPW WERE AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	CITY OF IOLA 66KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV LEFFREY ENERGY CENTER 230KV KNOXLEE 138KV KNOXLEE 138KV LAWRENCE ENERGY CENTER 230KV LEFROCK 35KN TECUMSEH ENERGY CENTER 66KV WILKES 138KV WILKES 138KV ABILENE ENERGY CENTER 66KV WILKES 138KV ABILENE ENERGY CENTER 115KV AGALIAN 15KN ACADIA 138KV BAYOU RAMIOS 138KV BAYOU RAMIOS 138KV CITY OF ERIE 66KV	337.2 27.428 337.2 27.428 153 153 45.99999 45.99999 92.74631 327.461 1327.461 149.9 1199 45.0714 329.8837 28.8 44.1 52.13342 66.6 1322 24.92175 41.1 22.53	0.0010 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.01958 GRDA 0.01958 GRDA 0.01958 GRDA 0.01958 GRDA 0.00254 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.00254 GRDA 0.00254 GRDA 0.00254 GRDA 0.00254 GRDA 0.00256 GRDA 0.00466 GRDA 0.00466 GRDA 0.00466 GRDA	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	277 293 30.30963 27 27 30.30963 27 30.30963 203.030963 203.030963 207 27 27 27 30.30963 27 27 27 27 27 27 27 27 27 27 27 27 27	0.08778 0.08778 0.07908 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.07908 0.07908 0.07908 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908	0.08031 -0.07842 -0.07863 -0.07803 -0.07803 -0.07908 -0.07908 -0.07824 -0.07824 -0.07824 -0.07824 -0.07745 -0.077618 -0.077618 -0.07762 -0.07764 -0.07767 -0.07767 -0.07767 -0.07767 -0.07767 -0.07767 -0.07767 -0.07768 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769 -0.07769	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
LEPA	AEPW AEPW AEPW BMDE AEPW AEPW AEPW AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW WERE AEPW WERE AEPW WERE LEPA AEPW WERE AEPW WERE AEPW WERE AEPW AEPW WERE AEPW AEPW WERE AEPW AEPW AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AERE CELE AEPW AERE CELE AEPW AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	CITY OF IOLA 66KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 60KV WILKES 138KV WILKES 138KV VILKES 138KV ABILENE ENERGY CENTER 60KV WILKES 138KV ABILENE ENERGY CENTER 115KV ACADIA 138KV BAYOU RAMIOS 138KV CHANUTE 60KV CITY OF ERIE 60KV CITY OF ERIE 60KV EMPORIA ENERGY CENTER 346KV EVANGELINE 230KV	337.2 27.428 153 153 153 45.99999 45.99999 92.74631 327.461 327.461 108 119 45.00714 329.8837 288 411 52.13342 666 1322 24.92175 41.11 22.53 20.821	0.0016 GRDA 0.0087 GRDA 0.0087 GRDA 0.0087 GRDA 0.0087 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.01938 GRDA 0.01938 GRDA 0.01938 GRDA 0.00252 GRDA 0.00252 GRDA 0.00252 GRDA 0.010258 GRDA 0.010258 GRDA 0.010258 GRDA 0.010258 GRDA 0.010258 GRDA 0.00258 GRDA 0.00358 GRDA 0.00368 GRDA	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	27 39.30963 27 27 39.30963 20.30963 20.30963 20.30963 27 39.30963 27 27 27 27 27 39.30963 29 27 27 27 27 27 27 27 27 27 27 27 27 27	0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908	0.08031 -0.07842 -0.07842 -0.07803 -0.07803 -0.07908 -0.07924 -0.07824 -0.07824 -0.07745 -0.077616 -0.07762 -0.07762 -0.07763 -0.07763 -0.07764 -0.07761 -0.07761 -0.07761 -0.07761 -0.07761 -0.0767 -0.0767 -0.0767 -0.0767 -0.0767 -0.0761 -0.07761 -0.07761	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
EMDE STATE LINE 161KV 72 -0.02799 GRDA PENSACOLA 69KV 33 0.04787 -0.07566 4	AEPW AEPW AEPW BMDE AEPW AEPW AEPW AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW WERE AEPW WERE AEPW WERE LEPA AEPW WERE AEPW WERE AEPW WERE AEPW AEPW WERE AEPW AEPW WERE AEPW AEPW AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AERE CELE AEPW AERE CELE AEPW AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	CITY OF IOLA 66KV FULTON 116KV FULTON 116KV FULTON 116KV FULTON 116KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV RIVERTON 161KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV KNOXLE 138KV KNOXLE 138KV KNOXLE 138KV LAWRENCE ENERGY CENTER 230KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 115KV WILKES 138KV WILKES 138KV WILKES 138KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV ELLIS 69KV ELLIS 69KV ELLIS 69KV EVANGELINE 230KV	337.2 27.428 1533 1533 45.99999 45.99999 45.99999 45.99999 45.99999 45.0714 327.461 108 1199 45.00714 329.8837 288 411 52.13342 66.1332 24.92175 41.11 22.53 20 2011	0.00105 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.011033 GRDA 0.011033 GRDA 0.01033 GRDA 0.00225 GRDA 0.00225 GRDA 0.00225 GRDA 0.01025 GRDA 0.01025 GRDA 0.01025 GRDA 0.01026 GRDA 0.01031 GRDA 0.01031 GRDA 0.00246 GRDA 0.00246 GRDA 0.0025 GRDA 0.0026 GRDA 0.0046 GRDA	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	27 30.3963 27 27 27 33.3963 20.303963 20.303963 27 27 27 27 27 27 39.3963 29.3963 29.3963 29.27 27 27 27 27 27 27 27 27 27 27 27 27 2	0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.05962 0.08778 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908 0.07908	0.08031 -0.07842 -0.07842 -0.07803 -0.07908 -0.07908 -0.07908 -0.07908 -0.07745 -0.07745 -0.07761 -0.07764 -0.07774 -0.07774 -0.07774 -0.07764 -0.07748 -0.07768 -0.07768 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688 -0.07769 -0.07688	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
CELE TECHE 34KV 23 0.00378 (GRDA KERR 115KV 27 0.07908 0.0755) 4 WERE BPU - CITY OF MCPHERSON 115KV 23 0.00548 (GRDA KERR 115KV 27 0.07908 0.0756) 4 CELE D.G. HUNTER POWER STATION 138KV 125 1 0.00482 (GRDA KERR 115KV 27 0.07908 0.0736) 4 WERE HUTCHISSON ENERGY CENTER 115KV 146.0967 0.005343 (GRDA KERR 115KV 27 0.07908 0.07344 4 SPS MOORE COUNTY 116KV 48 0.01445 (GRDA KERR 115KV 27 0.07908 0.07544 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.07544 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.07754 0.07533 4 WOORE COUNTY 116KV 48 0.01445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07533 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07533 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07533 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0776 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0778 0.07536 4 OLI445 (GRDA KERR 115KV 27 0.07908 0.0778 0.07536 4 OLI445 (GRDA KERR 115KV 39.0063 0.06778 0.07396 4 OLI445 (GRDA KERR 115KV 39.0063 0.06778 0.07798 0.07745 4 OLI445 (GRDA KERR 115KV 39.0063 0.06778 0.07705 4	AEPW AEPW AEPW EMDE AEPW WERE	CITY OF IOLA 66KV FULTON 116KV FULTON 116KV FULTON 116KV FULTON 116KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV RIVERTON 161KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV KNOXLE 138KV KNOXLE 138KV KNOXLE 136KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV WILKES 136KV WILKES 136KV WILKES 136KV WILKES 136KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV ELLIS 69KV ELLIS 69KV ELLIS 69KV EVANGELINE 230KV GFEVAN 12.000 138KV CFENDELINE 230KV GFEVAN 12.000 138KV GFEVAN 12.000 138KV GFEVAN 12.000 138KV GFEVAN 12.000 138KV IRON SUB 69KV	337.2 27.428 153 153 45.99999 45.99999 45.99999 92.74631 327.461 108 119 45.00714 329.8837 28 41 52.1342 52.1342 66 1322 24.92775 41.1 22.53 20 201 191 1144 33.00002	0.0010 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.011033 GRDA 0.011033 GRDA 0.01033 GRDA 0.00222 GRDA 0.01028 GRDA 0.01028 GRDA 0.01028 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.0024 GRDA 0.00258 GRDA 0.00258 GRDA 0.0026 GRDA 0.00366 GRDA 0.00466 GRDA	SALINA 161KV KERR 115KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV GRDA1 346KV GRDA1 346KV KERR 161KV SALINA 161KV KERR 115KV	30.3993 30.3993 27 27 27 30.3993 30.3993 27 30.3993 27 30.3993 27 27 27 27 39.3993 39.3993 27 27 27 27 39.3993 27 27 27 27 39.3993 27 27 27 27 39.3993 29 27 27 27 27 39.3993 29 27 27 27 27 27 27 27 27 27 27 27 27 27	0.08778 0.08778 0.09798 0.08778 0.09778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.09790 0.08778 0.09790 0.08778 0.09790 0.09790 0.09790 0.09790 0.09790 0.09790 0.09790 0.09790 0.09790	-0.08031	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
WERE BPU - CITY OF MCPHERSON 115KV 232 0.00548 GRDA KERR 115KV 27 0.0790 -0.0736 4	AEPW AEPW AEPW EMDE AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV KNOXLEE 138KV KNOXLEE 138KV KNOXLEE 138KV KNOXLEE 136KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 115KV MULKES 136KV WILKES 136KV WILKES 136KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV EVANGELINE 230KV CHANUTE 69KV EVANGELINE 230KV CHANUTE 69KV EVANGELINE 230KV CHANUTE 69KV EVANGELINE 230KV GEWAN 123 600 138KV EVANGELINE 230KV GFEVAN 120.00 138KV LIGHORIAN 120 136KV LIGHORIA	337.2 27.428 153 153 45.99999 92.74631 327.4611 327.4611 327.4611 327.4611 327.4611 327.4611 329.8637 286 411 521.3342 66.22 521.3342 67.22 521.342 52	0.0010 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.011033 GRDA 0.011033 GRDA 0.00222 GRDA 0.00222 GRDA 0.00224 GRDA 0.00234 GRDA 0.01023 GRDA 0.01023 GRDA 0.01031 GRDA 0.01031 GRDA 0.00244 GRDA 0.00246 GRDA 0.00258 GRDA 0.00258 GRDA 0.00258 GRDA 0.00258 GRDA 0.00464 GRDA 0.00465 GRDA 0.00467 GRDA 0.00467 GRDA 0.0047 GRDA	SALINA 161KV KERR 115KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV GRDA1 346KV GRDA1 346KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV KERR 161KV KERR 161KV KERR 161KV KERR 115KV	30.3993 30.3993 27 27 27 30.3993 30.3993 27 30.3993 27 30.3993 27 27 27 27 39.3993 30.3993 27 27 27 27 39.3993 27 27 27 27 39.3993 27 27 27 27 27 27 27 27 27 27 27 27 27	0.08778 0.08778 0.09708 0.0790	-0.08031 -0.08031 -0.08031 -0.08031 -0.08031 -0.07842 -0.07842 -0.07842 -0.07842 -0.07842 -0.07842 -0.07824	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
WERE	AEPW AEPW AEPW EMDE AEPW WERE AEPW WERE AEPW WERE AEPW WERE WERE AEPW WERE AEPW WERE AEPW WERE GELE GELE GELE GELE EMDE EMDE	CITY OF IOLA 66KV FULTON 116KV FULTON 116KV FULTON 116KV FULTON 116KV FULTON 116KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV LEBROCK 346KV KNOXLEE 138KV KNOXLEE 138KV KNOXLEE 138KV KNOXLEE 138KV LAWRENCE ENERGY CENTER 230KV LEBROCK 346KV TECUMSEH ENERGY CENTER 116KV TECUMSEH ENERGY CENTER 115KV ACADIA 138KV WILKES 138KV WILKES 138KV WILKES 138KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV EUN 60KP EUN 60K	337.2 27.428 153 153 45.99999 92.74631 327.4611 327.4611 327.4611 327.4611 327.4611 327.4611 329.8637 288 411 52.13342 66.2 24.921.75 42.13542 66.2 1322 24.921.75 12.1342 13.22.23 14.14 15.1342 15.1342 16.21 16.21 16.21 17.1	0.0010 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.01033 GRDA 0.0022 GRDA 0.0022 GRDA 0.0022 GRDA 0.0023 GRDA 0.0036 GRDA 0.0036 GRDA 0.0036 GRDA 0.0036 GRDA 0.0044 GRDA 0.0036 GRDA 0.0046 GRDA	SALINA 161KV KERR 115KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	27 30.39963 27 27 27 39.30963 20.3030963 20.3030963 27 27 27 27 27 27 27 27 27 27	0.08778 (0.08788 (0.08788 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.08798 (0.0888 (0	-0.08031	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
SPS MOORE COUNTY 115KV	AEPW AEPW AEPW AEPW AEPW WERE AEPW AEPW WERE AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	CITY OF IOLA 66KV FULTON 115KV PULTON 115KV PULTON 115KV PULTON 115KV PULTON 115KV PULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV LAWRENG ENERGY CENTER 230KV LAWRENGE ENERGY CENTER 15KV THOUSEN 15KV LEBROCK 345KV LEBROCK 345KV LEBROCK 345KV LEBROCK 345KV LEBROCK 345KV CHANNITE GENERGY CENTER 115KV TECUMSEH ENERGY CENTER 65KV WILLES 136KV ASILENE ENERGY CENTER 115KV ASILENE ENERGY CENTER 115KV ASILENE ENERGY CENTER 15KV CONTY OF ERIE 66KV CITY OF ERIE 66KV CITY OF ERIE 66KV CITY OF ERIE 66KV CHANNITE 66KV GEVAN 13.800 138KV TECHE 34KV RAUSSEL LINE 161KV TECHE 134KV TECHE 34KV TECHE 34KV TECHE 34KV TECHE 34KV TECHE 34KV	337.2 27.428 153 153 45.99999 42.74631 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 329.837	0.0010 GRDA 0.0087 GRDA 0.0087 GRDA 0.0087 GRDA 0.0087 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.01938 GRDA 0.01033 GRDA 0.01033 GRDA 0.0028 GRDA 0.0028 GRDA 0.01038 GRDA 0.01028 GRDA 0.01028 GRDA 0.01038 GRDA 0.0028 GRDA 0.01031 GRDA 0.0028 GRDA 0.0028 GRDA 0.0028 GRDA 0.0028 GRDA 0.0028 GRDA 0.0028 GRDA 0.0038 GRDA 0.0038 GRDA 0.0038 GRDA 0.0038 GRDA 0.0038 GRDA 0.00446 GRDA 0.0048 GRDA	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV KERR 115KV	39.3963 39.3963 39.3963 27 27 39.3963 29.393,3963 20.3039 27 39.3963 27 27 27 39.3963 39.3963 27 27 27 27 27 27 27 27 27 27 27 27 27	0.08778 (0.08776) (0.08766) (0.08766	-0.08031 20	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
CELE NATCH/TOCHES 69KV 43 0.00G/GRDA KERR 115KV 27 0.07908 -0.07306 4 SPS RIVERVIEW 69KV 23 0.01474/GRDA KERR 115KV 27 0.07878 -0.07304 4 SPS RIVERVIEW 69KV 23 0.01474/GRDA SALINA 161KV 39.30663 0.08778 -0.07304 4 CELE RODEMACHER 230KV 196 0.00486/GRDA KERR 115KV 27 0.07908 -0.0741 4 SPS SHERMAN 1 34.500 115KV 20 0.01383/GRDA KERR 115KV 27 0.0778 -0.07398 4 SPS SHERMAN 1 34.500 115KV 20 0.01383/GRDA SALINA 161KV 39.30663 0.08778 -0.07398 4 SPS CARLSBAD 69KV 16 0.01633/GRDA KERR 115KV 27 0.09778 -0.07143 4 SPS CARLSBAD 69KV 16 0.01633/GRDA SALINA 161KV 39.3063 0.09778 -0.07143 4 WERE GETTY 69KV 35 0.00705/GRDA KERR 115KV 27 0.07908 -0.07205 4	AEPW AEPW AEPW AEPW AEPW WERE CELE CELE CELE CELE CELE CELE CELE C	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV KNOXLE E 138KV LAWRENCE ENERGY CENTER 115KV LEBROCK 345KV LEBROCK 345KV VILKES 138KV WILKES 138KV WILKES 138KV WILKES 138KV WILKES 138KV CITY OF ERIE 69KV ELLIS 69KV LEULS 69KV CITY OF ERIE 69KV EMPORA ENERGY CENTER 145KV EMPORA ENERGY CENTER 345KV EVANGELINE 230KV GREVAN 13 800 138KV GREVAN 13 800 138KV GREVAN 13 800 138KV FULLIS 69KV LARUSSEL 161KV STATE LINE 161KV STATE LINE 161KV TECHE 138KV TECHE 34KV TECHE 15KV TECHE 134KV TECHE 134	337.2 27.428 153 153 45.99999 42.74631 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 329.837	0.00105 (GRDA 0.0007) (GRDA 0.00007) (GRDA 0.0007) (GRDA 0.0007) (GRDA 0.00007) (GRDA 0.000	SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	27 27 39.30963 29.35 29.35 39.30963 20.30309 27 39.30963 20.30309 27 27 27 39.30963 27 27 39.30963 27 27 27 27 27 27 27 27 27 27	0.09778	-0.08031 / 0.07842 / 0.078	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
SPS RIVERVIEW 98KY 23 0.01474 GFDA SALINA 161KV 39.30663 0.08778 -0.07304 2	AEPW AEPW AEPW AEPW BMOE AEPW WERE CELE CELE LEPA LEPA LEPA LEPA LEPA LEPA LEPA L	CITY OF IOLA 66KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EET 136KV KNOXLE 136KV LAWRENCE ENERGY CENTER 230KV LEBROCK 345KV LEBROCK 345KV WILKES 136KV WILKES 136KV WILKES 136KV WILKES 136KV WILKES 136KV WILKES 136KV EASTMAN 136KV CHANGE 136KV EMPORA ENERGY CENTER 346KV EWNOGEL 16KV STATE LINE 181KV TECHE 136KV TECHE 34KV BUILTER 181KV TECHE 136KV TECHE 34KV DO J.G. HUNTER POWER STATION 136KV D.G. HUNTER POWER STATION 136KV MOORE COUNTY 115KV MOORE COUNTY 115KV	337.2 27.428 153 153 45.99999 42.74631 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 327.461 329.837	0.00105 (GRDA 0.0097) (GRDA 0.0097) (GRDA 0.0097) (GRDA 0.00954) (SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV KERR 115KV	277 279 39.39963 203.39963 277 39.39963 277 39.39963 277 277 277 277 277 39.39963 29.277 29.2	0.09778		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
SPS SHERMAN 134.500 115KV 20 0.01383 GRDA KERR 161KV 27 0.08778 -0.07395 4 SPS SHERMAN 134.500 115KV 20 0.01383 GRDA SALINA 161KV 39.0063 0.08778 -0.07395 4 SPS CARLSBAD 69KV 16 0.01635 GRDA KERR 161KV 27 0.09778 -0.07143 4 SPS CARLSBAD 69KV 16 0.01635 GRDA SALINA 161KV 39.0963 0.09778 -0.07143 4 WEFE GETTY 69KV 35 0.00705 GRDA KERR 11KV 27 0.07908 -0.07205 4	AEPW AEPW AEPW AEPW BMOE AEPW WERE CELE CELE LEPA LEPA LEPA LEPA LEPA LEPA LEPA L	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV LEROCO SASKV TEOLOGIC ENERGY CENTER 15KV LAWRENCE ENERGY CENTER 15KV LEBROCK 345KV TEOLOWSEH ENERGY CENTER 115KV TEOLOWSEH ENERGY CENTER 115KV WILKES 138KV WILKES 138KV WILKES 138KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV EVANGELINE 230KV CHANUTE 69KV EVANGELINE 230KV GEWAN 123 000 138KV CHANUTE 69KV EVANGELINE 230KV CHANUTE 69KV EVANGELINE 15KV ACADIA 15KV EVANGELINE 15KV ACADIA 15KV TEOLE 15KV TEOLE 15KV TEOLE 15KV UT OF CENTER 15KV ACADIA 15KV UT OF CENTER 15KV DI COLONIO 15KV UT OF CENTER 15KV OG TEVAN 12 000 138KV TECHE 13KKV TECHE 13KKV TECHE 13KKV MORE COUNTY 115KV MOORE COUNTY 115KV MORE COUNTY 115KV	337.2 27.428 153 153 45.99999 92.74631 327.4611 327.4611 327.461 108 1199 415.00714 329.8637 28 411 52.13342 66 12.22 24.92175 41.13 22.53 26.13342 16.10 27.1341 28.1351 29.1351 20.1	0.0010 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.01986 GRDA 0.01033 GRDA 0.00292 GRDA 0.00292 GRDA 0.00292 GRDA 0.00292 GRDA 0.01028 GRDA 0.01028 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.01031 GRDA 0.00238 GRDA 0.00238 GRDA 0.00238 GRDA 0.00238 GRDA 0.00364 GRDA 0.00365 GRDA 0.00378 GRDA	SALINA 161KV KERR 115KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	30.39963 30.39963 27 27 27 30.39963 20.30309 27 30.39963 27 27 27 27 30.39963 29 27 27 27 27 27 27 27 27 27 27 27 27 27	0.09772 0.09704 0.0970	-0.08031 20	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
SPS SHERMAN 1 34.500 115KV 20 0.01383 GRDA SALINA 161KV 39.3063 0.06778 -0.07395 4 SPS CARLSBAD 69KV 16 0.01635 GRDA KERR 161KV 270 0.09778 -0.07143 4 SPS CARLSBAD 69KV 16 0.01635 GRDA SALINA 161KV 39.3063 0.09778 -0.07143 4 WERE GETTY 69KV 35 0.00705 GRDA KERR 115KV 27 0.07098 -0.07203 4	AEPW AEPW AEPW EMDE AEPW WERE GELE GELE GELE GELE GELE GELE GELE G	CITY OF IOLA 66KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 15KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 115KV ACADIA 136KV WILKES 138KV WILKES 138KV WILKES 136KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV EVANGELINE 230KV CHANUTE 69KV EVANGELINE 230KV CHANUTE 69KV EVANGELINE 15KV EVANGELINE 15KV EVANGELINE 15KV TECHE 13KKV TECHE 13KKV TECHE 13KKV TECHE 13KKV TECHE 13KKV TECHE 13KKV FULTER 15KV MOGNE COUNTY 115KV MOGNE GOWN RIVERVIEW 69KV RIVERVIEW 69KV RIVERVIEW 69KV	337.2 27.428 51.53 15.3 45.99999 92.74631 327.4611 327.4611 327.461 108 1199 415.00714 329.8837 28 441 52.13342 666 1322 24.92175 41.1 22.53 20 20 111 22.53 22 24.92175 28 33.0002 29 1171 72 80.99292 125.1 146.0967 48 48 48 48	0.00105 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00958 GRDA 0.001033 GRDA 0.00225 GRDA 0.00225 GRDA 0.00225 GRDA 0.00226 GRDA 0.001031 GRDA 0.001031 GRDA 0.001031 GRDA 0.001031 GRDA 0.00131 GRDA 0.00238 GRDA 0.00238 GRDA 0.00246 GRDA 0.00238 GRDA 0.00246 GRDA 0.00366 GRDA 0.00466 GRDA 0.00466 GRDA 0.00466 GRDA 0.00467 GRDA 0.00478 GRDA 0.00487 GRDA	SALINA 161KV KERR 115KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	30.39963 30.39963 27 27 27 30.39963 20.30309 27 30.30963 27 27 27 27 27 30.30963 29 27 27 27 27 27 27 27 27 27 27 27 27 27	0.09772 0.09704 0.0970	- 0.08931 20	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
