Aggregate Facility Study SPP-2006-AG1-AFS-3 For Transmission Service Requested by Aggregate Transmission Customers

SPP Engineering, SPP Tariff Studies

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1. Executive Summary

Pursuant to Attachment Z of the Southwest Power Pool Open Access Transmission Tariff (OATT), 1295 MW of long-term transmission service requests have been restudied in this final Aggregate Facility Study (AFS). This phase of the AFS consists of revisions to reflect the withdrawal of requests after the AFS was posted on June 2nd, 2006. 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 Z provides for facility upgrade cost recovery by stating that "[a]ny charges paid by a customer in excess of the transmission access charges in compensation for the revenue requirements for allocated facility upgrade(s) shall be recovered by such customer from future transmission service revenues until the customer has been fully compensated."

The total assigned facility upgrade Engineering and Construction (E &C) cost determined by this AFS restudy is $245,949,354. Additionally $ 0 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 $1,097,510,963. This is based on full allocation of levelized revenue requirements for upgrades to customers without consideration of base plan funding . The AFS data tables reflect the full allocation of upgrade costs to customers based on either the requested reservation period, the deferred reservation period without interim redispatch, or the reservation period with

interim redispatch if applicable based on customer intention to pursue redispatch agreements. Total upgrade levelized revenue requirements for all transmission requests after consideration of potential base plan funding is $738,246,994. For those customers who have chosen to pursue redispatch in lieu of deferral of start of service, levelized revenue requirements will be based upon the deferred start date with redispatch. Redispatch was evaluated to provide only interim service during the time frame prior to completion of any assigned network upgrades.

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, 0 third-party facilities were identified. Total engineering and construction cost estimates for required third-party facility upgrades are $0.

The posting of this study will open a 15-day window for Customer response. To remain in this Aggregate Transmission Service Study (ATSS), the Customer should select Option #1 on the Letter of Intent sent concurrently with the posting of this Facility Study. Otherwise, if the customer chooses to withdraw from this ATSS, Customer should select Option #2 on the Letter of Intent. This will result in SPP ANNULING the OASIS request and no further study of this request will occur.
The Customer's course of action as indicated by the Letter of Intent must be received by the Transmission Provider by August 5th, 2006, otherwise the request will be determined as withdrawn and no further study of the request will occur.

At the conclusion of this ATSS, Service Agreements for each request for service will be tendered to the Customer. For requests requiring Network Upgrades, the full allocation of revenue requirements for facility upgrades will be assigned to the Customer contingent

upon verification of designated resources meeting Attachment J, Section III B criteria for base plan funding.

After receipt of a Service Agreement from the Transmission Provider, the Customer shall have 15 days to execute a Service Agreement or request the filing of an unexecuted Service Agreement or the request will be deemed terminated and withdrawn. Agreements for generation redispatch in lieu of deferral of start of service must be negotiated by the Transmission Customer and generation owner with a copy of the agreement provided to SPP prior to execution of the Service Agreement.

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 final approval of designated resources meeting Attachment J, Section III B criteria.

2. Introduction

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. The proposed cost allocation and cost recovery provisions were accepted for filing and suspended to become effective the earlier of five months from the requested effective date (July 1, 2005) or a further order of the Commission in the proceeding subject to refund. Since that time, the cost allocation and cost recovery provisions have been accepted with modification. The following link can be used to access the SPP Regulatory/FERC webpage: (http://www.spp.org/Objects/FERC_filings.cfm). The hyperlinks under the heading ER05-109 (Attach Z Filing) open Southwest Power Pool's October 29, 2004 filing

containing Attachment Z to the SPP OATT and the Commission's January 21, 2005 Order. In compliance with this Order, the third open season commenced on October 1, 2005. All requests for long-term transmission service received prior to February 1, 2006 with a signed study agreement were then included in the third Aggregate Transmission Service Study (ATSS).

Approximately 1295MW of long-term transmission service has been restudied in this Aggregate Facility Study (AFS) with over $245 Million in transmission upgrades being proposed. The results of the AFS are detailed in Tables 1 through 6. A highly tangible benefit of studying transmission requests aggregately under the SPP OATT Attachment Z 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 Z. The following link 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-to-point 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 Z 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 Z Section VII.

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.

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. 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.

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, 0 third-party facilities were identified. Total engineering and construction cost estimates for required third-party facility upgrades are $0. 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. These facilities also include those owned by members of the Transmission Provider who have not placed their facilities under the Transmission Provider's OATT.

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 110% and 90%. The SPS Tuco 230 kV bus voltage is monitored at 92.5% due to pre-determined system stability limitations.

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 69 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 fifteen seasonal models to study the aggregate transfers of 1295 MW over a variety of requested service periods. The SPP MDWG 2006 Series Cases Update 1 2006 Summer Peak (06SP), 2006 Summer Shoulder (06SH), 2006 Fall Peak (06FA), 2006/07 Winter Peak (06WP), 2007 April Minimum (07AP), 2007 Spring Peak (07G), 2007 Summer Peak (07SP), 2007Summer Shoulder (07SH), 2007 Fall Peak (07FA), 2007/08 Winter Peak (07WP), 2008 Summer Peak (08SP), 2008/09 Winter Peak (08WP), 2011 Summer Peak (11SP), 2011/12 Winter Peak (11WP), and 2016 Summer Peak (16SP) were used to study the impact of the requested service on the transmission system. The Spring Peak models apply to April and May, the Summer Peak models apply to June through September, the Fall Peak models apply to October and November, and the Winter Peak models apply to December through March.