SPS CARLSBAD Ø9KV 16 0.01632/GRDA SALINA 161KV 39.30653 0.08778 -0.07143 4 WERE GETTY 69KV 35 0.00705/GRDA KERR 115KV 270 0.070203 4	AEPW AEPW AEPW EMDE AEPW EMDE AEPW WERE GELE CELE CELE CELE EMDE EMDE SPS SPS SPS SPS SPS SPS SEMS	CITY OF IOLA 69KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 15KV LEBROCK 345KV TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 115KV ACADIA 136KV WILKES 138KV WILKES 138KV WILKES 136KV CHANUTE 69KV CHANUTE 69KV CHANUTE 69KV EVANGELINE 230KV CHANUTE 69KV EVANGELINE 230KV CHANUTE 69KV EVANGELINE 15KV EVANGELINE 15KV ACADIA 15KV TECHE 13KV TECHE 13KV MORE COUNTY 115KV MOGNE COUNTY 115KV MORE COUNTY 115KV MOGNE COUNTY 115KV MOGNE COUNTY 115KV MORE COUNTY 115KV	337.2 27.428 5153 5153 45.99999 92.74631 327.4611 327.4611 327.461 108 1199 1199 45.00714 329.8837 288 441 52.13342 666 1322 24.92175 41.11 22.83 20.00 1191 3330002 1191 1191 1191 1191 1192 1192 1192	0.0010 GRDA 0.0097 GRDA 0.0097 GRDA 0.0097 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00954 GRDA 0.00958 GRDA 0.001033 GRDA 0.0022 GRDA 0.0022 GRDA 0.0022 GRDA 0.0022 GRDA 0.0023 GRDA 0.0036 GRDA 0.0036 GRDA 0.0036 GRDA 0.0036 GRDA 0.0036 GRDA 0.0037 GRDA 0.0037 GRDA 0.0038 GRDA 0.0038 GRDA 0.0039 GRDA	SALINA 161KV KERR 115KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	27 29 20 20 20 20 20 20 20 20 20 20 20 20 20	0.09772 0.0977	- 0.08931 20	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	AEPW AEPW AEPW AEPW AEPW AEPW AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	CITY OF IOLA 66KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 136KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV KNOXLEE 136KV KNOXLEE 136KV KNOXLEE 136KV KNOXLEE 136KV KNOXLEE 136KV LAWRENCE ENERGY CENTER 230KV LEBROCK 345KV LEBROCK 345KV LEBROCK 345KV WILKES 136KV WILKES 136KV WILKES 136KV WILKES 136KV WILKES 136KV CHANLIE 60KV TOF GETE 60KV LILLE 60KV FULTOF ENERGY CENTER 345KV ENTE 60K 136KV GETEVAN 136KO 136KV CHANLIE 60KV FULTOF FULTOF MCPHERSON 115KV JOSE COUNTY 115KV JOSE COUNTY 115KV MOCRE COUNTY 115KV NOCRE COUNTY	337.2 27.428 153 153 45.99999 92.74631 327.4611 327.4611 327.4611 327.4611 327.4611 327.4611 327.4611 327.4611 327.4611 329.8837	0.00105 (SRDA 0.0097) (SRDA 0.0097) (SRDA 0.0097) (SRDA 0.00954) (SALINA 161KV KERR 115KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV SALINA 161KV KERR 115KV	3 3993 3 39963 3 39963 2 27 27 3 39 39663 20 30 3967 27 39 39663 20 30 3967 27 27 27 27 39 39663 297 27 27 27 27 27 27 27 27 27 27 27 27 27	0.09776 0.09778 0.09778 0.09778 0.09790 0.09790 0.09790 0.09778 0.09790 0.09778 0.09778 0.09778 0.09778	- 0.090313 (1)	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	AEPW AEPW AEPW AEPW AEPW AEPW AEPW WERE AEPW AEPW AEPW AEPW AEPW AEPW AEPW AEP	CITY OF IOLA 66KV FULTON 115KV LIEBERMAN 138KV LIEBERMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV EASTMAN 138KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV KNOXLEE 138KV KNOXLEE 138KV KNOXLEE 136KV KNOXLEE 136KV LAWRENCE ENERGY CENTER 115KV LEBROCK 345KV LEBROCK 345KV LEBROCK 345KV VILKES 136KV WILKES 136KV WILKES 136KV WILKES 136KV WILKES 136KV CHANLIE 60KV CHANLIE 60K	337.2 27.428 153 153 45.99999 92.74631 327.4611 327.4611 327.4611 327.4611 327.4611 327.4611 327.4611 327.4611 329.8837	0.00105 (SRDA 0.0097) (SRDA 0.0097) (SRDA 0.0097) (SRDA 0.00954) (SALINA 161KV KERR 115KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV KERR 161KV SALINA 161KV GRDA1 345KV KERR 161KV SALINA 161KV SALINA 161KV KERR 115KV	3.993 3.993 3.9963 2.77 2.77 3.93.9963 2.27 3.95963 2.27 2.77 2.77 2.77 2.77 2.77 2.77 2.7	0.09776 0.09778 0.09778 0.09778 0.09790 0.09790 0.09790 0.09778 0.09790 0.09778 0.09778 0.09778 0.09778 0.09778 0.09778 0.09778 0.09778	- 0.08031	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

	GILL ENERGY CENTER 69KV MADOX 115KV	48 34.85205	0.00759 GRDA 0.01639 GRDA	KERR 115KV KERR 161KV	27 27	0.07908	-0.07149 -0.07139	47 47
SPS	MADOX 115KV MAJESTC_WND3115.00 115KV	34.85205 72	0.01639 GRDA	SALINA 161KV KERR 161KV	39.30963 27	0.08778	-0.07139 -0.07281	47 47
SPS	MAJESTC_WND3115.00 115KV	72	0.01497 GRDA	SALINA 161KV	39.30963 27	0.08778	-0.07281	47
SPS	NICHOLS 115KV NICHOLS 115KV	66.00001 66.00001		KERR 161KV SALINA 161KV	39.30963	0.08778	-0.07267 -0.07267	47
	NICHOLS 230KV NICHOLS 230KV	97 97	0.01505 GRDA 0.01505 GRDA	KERR 161KV SALINA 161KV	27 39.30963	0.08778	-0.07273 -0.07273	47 47
	PLANTX 115KV PLANTX 115KV	48 48		KERR 161KV SALINA 161KV	27 39.30963	0.08778	-0.0716 -0.0716	47 47
EMDE SPS	STATE LINE 161KV TOLK 230KV	72 60.00183	-0.02799 GRDA 0.01622 GRDA	PENSACOLA 161KV KERR 161KV	22	0.04408	-0.07207 -0.07156	47 47
SPS	TOLK 230KV WACO 138KV	60.00183	0.01622 GRDA 0.00747 GRDA	SALINA 161KV KERR 115KV	39.30963 27	0.08778	-0.07156 -0.07161	47
AEPW	FULTON 115KV	153	0.0087 GRDA	KERR 115KV	27	0.07908	-0.07038	48
SPS	LARUSSEL 161KV LP-HOLL2 69KV	171 154	-0.03197 OKGE 0.01681 GRDA	MUSKOGEE 161KV KERR 161KV	166 27	0.03892	-0.07089 -0.07097	48 48
	LP-HOLL2 69KV LP-MACK2 69KV	154 20	0.01681 GRDA 0.01681 GRDA	SALINA 161KV KERR 161KV	39.30963	0.08778	-0.07097 -0.07097	48
	LP-MACK2 69KV POPLAR BLUFF 69KV	20 32	0.01681 GRDA -0.00407 GRDA	SALINA 161KV GRDA1 161KV	39.30963 190	0.08778	-0.07097 -0.07092	48 48
EMDE	RIVERTON 69KV	22.01061	-0.02305 GRDA	PENSACOLA 69KV	33	0.04787	-0.07092	48
EMDE	ARSENAL HILL 138KV ASBURY 161KV	337.2 21	0.00936 GRDA -0.0209 GRDA	KERR 115KV PENSACOLA 69KV	33	0.07908	-0.06972 -0.06877	49 49
AEPW	EASTMAN 138KV ELLIS 69KV	327.461 20	-0.00896 GRDA	KERR 115KV GRDA1 345KV	203.0309	0.07908	-0.06875 -0.06858	49 49
	JONESBORO 161KV KENNETT 69KV	52 29	-0.00298 GRDA -0.00264 GRDA	GRDA1 161KV GRDA1 161KV	190 190	0.06685	-0.06983 -0.06949	49 49
AEPW	KNOXLEE 138KV LARUSSEL 161KV	119 171	0.01026 GRDA -0.03197 AEPW	KERR 115KV NORTHEASTERN STATION 138KV	27 480	0.07908	-0.06882 -0.0691	49 49
AEPW	LEBROCK 345KV	329.8837	0.01031 GRDA	KERR 115KV	27	0.07908	-0.06877	49
SWPA	LIEBERMAN 138KV MALDEN 69KV	45.99999 17	0.00954 GRDA -0.00258 GRDA	KERR 115KV GRDA1 161KV	27 190	0.07908	-0.06954 -0.06943	49 49
	COFFEYVILLE 138KV COFFEYVILLE 138KV	58.6 58.6		KERR 161KV SALINA 161KV	27 39.30963	0.08778	-0.0682 -0.0682	50 50
	RIVERTON 161KV RIVERTON 69KV	92.74631 22.01061	-0.01986 GRDA -0.02305 GRDA	PENSACOLA 69KV PENSACOLA 161KV	33	0.04787	-0.06773 -0.06713	50 50
AEPW	WILKES 138KV CITY OF IOLA 69KV	52.13342 27.428	0.01068 GRDA 0.00105 GRDA	KERR 115KV GRDA1 161KV	27 190	0.07908	-0.0684 -0.0658	50 51
OKGE	SOUTH 4TH ST 69KV	29.98027	0.02115 GRDA	KERR 161KV	27	0.08778	-0.06663	51
AEPW	SOUTH 4TH ST 69KV SOUTHWESTERN STATION 138KV	29.98027 350	0.02187 GRDA	SALINA 161KV KERR 161KV	39.30963 27	0.08778 0.08778	-0.06663 -0.06591	51 51
	SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV	152 152	0.02187 GRDA 0.02187 GRDA	KERR 161KV SALINA 161KV	27 39,30963	0.08778	-0.06591 -0.06591	51 51
AEPW	SOUTHWESTERN STATION 138KV STATE LINE 161KV	350 72	0.02187 GRDA -0.02799 OKGE	SALINA 161KV MUSKOGEE 161KV	39.30963 166	0.08778	-0.06591 -0.06691	51 51
WFEC	ANADARKO 69KV	70	0.02203 GRDA	KERR 161KV	27	0.08778	-0.06575 -0.06575	52
EMDE	ANADARKO 69KV ASBURY 161KV	70 21	0.02203 GRDA -0.0209 GRDA	SALINA 161KV PENSACOLA 161KV	39.30963 22	0.08778	-0.06498	52 52
AEPW	KIOWA 345KV KIOWA 345KV	1344.801 1344.801	0.02216 GRDA	KERR 161KV SALINA 161KV	27 39.30963	0.08778	-0.06562 -0.06562	52 52
	LARUSSEL 161KV LAWRENCE ENERGY CENTER 230KV	171 45.00714	-0.03197 AEPW 0.00204 GRDA	TULSA POWER STATION 138KV GRDA1 161KV	240.0898 190	0.03346	-0.06543 -0.06481	52 52
OKGE	MCCLAIN 138KV MCCLAIN 138KV	50 50	0.02308 GRDA 0.02308 GRDA	KERR 161KV SALINA 161KV	27 39.30963	0.08778	-0.0647 -0.0647	52 52
SPS	MOORE COUNTY 115KV	48	0.01445 GRDA	KERR 115KV	27	0.07908	-0.06463	52
OKGE	MUSTANG 138KV MUSTANG 138KV	24.5 24.5	0.02312 GRDA 0.02312 GRDA	KERR 161KV SALINA 161KV	27 39.30963	0.08778	-0.06466 -0.06466	52 52
	SEMINOLE 138KV SEMINOLE 138KV	205.8615 205.8615	0.02322 GRDA 0.02322 GRDA	KERR 161KV SALINA 161KV	27 39.30963	0.08778	-0.06456 -0.06456	52 52
	SHERMAN 1 34.500 115KV SPGCK3&4 13.200 345KV	20 111	0.01383 GRDA	KERR 115KV	27	0.07908	-0.06525	52 52
				IKERR 161KV	27			
OKGE	SPGCK3&4 13.200 345KV	111	0.02269 GRDA 0.02269 GRDA	KERR 161KV SALINA 161KV	27 39.30963	0.08778	-0.06509 -0.06509	52
OKGE EMDE LEPA	SPGCK3&4 13.200 345KV STATE LINE 161KV BAYOU RAMOS 138KV	111 72 24.92175	0.02269 GRDA -0.02799 AEPW 0.00353 GRDA	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV	39.30963 480 190	0.08778 0.03713 0.06685	-0.06509 -0.06512 -0.06332	52 52 53
OKGE EMDE LEPA OKGE OKGE	SPGCK3&4 13.200 345KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV	111 72 24.92175 64 64	0.02269 GRDA -0.02799 AEPW 0.00353 GRDA 0.02395 GRDA 0.02395 GRDA	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV KERR 161KV SALINA 161KV	39.30963 480 190 27 39.30963	0.08778 0.03713 0.06685 0.08778 0.08778	-0.06509 -0.06512 -0.06332 -0.06383 -0.06383	52 52 53 53 53
OKGE EMDE LEPA OKGE OKGE LEPA	SPGCK384 13.200 345KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV IRION SUB 69KV	111 72 24.92175 64	0.02269 GRDA -0.02799 AEPW 0.00353 GRDA 0.02395 GRDA 0.02395 GRDA	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV KERR 161KV	39.30963 480 190 27	0.08778 0.03713 0.06685 0.08778	-0.06509 -0.06512 -0.06332 -0.06383	52 52 53 53 53 53
OKGE EMDE LEPA OKGE OKGE LEPA WERE WERE	SPGCK384 13.200 345KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV IRION SUB 69KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 345KV	111 72 24.92175 64 64 20 54 108	0.02269 GRDA -0.02799 AEPW 0.00353 GRDA 0.02395 GRDA 0.02395 GRDA 0.00328 GRDA 0.00328 GRDA 0.0029 GRDA	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV KERR 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV	39.30963 480 190 27 39.30963 190 190	0.08778 0.03713 0.06685 0.08778 0.08685 0.06685 0.06685	-0.06509 -0.06512 -0.06332 -0.06383 -0.06387 -0.06395 -0.06393	52 52 53 53 53 53 53 53
OKGE EMDE LEPA OKGE OKGE LEPA WERE LEPA WERE WERE EMDE EMDE	SPGCK384 13 200 346KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV ISION SUB 68KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV LARUSSEL 161KV LARUSSEL 161KV	111 72 24.92175 64 64 20 54 108 171	0.02289 GRDA -0.02799 AEPW 0.00353 GRDA 0.02395 GRDA 0.02395 GRDA 0.02395 GRDA 0.00328 GRDA 0.0029 GRDA 0.0029 GRDA -0.03197 AEPW	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV KERR 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV CRDA1 161KV CRDA1 161KV COGENTRIX 346KV COGENTRIX 346KV	39.30963 480 190 27 39.30963 190 190	0.08778 0.03713 0.06685 0.08778 0.06685 0.06685 0.06685 0.03203 0.03177	-0.06509 -0.06512 -0.06332 -0.06383 -0.06387 -0.06357 -0.06393 -0.06393 -0.064 -0.06374	52 52 53 53 53 53 53 53 53 53
OKGE EMDE LEPA OKGE OKGE LEPA WERE WERE WERE EMDE EMDE SPS AEPW	SPGCK384 13 200 346KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV IRION SUB 68KV JEFFREY ENRERGY CENTER 236KV JEFFREY ENRERGY CENTER 236KV LARUSSEL 161KV LARUSSEL 161KV MAJESTC_WND3115.00 115KV MMJESTC_WND3115.00 115KV MID-CONTINENT 138KV	111 722 24.92175 64 64 20 544 108 1177 177 72 142.11	0.02269 GRDA 0.02796 AEPW 0.00353 GRDA 0.02396 GRDA 0.02396 GRDA 0.02396 GRDA 0.003296 GRDA 0.003296 GRDA 0.00296 GRDA 0.00291 GRDA 0.00291 GRDA 0.00297 AEPW -0.03197 AEPW -0.03197 AEPW 0.01497 GRDA 0.02413 GRDA	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV KERR 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV CRDA1 161KV COGENTRIX 346KV COGENTRIX 346KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV	39.30663 480 1930 27 39.30663 199 199 199 555.4653 27 27	0.08778 0.03713 0.06685 0.08778 0.06685 0.06685 0.06685 0.03203 0.03177 0.07908 0.08778	-0.06509 -0.06512 -0.06332 -0.06383 -0.06357 -0.06393 -0.064 -0.06374 -0.06411 -0.06365	52 52 53 53 53 53 53 53 53 53 53 53 53
OKGE EMDE LEPA OKGE LEPA UEPA WERE WERE EMDE EMDE EMDE SPS AEPW SPS	SPGCK384 13 200 346KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV IRION SUB 68KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 246KV LARUSSEL 161KV LARUSSEL 161KV MAJESTC_WND3115.00 115KV MID-CONTINENT 138KV MID-CONTINENT 138KV MID-CONTINENT 138KV	111 72 24.92175 64 64 20 54 108 177 177 22 142.11 64.01	0.02269 GRDA -0.02799 AEPW 0.00395 GRDA 0.02396 GRDA 0.02396 GRDA 0.02396 GRDA 0.00329 GRDA 0.00329 GRDA 0.00329 GRDA 0.00329 GRDA 0.00229 GRDA 0.0029 GRDA 0.01519 GRDA 0.02413 GRDA 0.01511 GRDA	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV KERR 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV COGENTRIX 346KV COGENTRIX 346KV V KERR 115KV KERR 115KV KERR 115KV SALINA 161KV SALINA 161KV SALINA 161KV KERR 115KV	39,30963 480 190 27 39,30963 190 190 865 555,483	0.08778 0.03713 0.06685 0.08778 0.06778 0.06685 0.03203 0.03177 0.07908 0.08778	-0.06509 -0.06512 -0.06383 -0.06383 -0.06387 -0.06395 -0.06397 -0.06411 -0.06365 -0.06365 -0.06365	52 52 53 53 53 53 53 53 53 53 53 53 53 53 53
OKGE EMDE LEPA OKGE OKGE LEFA WERE WERE EMDE EMDE SPS AEPW AFPW SPS SPS SPS SPS	SPGCK384 13 200 346KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV JEFFER SHOEN LAKE 138KV JEFFER SHOEN LAKE 138KV JEFFER SHOEN OF CENTER 346KV LEARLSSEL 161KV LARLSSEL 161KV LARLSSEL 161KV MID-CONTINENT 138KV MID-CONTINENT 138KV MID-CONTINENT 138KV NICHOLS 115KV NICHOLS 115KV NICHOLS 115KV NICHOLS 115KV	111 72 24.92175 64 64 20 54 108 177 177 72 142.11	0.02299 (GRDA 0.02799 (AEPW 0.00353 (GRDA 0.02395 (GRDA 0.02395 (GRDA 0.00329 (GRDA 0.00329 (GRDA 0.00292 (GRDA 0.00292 (GRDA 0.003197 (AEPW 0.01497 (GRDA 0.02413 (GRDA 0.02413 (GRDA 0.024113 (GRDA 0.01511 (GRDA 0.01511 (GRDA	SALINA 161KV NORTHEASTERN STATION 138KV GRDAT 161KV KERR 161KV SALINA 161KV GRDAT 161KV GRDAT 161KV GRDAT 161KV GRDAT 161KV ORDAT 161KV ORDAT 161KV OEG 34KV KERR 161KV ASALINA 161KV KERR 151KV	39,30963 480 190 27 27 39,30963 190 190 805 55,463 27 27 27 27 27 27 27 27 27 27	0.08778 0.03713 0.06685 0.08778 0.06685 0.06685 0.06685 0.03203 0.03177 0.07908 0.08778	-0.06509 -0.06512 -0.06332 -0.06383 -0.06383 -0.06395 -0.06393 -0.0641 -0.06354 -0.06365 -0.06397 -0.06403	52 53 53 53 53 53 53 53 53 53 53 53 53 53
OKGE EMDE LEPA OKGE LEPA OKGE LEFA WERE WERE EMDE EMDE SPS AEPW ASPS SPS SPS SWPA OKGE	SPGCK384 13 200 346KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV IRION SUB 86KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 346KV LARLUSSEL 161KV LARLUSSEL 161KV MID-CONTINENT 138KV MID-CONTINENT 138KV NICHOLS 116KV NICHOLS 116KV NICHOLS 116KV POPLAR BLUFF 69KV POPLAR BLUFF 69KV	1111 72 24.92175 84 64 62 64 107 177 177 177 142.11 142.11 66.00001 93 32 1188.201	0.02299 (GRDA 0.02399 (GRDA 0.02419 (GRDA 0.0499 (SALINA 161KV NORTHEASTERN STATION 138KV GRDAT 161KV KERR 161KV SALINA 161KV GRDAT 161KV GRDAT 161KV GRDAT 161KV GRDAT 161KV ORDAT 161KV ORDAT 161KV OEGANTISHV WERR 116KV KERR 116KV KERR 116KV KERR 116KV KERR 115KV KERR 116KV KERR 116KV	39,30963 480 190 190 39,30963 190 190 805 55,463 27 27 27 23,30963 27 27 27 27 20 20 20 20 21 22 27 27 27 27 27 27 27 27 27	0.08778 0.03713 0.06685 0.08778 0.06685 0.06685 0.03177 0.07908 0.08778 0.07908 0.07908 0.07908 0.05562 0.08778	-0.06509 -0.06512 -0.06332 -0.06383 -0.06383 -0.06395 -0.06393 -0.06411 -0.06365 -0.06397 -0.06397 -0.06397 -0.06397 -0.06397 -0.06397 -0.06397 -0.06397 -0.06397	52 53 53 53 53 53 53 53 53 53 53 53 53 53
OKGE EMDE LEPA OKGE LEPA OKGE LEFA WERE WERE EMDE EMDE SPS SPS SPS SPS SWPA OKGE OKGE	SPGCK384 13 200 346KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV IRION SUB 86KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 346KV LARUSSEL 161KV LARUSSEL 161KV MID-CONTINENT 138KV MID-CONTINENT 138KV MID-CONTINENT 138KV NICHOLS 116KV NICHOLS 236KV POPLAR BLUFF 69KV REDBUD 346KV REDBUD 346KV REDBUD 346KV	1111 72 24.92175 84 64 62 62 65 65 177 77 77 142.11 66.00001 92.74631	0.02299 (GRDA 0.02395) (AEPW 0.02395) (AEPW 0.03197) AEPW 0.01497) (GRDA 0.02413) (GRDA 0.02413) (GRDA 0.024143) (GRDA 0.01595) (GRDA 0.024144) (GRDA 0.024444) (GRDA 0.02444) (GRDA 0.02444) (GRDA 0.02444) (GRDA 0.02444) (GRDA 0.01986)	SALINA 161KV NORTHEASTERN STATION 138KV GRDAT 161KV KERR 161KV SALINA 161KV GRDAT 161KV GRDAT 161KV GRDAT 161KV GRDAT 161KV CROAT 161KV COGENTRIX 346KV OEC 346KV KERR 161KV KERR 161KV SALINA 161KV KERR 115KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV	39,3963 4808 4908 190 39,3063 190 190 190 190 190 190 190 277 27 203,0309 27 23,93963 27 23,93963	0.08778 0.03713 0.06685 0.08778 0.08778 0.06685 0.06685 0.03203 0.03203 0.03777 0.07908 0.08778 0.07908 0.05962 0.08778 0.07908	-0.06509 -0.06512 -0.06332 -0.06333 -0.06383 -0.0639 -0.0641 -0.0641 -0.06411 -0.06365 -0.06397 -0.06403 -0.06434 -0.06369 -0.06334 -0.06334 -0.06334 -0.06334	52 53 53 53 53 53 53 53 53 53 53 53 53 53
OKGE EMDE LEPA OKGE LEPA OKGE LEPA WERE WERE EMDE EMDE SPS AEPW AEPW SPS SWPA OKGE OKGE OKGE	SPGCK384 13 200 346KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV IRION SUB 68KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 230KV JEFFREY ENERGY CENTER 346KV LARUSSEL 161KV LARUSSEL 161KV MAJESTC. WND3115.00 115KV MID-COVTNIENT 138KV MID-COVTNIENT 138KV NICHOLS 115KV NICHOLS 115KV NICHOLS 115KV REDBUD 346KV REDBUD 346KV REDBUD 346KV REDBUD 346KV RIVERTON 161KV	1111 72 24.92175 84 64 62 62 65 156 177 777 777 142.11 166.00001 92.74631 92.74633	0.02299 (GRDA 0.02399 (GRDA 0.0239 (GRDA 0.0239 (GRDA 0.03197 AEPW 0.01497 (GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 (GRDA 0.01509 GRDA 0.01509 GRDA 0.01509 (GRDA 0.0039) (GRDA	SALINA 161KV NORTHEASTERN STATION 138KV GRDAT 161KV KERR 161KV SALINA 161KV GRDAT 161KV GRDAT 161KV GRDAT 161KV GRDAT 161KV COGENTRIX 345KV OEG 346KV KERR 161KV KERR 161KV SALINA 161KV KERR 115KV KERR 161KV SALINA 161KV KERR 115KV	39,3963 4808 4908 190 190 39,3063 190 190 190 190 190 39,3063 27 27 203,0306 27 23,93963 27 27 203,93963 27 27 27 28 39,9963 27 27 27 28 39,9963	0.08778 0.03713 0.06885 0.08778 0.08778 0.08778 0.08778 0.06885 0.06685 0.06885 0.06895 0.03177 0.07908 0.08778 0.07908 0.05962 0.08778 0.08778 0.08778 0.08778 0.08778	-0.06509 -0.06512 -0.06332 -0.06332 -0.06383 -0.06357 -0.06393 -0.06411 -0.06365 -0.06365 -0.06363 -0.06364 -0.06364 -0.06364 -0.06364 -0.06394 -0.06394 -0.06394 -0.06394 -0.06394 -0.06394 -0.06444	52 53 53 53 53 53 53 53 53 53 53 53 53 53
OKGE EMDE LEPA OKGE LEPA UEPA WERE WERE EMDE EMDE EMDE SPS AEPW SPS SPS SPS SPS SPS SPS SWPA OKGE EMDE EMDE EMDE EMDE EMDE EMDE EMDE SPS SPS SPS SPS SPS SWPA OKGE EMDE EMDE EMDE EMDE EMDE EMDE EMDE EM	SPGCK384 13 200 346KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV IRION SUB 68KV JEFFREY ENRERGY CENTER 230KV JEFFREY ENRERGY CENTER 236KV JEFFREY ENRERGY CENTER 346KV LARUSSEL 161KV LARUSSEL 161KV MAJESTC. WND3115.00 115KV MID-CONTINENT 138KV NICHOLS 230KV POPLAR BLUFF 69KV REDBUD 346KV	1111 722 24.92176 66 66 67 68 68 69 69 69 69 69 69 69 69 69 69 69 69 69	0.02296 (GRDA 0.02796 JAEPW 0.00353 (GRDA 0.02395 (GRDA 0.02395 (GRDA 0.02395 (GRDA 0.02395 (GRDA 0.00236 (GRDA 0.003197 JAEPW 0.003197 JAEPW 0.001417 (GRDA 0.02413 (GRDA 0.02414 (GRDA 0.01507 (GRDA 0.02444 (GRDA 0.02444 (GRDA 0.01474 (GRDA	SALINA 161KV ORDA1 161KV GRDA1 161KV KERR 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV COGENTRIX 346KV COGENTRIX 346KV COGENTRIX 346KV KERR 115KV	39,30963 490963 190 27 27 39,30963 190 190 190 865 55,54863 27 27 27 39,30963 27 27 22,30,30963 27 27 23,30,3063 27 27 28,30,3063 27 27 28,30,3063 27 27 28,30,3063	0.08778 0.03713 0.06685 0.08778 0.06685 0.06685 0.06685 0.03203 0.03177 0.07908 0.08778 0.07908 0.07908 0.07908	-0.06509 -0.06512 -0.06332 -0.06333 -0.06357 -0.06393 -0.06434 -0.0641 -0.06411 -0.06416 -0.06374 -0.06416 -0.06397 -0.06434 -0.06397 -0.06434 -0.06334 -0.06334 -0.06334 -0.06334 -0.06334 -0.06344 -0.06344 -0.06344 -0.06344 -0.06344	62 52 53 63 63 63 63 63 63 63 63 63 63 63 63 63
OKGE EMDE LEPA OKGE LEPA UKERE WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	SPECK384 13 200 346KV STATE LINE 161KU BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 346KV LARUSSEL 161KV LARUSSEL 161KV LARUSSEL 161KV MALESTC WND3115 00 115KV MID-CONTINENT 136KV MID-CONTINENT 136KV MID-CONTINENT 136KV RICHOLS 115KV MID-CONTINENT 136KV RICHOLS 115KV AGAINAL 315KV	1111 72 24.9216 66 66 67 68 68 68 68 68 68 68 68 68 68 68 68 68	0.02269 (GRDA - 0.00259) (GRDA - 0.00259	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV KERR 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV COGENTRIX 345KV OEG 346KV KERR 161KV KERR 161KV SALINA 161KV KERR 115KV GRDA1 161KV GRDA1 161KV KERR 115KV KERR 115KV GRDA1 161KV	39,3963 49093 190 190 39,3063 190 190 190 190 190 190 27 27 27 27 20 30,3096 27 27 20 30,3096 27 27 20 30,906 190 190 190 190 190 190 190	0.08778 0.03713 0.06885 0.08778 0.06885 0.06885 0.06885 0.07908 0.07908 0.07908 0.07908 0.09203 0.03177 0.07908 0.07908 0.07908 0.09685	-0.06509 -0.06512 -0.06332 -0.06333 -0.06357 -0.06395 -0.06337 -0.06401 -0.06417 -0.06417 -0.06417 -0.06417 -0.06417 -0.06407 -0.06403	\$2 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$5 \$3 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5
OKGE EMDE LEPA OKGE LEPA UEPA UEPA WERE WERE EMDE EMDE EMDE SPS AEPW SPS SPS SPS SPS SPS SPS WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	SPGCK384 13 200 346KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 346KV LARUSSEL 161KV LARUSSEL 161KV MAJESTC_WND3115.00 115KV MID-CONTINENT 138KV MID-CONTINENT 138KV NICHOLS 230KV POPLAR BLUFF 69KV REDBUD 346KV REDBUD 346KV RIVERTON 161KV R	1111 122 24.92176 66 66 67 68 68 68 68 68 68 68 68 68 68 68 68 68	0.02299 (GRDA 0.02799 (AEPW 0.00353 (GRDA 0.02395 (GRDA 0.02395 (GRDA 0.02395 (GRDA 0.02395 (GRDA 0.02395 (GRDA 0.003197 (AEPW 0.00319 (AEPW 0.00319 (AEPW 0.00319 (AEPW 0.00319 (AEPW 0.00319 (AEPW 0.00319 (AEPW 0.003	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV KERR 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV COGENTRIX 346KV OCC 346KV OCC 346KV KERR 115KV GRDA1 161KV	39,30963 49,30963 190 190 39,30963 190 190 190 190 865 55,4863 277 277 39,30963 27,27 27,27 39,30963 27,27 27,27 39,30963 27,27 27,27 39,30963 39,30963 19,30963 19,30963 19,30963 19,30963	0.08778 0.03713 0.06885 0.08685 0.08685 0.08778 0.08778 0.06855 0.06685 0.03203 0.03177 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08778 0.08685	-0.06509 -0.06512 -0.06332 -0.06383 -0.06383 -0.06383 -0.06393 -0.06403 -0.06374 -0.06365 -0.06365 -0.06365 -0.06365 -0.06365 -0.06403 -0.06394 -0.06447 -0.06445 -0.06289 -0.06289 -0.06289 -0.06289 -0.06289 -0.06289	\$22 \$33 \$33 \$33 \$33 \$33 \$33 \$33 \$33 \$33
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OKGE EMDE LEPA OKGE LEPA OKGE LEPA WERE LEPA WERE EMDE EMDE EMDE EMDE SPS SPS SPS SPS SPS SPS SPS SPS WERE WERE WERE CELE CELE CELE CELE CELE CELE CELE C	SPGCK384 13 200 346KV STATE LINE 161KV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV JEFFREY ENRERGY CENTER 230KV JEFFREY ENRERGY CENTER 230KV JEFFREY ENRERGY CENTER 230KV JEFFREY ENRERGY CENTER 346KV LARUSSEL 161KV MAJESTC, WND3115,00 115KV MID-CONTINENT 138KV MID-CONTINENT 138KV NICHOLS 230KV POPULAR BLUFF 69KV REDBUD 346KV REDBUD 346KV REDBUD 346KV RIVERTON 161KV R	1111 1111 122 24.92176 64 64 64 65 65 65 65 65 66 67 67 67 67 67 67 67 67 67 67 67 67	0.02296 (GRDA 0.02796 (AFDA 0.02796 (AFDA 0.02395 (GRDA 0.02397 (GRDA 0.0241 (GRDA 0.03197 (AFDA 0.00426 (GRDA 0.00446 (GRDA 0.0	SALINA 161KV GRDA1 161KV KERR 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV COGENTRIX 346KV COGENTRIX 346KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV GRDA1 161KV GR	39,30963 39,30963 190 190 190 190 190 190 190 190 190 190	0.08778780 0.096855 0.09685 0.096855		\$22 \$33 \$33 \$33 \$33 \$33 \$33 \$33 \$33 \$33
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OKGE EMDE LEPA OKGE LEPA OKGE LEPA WERE LEPA WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	SPECKSA4 13 200 346KV STATE LINE TORKY BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 346KV LARUSSEL 161KV LARUSSEL 161KV MAJESTC, WND3115.00 115KV MID-CONTINENT 138KV MID-CONTINENT 138KV MID-CONTINENT 138KV NICHOLS 230KV POPULAB ELLIPF 68KV REDBUD 346KV REDBU	1111 72 24.92175 64 64 64 65 65 66 67 68 68 67 68 68 68 68 68 68 68 68 68 68 68 68 68	0.02296 (GRDA 0.02396 (GRDA 0.02395 (GRDA 0.02397 (GRDA 0.02397 (GRDA 0.03197 AEPW 0.01497 (GRDA 0.03197 AEPW 0.01497 (GRDA 0.03197 AEPW 0.01497 (GRDA 0.02413 (GRDA 0.02413 (GRDA 0.02414 (GRDA 0.02444 (GRDA 0.03995 (GRDA 0.0446 (GRD	SALINA 161KV ORDA1 161KV GRDA1 161KV SALINA 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV COGENTRIX 346KV OCCE 346KV KERR 115KV GRDA1 161KV GRDA1 161K	39,3965 486 486 486 190 27 33,3965 190 190 180 865 55,4865 27 27 33,3963 27 27 27 33,3963 22 27 27 190 190 190 190 190 190 190 190 190 190	0.0877878 0.096858 0.096858 0.096858 0.096858 0.096858 0.096858 0.096858 0.096858 0.096858 0.096858 0.096858 0.096858		\$2 \$2 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$5 \$3 \$5 \$3 \$6 \$3 \$6 \$3 \$6 \$3 \$6 \$6 \$6 \$6 \$6 \$6 \$6
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OKGE EMDE LEPA OKGE LEPA OKGE LEPA OKGE LEPA WERE WERE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	SPGCK384 13 200 346KV STATE LINE 161KUV BAYOU RAMOS 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 346KV LARUSSEL 161KV LARUSSEL 161KV LARUSSEL 161KV MALESTC WND3115.00 115KV MID-CONTINENT 138KV MID-CONTINENT 138KV NICHOLS 230KV POPULA BLUFF 69KV NICHOLS 230KV POPULA BLUFF 69KV REDBUD 346KV REDBUD	1111 72 24 92175 64 64 64 64 64 72 73 74 75 76 76 76 77 77 77 77 78 78 78 78 78 78 78 78 78	0.02296 (GRDA 0.02796 (AEPW 0.00353 (GRDA 0.02395 (GRDA 0.00376 (GRDA 0.00375 (GRDA	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV SALINA 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV COGENTRIX 346KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV KERR 115KV KERR 115KV KERR 115KV KERR 115KV GRDA1 161KV GRDA1	39,30963 39,30963 190 190 190 190 190 190 190 190 190 203,30963 27 27 27 27 27 27 27 27 27 27 27 27 27	0.08718-0.0871		52 52 53 53 53 53 53 53 53 53 53 53 53 53 53
OKGE EMDE LEPA OKGE LEPA OKGE LEPA OKGE LEPA WERE WERE EMDE EMDE EMDE EMDE SPS SPS SPS SPS SPS SPS WERE WERE WERE WERE WERE WERE WERE WER	SPECKSAS 13 200 346KV STATE LINE TORKING BAYOU RAMOS 138KV HORSESHOE LAKE 138KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 346KV LARUSSEL 161KV LARUSSEL 161KV LARUSSEL 161KV MALESTC WND3115.00 115KV MID-CONTINENT 138KV MID-CONTINENT 138KV NICHOLS 15KV MID-CONTINENT 138KV NICHOLS 230KV POPCLAR BLUFF 69KV REDBUD 35KK RE	1111 72 24 92175 64 64 64 64 64 72 73 74 75 76 76 76 77 77 77 77 78 78 78 78 78 78 78 78 78	0.02296 (GRDA 0.02396 (GRDA 0.02395 (GRDA 0.02397 (GRDA 0.02397 (GRDA 0.03397 AEPW 0.03413 (GRDA 0.03413 (GRDA 0.03413 (GRDA 0.03414 (GRDA 0.01511 (GRDA 0.01511 (GRDA 0.01511 (GRDA 0.01511 (GRDA 0.01511 (GRDA 0.01511 (GRDA 0.00396 (GRDA 0.003976 (GRDA 0.0039	SALINA 161KV NORTHEASTERN STATION 138KV GRDA1 161KV SALINA 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV COGENTRIX 346KV KERR 115KV GRDA1 161KV GR	39,3965 486 486 486 190 27 39,3963 190 190 865 55,4663 27 37,39,3963 27 27 27 27 27 27 27 27 27 27 27 27 27	0.087183 (0.0983) (0.		\$2 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3
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OKGE EMDE LEPA OKGE OKGE UEPA OKGE OKGE UEPA UEPA UEPA UEPA UEPA WERE WERE WERE WERE WERE WERE WERE WER	SPGCK384 13 200 346KV STATE LINE TORKY BAYOU RAMOS 138KV HORSESHOE LAKE 138KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 236KV JEFFREY ENERGY CENTER 346KV LARUSSEL 161KV LARUSSEL 161KV MAJESTC, WND3115,00 115KV MID-CONTINENT 138KV MID-CONTINENT 15KV MID-CON	1111 72 24.92175 64 64 64 64 65 65 67 68 68 68 68 68 68 68 68 68 68 68 68 68	0.02298 (GRDA 0.02398 (GRDA 0.003978 (GRDA 0.003978 (GRDA 0.003978 (GRDA 0.003978 (GRDA 0.003978 (GRDA 0.003978 (GRDA 0.00398 (GRDA	SALINA 161KV ORDA1 161KV SALINA 161KV SALINA 161KV SALINA 161KV SALINA 161KV GRDA1 161KV GRDA1 161KV GRDA1 161KV COGENTRIX 346KV COGENTRIX 346KV KERR 115KV GRDA1 161KV MUSNOGEE 61KV MUSNOGEE 61KV MUSNOGEE 161KV MUSNOGEE 161KV MUSNOGEE 161KV MUSNOGEE 161KV MUSNOGEE 161KV MUSNOGEE 161KV GRDA1 161KV MUSNOGEE 161KV MUSNOGEE 161KV MUSNOGEE 161KV MUSNOGEE 161KV MUSNOGEE 161KV MUSNOGEE 161KV GRDA1 161KV MUSNOGEE 161K	39,3965 480 480 480 190 27 33,3965 190 190 180 865 55,485 27 27 27 27 27 27 27 27 27 30,3965 22 27 27 31 30,3965 20 21 27 27 27 27 27 27 27 27 27 27 27 27 27	0.08718780 0.086858 0.08		\$22 \$33 \$33 \$33 \$33 \$33 \$33 \$33 \$33 \$33

Color Colo	A EDIM	NODTHE ACTEDNICITATION 245101	40 00007	0.00004 00004	LYEDD 404104	0.7	0.0077	0.05704	
Section 10 Sec			19.99997	0.02984 GRDA		39.30963	0.08778	-0.05794	58 58
									58 58
Column	WFEC	ANADARKO 69KV	70	0.02203 GRDA	KERR 115KV	27	0.07908	-0.05705	59 59
Color	WERE	LAWRENCE ENERGY CENTER 230KV	45.00714	0.00204 GRDA	GRDA1 345KV	203.0309	0.05962	-0.05758	59
Column		RIVERTON 161KV			GRDA1 161KV NORTHEASTERN STATION 138KV				59 59
Column		SOUTHWESTERN STATION 138KV			KERR 115KV				59 59
Column	EMDE	STATE LINE 161KV	72	-0.02799 AEPW	NORTHEASTERN STATION 345KV	625	0.02984	-0.05783	59
Column C	WERE	TECUMSEH ENERGY CENTER 69KV	41	0.0024 GRDA	GRDA1 345KV	203.0309	0.05962	-0.05722	59 59
The content of the		BAYOU RAMOS 138KV FASTMAN 138KV							60
Color	AEPW	ELLIS 69KV	20	-0.00896 GRDA	PENSACOLA 69KV	33	0.04787	-0.05683	60
Color Colo	WERE	JEFFREY ENERGY CENTER 230KV		0.0029 GRDA	GRDA1 345KV				60
March Marc				0.00292 GRDA 0.02216 GRDA					60
Column	AEPW	KNOXLEE 138KV	119	0.01026 GRDA	GRDA1 161KV	190	0.06685	-0.05659	60
Column			50	0.02308 GRDA				-0.056	60
CAMPA									60
TOTAL DE BEO	EMDE	RIVERTON 69KV	22.01061	-0.02305 AEPW	TULSA POWER STATION 138KV	240.0898	0.03346	-0.05651	60
April	EMDE	STATE LINE 161KV	72	-0.02799 GRDA	BOOMER 69KV	24	0.02867	-0.05666	60
Margin Part									60
March Colon Colo					GRDA1 345KV				61
CONTACT DOWN CONTACT	WERE	CHANUTE 69KV	41.1	0.00446 GRDA	GRDA1 345KV	203.0309	0.05962	-0.05516	61
Company									61
The content of the									61
ELL CATALAS DE 1800 (1905) 100	CELE	EVANGELINE 230KV	191	0.00445 GRDA	GRDA1 345KV	203.0309	0.05962	-0.05517	61
MORESTONE 100				0.00439 GRDA 0.00439 GRDA					61
MARCHAND	OKGE	HORSESHOE LAKE 138KV	64	0.02395 GRDA	KERR 115KV	27	0.07908	-0.05513	61
March Marc	EMDE	LARUSSEL 161KV	171	-0.03197 OKGE	MUSTANG 138KV	351	0.02312	-0.05509	61
The Comment	EMDE	LARUSSEL 161KV	171	-0.03197 OKGE	SEMINOLE 138KV	329.1385		-0.05519	61
MICHAEL SISTEM MICH	EMDE	LARUSSEL 161KV	171	-0.03197 OKGE	SMITH COGEN 138KV	106	0.02315	-0.05512	61
	OKGE	MUSTANG 138KV	24.5	0.02312 GRDA	KERR 115KV	27	0.07908	-0.05596	61
Color									61
DECET ASSERT VERY VERY VERY VERY VERY VERY VERY VERY	CELE	TECHE 138KV	80.99292	0.00378 GRDA	GRDA1 345KV	203.0309		-0.05584	61
MARCHEST (MINEY TP)	EMDE	ASBURY 161KV	21	-0.0209 AEPW	TULSA POWER STATION 138KV	240.0898	0.03346	-0.05436	62
MANUSER CHAPT COSTON OF									62
ALEYST NEW CONTRICT 1980									62
The	AEPW	MID-CONTINENT 138KV	142.11	0.02413 GRDA	KERR 115KV	27	0.07908	-0.05495	62
APPROXIMATION CONTROL			1188.201 22.01061	0.02444 GRDA -0.02305 AEPW					62
APPW									62
APPY	AEPW	TULSA POWER STATION 138KV	53.9102	0.03346 GRDA	SALINA 161KV	39.30963	0.08778	-0.05432	62
WILLIAM WATER WA	AEPW	TULSA POWER STATION 69KV							62 62
ENDE JARUSSE TRINCY 171 - 0.0319/WEC SC SCHOOL THAN WITH SAME AND									63
ENDE	EMDE	LARUSSEL 161KV	171	-0.03197 WFEC	ANADARKO 138KV	371.0778	0.02199	-0.05396	63
BOOK	EMDE	LARUSSEL 161KV	171	-0.03197 AEPW	COMANCHE 138KV	145	0.02161	-0.05358	63
BIOCE									63
ENDE	EMDE	LARUSSEL 161KV	171	-0.03197 OMPA	OMPA-KAW 69KV	26.99778	0.02157	-0.05354	63
ENDE	EMDE	LARUSSEL 161KV	171	-0.03197 OKGE	SOONER 138KV	535	0.02212	-0.05409	63
WERE GETTY 68V	EMDE EMDE				SOUTHWESTERN STATION 138KV SOUTHWESTERN STATION 138KV				63
EMDE	CELE	NATCHITOCHES 69KV			GRDA1 345KV				63 64
ENDE	EMDE	LARUSSEL 161KV	171	-0.03197 OKGE	SOONER 345KV	537	0.02126	-0.05323	64
WREE GALE EMERGY CENTER 6984V 46 0.00796 (RRDA) SIRDA 1556V 20.0099 0.056902 0.05508									64
SPS MACESTC_WND3115.00 1156V	WERE				GRDA1 345KV				65 65
SPS	SPS	MAJESTC_WND3115.00 115KV	72	0.01497 GRDA	GRDA1 161KV	190	0.06685	-0.05188	65
SPS	SPS	NICHOLS 115KV	66.00001	0.01511 GRDA	GRDA1 161KV	190	0.06685	-0.05174	65 65
EMDE			97		GRDA1 161KV		0.06685		65 65
EMDE	EMDE	RIVERTON 161KV	92.74631	-0.01986 AEPW	COGENTRIX 345KV	865	0.03203	-0.05189	65
EMDE	EMDE	RIVERTON 69KV	22.01061	-0.02305 OKGE	MUSKOGEE 345KV	1548	0.02885	-0.0519	65 65
WERE WACD 138KV 30 0.00747 GRDA GRDA1 345KV 203.0399 0.05962 -0.05216	SPS EMDE								65 65
EMDE STATE LINE 1816V 72. 0.02799 ÖKGE MCCLAIN 138KV 470. 0.02309 0.05107 EMDE STATE LINE 1816V 72. 0.02799 ÖKGE MUSTANG 138KV 551. 0.02312 0.05112 EMDE STATE LINE 1816V 72. 0.02799 ÖKGE MUSTANG 68KV 90. 0.02313 -0.05112 EMDE STATE LINE 1816V 72. 0.02799 ÖKGE SEMINOLE 138KV 132.138 EMDE STATE LINE 1816V 72. 0.02799 ÖKGE SEMINOLE 348KV 1019. 0.02303 -0.05104 EMDE STATE LINE 1816V 72. 0.02799 ÖKGE SEMINOLE 348KV 1019. 0.02303 -0.05104 EMDE STATE LINE 1816V 72. 0.02799 ÖKGE SMITH COGEN 138KV 1019. 0.02303 -0.05104 EMDE STATE LINE 1816V 72. 0.02799 ÖKGE TINICER 5G 138KV 60. 0.02333 -0.05184 AEPW WELESTKA 138KV 162. 0.02796 ÖKGE TINICER 5G 138KV 60. 0.02339 -0.05184 AEPW ARSENAL HILL 138KV 337.2 0.00936 ÖRDA GRDAT 345KV 20. 0.00390 -0.05062 SVPA JONESBORO 161KV 52. 0.00238 GRDA GRDAT 345KV 20.03039 -0.05062 SVPA JONESBORO 161KV 52. 0.0023	WERE	WACO 138KV	30	0.00747 GRDA	GRDA1 345KV	203.0309	0.05962	-0.05215	65
EMDE	EMDE	STATE LINE 161KV	72	-0.02799 OKGE	MCCLAIN 138KV	470	0.02308	-0.05107	66
EMDE STATE LINE 161KV 72 -0.02799 OKGE SEMINOLE 138KV 329 1385 0.02323 -0.05121 EMDE STATE LINE 161KV 72 -0.02799 OKGE SEMINOLE 345KV 10109 0.02314 -0.05144 EMDE STATE LINE 161KV 72 -0.02799 OKGE SEMITH COCEN 138KV 106 0.02315 -0.05144 EMDE STATE LINE 161KV 72 -0.02799 OKGE SMITH COCEN 138KV 106 0.02315 -0.0514 EMDE STATE LINE 161KV 72 -0.02799 OKGE TINKER SG 138KV 106 0.02315 -0.05138 AEPW WELEFIKA 138KV 162 0.02764 GRDA KERR 115KV 27 -0.07909 OKGE SEMITH COCEN 138KV 27 -0.07909 OKGES OKG	EMDE EMDE		72 72	-0.02799 OKGE -0.02799 OKGE	MUSTANG 138KV MUSTANG 69KV				66
EMDE STATE LINE 161KV 72 0.02799 (OKGE) SMTH COGEN 139KV 106 0.02319 -0.0514 EMDE STATE LINE 161KV 72 -0.02799 (OKGE) TINKER 56 138KV 60 0.02339 -0.0518 AFPW WELEETKA 138KV 162 0.02764 (BRDA KERR 115KV 27 0.07908 -0.05144 AFPW ARSENAL-HILL 138KV 33.7 0.00936 (BRDA GRDA1 345KV 203.0309 0.05962 0.05026 AFPW FULTON 115KV 153 0.0097 (BRDA GRDA1 345KV 203.0309 0.05962 0.05026 SWPA JONESBORO 161KV 52 0.00296 (BRDA AFRACOLA 69KV 33 0.04787 0.05065 SWPA KENNETT 60KY 29 0.00264 (BRDA PENSACOLA 69KV 33 0.04787 0.05065 SPS MADOX 115KV 171 0.03197 WFEC HUG 138KV 440 0.01855 0.05022 SPS MADOX 115KV 34.55208 0.01638 GRDA KRRR 115KV 190 0.06685 0.05022	EMDE	STATE LINE 161KV	72	-0.02799 OKGE	SEMINOLE 138KV	329.1385	0.02322	-0.05121	66
AFFW WELETKA 138KV 162 0.02786 (RDA KERR 115KV 27 0.07908 -0.05144	EMDE	STATE LINE 161KV	72	-0.02799 OKGE	SMITH COGEN 138KV	106	0.02315	-0.05114	66 66
AEPW ARSENAL HILL 138KV 337.2 0.0093GRDA GRDA 145KV 203.0399 0.05962 0.05066 AEPW FULTON 115KV 153 0.0093GRDA GRDA 1345KV 203.0399 0.05962 0.05066 SWPA JONESBORD 161KV 52 0.00298 GRDA PENSACOLA 98KV 33 0.04787 0.05065 SWPA KENNETT 68KV 29 0.00264 GRDA PENSACOLA 98KV 33 0.04787 0.05065 EMDE LARUSSEL 161KV 171 0.03197 WFEC HUGO 138KV 440 0.01655 0.05051 EMDE LARUSSEL 161KV 171 0.03197 WFEC HUGO 138KV 440 0.01656 0.05051 SPS MADOX 115KV 34560 0.01638 GRDA GRDA1 161KV 190 0.06668 0.05026 SPS MADOX 115KV 32 0.02895 GRDA KERR 115KV 27 0.07906 0.05026 SPS PLANTX 115KV 48 0.01618 GRDA1 161KV 190 0.06668 0.05026 EMDE STATE LINE 161KV 72 0.02799 GKGE SPGCK182 13.200 345KV 77 0.02269 0.05067 EMDE STATE LINE 161KV 72 0.02799 GKGE SPGCK182 13.200 345KV 78 0.00668 0.05068 SPS TOLK 230KV 6.001638 GRDA GRDA1 161KV 190 0.06668 0.05067 EMDE STATE LINE 161KV 72 0.02799 GKGE SPGCK182 13.200 345KV 78 0.02269 0.05068 SPS TOLK 230KV 6.001638 0.01622 GRDA1 6RDA1 161KV 190 0.06668 0.05068 AEPW LIEBERMAN 138KV 6.50989 0.00564 GRDA GRDA1 161KV 190 0.06668 0.05068 AEPW LIEBERMAN 138KV 6.50989 0.00564 GRDA GRDA1 161KV 190 0.06668 0.05068 AEPW LIEBERMAN 138KV 6.50989 0.00564 GRDA GRDA1 161KV 190 0.06668 0.05068 AEPW LIEBERMAN 138KV 6.50989 0.00564 GRDA GRDA1 161KV 190 0.06668 0.05068 AEPW LIEBERMAN 138KV 6.50999 0.00564 GRDA GRDA1 161KV 190 0.06668 0.05068 AEPW LIEBERMAN 138KV 6.50999 0.00564 GRDA GRDA1 161KV 190 0.06668 0.05068 AEPW LIEBERMAN 138KV 6.50999 0.00564 GRDA GRDA1 161KV 190 0.06668 0.05068 AEPW LIEBERMAN 138KV 6.50999 0.00564 GRDA GRDA1 161KV 190 0.00568 0.05068 AEPW LIEBERMAN 138KV 6.50999 0.00564 GRDA GRDA1 161KV 190 0.00568 0.05068 AEPW LIEBERMAN 138KV 6.50999 0.00564 GRDA GRDA1 161KV 190 0.00568 0.05068 AEPW LIEBERMAN 138KV 6.50999 0.00564 GRDA GRDA1 161KV 190 0.00568 0.05068 AEPW LIEBERMAN 138KV 6.50999 0.00564 GRDA GRDA1 161KV 190 0.00568 0.05068 AEPW LIEBERMAN 138KV 6.50999 0.00564 GRDA GRDA1 161KV 190 0.00568 0.05068 0.05068 AEPW LIEBERMAN 138KV 6.50999 0.00564 GRDA GRDA1 161KV 190 0.00568 0.05068 0.05068 0.05068 0.05068									66
SWPA JONESBORD 161KV 52 -0.00286 GRDA PENSACOLA 69KV 33 -0.04787 -0.05085	AEPW	ARSENAL HILL 138KV	337.2	0.00936 GRDA	GRDA1 345KV	203.0309	0.05962	-0.05026	67
EMDE LARUSSE 161KV 17. 0.0319/WFCC HUGO 138KV 440 0.016569 0.05022 SPS MADOST 15KV 348.6205 0.01638 GRDA GRDA1 161KV 1910 0.05669 0.05022 OKGE MUSKGGEE 345KV 32 0.02885 GRDA KERR 115KV 27. 0.07909 0.05026 SPS PLANTX 115KV 448 0.01618 GRDA GRDA1 161KV 1910 0.06688 0.05023 EMDE STATE LINE 161KV 77. 0.02799 GKGE SPGCK182 13.200 345KV 77. 190 0.02269 0.05067 SPS TOLK 20KV 60.00183 0.01622 GRDA GRDA1 161KV 1910 0.06689 0.05068 SPS TOLK 20KV 60.00183 0.01622 GRDA GRDA1 161KV 1910 0.02669 0.05068 SPS TOLK 20KV 60.00183 0.01622 GRDA GRDA1 161KV 1910 0.06689 0.05068 SPS LIPHOLL 261KV 45.99999 0.00954 GRDA GRDA1 161KV 203 0.0309 0.05662 0.05008 SPS LIPHOLL 261KV 154 0.01681 GRDA GRDA1 161KV 1910 0.06689 0.05004 EMDE RIVERTON 161KV 92.74631 0.01988 AEPW NORTHEASTERN STATION 345KV 625 0.02949 0.0497 EMDE STATE LINE 161KV 72 0.02799 GKGE CENTENIAL WIND 34KV 440 0.0224 0.04978 EMDE STATE LINE 161KV 72 0.02799 GKGE CENTENIAL WIND 34KV 440 0.0224 0.05013 EMDE STATE LINE 161KV 72 0.02799 AEPW COMANCHE 198KV 145 0.0214 0.0498 EMDE STATE LINE 161KV 72 0.02799 AEPW COMANCHE 198KV 165 0.0216 0.04967 EMDE STATE LINE 161KV 72 0.02799 AEPW COMANCHE 198KV 165 0.0216 0.04967 EMDE STATE LINE 161KV 72 0.02799 AEPW COMANCHE 198KV 165 0.0216 0.04967 EMDE STATE LINE 161KV 72 0.02799 AEPW COMANCHE 198KV 165 0.0216 0.04967 EMDE STATE LINE 161KV 72 0.02799 AEPW COMANCHE 198KV 165 0.0216 0.04967 EMDE STATE LINE 161KV 72 0.02799 OKGE MORNAL STATE LINE 161KV 151 0.04978 EMDE STATE LINE 161KV 72 0.02799 OKGE SOONER 138KV 151 0.0216 0.04968 EMDE STATE LINE 161KV 72 0.02799 OKGE SOONER 138KV 151 0.0216 0.04968 EMDE STATE LINE 161KV 72 0.02799 OKGE SOONER 138KV 151 0.0216 0.04968 EMDE STATE LINE 161KV 72 0.02799 OKGE SOONER 138KV 151 0.0216 0.04968 EMDE STATE LINE 161KV 72 0.02799 OKGE SOONER 138KV 151 0.0216 0.04968	SWPA	JONESBORO 161KV	52	-0.00298 GRDA	PENSACOLA 69KV	33	0.04787	-0.05085	67 67
SPS MADOX 115KV 34.85205 0.01639, GRDA GRDA1 161KV 190 0.06685 0.05696 0.05046									67
SPS	SPS	MADOX 115KV	34.85205	0.01639 GRDA	GRDA1 161KV	190	0.06685	-0.05046	67
SPS	SPS	PLANTX 115KV	48	0.01618 GRDA	GRDA1 161KV	190	0.06685	-0.05067	67 67
AEPW LIEBERMAN 138KV 45.99998 0.0958 (GRDA GRDAT 345KV 20.3039 0.05862 0.05006 SPS LP-HOLL 26KV 154 0.01681 GRDA GRDAT 161KV 19.006688 -0.05004 EMDE RIVERTON 161KV 92.74631 0.01988 AEPW NORTHEASTERN STATION 345KV 625 0.02898 -0.0497 EMDE STATE LINE 161KV 72 -0.02799 MGE CENTENIAL WIND 34KV 44 0.02214 -0.0498 EMDE STATE LINE 161KV 72 -0.02799 MGE CENTENIAL WIND 34KV 44 0.02214 -0.0486 EMDE STATE LINE 161KV 72 -0.02799 AEPW COMANCHE 138KV 145 0.0214 -0.0486 EMDE STATE LINE 161KV 72 -0.02799 AEPW COMANCHE 69KV 60 0.02163 -0.0497 EMDE STATE LINE 161KV 72 -0.02799 OMPA OMPA-KAW 69KV 26.99778 0.02157 -0.04976 EMDE STATE LINE 161KV 72 -0.02799 OMPA OMPA-KAW 69KV 26.99778 0.02157		STATE LINE 161KV			SPGCK1&2 13.200 345KV	78	0.02269	-0.05068	67 67
EMDE	AEPW	LIEBERMAN 138KV	45.99999	0.00954 GRDA	GRDA1 345KV	203.0309	0.05962	-0.05008	68
EMDE STATE LINE 161KV 72 -0.02799 AGPW COMANCHE 138KV 44 -0.02014 -0.05013	EMDE	RIVERTON 161KV	92.74631	-0.01986 AEPW	NORTHEASTERN STATION 345KV	625	0.02984	-0.0497	68 68
EMDE STATE LINE 161KV 72 -0.02799 AEPW COMANCHE 138KV 145 -0.02161 -0.0466 EMDE STATE LINE 161KV 72 -0.02799 AEPW COMANCHE 69KV 60 .02168 -0.04967 EMDE STATE LINE 161KV 72 -0.02799 WFEC MORLND 138KV 320.7559 0.02179 -0.04976 EMDE STATE LINE 161KV 72 -0.02799 MPA OMPA-KAW 69KV 26.99778 0.02157 -0.04956 EMDE STATE LINE 161KV 72 -0.02799 OMPA OMPA-KAW 69KV 151 -0.02157 -0.04956 EMDE STATE LINE 161KV 72 -0.02799 OMGE SOONER 138KV 535 -0.02212 -0.0511 EMDE STATE LINE 161KV 72 -0.02799 OMGE SOONER 138KV 535 -0.02212 -0.0511 EMDE STATE LINE 161KV 72 -0.02799 OMGE SOONER 138KV 712 -0.02789 OMGE SOONER 138KV 712 -0.02787 OM986 SOONER								-0.04998 -0.05013	68
EMDE STATE LINE 161KV 72 - 0.02799 WFEC MORLND 138KV 320.7559 - 0.02179 - 0.04976 EMDE STATE LINE 161KV 72 - 0.02799 OMPA OMPA-KAW 60KV 28.99778 - 0.02179 - 0.04966 EMDE STATE LINE 161KV 72 - 0.02799 OMPA OMPA-PONCA CITY 60KV 153 - 0.02157 - 0.04966 EMDE STATE LINE 161KV 72 - 0.02799 OKGE SOONER 138KV 535 - 0.02212 - 0.05011 EMDE STATE LINE 161KV 72 - 0.02799 OKGE SOONER 138KV 535 - 0.02212 - 0.05011 EMDE STATE LINE 161KV 72 - 0.02799 OKGE SOOTHWESTERN STATION 138KV 712 - 0.02187 - 0.04986	EMDE	STATE LINE 161KV	72	-0.02799 AEPW	COMANCHE 138KV	145	0.02161	-0.0496	68
EMDE STATE LINE 161KV 72 -0.02799 MMPA OMPA-PONCA CITY 69KV 153 -0.02157 -0.04956 EMDE STATE LINE 161KV 72 -0.02799 OKGE SOONER 136KV 535 -0.02212 -0.05011 EMDE STATE LINE 161KV 72 -0.02799 AEPW SOUTHWESTERN STATION 138KV 712 -0.02187 -0.04986	EMDE	STATE LINE 161KV	72	-0.02799 WFEC	MORLND 138KV	320.7559	0.02179	-0.04978	68
EMDE STATE LINE 161KV 72 0.02799 AGPW SOONER 138KV 535 0.02212 0.02019 EMDE STATE LINE 161KV 72 0.02799 AGPW SOUTHWESTERN STATION 138KV 712 0.02187 -0.0498	EMDE EMDE	STATE LINE 161KV STATE LINE 161KV	72 72	-0.02799 OMPA -0.02799 OMPA		26.99778 153	0.02157	-0.04956 -0.04956	68
EMDE STATE LINE 1011V	EMDE	STATE LINE 161KV	72	-0.02799 OKGE	SOONER 138KV	535	0.02212	-0.05011	68
	EMDE	STATE LINE 161KV	72	-0.02799 AEPW	SOUTHWESTERN STATION 138KV	712 287	0.02187	-0.04986	68

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AEPW AEPW	EASTMAN 138KV KNOXLEE 138KV		0.01033 GRDA 0.01026 GRDA	GRDA1 345KV GRDA1 345KV	203.0309 203.0309	0.05962	-0.04929 -0.04936	69
EMDE EMDE	LARUSSEL 161KV LARUSSEL 161KV	171 171	-0.03197 SPS -0.03197 SPS	JONES 230KV LP-MACK2 69KV	486 60	0.01679		69
AEPW	LEBROCK 345KV	329.8837	0.01031 GRDA	GRDA1 345KV	203.0309	0.05962	-0.04931	69
AEPW	STATE LINE 161KV WILKES 138KV	72 52.13342	-0.02799 OKGE 0.01068 GRDA	SOONER 345KV GRDA1 345KV	537 203.0309	0.02126		69
EMDE EMDE	LARUSSEL 161KV LARUSSEL 161KV		-0.03197 SPS -0.03197 SPS	CAPROCK 0KV CUNNINGHAM 115KV	80 181	0.01614		70 70
EMDE	LARUSSEL 161KV	171	-0.03197 SPS	CUNNINGHAM 230KV	302.6	0.01638	-0.04835	70
EMDE EMDE	LARUSSEL 161KV LARUSSEL 161KV		-0.03197 SPS -0.03197 SPS	HOBBS_PLT2 118.000 115KV HOBBS_PLT3 118.000 230KV	300 210	0.01639	-0.04836 -0.04836	70
EMDE EMDE	LARUSSEL 161KV LARUSSEL 161KV	171 171	-0.03197 SPS -0.03197 SPS	MADOX 115KV MUSTANG 115KV	153.1479 300	0.01639		70 70
EMDE	LARUSSEL 161KV	171	-0.03197 SPS	MUSTANG 230KV	460	0.01641	-0.04838	70
EMDE EMDE	LARUSSEL 161KV LARUSSEL 161KV	171 171	-0.03197 SPS -0.03197 SPS	PLANTX 115KV PLANTX 230KV	205 189	0.01618	-0.04815 -0.04811	70
EMDE EMDE	LARUSSEL 161KV LARUSSEL 161KV	171 171	-0.03197 SPS -0.03197 SPS	SAN JUAN 230KV TOLK 230KV	120 1019,998	0.01624	-0.04821	70 70
EMDE	RIVERTON 161KV	92.74631	-0.01986 GRDA	BOOMER 69KV	24	0.02867	-0.04853	70
EMDE EMDE	RIVERTON 161KV LARUSSEL 161KV	92.74631 171	-0.01986 OKGE -0.03197 SPS	MUSKOGEE 345KV CZ 69KV	1548	0.02885	-0.04871 -0.04748	70
WERE	CITY OF IOLA 69KV	27.428	0.00105 GRDA	PENSACOLA 69KV	33	0.04787	-0.04682	72
GRDA AEPW	COFFEYVILLE 138KV COGENTRIX 345KV	58.6 29	0.01958 GRDA 0.03203 GRDA	GRDA1 161KV KERR 115KV	190 27	0.06685		72 72
EMDE EMDE	LARUSSEL 161KV LARUSSEL 161KV		-0.03197 SPS -0.03197 SPS	HARRINGTON 230KV NICHOLS 115KV	1040 147	0.01502		72 72
EMDE	LARUSSEL 161KV	171	-0.03197 SPS	NICHOLS 230KV	147	0.01505	-0.04702	72
EMDE EMDE	LARUSSEL 161KV LARUSSEL 161KV		-0.03197 SPS -0.03197 SPS	STEER WATER 115KV WILWIND 230KV	80 160	0.01531		72
AEPW	OEC 345KV	1591.544	0.03177 GRDA	KERR 115KV	27	0.07908	-0.04731	72
EMDE EMDE	LARUSSEL 161KV LARUSSEL 161KV	171 171	-0.03197 OKGE -0.03197 SPS	AES 161KV BLACKHAWK 115KV	320 220	0.01416		73
EMDE	STATE LINE 161KV	72 45.00714	-0.02799 WFEC	HUGO 138KV	440 33	0.01855		73
WERE OKGE	LAWRENCE ENERGY CENTER 230KV SOUTH 4TH ST 69KV	29.98027		PENSACOLA 69KV GRDA1 161KV	190	0.06685	-0.0457	74 74
WERE WERE	TECUMSEH ENERGY CENTER 115KV TECUMSEH ENERGY CENTER 69KV	28 41	0.00238 GRDA 0.0024 GRDA	PENSACOLA 69KV PENSACOLA 69KV	33 33	0.04787		74 74
AEPW	TULSA POWER STATION 138KV	53.9102	0.03346 GRDA	KERR 115KV	27	0.07908	-0.04562	74
AEPW WERE	TULSA POWER STATION 69KV JEFFREY ENERGY CENTER 230KV	80 54	0.03346 GRDA 0.0029 GRDA	KERR 115KV PENSACOLA 69KV	27 33	0.07908	-0.04562 -0.04497	74 75
WERE SPS	JEFFREY ENERGY CENTER 345KV MOORE COUNTY 115KV	108		PENSACOLA 69KV GRDA1 345KV	33	0.04787		75 75
AEPW	SOUTHWESTERN STATION 138KV	152	0.02187 GRDA	GRDA1 161KV	190	0.06685	-0.04498	75
AEPW WFEC	SOUTHWESTERN STATION 138KV ANADARKO 69KV	350 70	0.02187 GRDA 0.02203 GRDA	GRDA1 161KV GRDA1 161KV	190 190	0.06685	-0.04498 -0.04482	75 76
AEPW	KIOWA 345KV	1344.801	0.02216 GRDA	GRDA1 161KV	190	0.06685	-0.04469	76
EMDE SPS	LARUSSEL 161KV MAJESTC_WND3115.00 115KV	72		GRDA1 345KV	31.2 203.0309	0.01235		76 76
SPS SPS	NICHOLS 115KV NICHOLS 230KV	66.00001 97	0.01511 GRDA	GRDA1 345KV GRDA1 345KV	203.0309 203.0309	0.05962	-0.04451	76 76
EMDE	STATE LINE 161KV	72	-0.02799 SPS	CUNNINGHAM 115KV	181	0.01639	-0.04438	76
EMDE EMDE	STATE LINE 161KV STATE LINE 161KV		-0.02799 SPS -0.02799 SPS	CUNNINGHAM 230KV HOBBS_PLT2 118.000 115KV	302.6 300	0.01638		76 76
EMDE EMDE	STATE LINE 161KV	72	-0.02799 SPS	HOBBS_PLT3 118.000 230KV	210	0.01639	-0.04438	76
EMDE	STATE LINE 161KV STATE LINE 161KV	72		LP-MACK2 69KV	486	0.01679	-0.04478 -0.0448	76 76
EMDE EMDE	STATE LINE 161KV STATE LINE 161KV		-0.02799 SPS -0.02799 SPS	MADOX 115KV MUSTANG 115KV	153.1479 300	0.01639		76 76
EMDE	STATE LINE 161KV	72	-0.02799 SPS	MUSTANG 230KV	460	0.01641	-0.0444	76
CELE WERE	ACADIA 138KV EMPORIA ENERGY CENTER 345KV		0.00396 GRDA 0.00364 GRDA	PENSACOLA 69KV PENSACOLA 69KV	33	0.04787		77
OKGE	MCCLAIN 138KV	50	0.02308 GRDA	GRDA1 161KV	190	0.06685	-0.04377	77
EMDE OKGE	RIVERTON 161KV SPGCK3&4 13.200 345KV		-0.01986 OKGE 0.02269 GRDA	HORSESHOE LAKE 138KV GRDA1 161KV	796 190	0.02395	-0.04381 -0.04416	77
EMDE EMDE	STATE LINE 161KV	72	-0.02799 SPS -0.02799 SPS	CAPROCK 0KV PLANTX 115KV	80 205	0.01614		77
EMDE	STATE LINE 161KV	72	-0.02799 SPS	PLANTX 230KV	189	0.01614	-0.04413	77
EMDE EMDE	STATE LINE 161KV STATE LINE 161KV	72 72	-0.02799 SPS -0.02799 SPS	SAN JUAN 230KV TOLK 230KV	120 1019.998	0.01624	-0.04423 -0.04421	77
CELE WERE	TECHE 138KV ABILENE ENERGY CENTER 115KV	80.99292 66	0.00378 GRDA 0.0042 GRDA	PENSACOLA 69KV PENSACOLA 69KV	33 33	0.04787	-0.04409	77
WERE	CHANUTE 69KV	41.1	0.00446 GRDA	PENSACOLA 69KV	33	0.04787	-0.04341	78
CELE	EVANGELINE 230KV G6EVAN 13.800 138KV	191 114	0.00445 GRDA 0.00439 GRDA	PENSACOLA 69KV PENSACOLA 69KV	33	0.04787		78 78
CELE	G7EVAN 22.000 138KV	33.00002	0.00439 GRDA	PENSACOLA 69KV	33	0.04787	-0.04348	78
EMDE SPS	LARUSSEL 161KV MADOX 115KV		-0.03197 AEPW 0.01639 GRDA	WELSH 345KV GRDA1 345KV	203.0309	0.01149	-0.04346 -0.04323	78 78
SPS EMDE	PLANTX 115KV RIVERTON 161KV	48	0.01618 GRDA -0.01986 OKGE	GRDA1 345KV TINKER 5G 138KV	203.0309	0.05962		78 78
OKGE	SEMINOLE 138KV	205.8615	0.02322 GRDA	GRDA1 161KV	190	0.06685	-0.04363	78
EMDE EMDE	STATE LINE 161KV STATE LINE 161KV	72	-0.02799 SPS -0.02799 SPS	CZ 69KV STEER WATER 115KV	39	0.01551	-0.0435 -0.0433	78 78
SPS	TOLK 230KV	60.00183	0.01622 GRDA	GRDA1 345KV	203.0309	0.05962	-0.0434	78
CELE OKGE	D.G. HUNTER POWER STATION 138KV HORSESHOE LAKE 138KV	125.1 64	0.00482 GRDA 0.02395 GRDA	PENSACOLA 69KV GRDA1 161KV	33 190	0.04787		79 79
EMDE EMDE	LARUSSEL 161KV LARUSSEL 161KV	171	-0.03197 AEPW -0.03197 AEPW	LONESTAR POWER PLANT 69KV WILKES 138KV	27 410,8666		-0.04278 -0.04265	79
SPS	LP-HOLL2 69KV		0.01681 GRDA	GRDA1 345KV	203.0309		-0.04281	79
AEPW SWPA	MID-CONTINENT 138KV POPLAR BLUFF 69KV	142.11	0.02413 GRDA -0.00407 OKGE	GRDA1 161KV MUSKOGEE 161KV	190 166	0.06685	-0.04272 -0.04299	79 79
EMDE EMDE	RIVERTON 161KV RIVERTON 161KV	92.74631	-0.01986 OKGE -0.01986 OKGE	MCCLAIN 138KV MUSTANG 138KV	470	0.02308	-0.04294	79
EMDE			-0.01986 OKGE	MUSTANG 69KV	351 90	0.02313	-0.04299	79
	RIVERTON 161KV	92.74631					0.04000	79 79
EMDE	RIVERTON 161KV	92.74631	-0.01986 OKGE -0.01986 OKGE	SEMINOLE 138KV SEMINOLE 345KV	329.1385			79
EMDE EMDE EMDE	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV	92.74631 92.74631 92.74631	-0.01986 OKGE -0.01986 OKGE	SEMINOLE 345KV SMITH COGEN 138KV	329.1385 1019 106	0.02305	-0.04291 -0.04301	
EMDE EMDE EMDE CELE EMDE	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 230KV STATE LINE 161KV	92.74631 92.74631 92.74631 196 72	-0.01986 OKGE -0.01986 OKGE 0.00498 GRDA -0.02799 SPS	SEMINOLE 345KV SMITH COGEN 138KV PENSACOLA 69KV BLACKHAWK 115KV	329.1385 1019 106 33 220	0.02305 0.02315 0.04787 0.0147	-0.04291 -0.04301 -0.04289 -0.04269	79 79
EMDE EMDE EMDE CELE EMDE EMDE	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 230KV STATE LINE 161KV STATE LINE 161KV	92.74631 92.74631 92.74631 196 72	-0.01986 OKGE -0.01986 OKGE 0.00498 GRDA -0.02799 SPS -0.02799 SPS	SEMINOLE 345KV SMITH COGEN 138KV PENSACOLA 69KV BLACKHAWK 115KV HARRINGTON 230KV	329.1385 1019 106 33 220 1040	0.02305 0.02315 0.04787 0.0147 0.01502	-0.04291 -0.04301 -0.04289 -0.04269 -0.04301	79 79 79
EMDE EMDE CELE EMDE EMDE EMDE EMDE EMDE EMDE	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 230KV STATE LINE 161KV	92.74631 92.74631 92.74631 196 72 72 72 72	-0.01986 OKGE -0.01986 OKGE 0.00498 GRDA -0.02799 SPS -0.02799 SPS -0.02799 SPS -0.02799 SPS	SEMINOLE 345KV SMTH COGEN 138KV PENSACOLA 69KV BLACKHAWK 115KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 230KV NICHOLS 230KV	329.1385 1019 106 33 2220 1040 147 147	0.02305 0.02315 0.04787 0.0147 0.01502 0.01511	-0.04291 -0.04301 -0.04289 -0.04269 -0.04301 -0.0431	79 79 79 79 79
EMDE EMDE EMDE CELE EMDE EMDE EMDE EMDE	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 230KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV	92.74631 92.74631 92.74631 196.77631 72 72 72 72 72	-0.01986 OKGE -0.01986 OKGE 0.00498 GRDA -0.02799 SPS -0.02799 SPS -0.02799 SPS	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 69KV BLACKHAWK 115KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 115KV NICHOLS 30KV WILWIND 230KV PENSACOLA 69KV	329.1385 1019 106 33 2220 1040 147 147	0.02305 0.02315 0.04787 0.0147 0.01502 0.01511 0.01505 0.01508	-0.04291 -0.04301 -0.04289 -0.04269 -0.04301 -0.0431	79 79 79 79
EMDE EMDE EMDE CELE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 200KV STATE LINE 161KV BTATE LINE 161KV BTATE LINE 161KV BPU - CITY OF MCPHERSON 115KV LARUSSEL 161KV	92.74631 92.74631 92.74631 92.74631 92.74631 72 72 72 72 72 72 232 171	-0.01986 OKGE -0.01986 OKGE 0.00498 GRDA -0.02799 SPS -0.02799 SPS -0.02799 SPS -0.02799 SPS -0.02799 SPS -0.02799 SPS -0.02799 SPS -0.02797 SPS -0.02797 SPS	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 69KV JENSACOLA 69KV HARRINGTON 230KV NICHOLS 116KV NICHOLS 230KV WILWIND 230KV PENSACOLA 69KV EASTMAN 138KV	329.1385 1019 106 33 220 1040 147 147 160 33 157.548	0.02305 0.02315 0.04787 0.0147 0.01502 0.01511 0.01505 0.01508 0.04787 0.01033	-0.04291 -0.04301 -0.04269 -0.04301 -0.04304 -0.04304 -0.04307 -0.04239 -0.04239	79 79 79 79 79 79 79 79 79 80
EMDE EMDE CELE EMDE CGELE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 200KV STATE LINE 161KV BTJATE LINE 161KV LARUSSEL 161KV LARUSSEL 161KV LARUSSEL 161KV LARUSSEL 161KV	92.74631 92.74631 92.74631 92.74631 196 72 72 72 72 23 1711 1711	-0.01986 OKGE -0.01986 OKGE -0.01986 OKGE -0.02798 SPS -0.02798 SPS -0.02799 SPS -0.02799 SPS -0.02799 SPS -0.02799 SPS -0.02799 SPS -0.03197 AEPW -0.03197 AEPW -0.03197 AEPW	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 69KV JENSACOLA 69KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 230KV WILWIND 230KV PENSACOLA 69KV EASTMAN 138KV FITZHUGH 161KV KNOKLEE 138KV	329.1385 (1019) 1019 106 33 220 1040 147 160 33 157.549 125.4 282	0.02305 0.02315 0.04787 0.0147 0.01502 0.01511 0.01505 0.01508 0.04787 0.01033 0.01021	-0.04291 -0.04301 -0.04269 -0.04301 -0.04301 -0.04307 -0.04307 -0.04239 -0.04239 -0.04218 -0.04223	793 793 793 793 793 80 80 80 80 80
EMDE EMDE EMDE CELE EMDE CELE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 2016KV STATE LINE 161KV LARUSSEL 161KV	92.74631 92.74633 92.74633 92.74633 92.74631 72.72 72.72 72.72 72.72 72.72 72.72 73.73 74.71 77.71 77.71 77.71 77.71 77.71 77.71	-0.0198c OKGE -0.0198c OKGE -0.0198c OKGE -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.03197 AEPW -0.03197 AEPW -0.03197 AEPW	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 69KV BLACKHAWK 115KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 115KV NICHOLS 230KV WILWIND 230KV PENSACOLA 69KV EASTMAN 138KV FITZHUCH 161KV KNOXLE 138KV LEBROCK 346KV	329.1385 10191 106 33 220 1040 147 147 160 33 157.549 125.4 282 367.1163	0.02305 0.02315 0.04787 0.014787 0.01502 0.01502 0.01508 0.04787 0.01032 0.01022 0.01033	-0.04291 -0.04301 -0.04269 -0.04301 -0.04304 -0.04304 -0.04304 -0.04239 -0.04239 -0.04223 -0.04223	79 79 79 79 79 79 80 80 80 80 80 80
EMDE EMDE EMDE EMDE GELE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 200KV STATE LINE 161KV LARUSSEL 161KV	92.74631 92.74633 92.74633 92.74633 92.74631 72.72 72.72 72.72 72.72 72.72 73.73 74.71 77.71 77.71 77.71 77.71 77.71 77.71 77.71	0.01986 OKGE 0.00498 GRDA 0.01986 OKGE 0.00498 GRDA 0.02798 GRDA 0.02798 SPS 0.02797 AEPW 0.03197 AEPW 0.03197 AEPW 0.03197 AEPW	SEMINOLE 346KV SMITH COSEN 138KV PENSACOLA 69KV BLACKHANKY 116KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 115KV NICHOLS 230KV WILWIND 230KV PENSACOLA 69KV EASTMAN 136KV FITZHUCH 161KV KNOXLEE 136KV LEBROCK 346KV PIRKEY GENERATION 138KV WILES 346KV	329.1385 101919 106, 3 33, 2 220 1447 1477 160 3 33, 157.549 2 22, 3 37.1163, 2 282 3 27.183, 3 38,	0.02305 0.02315 0.04787 0.0147 0.01502 0.01511 0.01508 0.01508 0.01032 0.01022 0.01033 0.01025 0.01033	-0.04291 -0.04301 -0.04269 -0.04269 -0.04301 -0.04301 -0.04307 -0.04239 -0.04239 -0.04228 -0.04228 -0.04228 -0.04228	79 79 79 79 79 79 80 80 80 80 80 80 80 80
EMDE EMDE EMDE EMDE GELE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 200KV STATE LINE 161KV LARUSSEL 161KV REDBUD 346KV REDBUD 346KV RIVERTON 161KV	92.74631 92.74631 92.74631 92.74631 92.74631 72.72 72.72 72.72 72.72 72.72 73.73 71.71 71.	0.01986 OKGE 0.01986 OKGE 0.00498 GRDA 0.02798 GRDA 0.02798 GPS 0.00548 GPDA 0.03197 AEPW	SEMINOLE 346KV SMITH COSEN 138KV PENSACOLA 69KV BLACKHANKY 115KV HARRINGTON 220KV NICHOLS 115KV NICHOLS 250KV WILWIND 250KV WILWIND 250KV FENSACOLA 69KV EASTMAN 136KV FITZHUGH 161KV KNOXLEE 138KV LEBROCK 346KV PIRKEY GENERATION 138KV WILKES 346KV GRDA1 161KV SPGCK18Z 13.200 345KV	329.1385 10199 106, 333 220 1040 147 147 160 333 157.549 282 367.1163 288 308.08 190 781	0.02305 0.02315 0.04787 0.0147 0.01502 0.01517 0.01508 0.01508 0.0103 0.01025 0.01025 0.01025 0.01025 0.01025 0.01025 0.01025	-0.04291 -0.04301 -0.04289 -0.04289 -0.04289 -0.04301 -0.04301 -0.04303 -0.04239 -0.04239 -0.04228 -0.04228 -0.04228 -0.04228	793 793 793 793 794 795 796 797 800 800 800 800 800 800 800 800 800 80
EMDE EMDE EMDE CELE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 200KV STATE LINE 161KV LARUSSEL 161KV RUSSEL 161KV	92.74631 92.74633 92.74633 92.74631 92.74631 722 722 722 722 232 1717 1717 1717 17	-0.01996 OKGE -0.01996 OKGE -0.04986 GRDA -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.02796 SPS -0.03197 AEPW -0.03197 AEPW -0.0319 AEPW	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 69KV PENSACOLA 69KV HARRINGTON 230KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 230KV WILWIND 230KV PENSACOLA 69KV EASTMAN 138KV FITZHUGH 161KV KNOLLE 138KV LEBROCK 346KV PENSACOLA 69KV UEST 346KV GROAT 161KV STORMEN 151KV STORME	329,1385 10191 10191 1050 333 220 1010101 147 147 1467 1600 33 157,549 125,4 262 367,1163 288 308 1900 78	0.02305 0.02315 0.04781 0.01470 0.01507 0.01507 0.01508 0.01508 0.01508 0.01029 0.01025	-0.04291 -0.04301 -0.04269 -0.04301 -0.04301 -0.04301 -0.04307 -0.0423 -0.0423 -0.0423 -0.04248 -0.04248 -0.04245 -0.04245 -0.04245 -0.04215	793 793 793 793 794 795 795 796 80 80 80 80 80 80 80 80 80 80 80 80 80
EMDE EMDE EMDE CELE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 200KV STATE LINE 161KV LARUSSEL 161KV	92.74631 92.74631 92.74631 196 72.7621 72.72.72.72.72.72.72.72.72.72.72.72.72.7	-0.01986 OKGE -0.004986 OKGE -0.004986 GRDA -0.02798 GRDA -0.02798 SPS -0.03197 AEPW	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 69KV PENSACOLA 69KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 115KV NICHOLS 230KV WILWIND 230KV PENSACOLA 69KV EASTMAN 138KV FITZHUGH 161KV KNOXLEE 138KV LEBROCK 346KV PIRKEY GENERATION 138KV WILKES 346KV GRDA1 161KV SPGCK182 13.200 345KV AES 161KV PENSACOLA 69KV PENSACOLA 69KV PENSACOLA 69KV WILKES 145KV PENSACOLA 69KV PENSACOLA 69KV PENSACOLA 69KV MURCES 145KV PENSACOLA 69KV MURCES 161KV PENSACOLA 69KV MUSKOGES 161KV	329.1385 10191 10191 10191 1050 333 220 1040 1447 1477 1467 1850 331 157.549 125.4 282 367.1153 288 306 1900 78 3200 333 16166	0.02305 0.02315 0.04767 0.01470 0.01502 0.01502 0.01503 0.01022 0.01022 0.01025 0.0	-0.04291 -0.04301 -0.04268 -0.04268 -0.04301 -0.04301 -0.04307 -0.04239 -0.04228 -0.04228 -0.04228 -0.04228 -0.04228 -0.04228 -0.04248 -0.04239 -0.04239 -0.04219 -0.04219 -0.04219 -0.04219	793 793 793 793 794 795 80 80 80 80 80 80 80 80 80 80 80 80 80
EMDE EMDE EMDE EMDE GELE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RODEMACHER 200KV STATE LINE 161KV LARUSSEL 161KV REDBUD 346KV REDBUD 346K	92.74631 92.74633 92.74633 92.74631 92.74631 72.72 72.72 72.72 72.72 72.72 73.73 171 171 171 171 171 171 171 171 171 1	0.01986 OKGE 0.00498 GRDA 0.01986 OKGE 0.00498 GRDA 0.02798 GRDA 0.02798 SPS 0.0249 SPS 0.02798 SPS 0.0249 SPS 0.02798 SPS 0.02494 GRDA 0.03197 AEPW 0.03198 GRGB	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 68KV PENSACOLA 68KV HARRINGTON 230KV NICHOLS 230KV NICHOLS 230KV WILVIND 230KV PENSACOLA 68KV PENSACOLA 68KV PENSACOLA 68KV PENSACOLA 68KV PENSACOLA 68KV PENSACOLA 68KV PITZHUGH 161KV KNOXLEE 138KV LEBROCK 346KV PIRKEY GENERATION 138KV WILKES 346KV GRDA1 161KV SPGCK18Z 13.200 346KV AES 161KV MUSKOGEE 161KV MUSKOGEE 161KV	329.1385 10199 106.33 33 220 1040 147 147 160 33 157.549 125.4 282 367.1163 288 308 190 78 33 308 308 308 308	0.02305 0.02315 0.04787 0.0143 0.01502 0.01517 0.01505 0.04787 0.0103 0.01025 0.010	-0.04291 -0.04301 -0.04268 -0.04268 -0.04301 -0.04301 -0.04307 -0.04239 -0.04228 -0.04228 -0.04228 -0.04228 -0.04228 -0.04228 -0.04248 -0.04239 -0.04239 -0.04219 -0.04219 -0.04219 -0.04219	793 793 794 795 796 797 797 808 800 800 800 800 800 800 800 800 80
EMDE EMDE EMDE EMDE GELE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV STATE LINE 161KV LARUSSEL 161KV KEDBUD 346KV REDBUD 346KV RUSTATE LINE 161KV STATE LINE 161KV STATE LINE 161KV STATE LINE 161KV KENNETT 66KV NATCHITOCHES 68KV RIVERTON 161KV NATCHITOCHES 68KV RIVERTON 161KV NATCHITOCHES 68KV RIVERTON 161KV	92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631	0.01986 OKGE 0.00498 GRDA 0.01986 OKGE 0.00498 GRDA 0.02798 GRDA 0.02798 SPS 0.0249 SPS 0.02798 SPS 0.0249 SPS 0.02798 SPS 0.02494 GRDA 0.03197 AEPW 0.03198 OKGE 0.003197 AEPW 0.0049 OKGE 0.00594 GRDA 0.00594 GRDA 0.00594 GRDA 0.00594 GRDA	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 68KV PENSACOLA 68KV HARRINGTON 230KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 230KV WILWIND 230KV PENSACOLA 68KV FENSACOLA 68KV MUSKOGEE 161KV MUSKOGEE 161KV MUSKOGEE 161KV MUSKOGEE 161KV MUSKOGEE 161KV PENSACOLA 68KV MUSKOGEE 161KV PENSACOLA 68KV	329.1385 10191 10191 1050 333 3220 10404 1477 1477 160 333 157.549 2522 367.1163 3080 190 786 320 331 1666 1666 333	0.02305 0.02315 0.04787 0.014787 0.01502 0.01502 0.01502 0.01032 0.01025 0.	-0.04291 -0.04291 -0.04282 -0.04282 -0.04283 -0.04301 -0.04313 -0.04231 -0.04228 -0.04228 -0.04218	793 793 794 795 796 797 797 808 808 800 808 808 808 808 808 808 80
EMDE EMDE EMDE EMDE EMDE EMDE EMDE EMDE	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV STATE LINE 161KV LARUSSEL 161KV KENBETT 660KV REDBUD 346KV	92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631	0.01996 (OKGE 0.00496 (OKGE 0.00498 (RDDA 0.07998 (RDDA 0.02799 SPS 0.03197 AEPW 0.03198 (OKGE 0.001980 (OKGE 0.001980 (OKGE	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 68KV PENSACOLA 68KV BLACKHAWK 116KV HARRINGTON 230KV NICHOLS 230KV WILLIAM 155KV NICHOLS 230KV WILLIAM 155KV PENSACOLA 68KV PENSACOLA 68KV PENSACOLA 68KV PENSACOLA 161KV KNOXLEE 138KV LEBROCK 346KV PIRKEY GENERATION 138KV WILLIAM 155KV PIRKEY GENERATION 138KV WILLIAM 155KV WILLIAM	329.1385 10191 10191 1050 333 320 10404 1477 1477 160 333 157.549 282 367.1163 308 190 786 320 331 166 166 333 371.0778 444	0.02305 0.02315 0.04787 0.014787 0.01502 0.01502 0.01505 0.01505 0.01022 0.01022 0.01025 0.01025 0.04787	-0.04291 -0.04301 -0.04288 -0.04288 -0.04288 -0.04218 -0.0423 -0.0423 -0.04228 -0.04228 -0.04228 -0.04186 -0.04186 -0.0428 -0.04186 -0.0428 -0.0428 -0.0428 -0.0428 -0.04186 -0.0428 -	793 794 795 795 796 797 797 808 808 808 808 808 808 808 808 818 818
EMDE EMDE EMDE EMDE CELE EMDE EMDE EMDE EMDE EMDE EMDE EMDE E	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV STATE LINE 161KV LARUSSEL 161KV RIVERTON 161KV	92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631	-0.01996 OKGE -0.00498 GROA -0.01996 OKGE -0.00498 GROA -0.02798 GROA -0.02798 SPS -0.03197 AEPW -0.03198 AEPW -0.03197 A	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 69KV PENSACOLA 69KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 115KV NICHOLS 230KV WILWIND 230KV PENSACOLA 69KV EASTMAN 138KV FITZHUGH 161KV KNOWLE 138KV LEBROCK 345KV PIKEY GERERATION 138KV WILKES 345KV GRDA1 161KV SPGCK18Z 13.200 345KV ABASTAGN 145KV WILKES 145KV WILKES 145KV WILKES 145KV WILKES 145KV WILKES 145KV PENSACOLA 69KV MUSKOGEE 161KV	329.1385 10191 106 333 3220 1040 1447 1477 160 333 157549 282 387.153 288 308.08 309.08 319.778 33 166 166 333,371,0778 444 320,7599	0.02305 0.02315 0.0478 0.01476 0.01502 0.01502 0.01503 0.01023 0.01023 0.01023 0.01023 0.01026 0.0265 0.0265 0.03892 0.04783 0.03892 0.04783 0.03892 0.02115 0.02211	-0.04291 -0.04301 -0.04289 -0.04289 -0.04289 -0.04301 -0.04301 -0.0423 -0.0423 -0.0428 -0.0428 -0.0428 -0.0428 -0.0428 -0.0428 -0.0428 -0.0428 -0.0428 -0.04193 -0.04193 -0.04188 -0.04188 -0.04188 -0.04188 -0.04188 -0.04188	793 793 793 794 795 795 808 808 808 808 808 808 808 808 808 81 81 81 81 81
EMDE EMDE EMDE EMDE EMDE EMDE EMDE EMDE	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV STATE LINE 161KV LARUSSEL 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RENNETT 66KV RENNETT 66KV RIVERTON 161KV	92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631	-0.01986 OKGE -0.01986 OKGE -0.00488 GRDA -0.02798 GRDA -0.02798 SPS -0.03197 AEPW -0.03196 OKGE -0.0098 OKGE -0.0098 WFEC -0.0098 WFEC -0.01988 OKGE -0.01988 OKGE -0.01988 OKGE	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 69KV PENSACOLA 69KV HARRINGTON 230KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 230KV WILWIND 230KV PENSACOLA 69KV EASTMAN 138KV FITZHUGH 161KV KNOXLEE 1346KV KNOXLEE 1346KV FITZHUGH 161KV KNOXLEE 1346KV GRDA1 161KV WILKES 346KV GRDA1 161KV SPGCK18Z 13.200 345KV AES 161KV PENSACOLA 69KV MULKES 146KV MUSKOGEE 161KV PENSACOLA 69KV MUSKOGEE 161KV MOSKOGEE 161KV SOUTHWESTERN STATION 138KV SOONER 138KV SOONER 138KV SOONER 138KV	329.1385 10191 106 333 220 1040 1447 1477 160 333 157549 282 387.183 288 30.86 30.86 31.978 33 167.873 33 1778 444 320.7599 5355 772 772	0.0230890 0.023181 0.04787 0.01467 0.01500 0.01501 0.01501 0.01501 0.01501 0.01501 0.01020 0.0103 0.01021 0.0102 0.0102 0.0102 0.0102 0.010	-0.04291 -0.04301 -0.04301 -0.04289 -0.04289 -0.04301 -0.04310 -0.04311 -0.04312 -0.04289 -0.04289 -0.04289 -0.04281 -0.04281 -0.04281 -0.04281 -0.04281 -0.04281 -0.04281 -0.04281 -0.04281 -0.04281 -0.04281 -0.04187 -0.04187 -0.04188	793 793 793 794 795 795 796 808 808 808 808 808 808 808 808 81 81 81 81 81 81 81 81
EMDE EMDE EMDE EMDE EMDE EMDE EMDE EMDE	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV STATE LINE 161KV LARUSSEL 161KV REDBUD 346KV RUPETON 161KV STATE LINE 161KV STATE LINE 161KV RUPETON 161KV RIVERTON 161KV	92.74631 92.74631 92.74631 92.74631 92.74631 72 72 72 72 72 72 72 72 72 72	0.01986 (OKGE 0.00498 (OKGE 0.00498 (GRDA 0.01986 (GRDA 0.02798 (GRDA 0.03197 (AEPW 0.	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 68KV PENSACOLA 68KV BLACKHAWK 116KV HARRINGTON 230KV NICHOLS 230KV WILLIAM 155KV NICHOLS 230KV WILLIAM 155KV PENSACOLA 68KV EASTMAN 136KV FITZHUGH 161KV KNOXLEE 138KV PIRKEY GENERATION 138KV WILLIAM 156KV FITZHUGH 161KV KNOXLEE 138KV GRDA 161KV SPECKT 25 25 25 25 25 25 25 25 25 25 25 25 25	329.1385 10191 10191 1050 333 332 220 1040 1477 1477 160 333 157.549 282 367.1163 3080 190 786 320 320 330 166 666 333 371.0778 444 320.75599 535 7712 287	0.0230890 0.023181 0.04787 0.01467 0.01500 0.01501 0.01501 0.01501 0.01501 0.01501 0.01020 0.0103 0.01021 0.0102 0.0102 0.0102 0.0102 0.010	-0.04291 -0.04291 -0.04286 -0.04186 -0.04186 -0.04198 -0.04198 -0.04173	793 794 795 797 797 797 798 808 808 808 808 808 808 808 808 81 81 81 81
EMDE EMDE EMDE EMDE EMDE EMDE EMDE EMDE	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV STATE LINE 161KV LARUSSEL 161KV REDBUD 346KV RIVERTON 161KV STATE LINE 161KV RIVERTON 161KV LARUSSEL 161KV LARUSSEL 161KV LARUSSEL 161KV	92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631	0.01986 OKGE 0.00498 GRDA 0.01986 OKGE 0.00498 GRDA 0.02798 GRDA 0.02798 SPS 0.02798 SPS 0.02798 SPS 0.02798 SPS 0.02798 SPS 0.02798 SPS 0.00548 GRDA 0.02798 SPS 0.00548 GRDA 0.02798 SPS 0.00548 GRDA 0.03197 AEPW	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 69KV JENSACOLA 69KV HARRINGTON 230KV NICHOLS 230KV NICHOLS 230KV NICHOLS 230KV NICHOLS 230KV WILWIND 230KV PENSACOLA 69KV EASTMAN 138KV FETZHUGH 161KV KNOXLEE 138KV LEBROCK 345KV PINKEY GENERATION 138KV WILKES 345KV SPIGKH 22 13 200 345KV AES 161KV PENSACOLA 69KV WILKES 345KV CENTENIAL WIND 34KV MUSKOGEE 161KV PENSACOLA 69KV MUSKOGEE 161KV MUSKOGEE 16	329.1385 10191 10191 1050 333 3220 10404 1477 1477 160 333 157.549 1254 282 367.1163 308 190 786 320 331 166 166 333 371.0778 444 220.7559 535 712 227 287 4555	0.023080 0.023181 0.04787 0.04481 0.01500 0.01501 0.01501 0.01502 0.01502 0.01502 0.01502 0.01502 0.01502 0.01502 0.01602 0	-0.04291 -0.04296 -0.04286 -0.04286 -0.04286 -0.04286 -0.04286 -0.04307 -0.04307 -0.04307 -0.04286 -0.04286 -0.04286 -0.04286 -0.04286 -0.04286 -0.04286 -0.04286 -0.04287 -0.04286 -0.04287 -0.04287 -0.04186 -0.04186 -0.04187 -0.04173 -0.04173 -0.04173	793 793 793 794 795 796 797 806 806 806 806 806 806 807 807 807 807 807 807 807 807 807 807
EMDE EMDE EMDE EMDE EMDE EMDE EMDE EMDE	RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV STATE LINE 161KV LARUSSEL 161KV RIVERTON 161KV STATE LINE 161KV RIVERTON 161KV RIVERTON 161KV RIVERTON 161KV RENNETT 66KV RIVERTON 161KV LARUSSEL 161KV LARUSSEL 161KV LARUSSEL 161KV LARUSSEL 161KV	92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631 92.74631	-0.01986 OKGE -0.01986 OKGE -0.00488 GRDA -0.02798 GRDA -0.02798 SPS -0.03197 AEPW -0.03198 OKGE -0.0098 OKGE -0.0098 WFEC -0.0098 WFEC -0.01988 OKGE -0.01988 OKGE -0.01988 OKGE -0.01988 OKGE -0.01988 OKGE	SEMINOLE 346KV SMITH COGEN 138KV PENSACOLA 69KV PENSACOLA 69KV HARRINGTON 230KV HARRINGTON 230KV NICHOLS 115KV NICHOLS 230KV WILWIND 230KV PENSACOLA 69KV EASTMAN 138KV FITZHUGH 161KV KNOXLEE 138KV LEBROCK 346KV PIRKEY GENERATION 138KV WILKES 346KV GRDA1 161KV STORDA1 151KV WILKES 145KV ANDARACOLA 69KV MUSHOR 151KV ANDARACOLA 69KV MUSHOR 151KV MUSHOR 151KV MUSHOR 151KV MUSHOR 151KV MUSHOR 151KV MUSHOR 151KV MOSHOR 151KV MOSHOR 151KV MOSHOR 151KV MOSHOR 151KV MOSHOR 151KV SOONTH 151KV SOONTH 151KV SOONTH 151KV SOUTHWESTERN STATION 138KV ARSENAL HILL 151KV ARSENAL HILL 151KV	329.1385 1019 106 333 220 1040 1477 1477 160 333 157.549 1254 282 397.153 308 190 778 333 337.0778 444 320.7559	0.02308070	-0.04291 -0.04296 -0.04286 -0.04286 -0.04286 -0.04286 -0.04286 -0.04307 -0.04307 -0.04307 -0.04286 -0.04286 -0.04286 -0.04286 -0.04286 -0.04286 -0.04286 -0.04286 -0.04287 -0.04286 -0.04287 -0.04287 -0.04186 -0.04186 -0.04187 -0.04173 -0.04173 -0.04173	793 793 793 793 794 795 806 806 806 806 806 806 807 807 807 807 807 807 807 807 807 807

Company Comp	ELIDE	DU EDTON 10101	00 21001	0.01000 LEBIN	COLUMN COLOR				
Martin M	EMDE EMDE	RIVERTON 161KV RIVERTON 161KV			COMANCHE 69KV OMPA-PONCA CITY 69KV	60 153	0.02168		82 82
Section Sect	EMDE	RIVERTON 161KV	92.74631	-0.01986 OKGE	SOONER 345KV	537	0.02126	-0.04112	82
March Marc									83 84
	WERE	GILL ENERGY CENTER 69KV	48	0.00759 GRDA	PENSACOLA 69KV	33	0.04787	-0.04028	84
									84
March Marc	EMDE	STATE LINE 161KV	72	-0.02799 WERE	CITY OF WINFIELD 69KV				84
Color Colo									84 85
MARCH MARC	SWPA	KENNETT 69KV		-0.00264 AEPW	NORTHEASTERN STATION 138KV				85 85
## Company and Com				0.0087 GRDA					86
Company Comp									86 86
An of the larger An of the l	EMDE	LARUSSEL 161KV	171	-0.03197 WERE	GILL ENERGY CENTER 69KV	52	0.00759	-0.03956	86
The color of the									
Company Comp	EMDE	LARUSSEL 161KV	171	-0.03197 WERE	CNTRLPL2 34.500 115KV	99	0.00694	-0.03891	87
Proceedings									88
Section Sect	AEPW	LIEBERMAN 138KV	45.99999		PENSACOLA 69KV	33		-0.03833	88
Color	EMDE								88
Column					EASTMAN 138KV	203.0309			88
Color Colo	EMDE	STATE LINE 161KV	72	-0.02799 AEPW	LEBROCK 345KV	367.1163			88
Section Sect									88 88
Column	EMDE	STATE LINE 161KV	72	-0.02799 AEPW	WILKES 345KV	308	0.01051	-0.0385	88
March Marc									
March Marc									89
Management	EMDE								89
Control Cont									90
Property	AEPW	EASTMAN 138KV	327.461	0.01033 GRDA	PENSACOLA 69KV	33	0.04787	-0.03754	90
March Marc									90
Color	EMDE	LARUSSEL 161KV	171	-0.03197 EMDE	ELK RIVER 345KV		0.00572	-0.03769	90
Color Colo						33			90
ADD	AEPW	SOUTHWESTERN STATION 138KV	152	0.02187 GRDA	GRDA1 345KV	203.0309	0.05962	-0.03775	90
PAPE	AEPW	SOUTHWESTERN STATION 138KV		0.02187 GRDA					90
Mart									90
ANGEL HOLDER THE CONTROL DOWN 171 GUISPICE E SCHOOL STATE OF THE CONTROL DOWN 1 C	EMDE	STATE LINE 161KV	72	-0.02799 AEPW	ARSENAL HILL 69KV	90	0.00937	-0.03736	91
Authority Care Common Co									91 92
TOTAL CONTROL CONTRO									
PROCESS 120 MONTH 100 MO									92
DOCUMENT									92
LOUGH 1997	SWPA			-0.00298 AEPW		240.0898	0.03346	-0.03644	93
March Audust Nation T. Audust T. Audust Nation T. Audust T.									93
MCC_ALL_SEV_COL_SEV_	EMDE	LARUSSEL 161KV	171	-0.03197 CELE	EVANGELINE 230KV	234	0.00445	-0.03642	93
MARCHEN MARC									93
DECEMBER DIVERTION DIVERS D. PARCEL					CUNNINGHAM 115KV				93
MARCE PROPERTY RENAM 10 0000									93
MODE	EMDE EMDE	RIVERTON 161KV RIVERTON 161KV		-0.01986 SPS -0.01986 SPS	HOBBS_PLT2 118.000 115KV HOBBS_PLT3 118.000 230KV				93
MARTER SAVETIC BRITAL 10 10 10 10 10 10 10 1	EMDE	RIVERTON 161KV	92.74631	-0.01986 SPS	MADOX 115KV	153.1479	0.01639	-0.03625	93
SERINGLE 1986V 20.004 7.9									93
FELLINGE NEW YORK 16 0.0004 0.0005 0									93
SEPRIFY ENERGY CENTRE 280W 56 0.0020/OGE MUSROCEE 1916V 160 0.00304 0.0020 0.002 0.0									93
WERE									93
MORE NORPETON HERVY	WERE	JEFFREY ENERGY CENTER 345KV	108	0.00292 OKGE	MUSKOGEE 161KV	166	0.03892	-0.036	94
MODE NEWFOON 15HV									94
MORE RIVERTON 1616V 92 /4617 0.01988 SAN JUAN 2000V 122 0.0161 9.0	EMDE	RIVERTON 161KV							94
Section Sect	EMDE								94
MORE									94
MODE	OKGE	HORSESHOE LAKE 138KV	64	0.02395 GRDA	GRDA1 345KV	203.0309	0.05962	-0.03567	95
MODE									
SWAPA SOPLAR BLUFF GRAY 32 -0.0047 SEPW OC 5-36KV 55.46KS 0.03717 0.03586 98	EMDE	LARUSSEL 161KV	171	-0.03197 CELE	TECHE 138KV	291.0071		-0.03575	95
MODE STATE LINE 1916V 72 - 0.02798 WERE OLL ENRRGY CENTER 1386V 155 - 0.00748 -0.03547 98									95
WERE EMPORIA EMERGY CENTER 366Y 201 0.00364 0.006 201 0.0054 0.0056	EMDE				GILL ENERGY CENTER 138KV				95
LARUSSEL 1616V		STATE LINE 161KV		-0.02799 WERE	GILL ENERGY CENTER 69KV	52	0.00759	-0.03558	95
MIDE REPBUD 36KPV	EMDE			-0.03197 LEPA	CITY OF HOUMA SUB 115KV				96
MIDE	OKGE	REDBUD 345KV	1188.201	0.02444 GRDA	GRDA1 345KV	203.0309	0.05962	-0.03518	96
STATE LINE 1616V									96 96
SELE	EMDE	STATE LINE 161KV	72	-0.02799 WERE	EVANS ENERGY CENTER 138KV	560	0.00739	-0.03538	96
DIVESBORO 161KV									96 97
MODE	SWPA	JONESBORO 161KV	52	-0.00298 AEPW	COGENTRIX 345KV	865	0.03203	-0.03501	97
MOE									97
EPP	EMDE	LARUSSEL 161KV	171	-0.03197 WERE	JEFFREY ENERGY CENTER 345KV				97 97
MDE	WERE	LAWRENCE ENERGY CENTER 230KV	45.00714	0.00204 AEPW	NORTHEASTERN STATION 138KV	480	0.03713	-0.03509	97
MDE									97 97
MDE	EMDE	RIVERTON 161KV	92.74631	-0.01986 SPS	NICHOLS 115KV	147	0.01511	-0.03497	97
MOE					NICHOLS 230KV				97
MERE ABLENE ENERGY CENTER 115KV 66 0.0042 OKGE MUSKOGEE 161KV 166 0.03992 0.03472 99 MERE CHANUTE 69KV 41.10 0.00446 OKGE MUSKOGEE 161KV 166 0.03992 0.03446 99 ELE EVANGELINE 220KV 191 0.00446 OKGE MUSKOGEE 161KV 166 0.03992 0.03447 99 ELE GRAN 13.800 138KV 191 0.00446 OKGE MUSKOGEE 161KV 166 0.03992 0.03447 99 ELE GREVAN 13.800 138KV 191 0.00436 OKGE MUSKOGEE 161KV 166 0.03992 0.03453 99 ELE GREVAN 12.000 138KV 33.00002 0.00439 OKGE MUSKOGEE 161KV 166 0.03992 0.03453 99 ELE GREVAN 12.000 138KV 192 0.00486 OKGE MUSKOGEE 161KV 166 0.03992 0.03453 99 ELE GREVAN 12.000 138KV 192 0.00486 OKGE MUSKOGEE 161KV 166 0.03992 0.03453 99 EMDE STATE LINE 161KV 72 0.0046 OKGE MUSKOGEE 161KV 166 0.03992 0.03459 99 EMDE STATE LINE 161KV 72 0.0046 OKGE MUSKOGEE 161KV 166 0.03992 0.03457 99 ELE D. O. HUNTER POWER STATION 138KV 140 0.0024 OKGE MUSKOGEE 161KV 166 0.03992 0.03473 99 ELE D. O. HUNTER POWER STATION 138KV 125,1 0.00482 OKGE MUSKOGEE 161KV 166 0.03992 0.0341 99 EVER DEFFREY PENGRY CENTER 230KV 54 0.0029 AEPW NORTHEASTERN STATION 138KV 166 0.03992 0.0341 99 EVER DEFFREY PENGRY CENTER 230KV 108 0.0029 AEPW NORTHEASTERN STATION 138KV 440 0.03713 0.03422 99 EMDE LARUSSEL 161KV 171 0.03197 WERE TECUMSEN ENERGY CENTER 115KV 130 0.0032 0.0349 99 EMDE LARUSSEL 161KV 171 0.03197 WERE LEVEN ENERGY CENTER 115KV 130 0.0039	EMDE	STATE LINE 161KV			CNTRLPL2 34.500 115KV				97 97
SELE	WERE	ABILENE ENERGY CENTER 115KV	66	0.0042 OKGE	MUSKOGEE 161KV	166	0.03892	-0.03472	98
SELE GREVAN 13.800 138KV 114 0.00439 OKGE MUSKOGEE 161KV 166 0.03892 0.03453 59	WERE CELE								98 98
MDE	CELE	G6EVAN 13.800 138KV	114	0.00439 OKGE	MUSKOGEE 161KV	166	0.03892	-0.03453	98
MOE	CELE								98 98
MERE TECUMSEH ENERGY CENTER 69KV 41 0.0024_AEPW NORTHEASTERN STATION 138KV 480 0.03713 0.03473 59	EMDE	STATE LINE 161KV	72	-0.02799 CELE	G1WKRAFT 13.800 230KV	55	0.00648	-0.03447	98
WERE	WERE	TECUMSEH ENERGY CENTER 69KV	41	0.0024 AEPW	NORTHEASTERN STATION 138KV	480	0.03713	-0.03473	98
MERE LEFREY ENERGY CENTER 345KV 108 0.00223 AEPW NORTHEASTERN STATION 138KV 480 0.03713 0.03421 99		JEFFREY ENERGY CENTER 230KV							99
MOE	WERE	JEFFREY ENERGY CENTER 345KV	108	0.00292 AEPW	NORTHEASTERN STATION 138KV	480	0.03713	-0.03421	99
MDE									99
DELE RODEMACHER 230KV 196 0.00498 OKSE MUSKOGEE 161KV 166 0.03992 0.03394 100	EMDE				AES 161KV				100
MOE	CELE	RODEMACHER 230KV		0.00498 OKGE	MUSKOGEE 161KV			-0.03394	100
WERE BPU - CITY OF MCPHERSON 115KV 232 0.05846 OKGE MUSKOGEE 161KV 168 0.03992 0.03344 10° WERE EMPORIA ENERGY CENTER 345KV 201 0.00364 AEPW NORTHEASTERN STATION 138KV 480 0.0373 0.03349 10° VEPW TULSA POWER STATION 138KV 53.9102 0.03346 GRDA GRDA1 161KV 190 0.06885 0.03339 10° VEPW TULSA POWER STATION 69KV 80 0.03346 GRDA GRDA1 161KV 190 0.06885 0.03339 10° SELE ACADIA 136KV 192 0.00396 AEPW NORTHEASTERN STATION 138KV 480 0.03713 0.03317 10° SELE TECHE 138KV 80 0.0924 AEPW NORTHEASTERN STATION 138KV 480 0.03713 0.03336 10° WERE ABILLER ENERGY CENTER 115KV 66 0.0042 AEPW NORTHEASTERN STATION 138KV 480 0.03713 0.03236 10°	EMDE								
NORTHEASTERN STATION 138KV 53.9102 0.03346 (BRDA GRDA 161kV 190 0.06685 0.03339 107	WERE	BPU - CITY OF MCPHERSON 115KV	232	0.00548 OKGE	MUSKOGEE 161KV	166	0.03892	-0.03344	101
KEPW TILISA POWER STATION 69KV 80 0.03346 GRDA GRDA 1 161KV 190 0.66868 0.03339 107 ELE ACADIA 138KV 1322 0.0346 GEPW NORTH-EASTERN STATION 138KV 480 0.0373 0.03339 107 ELE TECHE 138KV 69.99292 0.00374 GEPW NORTH-EASTERN STATION 138KV 480 0.03713 0.03339 107 WERE ABILLENE ENERGY CENTER 115KV 66 0.004/2 FEPW NORTH-EASTERN STATION 138KV 480 0.03713 0.03293 107	WERE AFPW	EMPORIA ENERGY CENTER 345KV		0.00364 AEPW 0.03346 GRDA				-0.03349	101 101
ELE ACADIA 138KV 1322 0.00394 AFPW NORTH-EASTERN STATION 138KV 480 0.03713 0.03317 102 ELE TECHE 138KV 80.99292 0.0037 AEPW NORTH-EASTERN STATION 138KV 480 0.03713 0.03315 102 WERE ABILENE ENERGY CENTER 115KV 66 0.0042 AEPW NORTH-EASTERN STATION 138KV 480 0.03713 0.03335 102	AEPW	TULSA POWER STATION 69KV	80	0.03346 GRDA	GRDA1 161KV	190	0.06685	-0.03339	101
WERE ABILENE ENERGY CENTER 115KV 66 0.0042 AEPW NORTHEASTERN STATION 138KV 480 0.03713 -0.03293 103	CELE	ACADIA 138KV		0.00396 AEPW		480	0.03713	-0.03317	102
									102
	CELE	G6EVAN 13.800 138KV			NORTHEASTERN STATION 138KV				103

WERE									
ERLE NATCHTOCHES BRIV 49 0.0089 (ACSE) MUSKOGE 161KV 166 0.03892 0.03292 1030 WERE CHANUTE 69KV 41.1 0.00449 (AEPW) NORTHEASTERN \$176KV 369 0.00397 1030 WERE CHANUTE 69KV 41.1 0.00449 (AEPW) NORTHEASTERN \$176KV 369 0.03713 0.03267 104 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.03713 0.03267 104 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.03713 0.03267 104 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.03713 0.03269 104 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.03713 0.03261 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.03713 0.03261 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.03713 0.03261 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.03713 0.03261 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.03713 0.03261 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.03713 0.03261 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.03713 0.03261 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.0388V 450 0.0437 0.03238 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.0388V 450 0.0437 0.03238 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.0388V 450 0.0437 0.03238 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.0388V 450 0.0437 0.0338 105 ENDE STATE LINE 161KV 77 0.02799 (WERE CHANUTE 69KV 450 0.0388 0.03	WERE	HUTCHINSON ENERGY CENTER 115KV	146.0967	0.00594 OI	KGE	MUSKOGEE 161KV	166	0.03892 -0.03298	103
ENDE STATE LINE 1616V 72 - 0.02799 CELE RODEMACHER 230KV 99 0.00498 - 0.03297 103 WERE CHANGELINE 230KV 911 0.00449 AEPW NORTHEASTERN STATION 138KV 469 0.03713 - 0.03269 104 ENDE STATE LINE 1616V 72 - 0.02799 WERE CHANGELINE 230KV 554 0.00446 . 0.03246 104 ENDE STATE LINE 1616V 77 - 0.02799 WERE CHANGELINE 230KV 554 0.00446 . 0.03246 104 ENDE STATE LINE 1616V 77 - 0.02799 CELE EVANGELINE 230KV 554 0.00446 . 0.03246 104 ENDE STATE LINE 1616V 77 - 0.02799 CELE EVANGELINE 230KV 524 0.00446 . 0.03246 104 ENDE STATE LINE 1616V 77 - 0.02799 CELE EVANGELINE 230KV 524 0.00446 . 0.03246 105 ENDE STATE LINE 1616V 17 - 0.02799 CELE EVANGELINE 230KV 524 0.00446 . 0.03246 105 ENDE STATE LINE 1616V 77 - 0.02799 CELE EVANGELINE 230KV 54 0.00446 . 0.03246 105 ENDE STATE LINE 1616V 77 - 0.02799 WERE CHYOF DEBILISATION 130KV 54 0.00449 . 0.03249 105 ENDE STATE LINE 1616V 77 - 0.02799 WERE CHYOF DEBILISATION 130KV 55 0.00449 . 0.0328 105 ENDE STATE LINE 1616V 77 - 0.02799 CELE GARDA 104 0.00449 . 0.03249 105 ENDE STATE LINE 1616V 77 - 0.02799 WERE CHYOF DEBILISATION 130KV 1616 . 0.00437 . 0.0328 105 ENDE STATE LINE 1616V 77 - 0.02799 GELE GARDA 130KV 154 0.00439 . 0.0328 105 ENDE STATE LINE 1616V 77 - 0.02799 GELE GARDA 130KV 154 0.00439 . 0.0328 105 ENDE STATE LINE 1616V 77 - 0.02799 GELE GARDA 130KV 154 0.00439 . 0.0328 105 ENDE STATE LINE 1616V 77 - 0.02799 GELE GARDA 130KV 154 0.00439 . 0.0328 105 ENDE STATE LINE 1616V 77 - 0.02799 GELE GARDA 130KV 154 0.00439 . 0.0338 0.0038 105 ENDE STATE LINE 1616V 77 - 0.002799 GELE GARDA 130KV 154 0.00399 . 0.0338 0.0038 0.0038 105 ENDE STATE LINE 1616V 77 - 0.002799 GELE GARDA 130KV 154 0.00399 . 0.0038 0.003	SWPA	JONESBORO 161KV	52	-0.00298 AF	EPW	NORTHEASTERN STATION 345KV	625	0.02984 -0.03282	103
VERE	CELE	NATCHITOCHES 69KV	43	0.006 OI	KGE	MUSKOGEE 161KV	166	0.03892 -0.03292	103
CELE EVANGELINE 200KV 191 0.0046/AEPW NORTHEASTERN STATION 138KV 460 0.03713 0.02268 104 EMDE STATE LINE 161KV 72 -0.02798/CELE CANAUTE 680V 5.48 0.0044 0.03246 10.9 EMDE STATE LINE 161KV 72 -0.02798/CELE EVANCELINE 20KV 2.24 0.0044 0.03244 10.9 CELE R.ODEMACHER 230KV 196 0.00482/EPPW NORTHEASTERN STATION 138KV 480 0.03713 -0.02215 10.06 EMDE STATE LINE 161KV 72 -0.02799/EVER GFTOTO FOR BURLINGTON 66KV 5.54 0.00437 -0.02316 10.5 EMDE STATE LINE 161KV 72 -0.02799/ECELE GFEVAN 22.00 138KV 166 0.00437 -0.0238 10.5 SWPA JONESSORO 161KV 52 -0.02299/ECELE GFEVAN 22.00 138KV 156 0.00437 -0.0238 -0.0318 10.5 AEPW WELETIKA 138KV 160 0.02796/ECELE GFEVAN 22.00 138KV 156 0.00339 -0.028	EMDE	STATE LINE 161KV	72	-0.02799 CE	ELE	RODEMACHER 230KV	991	0.00498 -0.03297	103
EMDE STATE LINE 161KV 72 0.02799 (PERE LAND 151KV 22.0.00446 -0.03246 10.0 EDITOR STATE LINE 161KV 72 0.02799 (PERE LAND 151KV 22.0 0.00446 -0.03246 10.0 EGLE O.G. HUNTER POWER STATION 138KV 125.1 0.00482 AEPW NORTHEASTERN STATION 138KV 480 0.03713 -0.03231 10.0 EMDE STATE LINE 161KV 72 0.02799 (PERE CITY OF BURLINGTON 198KV 55.4 0.00437 -0.03216 10.0 EMDE STATE LINE 161KV 72 0.02799 (PERE CITY OF BURLINGTON 198KV 55.4 0.00437 -0.03238 10.0 EMDE STATE LINE 161KV 72 0.02799 (PERE CITY OF BURLINGTON 198KV 55.4 0.00437 -0.03238 10.0 EMDE STATE LINE 161KV 72 0.02799 (PERE CITY OF BURLINGTON 198KV 55.4 0.00437 -0.03238 10.0 EMDE STATE LINE 161KV 72 0.02799 (PERE CITY OF BURLINGTON 198KV 55.4 0.00437 -0.03238 10.0 EMPA JONESBORO 161KV 52 0.00298 (OKGE MUSKOGEE 345KV 11.6 0.00439 -0.0338) 10.0 EMPA JONESBORO 161KV 52 0.00298 (OKGE MUSKOGEE 345KV 11.6 0.00439 -0.0338) 10.0 EMPA WELETIKA 138KV 11.0 (PERE CITY OF BURLINGTON 198KV 11.0 (PERE CITY OF BURLINGTON 19	WERE	CHANUTE 69KV	41.1	0.00446 AF	EPW	NORTHEASTERN STATION 138KV	480	0.03713 -0.03267	104
EMDE STATE LINE 161KV 72 0.02799 (CELE DANGELINE 230KV 224 0.00445 -0.03244 104 105	CELE	EVANGELINE 230KV	191	0.00445 AE	EPW	NORTHEASTERN STATION 138KV	480	0.03713 -0.03268	104
CELE D.G. HUNTER POWER STATION 138KV 125.1 0.00489 AEPW NORTHEASTERN STATION 138KV 460 0.03713 0.00231 105 EMDE STATE LINE 161KV 72 0.02798 WERE CITY OF BURLINSTON 69KV 55.4 0.00437 0.00236 105 EMDE STATE LINE 161KV 772 0.02798 WERE CITY OF BURLINSTON 69KV 55.4 0.00437 0.00236 105 SWPA JONESBORD 161KV 52 0.00298 OKGE MUSKOGEE 34KKV 1548 0.0288 0.03183 105 SWPA JONESBORD 161KV 152 0.00298 OKGE MUSKOGEE 34KKV 1548 0.0288 0.03180 106 AEPW WELEFIKA 138KV 152 0.00284 OKGE MUSKOGEE 34KKV 1548 0.0288 0.03180 106 AEPW SWEL BPU - CITY OF MCPHERSON 115KV 223 0.00548 AEPW NORTHEASTERN STATION 138KV 460 0.03713 0.03165 107 AEPW SELVIN, GN 113800 69KV 50 0.03393 AEPW NORTHEASTERN STATION 138KV 460 0.03713 0.03165 107 AEPW STATE LINE 161KV 772 0.02798 WERE EMPORIA EMERGY CENTER 345KV 261 0.00384 0.03163 107 EMDE STATE LINE 161KV 772 0.02798 WERE EMPORIA EMERGY CENTER 345KV 261 0.00384 0.03163 107 WERE GILL ENREGY CENTER 136KV 84 90999 0.00748 OKGE MUSKOGEE 161KV 166 0.03892 0.03144 108 WERE GILL ENREGY CENTER 60KV 46 0.00079 (ASC) MUSKOGEE 161KV 166 0.03892 0.03144 108 WERE LAWRENCE ENERGY CENTER 136KV 45.00079 0.00759 OKGE MUSKOGEE 161KV 166 0.03892 0.03134 0.0317 108 WERE HUTCHINSON ENERGY CENTER 136KV 45.00079 0.0059 AEPW NORTHEASTERN STATION 138KV 460 0.03713 0.03179 109 WERE HUTCHINSON ENERGY CENTER 136KV 45.00079 0.00094 AEPW NORTHEASTERN STATION 138KV 460 0.03713 0.03179 109 EMDE STATE LINE 161KV 92 2.00079 0.00094 AEPW NORTHEASTERN STATION 138KV 460 0.03713 0.03179 109 EMDE STATE LINE 161KV 92 2.00095 0.00094 AEPW NORTHEASTERN STATION 138KV 460 0.03713 0.03179 109 EMDE RIVERTON 161KV 92 2.00095 0.00094 AEPW NORTHEASTERN STATION 138KV 460 0.03713 0.03179 109 EMDE STATE LINE 161KV 92 2.00095 0.00094 AEPW NORTHEASTERN STATION 138KV 460 0.03713 0.03179 109 EMDE STATE LINE 161KV 92 2.00095 0	EMDE	STATE LINE 161KV	72	-0.02799 W	ERE	CHANUTE 69KV	54.8	0.00446 -0.03245	104
CELE RODEMACHER 230KV 196 0.0498 AEPW NORTHEASTERN STATION 138KV 480 0.03713 0.02215 105 EMDE STATE LINE 161KV 72 0.02799 (ELE CITY OF DIRLINGTON 089KV 55.4 0.00437 -0.03236 105 EMDE STATE LINE 161KV 72 0.02799 (ELE GFVAN 22.000 138KV 165 0.00437 -0.03238 105 SIAPA JONESBORO 161KV 52 0.02996 (SEE GFVAN 22.00 138KV 168 0.00438 106 AEPW WELLETKA 138KV 162 0.02764 (SRDA GRDA GRDA 1345KV 20.0309 0.0596.2 -0.03188 106 MERE BPU - CITY OF MCPHERSON 115KV 22 0.0264 (RDA GRDA 1345KV 20.03998 0.0596.2 -0.03188 106 AEPW ELKIN GN 113,800 68KV 60 0.31333 AEPW 100TTTOWN 161KV 140 -0.028773 -0.03165 107 EMDE STATE LINE 161KV 72 -0.02799 (CELE TECHE 138KV 161 -0.03571 -0.03167 107	EMDE	STATE LINE 161KV	72	-0.02799 CE	ELE	EVANGELINE 230KV	234	0.00445 -0.03244	104
EMDE STATE LINE 161KV 72 -0.02799 (EEE CITY OF BURLINGTON 69KV 55.4 0.00437 -0.03236 105 EMDE STATE LINE 161KV 72 -0.02799 (EEE CATEVAN 22.000 138KV 168 0.00437 -0.03238 105 SWPA JONESBORD 161KV 52 -0.00299 (CICE MUSKOGEE 345KV 154 0.00285 -0.00183 106 APPW WELEFITA 138KV 162 0.02764 (RDN 1 EVERY STATE LINE 161KV 152 0.00394 (ACC STATE ACC STATE	CELE	D.G. HUNTER POWER STATION 138KV	125.1	0.00482 AE	EPW	NORTHEASTERN STATION 138KV	480	0.03713 -0.03231	105
EMDE STATE LINE 161KV 72 -0.02796 (ELE G7EVAN 22.00.138KV 165 0.00438 -0.00238 105	CELE	RODEMACHER 230KV	196	0.00498 AB	EPW	NORTHEASTERN STATION 138KV	480	0.03713 -0.03215	105
SWPA	EMDE	STATE LINE 161KV	72	-0.02799 W	ERE	CITY OF BURLINGTON 69KV	55.4	0.00437 -0.03236	105
AEPW WELETIKA 138KV 162 0.0276 (CRDA GRDA 36KV 20.00548) 106 WERE BPU - CITY OF MCPHERSON 115KV 222 0.00548 AEPW NORTH-EASTERN STATION 138KV 140, 0.02373 - 0.00156 107 AEPW ELKIN, GN 113,800 68KV 60 0.3193 AEPW TONTTOWN 161KV 140, 0.02373 - 0.00157 107 AEPW ELKIN, GN 113,800 68KV 72 0.02796 WERE EMPORIA ENERGY CENTER 345KV 160, 0.00364 - 0.00157 107 EMDE STATE LINE 161KV 72 0.02796 (ELE TECHE 138KV 20.00046 - 0.00158 107 EMDE STATE LINE 161KV 72 0.02796 (ELE TECHE 138KV 20.00071 0.00378 - 0.003177 107 EMDE GILL ENERGY CENTER 138KV 84.9999 0.00746 (OKGE MUSKOGEE 161KV 166 0.03892 - 0.003174 108 WERE GILL ENERGY CENTER 68KV 48 0.00750 (KGE MUSKOGEE 161KV 166 0.03892 - 0.00313 108 WERE GILL ENERGY CENTER 105KV 45.0014 0.00204 AEPW WELSH 345KV 104 0.003346 - 0.00313 108 EMDE RIVERTON 161KV 92.74631 0.01986 AEPW WELSH 345KV 104 0.003346 - 0.00315 108 EMDE RIVERTON 161KV 92.74631 0.01986 AEPW WELSH 345KV 104 0.003713 - 0.00315 108 EMDE NATCHITOCHES 68KV 43 0.0064 AEPW NORTH-EASTERN STATION 138KV 460 0.03713 - 0.003119 109 EGLE NATCHITOCHES 68KV 41 0.0026 AEPW NORTH-EASTERN STATION 138KV 460 0.03713 - 0.003119 109 EMDE STATE LINE 161KV 72 0.02799 (LEP AEPW TULSA POWER STATION 138KV 460 0.03713 - 0.003115 109 EMDE STATE LINE 161KV 72 0.02799 (LEP AEPW TULSA POWER STATION 138KV 460 0.03713 - 0.00316 109 EMDE STATE LINE 161KV 72 0.02799 (LEP AEPW TULSA POWER STATION 138KV 460 0.03713 - 0.00316 109 EMDE STATE LINE 161KV 72 0.02799 (MERE JEFFREY ENERGY CENTER 201KV 440 0.00346 109 EMDE STATE LINE 161KV 72 0.02799 (MERE JEFFREY ENERGY CENTER 36KV 470 0.0034 109 EMDE STATE LINE 161KV 72 0.02799 (MERE JEFFREY ENERGY CENTER 36KV 470 0.0034 109 EMDE STATE LINE 161KV 92 0.0036 AEPW TULSA POWER STATION 138KV 440 0.00334 0.00306 110 EMDE STATE LINE 161KV 92 0.0036 AEPW TULSA POWER STATION 138KV 440 0.0034 109 EMDE STATE LINE 161KV 92 0.0036 AEPW TULSA POWER STATION 138KV 440 0.0034 109 EMDE STATE LINE 161KV 92 0.0036 AEPW TULSA POWER STATION 138KV 440 0.0034 109 EMDE STATE LINE 161KV 92 0.0036 AEPW TULSA POWER STATION 138KV 440 0.	EMDE	STATE LINE 161KV	72	-0.02799 CE	ELE	G7EVAN 22.000 138KV	165	0.00439 -0.03238	105
WERE BPU - CITY OF MCPHERSON 115KV 222 0.00544 AEPW NORTHEASTERN STATION 138KV 480 0.03713 0.03165 107	SWPA	JONESBORO 161KV	52	-0.00298 OI	KGE	MUSKOGEE 345KV	1548	0.02885 -0.03183	106
AEPW ELKIN_GN 113,800 68KV 60 0.3193_AEPW TONTTOWN 16tV 140 0.028778 0.00157 107	AEPW	WELEETKA 138KV	162	0.02764 GI	RDA	GRDA1 345KV	203.0309	0.05962 -0.03198	106
EMDE STATE LINE 161KV 72 -0.02796 (ELE TECHE 158KV 910071 0.00364 0.003163 1077 EMPRE GILL EMERGY CENTER 138KV 8.99998 0.00746 (ACE MUSKOGEE 161KV 168 0.00367 0.003147 1077 WERE GILL EMERGY CENTER 69KV 48.00759 (ACE MUSKOGEE 161KV 168 0.00382 0.003144 108 WERE LAWRENCE ENERGY CENTER 80KV 4.80 0.00750 (ACE MUSKOGEE 161KV 168 0.00382 0.003144 108 WERE LAWRENCE ENERGY CENTER 20KV 45.00714 0.00204 AEPW TULSA POWER STATION 138KV 240.0888 0.00346 0.003142 108 WERE LAWRENCE ENERGY CENTER 10014 10.00204 AEPW TULSA POWER STATION 138KV 240.0888 0.00346 0.003142 108 WERE HUTCHINSON ENERGY CENTER 115KV 146.0067 0.00504 AEPW TULSA POWER STATION 138KV 440 0.03713 0.003119 100 WERE HUTCHINSON ENERGY CENTER 115KV 146.0067 0.00504 AEPW NORTHEASTERN STATION 138KV 440 0.03713 0.003119 100 WERE HUTCHINSON ENERGY CENTER 15KV 172 0.002798 (LEPA CITY OF HOUMA SUB 115KV 480 0.003713 0.003119 100 WERE STATE LINE 161KV 772 0.002798 (LEPA CITY OF HOUMA SUB 115KV 480 0.003716 0.00316 0.00316 1009 WERE TECUMSEH ENERGY CENTER 69KV 41 0.0024 AEPW TULSA POWER STATION 138KV 240.088 0.00316 0.00316 1009 WERE STATE LINE 161KV 772 0.002798 WERE JEFFREY ENERGY CENTER 236KV 440 0.00231 0.00316 1009 WERE STATE LINE 161KV 772 0.002798 WERE JEFFREY ENERGY CENTER 236KV 440 0.003346 0.00306 1100 WERE JEFFREY ENERGY CENTER 236KV 54 0.0023 AEPW TULSA POWER STATION 138KV 240.088 0.03346 0.00306 1100 WERE JEFFREY ENERGY CENTER 345KV 100 0.0023 AEPW TULSA POWER STATION 138KV 240.088 0.03346 0.00306 1110 WERE JEFFREY ENERGY CENTER 345KV 100 0.0023 AEPW TULSA POWER STATION 138KV 240.088 0.03346 0.00306 1111 WERE JEFFREY ENERGY CENTER 345KV 100 0.0023 AEPW TULSA POWER STATION 138KV 240.088 0.03346 0.00306 1111 WERE JEFFREY ENERGY CENTER 345KV 100 0.0023 AEPW TULSA POWER STATION 138KV 240.088 0.03346 0.00306 1111 WERE JEFFREY ENERGY CENTER 345KV 100 0.0023 AEPW TULSA POWER STATION 138KV 240.088 0.03346 0.00306 1111 WERE JEFFREY ENERGY CENTER 345KV 100 0.0023 AEPW TULSA POWER STATION 138KV 240.0088 0.003346 0.00306 1111 WERE JEFFREY ENERGY CENTER 345KV 100 0.0023	WERE	BPU - CITY OF MCPHERSON 115KV	232	0.00548 AB	EPW	NORTHEASTERN STATION 138KV	480	0.03713 -0.03165	107
EMDE STATE LINE 161KV 72 -0.02796 (ELE TECHE 138KV 29.0.071 0.00378 -0.03177 107 WERE GILL ENERGY CENTER 138KV 84.9999 0.00749 (OKCE MUSKOGEE 161KV 166 0.03892 -0.03144 108.00749 (OKCE MUSKOGEE 161KV 166 0.03892 -0.03143 108 (OKCE MUSKOGEE 161KV 166 0.03894 -0.03143 108 (OKCE MUSKOGEE 161KV 166 0.03346 -0.03142 108 (OKCE MUSKOGEE 161KV 166 0.03346 -0.03143 108 (OKCE MUSKOGEE 161KV 166 0.03346 -0.03145 108 (OKCE MUSKOGEE 161KV 166 0.03371 -0.03113 109 (OKCE MUSKOGEE 161KV 166 0.03346 -0.0316 0.03115 109 (OKCE MUSKOGEE 161KV 166 0.03346 0.0316 0.03115 109 (OKCE MUSKOGEE 161KV 166 0.03346 0.0316 0.03116 0.03115 109 (OKCE MUSKOGEE 161KV 166 0.03346 0.03346 0.03346 0.03346 0.03346 (OKCE MUSKOGEE 161KV 166 0.03346 0.	AEPW	ELKIN_GN 1 13.800 69KV	60	-0.31935 AF	EPW	TONTITOWN 161KV	140	-0.28778 -0.03157	107
WERE GILL ENERGY CENTER 39KV 84 99998 00749 OKGE MUSKOGEE 161KV 166 0.03892 0.00144 108 WERE GILL ENERGY CENTER 89KV 48 0.0759 OKGE MUSKOGEE 161KV 166 0.03892 0.001313 108 WERE LAWRENCE ENERGY CENTER 230KV 45 0.0759 OKGE MUSKOGEE 161KV 166 0.03892 0.001313 108 WERE LAWRENCE ENERGY CENTER 230KV 45 0.0759 OKGE MUSKOGEE 161KV 166 0.03892 0.001313 108 WERE HUTCHINSON ENERGY CENTER 115KV 92 2.4631 0.01898 AEPW WELSH 945KY 1044 0.01149 0.00135 108 WERE HUTCHINSON ENERGY CENTER 115KV 146.0967 0.00594 AEPW NORTHEASTERN STATION 138KV 480 0.03713 0.00119 109 CELE NOTH 161KV 146 0.00135 108 WERE HUTCHINSON ENERGY CENTER 115KV 146.0967 0.00594 AEPW NORTHEASTERN STATION 138KV 480 0.03713 0.00119 109 CELE STATE LINE 161KV 420 0.0014 0	EMDE	STATE LINE 161KV	72	-0.02799 W	ERE	EMPORIA ENERGY CENTER 345KV	610	0.00364 -0.03163	107
WERE LAWRENCE ENERGY CENTER 58KV 48, 0.00750/CKGE MUSKOGEE 161KV 166, 0.03892, 0.003133 108 EMDE RIVERTON 161KV 92,74631 0.01986 AEPW WELSH 345KV 1044 0.0014 0.00344 0.00315 108 EMDE RIVERTON 161KV 92,74631 0.01986 AEPW WELSH 345KV 1044 0.0014 0.00315 108 EMDE NATCHITOCHES 68KV 43, 0.0064 AEPW NORTH-EASTERN STATION 138KV 460 0.03713 0.00315 108 EMDE STATE LINE 161KV 72 0.02799 LEPA 0.0070 AEPW NORTH-EASTERN STATION 138KV 460 0.03713 0.003115 109 EMDE STATE LINE 161KV 72 0.02799 LEPA 0.0070 AEPW NORTH-EASTERN STATION 138KV 460 0.03713 0.003115 109 EMDE STATE LINE 161KV 72 0.02799 LEPA 0.0070 AEPW NORTH-EASTERN STATION 138KV 460 0.03713 0.003116 109 EMDE STATE LINE 161KV 72 0.02799 MERE JEFFREY PENERGY CENTER 205KV 420.0989 0.03346 0.03106 109 EMDE STATE LINE 161KV 72 0.02799 MERE JEFFREY PENERGY CENTER 205KV 460 0.00334 0.00306 1109 EMDE STATE LINE 161KV 72 0.02799 MERE JEFFREY PENERGY CENTER 36KV 674 0.0029 0.00399 1109 EMDE STATE LINE 161KV 75 0.0029 AEPW TULSA POWER STATION 138KV 240.0989 0.03346 0.00306 1110 EMDE STATE LINE 161KV 75 0.0029 AEPW TULSA POWER STATION 138KV 240.0989 0.03346 0.00306 1111 WERE JEFFREY ENERGY CENTER 236KV 54 0.0029 AEPW TULSA POWER STATION 138KV 240.0989 0.03346 0.00306 1111 WERE JEFFREY ENERGY CENTER 345KV 108 0.0029 AEPW TULSA POWER STATION 138KV 240.0989 0.03346 0.00306 1111 WERE JEFFREY ENERGY CENTER 345KV 108 0.0029 AEPW TULSA POWER STATION 138KV 240.0989 0.03346 0.00306 1111 AEPW FULTON 115KV 9.0168 0.0029 AEPW TULSA POWER STATION 138KV 240.0989 0.03346 0.003054 1111 AEPW FULTON 115KV 9.27.4631 0.01989 AEPW WILKES 138KV 140.8666 0.00392 0.00322 1112 EMDE RIVERTON 161KV 9.27.4631 0.01989 AEPW WILKES 138KV 166 0.00392 0.00302 1112 EMDE RIVERTON 161KV 9.27.4631 0.01989 AEPW WILKES 138KV 166 0.00392 0.00301 112 EMDE RIVERTON 161KV 9.27.4631 0.01989 AEPW WILKES 138KV 166 0.00392 0.00301 112 EMDE RIVERTON 161KV 9.27.4631 0.01989 AEPW PIRKEY CENERATION 138KV 280 0.00102 0.00315 112 EMDE RIVERTON 161KV 9.27.4631 0.01989 AEPW PIRKEY GENERATION 138KV 280 0.00102 0.	EMDE	STATE LINE 161KV	72	-0.02799 CE	ELE	TECHE 138KV	291.0071	0.00378 -0.03177	107
WERE	WERE	GILL ENERGY CENTER 138KV	84.99999	0.00748 OI	KGE	MUSKOGEE 161KV	166	0.03892 -0.03144	108
EMDE RIVERTON 161KV 92.74631 -0.01986_AEPW WELSH 345KV 104 -0.01149 -0.01149 -0.03135 108 WREE HUTCHINSON ENRORY CENTER 115KV 14.000594_AEPW NORTHEASTERN STATION 138KV 460 -0.03713 -0.03119 109 CELE NATCHITOCHES 68KV 43 0.006_AEPW NORTHEASTERN STATION 138KV 460 -0.03713 -0.03113 109 EMDE STATE LINE 161KV 72 -0.02799_LEND -0.0770_FT (FOLIMA SUB 115KV 95 -0.00316 -0.03115 109 WREE TECUMSEH ENRORY CENTER 68KV 41 0.0024_AEPW TULSA POWER STATION 138KV 240.088 0.03346 -0.03106 109 EMDE STATE LINE 161KV 72 -0.02799_WERE JEFFREY ENRORY CENTER 205KV 440 -0.0029_FT -0.0029_FT -0.00299_FT -0.00299_FT -0.00299_FT -0.00299_FT -0.0029_FT -0.00299_FT -0.0029_FT -0.00	WERE	GILL ENERGY CENTER 69KV	48	0.00759 OI	KGE	MUSKOGEE 161KV	166	0.03892 -0.03133	108
WERE	WERE	LAWRENCE ENERGY CENTER 230KV	45.00714	0.00204 AE	EPW	TULSA POWER STATION 138KV	240.0898	0.03346 -0.03142	108
CELE NATCH/TOCH-S 68/KV 43 0.006.4EPW NORTH-EASTERN STATION 138KV 480 0.037/13 0.03113 109 EMDE STATE LINE 161KV 72 0.02799/LEPA CITY OF HOLMAS UB 115KV 95 0.0037/13 0.03113 109 WERE TECUMSEH ENERGY CENTER 68/KV 41 0.0024.AEPW TULSA POWER STATION 138KV 24:00.880 0.03346 0.03106 109 EMDE STATE LINE 161KV 72 0.02799/WERE JEFFREY ENERGY CENTER 205KV 44:00.0029 0.003099 1100 EMDE STATE LINE 161KV 77 0.02799/WERE JEFFREY ENERGY CENTER 205KV 874 0.0029 0.003091 1100 EMDE STATE LINE 161KV 77 0.00294/WERE JEFFREY ENERGY CENTER 345KV 874 0.00294 0.003091 1110 WERE JEFFREY ENERGY CENTER 345KV 10.00294/EPW TULSA POWER STATION 138KV 24:00.880 0.03346 0.003066 1111 WERE JEFFREY ENERGY CENTER 345KV 10.00294/EPW TULSA POWER STATION 138KV 24:00.880 0.03346 0.003056 1111 AEPW FULTON 115KV 92.74631 0.016896/EPW WILKES 138KV 41:0.8666 0.003544 1111 AEPW FULTON 115KV 153 0.0087/CKGE MUSKGGEE 161KV 166 0.03892 0.003024 1112 EMDE RIVERTON 161KV 92.74631 0.016896/EPW KINCKS 138KV 157.549 0.0033 0.003019 112 EMDE RIVERTON 161KV 92.74631 0.016896/EPW KINCKS 158KV 222 0.01028 0.00312 112 EMDE RIVERTON 161KV 92.74631 0.016896/EPW KINCKS 158KV 222 0.01028 0.00317 112 EMDE RIVERTON 161KV 92.74631 0.016896/EPW KINCKS 158KV 367.1163 0.00310 10.00317 112 EMDE RIVERTON 161KV 92.74631 0.016896/EPW KINCKS 158KV 368 0.01029 0.00317 112 EMDE RIVERTON 161KV 92.74631 0.016896/EPW WILKES 158KV 368 0.01029 0.00317 112 EMDE RIVERTON 161KV 92.74631 0.016896/EPW WILKES 158KV 368 0.01029 0.00317 112 EMDE RIVERTON 161KV 92.74631 0.016896/EPW PIRKEY GENERATION 138KV 368 0.01029 0.00315 112 EMDE STATE LINE 161KV 92.74631 0.016896/EPW WILKES 158KV 368 0.003037 1122 EMDE STATE LINE 161KV 92.74631 0.016896/EPW FITCH/UGH 161KV 133 0.00339 0.00307 1122 EMDE STATE LINE 161KV 92.74631 0.016896/EPW FITCH/UGH 161KV 133 0.00339 0.00307 1122 EMDE STATE LINE 161KV 92.74631 0.016896/EPW FITCH/UGH 161KV 133 0.00339 0.00307 1122 EMDE STATE LINE 161KV 92.74631 0.016896/EPW FITCH/UGH 161KV 133 0.00339 0.00307 1122		RIVERTON 161KV	92.74631	-0.01986 AF	EPW		1044	0.01149 -0.03135	108
EMDE STATE LINE 161KV 72 -0.02796 LEPA CITY OF HOUMA SUB 115KV 95 0.00316 -0.03115 109 WERE TECUMSEH ENERGY CENTER 89KV 41 0.0024 AEPA TULSA POWER STATION 138KV 240.0889 0.03346 -0.03116 109 EMDE STATE LINE 161KV 72 -0.02796 WERE JEFFREY ENERGY CENTER 230KV 440 0.0029 -0.03089 110 EMDE STATE LINE 161KV 772 -0.02796 WERE JEFFREY ENERGY CENTER 346KV 574 0.0022 -0.03091 110 WERE JEFFREY ENERGY CENTER 330KV 54 0.0026 AEPW TULSA POWER STATION 138KV 240.0889 0.03346 -0.03056 111 WERE JEFFREY ENERGY CENTER 330KV 54 0.0026 AEPW TULSA POWER STATION 138KV 240.0898 0.03346 -0.03056 111 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW WILKES 138KV 410.8686 0.01066 -0.03054 111 AEPW FULTON 115KV 153 0.0087 OKGE MUSKOGEE 161KV 166 0.03892 -0.03022 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW EASTMAN 138KV 175.549 0.01033 -0.03019 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW EASTMAN 138KV 175.549 0.01033 -0.03019 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW EASTMAN 138KV 260.0033 -0.03019 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW EASTMAN 138KV 260.0031 -0.0031 -0.00317 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW EASTMAN 138KV 260.0031 -0.0031 -0.00317 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW EASTMAN 138KV 367.1163 -0.01031 -0.00317 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW PIRKEY GENERATION 138KV 260.001031 -0.00317 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW PIRKEY GENERATION 138KV 360.001031 -0.00317 112 EMDE STATE LINE 161KV 92.74631 -0.01886 AEPW PIRKEY GENERATION 138KV 360.001051 -0.00307 112 EMDE STATE LINE 161KV 92.74631 -0.01886 AEPW PIRKEY GENERATION 138KV 133 -0.00238 -0.00307 1132 EMDE STATE LINE 161KV 92.74631 -0.01886 AEPW PIRKEY GENERATION 138KV 135 -0.003307 1132 EMDE STATE LINE 161KV 92.74631 -0.01886 AEPW PIRKEY GENERATION 138KV 135 -0.003307 1132 EMDE STATE LINE 161KV 92.74631 -0.01886 AEPW PIRKEY GENERATION 138KV 135 -0.003307 1132 EMDE STATE LINE 161KV 92.74631 -0.01886 AEPW PIRKEY GENERATION 138KV 135 -0.003307 1132	WERE	HUTCHINSON ENERGY CENTER 115KV	146.0967	0.00594 AE	EPW	NORTHEASTERN STATION 138KV	480	0.03713 -0.03119	109
WERE		NATCHITOCHES 69KV	43			NORTHEASTERN STATION 138KV	480		109
EMDE STATE LINE 161KV 72 -0.02799 WERE JEFFREY ENERGY CENTER 230KV 440 0.0029 -0.03089 110 EMDE STATE LINE 161KV 72 -0.02799 WERE JEFFREY ENERGY CENTER 345KV 574 0.0029 -0.03089 110 WERE JEFFREY ENERGY CENTER 330KV 54 0.0029 AEPW TILLS A POWER STATION 138KV 240.0889 0.03346 -0.03056 111 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW WILKES 138KV 410.8668 0.01068 -0.03044 111 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW WILKES 138KV 160 0.03054 111 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW WILKES 138KV 160 0.03054 111 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW EASTMAN 138KV 160 0.03054 111 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW EASTMAN 138KV 160 0.03054 111 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW EASTMAN 138KV 175.549 0.01033 -0.03019 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW EASTMAN 138KV 226 0.01026 -0.03012 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW LEBROCK 345KV 226 0.01026 -0.03017 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW LEBROCK 345KV 367.1163 0.01033 -0.03017 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW PIRKEY GENERATION 138KV 288 0.01029 -0.03015 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW PIRKEY GENERATION 138KV 380 0.01029 -0.03015 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW PIRKEY GENERATION 138KV 380 0.01029 -0.03015 112 EMDE STATE LINE 161KV 92.74631 -0.01986 AEPW PIRKEY GENERATION 138KV 380 0.01029 -0.03015 112 EMDE STATE LINE 161KV 92.74631 -0.01986 AEPW FITZHUGHEN ENERGY CENTER 115KV 133 0.00238 -0.03037 112 EMDE STATE LINE 161KV 92.74631 -0.01986 AEPW FITZHUGHEN ENERGY CENTER 115KV 125.4 0.00239 -0.03037 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW FITZHUGHEN ENERGY CENTER 115KV 125.4 0.00239 -0.03037 112	EMDE	STATE LINE 161KV	72	-0.02799 LE	EPA .	CITY OF HOUMA SUB 115KV	95	0.00316 -0.03115	109
EMDE STATE LINE 161KV 72 -0.02799 WERE JEFFREY ENERGY CENTER 346KV 874 0.00292 -0.00991 110 WERE JEFFREY ENERGY CENTER 230KV 54 0.00293 AEPW TULSA POWER STATION 138KV 240.0880 0.00346 -0.003056 1111 WERE JEFFREY ENERGY CENTER 345KV 108 0.00293 AEPW TULSA POWER STATION 138KV 240.0880 0.00346 -0.003054 1111 AEPW FULTON 115KV 92.76431 0.01980 AEPW WILKES 138KV 410.8680 0.00346 -0.003054 1111 AEPW FULTON 115KV 153 0.0087 OKCE MUSKOGEE 161KV 166 0.03892 -0.03022 112 EMDE RIVERTON 161KV 92.74631 0.01980 AEPW KANAN 138KV 157.549 0.00303 0.003021 112 EMDE RIVERTON 161KV 92.74631 0.01980 AEPW KNOXLEE 138KV 282 0.01028 -0.00102 0.00102 112 EMDE RIVERTON 161KV 92.74631 0.01980 AEPW KNOXLEE 138KV 282 0.01028 0.00102 0.00107 112 EMDE RIVERTON 161KV 92.74631 0.01980 AEPW KNOXLEE 138KV 288 0.01029 0.00107 112 EMDE RIVERTON 161KV 92.74631 0.01980 AEPW PIRKEY GENERATION 138KV 288 0.01029 0.00105 112 EMDE RIVERTON 161KV 92.74631 0.01980 AEPW WILKES 346KV 300 0.01029 0.00105 112 EMDE RIVERTON 161KV 92.74631 0.01980 AEPW WILKES 346KV 300 0.01029 0.00105 112 EMDE STATE LINE 161KV 92.74631 0.01980 AEPW WILKES 346KV 300 0.01029 0.00307 112 EMDE STATE LINE 161KV 92.74631 0.01980 AEPW FITCHURS 45KFV 133 0.00238 0.00307 112 EMDE STATE LINE 161KV 92.74631 0.01980 AEPW FITCHURS 45KFV 133 0.00238 0.00307 112 EMDE RIVERTON 161KV 92.74631 0.01980 AEPW FITCHURS 45KFV 135 0.00238 0.00307 112 EMDE RIVERTON 161KV 92.74631 0.01980 AEPW FITCHURS 45KFV 125 0.00239 0.00307 112	WERE	TECUMSEH ENERGY CENTER 69KV	41	0.0024 AE	EPW	TULSA POWER STATION 138KV	240.0898	0.03346 -0.03106	109
WERE JEFFREY ENERGY CENTER 230KV 54 0.0029 AEPW TIULS A POWER STATION 138KV 240.0880 0.03346 0.00306 111 WERE JEFFREY ENERGY CENTER 345KV 108 0.00292 AEPW TIULS A POWER STATION 138KV 240.0880 0.03346 0.03054 111 EMDE RIVERTON 161KV 92.74631 -0.0186 AEPW WILKES 138KV 160 0.03052 0.03024 111 AEPW FULTON 115KV 155 0.087 OKGE MUSKOGEE 161KV 160 0.03052 0.03022 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW EASTMAN 138KV 157.549 .001023 -0.03019 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW ENVOXLEE 138KV 226 .0.01026 -0.03012 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW LEBROCK 345KV 282 .0.01023 -0.03017 112 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW PIRKEY GENERATION 136KV 280 .0.01023 -0.0	EMDE	STATE LINE 161KV	72	-0.02799 W	ERE	JEFFREY ENERGY CENTER 230KV	440	0.0029 -0.03089	110
WERE JEFFREY ENERGY CENTER 345KV 108 0.00292 AEPW TULSA POWER STATION 138KV 24.0.0898 0.03346 0.03054 1111	EMDE	STATE LINE 161KV	72	-0.02799 W	ERE	JEFFREY ENERGY CENTER 345KV	874	0.00292 -0.03091	110
EMDE RIVERTON 16IKV 92.74631 -0.01986 AEPW WILKES 138KV 410.8668 0.01068 0.03054 1111 AEPW FULTON 115KV 158 0.0087 OKCE 161KV 1616 0.3382 0.03022 1122 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW EASTMAN 138KV 157.549 0.01033 -0.03019 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW EASTMAN 138KV 222 0.01023 -0.03019 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW LEBROCK 345KV 228 0.01033 -0.03017 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW PIRKEY GENERATION 138KV 288 0.01023 -0.03017 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW PIRKEY GENERATION 138KV 288 0.01023 -0.03017 112 EMDE STATE LINE 161KV 92.74631 -0.01986 AEPW WILKES 345KV 308 0.010515 -0.03037 112 EMDE STATE LINE 161KV 72 -0.02796 WERE TECUMSEH ENREKY CENTER 115KV 133 0.00238 -0.00397 1132 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW FITZHURGH 161KKV 125.4 0.00238 -0.00307 1132	WERE	JEFFREY ENERGY CENTER 230KV	54	0.0029 AF	EPW	TULSA POWER STATION 138KV	240.0898	0.03346 -0.03056	111
AEPW FULTON 115KV 15S 0.0097 OKGE MUSKOGEE 161KV 166 0.03892 - 0.03022 112 EMDE RIVERTON 161KV 92.74631 0.01986 AEPW EASTMAN 136KV 157.549 0.01023 -0.03019 112 EMDE RIVERTON 161KV 92.74631 0.01986 AEPW KINOXLEE 138KV 282 0.01028 -0.03012 112 EMDE RIVERTON 161KV 92.74631 0.01986 AEPW PIRKEY GENERATION 138KV 288 0.01029 -0.03015 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW PIRKEY GENERATION 138KV 288 0.01029 -0.03015 112 EMDE STATE LINE 161KV 92.74631 -0.01986 AEPW WILKES 345KY 308 0.01029 -0.03077 112 EMDE STATE LINE 161KV 72 -0.02796 WERE TECUMSEH ENREGY CENTER 115KV 133 0.00238 -0.03037 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW FITZHUGHEN 161KV 125.4 0.01021 -0.03007 113 <td>WERE</td> <td>JEFFREY ENERGY CENTER 345KV</td> <td>108</td> <td>0.00292 AE</td> <td>EPW</td> <td>TULSA POWER STATION 138KV</td> <td>240.0898</td> <td>0.03346 -0.03054</td> <td>111</td>	WERE	JEFFREY ENERGY CENTER 345KV	108	0.00292 AE	EPW	TULSA POWER STATION 138KV	240.0898	0.03346 -0.03054	111
EMDE RIVERTON 161KV 9.2.74631 -0.1988 AEPW EASTMAN 138KV 157.549 0.01033 0.00019 112 EMDE RIVERTON 161KV 9.2.74631 -0.01988 AEPW KNOXLEE 138KV 282 0.01028 -0.00017 112 EMDE RIVERTON 161KV 9.2.74631 -0.01988 AEPW LEBROCK 345KV 367.1163 0.01031 -0.00017 112 EMDE RIVERTON 161KV 92.74631 -0.01988 AEPW PIRKEY GENERATION 138KV 288 0.01028 -0.00015 1.00337 112 EMDE RIVERTON 161KV 92.74631 -0.01989 AEPW WILKES 345KV 368 0.01028 -0.00015 -0.03377 112 EMDE STATE LINE 161KV 72 -0.02799 WERE TECUMSEH ENREGY CENTER 115KV 133 0.00238 -0.00307 113 EMDE RIVERTON 161KV 92.74631 -0.01989 AEPW FITZHUGH 161KV 125.4 0.01021 -0.00307 113		RIVERTON 161KV	92.74631	-0.01986 AF	EPW	WILKES 138KV	410.8666	0.01068 -0.03054	111
EMDE RIVERTON 161KV 92.74631 0.01986 AEPW KNOXLEE 138KV 282 0.01022 0.03012 112 EMDE RIVERTON 161KV 92.74631 0.01986 AEPW PIRKEY GENERATION 138KV 387.1163 0.01031 0.03017 112 EMDE RIVERTON 161KV 92.74631 0.01986 AEPW PIRKEY GENERATION 138KV 288 0.01029 -0.03015 112 EMDE STATE LINE 161KV 92.74631 0.01986 AEPW WILKES 345KY 308 0.01051 0.03937 112 EMDE STATE LINE 161KV 72 -0.02799 WERE TECUMSEH ENREGY CENTER 115KV 133 0.00238 -0.03037 113 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW FITZHUGH 161KV 125.4 0.01021 -0.03007 113	AEPW	FULTON 115KV	153	0.0087 OI	KGE	MUSKOGEE 161KV	166	0.03892 -0.03022	112
EMDE RIVERTON 161KV 92.74631 -0.1986 AEPW LEBROCK 345KV 367.1163 0.01031 0.03017 1.12 EMDE RIVERTON 161KV 92.74631 -0.1986 AEPW PIRKEY GENERATION 138KV 28 0.01029 -0.03015 1.12 EMDE RIVERTON 161KV 92.74631 -0.01886 AEPW WILKES 345KV 308 0.01051 -0.03037 112 EMDE STATE LINE 161KV 72 -0.02799 WERE TECUMSEH ENERGY CENTER 115KV 133 0.00238 -0.00307 113 EMDE RIVERTON 161KV 92.74631 -0.01989 AEPW FITZHUGH 161KV 125.4 0.01021 -0.03007 113	EMDE	RIVERTON 161KV					157.549	0.01033 -0.03019	112
EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW PIRKEY GENERATION 138KV 288 0.01028 -0.03015 112 EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW WILKES 345KV 308 0.01051 -0.03037 112 EMDE STATE LINE 161KV 72 -0.02799 WERE TECUMSEH ENERGY CENTER 115KV 133 0.00238 -0.03037 112 EMDE RIVERTON 161KV 92.74631 -0.01988 AEPW FITZHUGH 161KV 125.4 -0.01021 -0.03007 113	EMDE	RIVERTON 161KV	92.74631	-0.01986 AE	EPW	KNOXLEE 138KV	282	0.01026 -0.03012	112
EMDE RIVERTON 161KV 92.74631 - 0.01986 AEPW WILKES 345KV 308 - 0.01051 - 0.00037 112 EMDE STATE LINE 161KV 72 - 0.02799 WERE TECUMSEH ENERGY CENTER 115KV 13.3 - 0.0028 - 0.00387 112 EMDE RIVERTON 161KV 92.74631 - 0.01989 AEPW FITZHUGH 161KV 125.4 - 0.01021 - 0.03007 113	EMDE	RIVERTON 161KV	92.74631	-0.01986 AF	EPW	LEBROCK 345KV	367.1163	0.01031 -0.03017	112
EMDE STATE LINE 161KV 72 -0.02799 WERE TECUMSEH ENERGY CENTER 115KV 133 0.00238 -0.03037 112 EMDE RIVERTON 161KV 92.74631 -0.01988 AEPW FITZHUGH 161KV 125.4 0.01021 -0.03007 113									
EMDE RIVERTON 161KV 92.74631 -0.01986 AEPW FITZHUGH 161KV 125.4 0.01021 -0.03007 113		RIVERTON 161KV	92.74631	-0.01986 AE	EPW	WILKES 345KV	308		
EMDE STATE LINE 161KV 72 -0.02799 WERE LAWRENCE ENERGY CENTER 230KV 223.9929 0.00204 -0.03003 113		RIVERTON 161KV	92.74631	-0.01986 AE	EPW	FITZHUGH 161KV	125.4	0.01021 -0.03007	
	EMDE	STATE LINE 161KV	72	-0.02799 W	ERE	LAWRENCE ENERGY CENTER 230KV	223.9929	0.00204 -0.03003	113

Maximum Decrement and Maximum Incremer Factor = Source GSF - Sink GSF Redispatch Amount = Relief Amount / Factor

Upgrade: STRANGER CREEK - NW LEAVENWORTH 115KV
Limiting Facility JARBALO JUNCTION SWITCHING STATION - STRANGER CREEK
TO-PROM
TION-BROWN
TO-PROM
TRANGER CREEK - THORNTON STREET 115KV CKT 1
2007/AC2AFS81T3233210SP
Date Redispatch Needed
Season Flowgate Identified
Season Flowgate Identified
2010 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount
1281706	1.6	8.1
1285893	1.3	8.1
1286201	5.2	8.1

1285893	1.3								
1286201	5.2	8.1							
Source Control Area	Source	Maximum Increment (MW)	GSF	Sink Control Area	Sink	Maximum Decrement (MW)	GSF	Factor	Aggregate Redispatch Amount (MW)
Course Control Anda	554155	maximum morement (mrt)		Ollik Goliki Gi Zarda	O.I.I.	maximum beerement (mrr)	00.		Aggregate Redispaton Amount (mrt)
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056			IATAN 345KV	1806	0.05294	-0.20691	39
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056		KACP	IATAN 345KV	371	0.05294	-0.20691	39
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056		MIPU	LAKE ROAD 161KV	35	0.02101	-0.17498	47
	LAWRENCE ENERGY CENTER 230KV	45.07056		MIPU NPPD	LAKE ROAD 34KV	92	0.02101	-0.17498	47
	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397 -0.15397	OPPD	COOPER1G 22.000 345KV CASS 1G 15.000 345KV	551.2802 42.51929	0.01576		48
	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	OPPD	CASS 2G 15.000 345KV	52,99999	0.01256		49
	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397		FREM 8G 13.800 69KV	90	0.01093	-0.1649	49
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	OPPD	FT CAL1G 22.000 4KV	376	0.01168	-0.16565	49
	LAWRENCE ENERGY CENTER 230KV	45.07056			N OMA 1G 13.800 2KV	48.5	0.01178	-0.16575	49
	LAWRENCE ENERGY CENTER 230KV	45.07056			N OMA 2G 13.800 2KV	80.59999	0.0118		49
	LAWRENCE ENERGY CENTER 230KV	45.07056			N OMA 3G 13.800 2KV	80.59999	0.0118	-0.16577	49
	LAWRENCE ENERGY CENTER 230KV	45.07056			N OMA 4G 15.000 2KV	107.4	0.0118	-0.16577	49
	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV		-0.15397 -0.15397		N OMA 5G 20.000 4KV NEBCTY1G 18.000 4KV	173.9 466	0.0118	-0.16577 -0.16749	49
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397		NEBCTY2G 23.000 345KV	503	0.01352	-0.16749	49
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056			BPS GT1G 13.800 115KV	80	0.00726	-0.16123	50
	LAWRENCE ENERGY CENTER 230KV	45.07056			BPS GT2G 13.800 115KV	45.19951	0.00726	-0.16123	50
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	NPPD	BPS ST3G 13.800 115KV	49.99482	0.00726	-0.16123	50
	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397		BULL CREEK 161KV	61.6	0.00917	-0.16314	50
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	NPPD	COL.COG7 115.00 115KV	75	0.01017	-0.16414	50
	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397		D.HENRYG 34.500 115KV	18	0.00966	-0.16363	50
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397		DENVER G 34.500 115KV	34.32393	0.00966	-0.16363	50
WERE WERE	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397 -0.15397	NPPD NPPD	EGY CTRG 13.800 115KV GT-2 G 13.800 115KV	54 40	0.00966	-0.16363 -0.16346	50 50
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056		NPPD	PLATTE1G 13.800 115KV	71.51868	0.00948	-0.16346	50
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	NPPD	SHELDN1G 13.800 115KV	68,40001	0.01036	-0.16433	50
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	NPPD	SHELDN2G 13.800 115KV	81	0.01036	-0.16433	50
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	NPPD	GENTLM1G 23.000 230KV	463	0.00668	-0.16065	51
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	NPPD	GENTLM2G 24.000 345KV	443.3608	0.00653	-0.1605	51
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	NPPD	SIDNEY 4 230.00 230KV	19.3852	0.00673	-0.1607	51
WERE WERE	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397 -0.15397	KACP KACP	CITY OF HIGGINSVILLE 69KV HAWTHORN 161KV	36 517.7498	-0.0012 0.001	-0.15277 -0.15497	53 53
WERE	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397	MIPU	SIBLEY 161KV	517.7498 228.9597	0.00056	-0.15497	53
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	MIPU	SIBLEY 69KV	45.99999	0.00030	-0.15477	53
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056			AES 161KV	320	-0.00356	-0.15041	54
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	AEPW	ARSENAL HILL 138KV	455	-0.00269	-0.15128	54
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	AEPW	ARSENAL HILL 69KV	90	-0.00269	-0.15128	54
	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	WERE	CNTRLPL2 34.500 115KV	99	-0.00347	-0.1505	54
	LAWRENCE ENERGY CENTER 230KV	45.07056			EASTMAN 138KV	356.7947	-0.00291	-0.15106	54
	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	AEPW	FITZHUGH 161KV	125.4	-0.00324	-0.15073	54
	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397		FLINT CREEK 161KV KNOXLEE 138KV	428 225	-0.00463	-0.14934 -0.15108	54 54
	LAWRENCE ENERGY CENTER 230KV	45.07056		EMDE	LARUSSEL 161KV	100	-0.00288	-0.13108	54
	LAWRENCE ENERGY CENTER 230KV		-0.15397	AEPW	LEBROCK 345KV	517.1024	-0.0029	-0.15107	54
WERE	LAWRENCE ENERGY CENTER 230KV		-0.15397	AEPW	LIEBERMAN 138KV	174	-0.00273	-0.15124	54
	LAWRENCE ENERGY CENTER 230KV		-0.15397		PIRKEY GENERATION 138KV	288	-0.00289	-0.15108	54
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397		WELSH 345KV	1044	-0.00316	-0.15081	54
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056			WILKES 138KV	410.8099	-0.00299	-0.15098	54
WERE	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056			WILKES 345KV	308	-0.00295	-0.15102	54 55
WERE WERE	LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056			ASBURY 161KV CENTENIAL WIND 34KV	192 120	-0.005	-0.14897 -0.14678	55
	LAWRENCE ENERGY CENTER 230KV	45.07056			CHANUTE 69KV	54.8	-0.00682	-0.14676	55
	LAWRENCE ENERGY CENTER 230KV	45.07056			CIMARRON RIVER 115KV	44	-0.00529	-0.14868	55
	LAWRENCE ENERGY CENTER 230KV	45.07056			COGENTRIX 345KV	222.0669	-0.00532	-0.14865	55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	AEPW	COMANCHE 138KV	145	-0.00645	-0.14752	55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397		COMANCHE 69KV	60	-0.00644	-0.14753	55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056			FPLWND2 34KV	59	-0.00726	-0.14671	55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056			GRAY COUNTY WIND FARM 115KV	36	-0.00716	-0.14681	55
WERE WERE	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056			HORSESHOE LAKE 138KV JEFFREY ENERGY CENTER 345KV	796 874	-0.00665	-0.14732 -0.14759	55 55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056			JUDSON LARGE 115KV	95.93536	-0.00638	-0.14759	55
	LAWRENCE ENERGY CENTER 230KV	45.07056			MCCLAIN 138KV	93.93336	-0.00675	-0.14661	55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056			MONTROSE 161KV	359.7142	-0.0049	-0.14907	55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397		MUSKOGEE 161KV	166	-0.0049	-0.14907	55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056			MUSKOGEE 345KV	1548	-0.005	-0.14897	55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056			MUSTANG 138KV	351	-0.00685	-0.14712	55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397	UKGE	MUSTANG 69KV	51.72168	-0.00685	-0.14712	55

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	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV		-0.15397 AEPW -0.15397 AEPW	NORTHEASTERN STATION 138KV NORTHEASTERN STATION 345KV	480 625	-0.00538 -0.00537	-0.14859 -0.1486	55 55
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 AEPW	OEC 345KV	390.4081	-0.00524	-0.14873	55
WERE WERE	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397 OKGE -0.15397 EMDE	REDBUD 345KV RIVERTON 161KV	43.60958 100.0327	-0.00664	-0.14733 -0.14913	55 55
	LAWRENCE ENERGY CENTER 230KV		-0.15397 EMDE	RIVERTON 69KV	44.07887	-0.00478		55
	LAWRENCE ENERGY CENTER 230KV	45.07056		SEMINOLE 138KV	334.858	-0.00634		55
WERE WERE	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397 OKGE -0.15397 OKGE	SEMINOLE 345KV SMITH COGEN 138KV	1019 106	-0.0064	-0.14757 -0.14714	55 55
WERE	LAWRENCE ENERGY CENTER 230KV		-0.15397 AEPW	SOUTHWESTERN STATION 138KV	712	-0.00647		55
WERE WERE	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397 AEPW -0.15397 OKGE	SOUTHWESTERN STATION 138KV SPGCK1&2 13.200 345KV	287	-0.00647	-0.1475 -0.14678	55 55
	LAWRENCE ENERGY CENTER 230KV		-0.15397 EMDE	STATE LINE 161KV	520	-0.00475		55
	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 AEPW	TONTITOWN 161KV	140	-0.00466	-0.14931	55
	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397 AEPW -0.15397 WERE	TULSA POWER STATION 138KV CITY OF BURLINGTON 69KV	129.8887 55.4	-0.00534 -0.0082		55 56
	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 WERE	COFFEY COUNTY NO. 2 SHARPE 69KV	19.98	-0.0082	-0.14577	56
	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 OKGE	SOONER 138KV SOONER 345KV	535	-0.00803	-0.14594 -0.14585	56
	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV		-0.15397 OKGE -0.15397 MIPU	SOUTH HARPER 161KV	537 67.00598	-0.00812	-0.14585	56 56
					3110000			
WERE WERE	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 MKEC -0.15397 WERE	A. M. MULLERGREN GENERATOR 115KV CITY OF WINFIELD 69KV	63 31.2	-0.01118	-0.14279	57 57
	LAWRENCE ENERGY CENTER 230KV		-0.15397 WERE -0.15397 MKEC	CLIFTON 115KV	31.2	-0.01157	-0.1424	57
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 EMDE	ELK RIVER 345KV	44.986	-0.01034	-0.14363	57
	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV		-0.15397 MIDW -0.15397 KACY	KNOLL 115KV QUINDARO 161KV	75.60001 129.4176	-0.01202		57 57
	LAWRENCE ENERGY CENTER 230KV		-0.15397 KACY	QUINDARO 69KV	136.3562	-0.01162		57
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 WERE	CITY OF AUGUSTA 69KV	20	-0.01403	-0.13994	58
	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397 WERE -0.15397 WERE	EVANS ENERGY CENTER 138KV GILL ENERGY CENTER 138KV	560 155	-0.0143	-0.13967 -0.14044	58 58
	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 WERE	GILL ENERGY CENTER 69KV	52	-0.01349	-0.14048	58
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 KACY	NEARMAN 161KV	77	-0.01258	-0.14139	58
	LAWRENCE ENERGY CENTER 230KV LAWRENCE ENERGY CENTER 230KV	45.07056 45.07056	-0.15397 KACY -0.15397 WERE	NEARMAN 20KV HUTCHINSON ENERGY CENTER 115KV	235 230	-0.01258 -0.01535		58 59
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 WERE	JEFFREY ENERGY CENTER 230KV	440	-0.01515	-0.13882	59
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 EMDE	MRWYG11 34.500 230KV	100		-0.13778	59
WERE WERE	LAWRENCE ENERGY CENTER 230KV TECUMSEH ENERGY CENTER 115KV	45.07056 28	-0.15397 MIDW -0.0728 KACP	SMOKEY HILLS 34KV IATAN 345KV	25 371	-0.01547 0.05294	-0.1385 -0.12574	59 65
WERE	TECUMSEH ENERGY CENTER 115KV	28	-0.0728 KACP	IATAN 345KV	1806	0.05294	-0.12574	65
WERE	LAWRENCE ENERGY CENTER 230KV	45.07056	-0.15397 WERE	EMPORIA ENERGY CENTER 345KV	610	-0.03171	-0.12226	67
	TECUMSEH ENERGY CENTER 69KV TECUMSEH ENERGY CENTER 69KV	41	-0.06776 KACP -0.06776 KACP	IATAN 345KV IATAN 345KV	1806 371	0.05294	-0.1207 -0.1207	67 67
WERE	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 MIPU	LAKE ROAD 161KV	35	0.02101	-0.08877	92
	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 MIPU	LAKE ROAD 34KV	92		-0.08877	92
	EMPORIA ENERGY CENTER 345KV EMPORIA ENERGY CENTER 345KV	201	-0.03171 KACP -0.03171 KACP	IATAN 345KV IATAN 345KV	1806 371	0.05294	-0.08465 -0.08465	96 96
WERE	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 NPPD	COOPER1G 22.000 345KV	551.2802	0.05294	-0.08465	97
	LAWRENCE ENERGY CENTER 230KV TECUMSEH ENERGY CENTER 69KV	45.07056		TECUMSEH ENERGY CENTER 115KV	133	-0.0728	-0.08117	100
	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 OPPD -0.06776 OPPD	NEBCTY1G 18.000 4KV NEBCTY2G 23.000 345KV	466 503	0.01352	-0.08128 -0.08128	100 100
WERE	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 OPPD	CASS 1G 15.000 345KV	42.51929	0.01256	-0.08032	101
	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 OPPD	CASS 2G 15.000 345KV	52.99999	0.01256		101
WERE WERE	TECUMSEH ENERGY CENTER 69KV TECUMSEH ENERGY CENTER 69KV	41	-0.06776 OPPD -0.06776 OPPD	FT CAL1G 22.000 4KV N OMA 1G 13.800 2KV	376 48.5	0.01168	-0.07944	102 102
	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 OPPD	N OMA 2G 13.800 2KV	80.59999	0.0118		102
	TECUMSEH ENERGY CENTER 69KV	41		N OMA 3G 13.800 2KV	80.59999	0.0118		102
WERE WERE	TECUMSEH ENERGY CENTER 69KV TECUMSEH ENERGY CENTER 69KV	41	-0.06776 OPPD -0.06776 OPPD	N OMA 4G 15.000 2KV N OMA 5G 20.000 4KV	107.4 173.9	0.0118	-0.07956	102
WERE	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 OPPD	FREM 8G 13.800 69KV	90	0.01093	-0.07869	103
WERE WERE	TECUMSEH ENERGY CENTER 69KV TECUMSEH ENERGY CENTER 69KV	41	-0.06776 NPPD -0.06776 NPPD	COL.COG7 115.00 115KV SHELDN1G 13.800 115KV	75 68.40001	0.01017	-0.07793	104 104
	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 NPPD	SHELDNIG 13.800 115KV SHELDN2G 13.800 115KV	81	0.01036		104
WERE	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 NPPD	EGY CTRG 13.800 115KV	54	0.00966	-0.07742	105
	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 NPPD -0.06776 NPPD	GT-2 G 13.800 115KV	40	0.00949		105
	TECUMSEH ENERGY CENTER 69KV ABILENE ENERGY CENTER 115KV	41 66	-0.06776 NPPD -0.02358 KACP	PLATTE1G 13.800 115KV IATAN 345KV	71.51868 1806	0.00944	-0.0772	105 106
WERE	ABILENE ENERGY CENTER 115KV	66	-0.02358 KACP	IATAN 345KV	371	0.05294	-0.07652	106
	TECUMSEH ENERGY CENTER 69KV TECUMSEH ENERGY CENTER 69KV	41	-0.06776 KACP -0.06776 NPPD	BULL CREEK 161KV BPS GT1G 13.800 115KV	61.6	0.00917		106
	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 NPPD	BPS GT2G 13.800 115KV	45.19951	0.00726		108
WERE	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 NPPD	BPS ST3G 13.800 115KV	49.99482	0.00726	-0.07502	108
	TECUMSEH ENERGY CENTER 69KV TECUMSEH ENERGY CENTER 69KV	41	-0.06776 NPPD -0.06776 NPPD	GENTLM1G 23.000 230KV GENTLM2G 24.000 345KV	463 443.3608	0.00668	-0.07444	109 110
	BPU - CITY OF MCPHERSON 115KV	232	-0.01628 KACP	IATAN 345KV	443.3608 371	0.0053		118
	BPU - CITY OF MCPHERSON 115KV	232	-0.01628 KACP	IATAN 345KV	1806	0.05294	-0.06922	118
WERE WERE	TECUMSEH ENERGY CENTER 69KV HUTCHINSON ENERGY CENTER 115KV	41 214	-0.06776 KACP -0.01535 KACP	HAWTHORN 161KV IATAN 345KV	517.7498 371	0.001	-0.06876	118 119
	HUTCHINSON ENERGY CENTER 115KV	214	-0.01535 KACP	IATAN 345KV	1806	0.05294		119
MIDW	SMOKEY HILLS 34KV	75	-0.01547 KACP	IATAN 345KV	371	0.05294		119
	SMOKEY HILLS 34KV TECUMSEH ENERGY CENTER 69KV	75 41	-0.01547 KACP -0.06776 MIPU	IATAN 345KV SIBLEY 161KV	1806 228.9597	0.05294		119 119
	TECUMSEH ENERGY CENTER 69KV	41	-0.06776 MIPU	SIBLEY 69KV	45.99999	0.0008	-0.06856	119
WERE	JEFFREY ENERGY CENTER 230KV	54	-0.01515 KACP	IATAN 345KV	371	0.05294	-0.06809	120
WERE WERE	JEFFREY ENERGY CENTER 230KV GILL ENERGY CENTER 138KV	54 84.99999		IATAN 345KV IATAN 345KV	1806 1806	0.05294		120 122
WERE	GILL ENERGY CENTER 138KV	84.99999	-0.01353 KACP	IATAN 345KV	371	0.05294	-0.06647	122
	GILL ENERGY CENTER 69KV GILL ENERGY CENTER 69KV		-0.01349 KACP	IATAN 345KV	1806			122
WERE KACY	QUINDARO 161KV	48 107.5824	-0.01349 KACP -0.01136 KACP	IATAN 345KV IATAN 345KV	371 371	0.05294	-0.06643	122 127
KACY	QUINDARO 161KV	107.5824	-0.01136 KACP	IATAN 345KV	1806	0.05294	-0.0643	127
	KAW 69KV	242 242	-0.0098 KACP -0.0098 KACP	IATAN 345KV IATAN 345KV	371 1806	0.05294	-0.06274	130 130
MIPU	SOUTH HARPER 161KV	247.994	-0.00901 KACP	IATAN 345KV	1806	0.05294	-0.06195	131
MIPU	SOUTH HARPER 161KV	247.994		IATAN 345KV	371	0.05294		131
OKGE OKGE	SPGCK3&4 13.200 345KV SPGCK3&4 13.200 345KV	111	-0.00719 KACP -0.00719 KACP	IATAN 345KV IATAN 345KV	371 1806	0.05294	-0.06013 -0.06013	135 135
OKGE	MCCLAIN 138KV	50	-0.00675 KACP	IATAN 345KV	371	0.05294	-0.05969	136
	MCCLAIN 138KV	50	-0.00675 KACP	IATAN 345KV	1806	0.05294		
	MUSTANG 69KV MUSTANG 69KV	54.27831 54.27831	-0.00685 KACP -0.00685 KACP	IATAN 345KV IATAN 345KV	371 1806	0.05294		136 136
MIPU	ARIES 161KV	576.6669	-0.00633 KACP	IATAN 345KV	1806	0.05294	-0.05927	137
MIPU	ARIES 161KV HORSESHOE LAKE 138KV	576.6669	-0.00633 KACP	IATAN 345KV	371	0.05294	-0.05927	137
	HORSESHOE LAKE 138KV HORSESHOE LAKE 138KV	64	-0.00665 KACP -0.00665 KACP	IATAN 345KV IATAN 345KV	371 1806	0.05294		137 137
WERE	JEFFREY ENERGY CENTER 345KV	108	-0.00638 KACP	IATAN 345KV	371	0.05294	-0.05932	137
WERE	JEFFREY ENERGY CENTER 345KV	108	-0.00638 KACP	IATAN 345KV IATAN 345KV	1806 371	0.05294		137
KACP KACP	PAOLA 5 161.00 161KV PAOLA 5 161.00 161KV	82.5 82.5	-0.00637 KACP -0.00637 KACP	IATAN 345KV IATAN 345KV	1806	0.05294		137
KACP	PAOLA COMBUSTION TURBINES 161KV	76	-0.00637 KACP	IATAN 345KV	1806	0.05294	-0.05931	137
KACP	PAOLA COMBUSTION TURBINES 161KV	76	-0.00637 KACP	IATAN 345KV	371	0.05294	-0.05931	137
MIPU	RALPH GREEN 69KV	73.7	-0.00649 KACP	IATAN 345KV	371	0.05294	-0.05943	137
	RALPH GREEN 69KV REDBUD 345KV		-0.00649 KACP -0.00664 KACP	IATAN 345KV IATAN 345KV	1806 1806	0.05294		137
OKGE	REDBUD 345KV		-0.00664 KACP	IATAN 345KV	371	0.05294		137
OKGE	SEMINOLE 138KV	200.142	-0.00634 KACP	IATAN 345KV	1806	0.05294	-0.05928	137
OKGE AEPW	SEMINOLE 138KV SOUTHWESTERN STATION 138KV		-0.00634 KACP -0.00647 KACP	IATAN 345KV IATAN 345KV	371 371	0.05294		137
AEPW	SOUTHWESTERN STATION 138KV	152 350	-0.00647 KACP	IATAN 345KV	371	0.05294		137
AEPW	SOUTHWESTERN STATION 138KV	350	-0.00647 KACP	IATAN 345KV	1806	0.05294	-0.05941	137
	SOUTHWESTERN STATION 138KV TINKER 5G 138KV	152 62	-0.00647 KACP -0.00664 KACP	IATAN 345KV IATAN 345KV	1806 1806	0.05294		137 137
OKGE	TINKER 5G 138KV	62	-0.00664 KACP	IATAN 345KV	371	0.05294		137
	GREENWOOD 161KV		-0.00582 KACP	IATAN 345KV	1806	0.05294		138
		255.8	-0.00582 KACP	IATAN 345KV	371	0.05294	-0.05876	138
MIPU	GREENWOOD 161KV KIOWA 345KV		-0.00557 KACP	IATAN 345KV	1806	0.05294		139

Table 6 - Potential Redispatch Relief Pairs to Prevent Deferral of Service

	KIOWA 345KV		-0.00557 KACP	IATAN 345KV	371		-0.05851	139
	WELEETKA 138KV		-0.00546 KACP	IATAN 345KV	371	0.05294		139
AEPW	WELEETKA 138KV	162	-0.00546 KACP	IATAN 345KV	1806	0.05294	-0.0584	139
AEPW	COGENTRIX 345KV	671.9331	-0.00532 KACP	IATAN 345KV	1806	0.05294	-0.05826	140
AEPW	COGENTRIX 345KV	671.9331	-0.00532 KACP	IATAN 345KV	371	0.05294	-0.05826	140
	MID-CONTINENT 138KV	142.11		IATAN 345KV	1806	0.05294	-0.05798	140
	MID-CONTINENT 138KV	142.11	-0.00504 KACP	IATAN 345KV	371	0.05294	-0.05798	140
	OEC 345KV	1756.622	-0.00524 KACP	IATAN 345KV	1806	0.05294	-0.05730	140
	OEC 345KV	1756.622	-0.00524 KACP	IATAN 345KV	371	0.05294	-0.05818	140
	TULSA POWER STATION 138KV	177.1113	-0.00534 KACP	IATAN 345KV	371	0.05294	-0.05828	140
AEPW	TULSA POWER STATION 138KV	177.1113	-0.00534 KACP	IATAN 345KV	1806	0.05294	-0.05828	140
AEPW	TULSA POWER STATION 69KV	80	-0.00534 KACP	IATAN 345KV	371	0.05294	-0.05828	140
AEPW	TULSA POWER STATION 69KV	80	-0.00534 KACP	IATAN 345KV	1806	0.05294	-0.05828	140
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.00466 KACP	IATAN 345KV	1806	0.05294	-0.0576	141
AEPW	ELKIN_GN 1 13.800 69KV	60	-0.00466 KACP	IATAN 345KV	371	0.05294	-0.0576	141
	RIVERTON 161KV	182.9673		IATAN 345KV	371	0.05294	-0.05778	141
EMDE:	RIVERTON 161KV	182.9673		IATAN 345KV	1806	0.05294	-0.05778	141
	STATE LINE 161KV	90	-0.00475 KACP	IATAN 345KV	371	0.05294	-0.05769	141
	STATE LINE 161KV	90	-0.00475 KACP	IATAN 345KV	1806	0.05294	-0.05769	141
	TONTITOWN 161KV		-0.00466 KACP	IATAN 345KV	1806	0.05294	-0.0576	141
AEPW	TONTITOWN 161KV	186.12		IATAN 345KV	371	0.05294	-0.0576	141
EMDE	LARUSSEL 161KV	171	-0.00429 KACP	IATAN 345KV	371	0.05294	-0.05723	142
EMDE	LARUSSEL 161KV	171	-0.00429 KACP	IATAN 345KV	1806	0.05294	-0.05723	142
AEPW	LONESTAR POWER PLANT 69KV	50	-0.00301 KACP	IATAN 345KV	1806	0.05294	-0.05595	145
AEPW	LONESTAR POWER PLANT 69KV	50		IATAN 345KV	371	0.05294		145
	WILKES 138KV	52.19009		IATAN 345KV	371	0.05294		145
	WILKES 138KV	52.19009	-0.00299 KACP	IATAN 345KV	1806	0.05294	-0.05593	145
	ARSENAL HILL 138KV	337.2		IATAN 345KV	371	0.05294		146
	ARSENAL HILL 138KV	337.2	-0.00269 KACP	IATAN 345KV	1806	0.05294	-0.05563	146
	EASTMAN 138KV	128.2153	-0.00291 KACP	IATAN 345KV	371	0.05294	-0.05585	146
	EASTMAN 138KV	128.2153		IATAN 345KV	1806	0.05294		146
AEPW	KNOXLEE 138KV	176	-0.00289 KACP	IATAN 345KV	1806	0.05294	-0.05583	146
AEPW	KNOXLEE 138KV	176	-0.00289 KACP	IATAN 345KV	371	0.05294	-0.05583	146
	LEBROCK 345KV	179.8976	-0.0029 KACP	IATAN 345KV	1806	0.05294		146
	LEBROCK 345KV	179.8976	-0.0029 KACP	IATAN 345KV	371	0.05294	-0.05584	146
	FULTON 115KV	179.6976	-0.0029 KACP	IATAN 345KV	371	0.05294	-0.05553	140
	FULTON 115KV	153	-0.00259 KACP	IATAN 345KV	1806	0.05294	-0.05553	147
	NORTHEAST 13KV	223	-0.00094 KACP	IATAN 345KV	1806	0.05294	-0.05388	151
	NORTHEAST 13KV		-0.00094 KACP	IATAN 345KV	371	0.05294	-0.05388	151
	NORTHEAST 161KV	224	-0.00094 KACP	IATAN 345KV	1806	0.05294	-0.05388	151
KACP	NORTHEAST 161KV	224	-0.00094 KACP	IATAN 345KV	371	0.05294	-0.05388	151
	NORTHEAST 161KV EMPORIA ENERGY CENTER 345KV	224 201	-0.00094 KACP -0.03171 MIPU	IATAN 345KV LAKE ROAD 34KV			-0.05388 -0.05272	151 154
WERE			-0.03171 MIPU		371 92	0.05294	-0.05272	154
WERE KACP	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV	201 54.1	-0.03171 MIPU 0.00059 KACP	LAKE ROAD 34KV IATAN 345KV	371 92 1806	0.05294 0.02101 0.05294	-0.05272 -0.05235	154 155
WERE KACP KACP	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV	201 54.1 54.1	-0.03171 MIPU 0.00059 KACP 0.00059 KACP	LAKE ROAD 34KV IATAN 345KV IATAN 345KV	371 92 1806 371	0.05294 0.02101 0.05294 0.05294	-0.05272 -0.05235 -0.05235	154 155 155
WERE KACP KACP KACP	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV	201 54.1 54.1 245.2502	-0.03171 MIPU 0.00059 KACP 0.00059 KACP 0.001 KACP	LAKE ROAD 34KV IATAN 345KV IATAN 345KV IATAN 345KV	371 92 1806 371 371	0.05294 0.02101 0.05294 0.05294	-0.05272 -0.05235 -0.05235 -0.05194	154 155 155 157
WERE KACP KACP KACP KACP	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV	201 54.1 54.1 245.2502 245.2502	-0.03171 MIPU 0.00059 KACP 0.00059 KACP 0.001 KACP 0.001 KACP	LAKE ROAD 34KV IATAN 345KV IATAN 345KV IATAN 345KV IATAN 345KV	371 92 1806 371 371 1806	0.05294 0.02101 0.05294 0.05294 0.05294 0.05294	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194	154 155 155 157 157
WERE KACP KACP KACP WACP WERE	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENERGY CENTER 345KV	201 54.1 54.1 245.2502 245.2502 201	-0.03171 MIPU 0.00059 KACP 0.00059 KACP 0.001 KACP 0.001 KACP -0.03171 NPPD	LAKE ROAD 34KV IATAN 345KV IATAN 345KV IATAN 345KV IATAN 345KV IATAN 345KV COOPERIG 22.000 345KV	371 92 1806 371 371 1806 551,2802	0.05294 0.02101 0.05294 0.05294 0.05294 0.05294	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194	154 155 155 157 157 157
WERE KACP KACP KACP KACP WERE NPPD	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENERGY CENTER 345KV SIDNEY 4 230.00 230KV	201 54.1 54.1 245.2502 245.2502 201 230.6148	-0.03171 MIPU 0.00059 KACP 0.00059 KACP 0.001 KACP 0.001 KACP -0.03171 NPPD 0.00673 KACP	LAKE ROAD 34KV IATAN 345KV	371 92 1806 371 371 1806 551.2802 371	0.05294 0.02101 0.05294 0.05294 0.05294 0.01576 0.05294	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194 -0.04747 -0.04621	154 155 1555 1575 157 157 171
WERE KACP KACP KACP KACP KACP WERE NPPD NPPD	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENERGY CENTER 345KV SIDNEY 4 230.00 230KV SIDNEY 4 200.00 230KV	201 54.1 54.1 245.2502 245.2502 201	-0.03171 MIPU 0.00059 KACP 0.00059 KACP 0.001 KACP 0.001 KACP -0.03171 NPPD 0.00673 KACP 0.00673 KACP	LAKE ROAD 34KV IATAN 345KV IATAN 345KV IATAN 345KV IATAN 345KV IATAN 345KV COOPERIG 22.000 345KV	371 92 1806 371 371 1806 551,2802	0.05294 0.02101 0.05294 0.05294 0.05294 0.05294	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194	154 155 155 157 157 157
WERE KACP KACP KACP KACP WERE NPPD	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENERGY CENTER 345KV SIDNEY 4 230.00 230KV	201 54.1 54.1 245.2502 245.2502 201 230.6148	-0.03171 MIPU 0.00059 KACP 0.00059 KACP 0.001 KACP 0.001 KACP -0.03171 NPPD 0.00673 KACP	LAKE ROAD 34KV IATAN 345KV	371 92 1806 371 371 1806 551.2802 371	0.05294 0.02101 0.05294 0.05294 0.05294 0.01576 0.05294	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194 -0.04747 -0.04621	154 155 1555 1555 157 157 171
WERE KACP KACP KACP KACP KACP WERE NPPD NPPD	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENERGY CENTER 345KV SIDNEY 4 230.00 230KV SIDNEY 4 200.00 230KV	201 54.1 54.1 245.2502 245.2502 201 230.6148 230.6148	-0.03171 MIPU 0.00059 KACP 0.00059 KACP 0.001 KACP 0.001 KACP -0.03171 NPPD 0.00673 KACP 0.00673 KACP	LAKE ROAD 34KV IATAN 345KV IATAN 345KV IATAN 345KV IATAN 345KV COOPER1G 22.000 345KV IATAN 345KV IATAN 345KV LATAN 345KV LATAN 345KV LATAN 345KV IATAN 345KV	371 92 1806 371 371 1806 551,2802 371 1806	0.05294 0.02101 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194 -0.04747 -0.04621 -0.04621	154 155 155 157 157 157 177 177 176
WERE KACP KACP KACP KACP WERE NPPD NPPD WERE	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENERGY CENTER 345KV SIDNEY 4 230,00 230KV EMPORIA ENERGY CENTER 345KV EMPORIA ENERGY CENTER 345KV EMPORIA ENERGY CENTER 345KV	201 54.1 54.2 245.2502 245.2502 201 230.6148 230.6148 201	-0.03171 MIPU 0.00059 KACP 0.00059 KACP 0.0015 KACP 0.001 KACP -0.03171 NPPD 0.00673 KACP -0.03717 OPPD -0.03171 OPPD	LAKE ROAD 34KV LATAN 345KV LATAN 345KV LATAN 345KV LATAN 345KV LATAN 345KV COOPER16 22 000 345KV LATAN 345KV	371 92 1806 371 171 1806 551.2802 371 1806 466 560.50	0.05294 0.02101 0.05294 0.05294 0.05294 0.05294 0.01576 0.05294 0.05294 0.01352	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194 -0.04747 -0.04621 -0.04621 -0.04523 -0.04523	1545 1555 1555 1577 1577 177 176 180
WERE KACP KACP KACP KACP WERE NPPD WERE WERE WERE WERE WERE WERE WERE	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENERGY CENTER 345KV SIDNEY 4 230.00 230KV SIDNEY 4 230.00 230KV EMPORIA ENERGY CENTER 345KV	201 54.1 54.1 245.2502 245.2502 245.2502 201 230.6148 230.6148 201 201	-0.03171 MIPU 0.00058 KACP 0.00058 KACP 0.001 KACP 0.001 KACP 0.001 KACP 0.001 KACP 0.00673 KACP 0.00673 KACP 0.00673 KACP 0.00671 OPPD 0.00787 KACP	LAKE ROAD 34KV LATAN 345KV LATAN 345KV LATAN 345KV LATAN 345KV LATAN 345KV LATAN 345KV COOPER1G 22.000 345KV LATAN 345KV	371 92 1806 371 1871 1806 5512802 371 1806 466 503 371	0.05294 0.02101 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.01352 0.01352	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194 -0.04747 -0.04621 -0.04523 -0.04523 -0.04523	154 155 155 157 157 177 176 176 180
WERE KACP KACP KACP KACP WERE NPPD NPPD WERE NPPD WERE NPPD WERE NPPD NPPD NPPD NPPD NPPD NPPD NPPD	EMPORIA ENBERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENBERGY CENTER 345KV SIDNEY 4 230.00 230KV SIDNEY 4 230.00 230KV EMPORIA ENBERGY CENTER 345KV EMPORIA ENBERGY CENTER 345KV CANADYIG 13.800 115KV CANADYIG 13.800 115KV	201 54.1 54.1 245.2502 245.2502 201 230.6148 201 125 201 125 201	-0.03171 MIPU 0.00058 KACP 0.00058 KACP 0.001 KACP 0.001 KACP 0.001 KACP 0.00673 KACP 0.00673 KACP 0.00673 KACP 0.00371 OPPD 0.00787 KACP	LAKE ROAD 34KV MTAN 345KV MEDTYTIG 18.000 4KV NEBCTYTIG 18.000 4KV MEDTYTIG 18.000 4KV MTAN 345KV MTAN 345KV MTAN 345KV MTAN 345KV	371 9 22 1806 377 377 1806 551,2802 371 1806 466 503 371 1807 1807 1808	0.05294 0.02101 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.01352 0.01352 0.05294	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194 -0.04747 -0.04621 -0.04523 -0.04523 -0.04507 -0.04507	1545 1555 1555 1577 1577 1774 176 1800 1800
WERE KACP KACP KACP KACP WERE NPPD NPPD WERE WERE WERE NPPD WERE WERE WERE WERE NPPD NPPD NPPD WERE	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENERGY CENTER 345KV SIDNEY 4 230.00 230KV SIDNEY 4 230.00 230KV SIDNEY 4 230.00 230KV EMPORIA ENERGY CENTER 345KV EMPORIA ENERGY CENTER 345KV CANADY16 13.800 115KV	201 54.1 54.1 245.2502 245.2502 201 230.148 230.8148 201 1255 666	-0.03171 MIPU -0.0059 KACP -0.00059 KACP -0.00059 KACP -0.001 KACP -0.001 KACP -0.001 KACP -0.00171 NPPD -0.0073 KACP -0.03171 OPPD -0.03171 OPPD -0.00787 KACP -0.0787 KACP -0.0787 KACP -0.00787 KACP -0.00787 KACP -0.02358 MIPU	LAKE ROAD 34KV IATAN 345KV	371 922 1806 371 371 1806 551,2802 371 1806 466 503 371 1806	0.05294 0.02101 0.05294 0.05294 0.05294 0.05294 0.01576 0.05294 0.01352 0.01352 0.05294 0.05294	-0.05272 -0.05235 -0.05235 -0.05235 -0.05194 -0.05194 -0.04747 -0.04621 -0.04523 -0.04523 -0.04507 -0.04507 -0.044597	154 1550 1550 1570 1577 1777 1760 1760 1800 1811 1811 1811
WERE KACP KACP KACP KACP WERE NPPD WERE NPPD WERE NPPD WERE NPPD WERE WERE NPPD WERE KACP	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENERGY CENTER 345KV SIDNEY 4 230.00 230KV SIDNEY 4 230.00 230KV EMPORIA ENERGY CENTER 345KV EMPORIA ENERGY CENTER 345KV CANADYIG 13.800 115KV ABILENE ENERGY CENTER 115KV BULL CREEK 161KV	201 301 46.1 54.1 54.1 245.2502 245.2502 245.2502 230.6148 230.6148 230.6148 230.615 260 261 260 262 264 264 264 264	-0.03171 MIPU 0.00059 KACP 0.00059 KACP 0.00059 KACP 0.001 KACP 0.001 KACP 0.001 KACP 0.00673 KACP 0.00673 KACP 0.00673 KACP 0.03171 OPPD 0.00787 KACP 0.00787 KACP 0.00787 KACP	LAKE ROAD 34KV IATAN 345KV	371 92 2 1806 377 377 371 1806 5512802 371 1806 466 503 371 1806 92	0.05294 0.02101 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.01352 0.05294 0.05294 0.05294 0.05294 0.05294	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194 -0.04747 -0.04621 -0.04523 -0.04523 -0.04507 -0.04459 -0.04459 -0.04459	1545 1555 1555 1557 1577 1577 1776 1760 1800 1881 1881 1822
WERE KACP KACP KACP KACP KACP WERE NPD NPD WERE WERE WERE WERE WERE KACP KACP KACP KACP KACP KACP KACP KACP	EMPORIA ENBERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV HAWTHORN 161KV SIDNEY 4 230.00 230KV SIDNEY 4 230.00 230KV SIDNEY 4 230.00 230KV EMPORIA ENRERGY CENTER 345KV EMPORIA ENRERGY CENTER 345KV CANADYIG 13.800 115KV CANADYIG 13.800 115KV BULL CREEK 161KV BULL CREEK 161KV	201 54.1 54.1 245.2502 245.2502 201 230.6148 230.6148 201 125 666 246.4		LAKE ROAD 34KV JATAN 345KV	371 922 1806 371 371 1806 551,8902 371 1806 466 503 371 1806 503 371 1806 406 373 371 371 371 370 371 371 371 371	0.05294 0.02101 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294 0.05294	-0.05272 -0.05235 -0.05235 -0.05194 -0.05194 -0.04621 -0.04621 -0.04523 -0.04523 -0.04507 -0.04523 -0.04507 -0.04523 -0.04507 -0.04507 -0.04507 -0.04507 -0.04507 -0.04507 -0.04507	154 155 1555 1556 1576 1577 1577 1776 1786 1880 1881 181 182 1886
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WERE KACP KACP KACP KACP KACP KACP WERE NPPD WERE WERE NPPD WERE WERE WERE WERE WERE WERE WERE WER	EMPORIA ENERGY CENTER 345KV MARSHALL 161KV MARSHALL 161KV HAWTHORN 161KV HAWTHORN 161KV HAWTHORN 161KV HAWTHORN 161KV HAWTHORN 161KV EMPORIA ENERGY CENTER 345KV SIDNEY 4 230.00 230KV SIDNEY 4 230.00 230KV EMPORIA ENERGY CENTER 345KV EMPORIA ENERGY CENTER 345KV CANADYIG 13.800 115KV CANADYIG 13.800 115KV CANADYIG 13.800 115KV BULL CREEK 161KV BULL CREEK 161KV BULL CREEK 161KV BULL CREEK 161KV EMPORIA ENERGY CENTER 345KV	201 54.1 54.1 244.5802 245.5802 230.6148 230.6148 201 125 66.6 246.4 201 201 201 201 201 201 201 201 201 201		LAKE ROAD 34KV JATAN 345KV JAT	371 922 1806 1806 371 371 1806 5512802 5512802 1806 466 466 503 371 1806 900 1806 1806 1806 1806 1806 1806 1806 18	0.0529-0.001000	-0.05272 -0.05235 -0.05235 -0.05235 -0.051949 -0.047474 -0.04621 -0.04523 -0.04523 -0.04523 -0.04523 -0.04523 -0.04523 -0.04523 -0.04523 -0.04523 -0.04523 -0.04523 -0.04523 -0.04351 -0.04351 -0.04351 -0.04351 -0.04207 -0.04207 -0.04207 -0.04364 -0.04207 -0.04364 -0.04207 -0.04364 -0.04207 -0.04364 -0.04207 -0.04364 -0.04364 -0.04207	1545 1555 1555 1555 1555 1557 1577 1577
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MIPU 247.994 - 0.00901MIPU | LAKE ROAD 34KV | Advanced to the Source and Sink Operating Points in the study models where limiting facility was identified. Factor - Source SSF - Sink SSF | Robert - Sink SSF | Source SSF - Sink SSF