The chosen base case models were modified to reflect the most current modeling information. Four groups of requests were developed from the aggregate of 1295 MW in order to minimize counterflows among requested service. Each request was included in two to four groups depending on the requested path. From the thirteen seasonal models, three system scenarios were developed. Scenario 1 includes SWPP OASIS transmission requests not already included in the SPP 2006 Series Cases flowing in a West to East direction with ERCOT exporting and SPS exporting to outside zones and exporting to the Lamar HVDC Tie. Scenario 2 includes transmission requests not already included in the SPP 2006 Series Cases flowing in an East to West direction with ERCOT net importing and SPS importing from an outside zone and exporting to the Lamar HVDC Tie. Scenario 3 includes transmission requests not already included in the SPP 2006 Series Cases flowing in a West to East direction with ERCOT net importing and SPS importing from an outside zone and importing from the Lamar HVDC Tie. Scenario 4 includes transmission requests not already included in the SPP 2006 Series Cases flowing in a North to South direction with ERCOT importing and SPS importing from outside zones and importing from 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. 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 below 0.90 pu) were applied to

determine the impacted facilities. The PSS/E options chosen to conduct the analysis can be found in Appendix A.

D. 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 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.

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). From the generation shift factors for the incremental and decremental units, top 100 relief pairs with a greater than 3% TDF were determined from the incremental units with the lowest generation shift factors and decremental units with

highest generation shift factors. The potential relief pairs were 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 ASIS. 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 to pursue redispatch from letter agreement option), 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. 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, facilities limiting rollover rights, credits to be paid for previously assigned AFS facility upgrades, and any third party upgrades required. This includes the season in the planning horizon where rollover rights are limited. 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 (COD), Estimated Date of Upgrade Completion (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.

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. The lesser of the planned maximum net dependable capacity or the requested capacity is multiplied by $180,000 to determine potential base plan funding allowable. If this additional capacity exceeds the 125% resource to load criteria for a given year, the value of capacity not exceeding 125% of load will set the determinant for base plan funding consideration. For example, a customer submits a request to add a new resource of 50MW in 2010 that meets all other conditions for base plan funding. The Customer's load forecast for 2010 is 500MW with forecasted firm resources of 600MW. The additional 50MW of resources increases the resource to load ratio from 120% to 130%. Therefore the E & C cost for that portion of the 50MW request not exceeding 125% resource to load, or 25MW, would be compared to the E & C cost for the full 50MW to determine a prorata share of the cost that can be covered by base plan funding. Any allocated customer costs in excess of base plan funding will be 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 power supply contracts or agreements verifying that the firm capacity of the requested designated resource is committed for a minimum five year duration.

B. Study Definitions

The Commercial Operation Date (COD) 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 posting of this study will open a 15-day window for Customer response. To remain in this Aggregate Transmission Service Study (ATSS), the Customer should select Option #1 on the Letter of Intent sent concurrently with the posting of this Facility Study. Otherwise, if the customer chooses to withdraw from this ATSS, Customer should select Option #2 on the Letter of Intent. This will result in SPP ANNULING the OASIS request and no further study of this request will occur.
The Customer's course of action as indicated by the Letter of Intent must be received by the Transmission Provider by August 5th, 2006, otherwise the request will be determined as withdrawn and no further study of the request will occur.

At the conclusion of this ATSS, Service Agreements for each request for service will be tendered to the Customer. For requests requiring Network Upgrades, the full allocation of revenue requirements for facility upgrades will be assigned to the Customer contingent upon verification of designated resources meeting Attachment J, Section III B criteria for base plan funding.

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 concurrent with the execution of the Service Agreement. This letter of credit is required regardless of base plan funding consideration. This amount is for all assignable Network Upgrades less any assigned facilities owned by the Network Customer's Transmission Operating Company. 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 letters of authorization 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.

Appendix A

PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

BASE CASES:
Solutions - Fixed slope decoupled Newton-Raphson solution (FDNS)
1. Tap adjustment – Stepping
2. Area interchange control – Tie lines and loads
3. Var limits – Apply immediately
4. Solution options - X Phase shift adjustment
   _ Flat start
   _ Lock DC taps
   _ Lock switched shunts

ACCC CASES:
Solutions – AC contingency checking (ACCC)
1. MW mismatch tolerance – 0.5
2. Contingency case rating – Rate B
3. Percent of rating – 100
4. Output code – Summary
5. Min flow change in overload report – 3mw
6. Excld cases w/ no overloads form report – YES
7. Exclude interfaces from report – NO
8. Perform voltage limit check – YES
9. Elements in available capacity table – 60000
10. Cutoff threshold for available capacity table – 99999.0
11. Min. contng. case Vltg chng for report – 0.02
12. Sorted output – None

Newton Solution:
1. Tap adjustment – Stepping
2. Area interchange control – Tie lines and loads
3. Var limits - Apply automatically
4. 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	Deferred Start Date	Deferred Stop Date	Mimimum Allocated ATC (MW) within reservation period	Season of Minimum Allocated ATC within reservation period
AEPM	AG1-2006-006D	1019914	CSWS	CSWS	168	7/1/2008	7/1/2013			0	08SP
AEPM	AG1-2006-007D	1023236 [1]	WFEC	CSWS	80	1/1/2007	1/1/2027	12/1/2007	12/1/2027	0	06WP
EDE	AG1-2006-027	1032183	EES	EDE	50	6/1/2010	6/1/2040			0	11SP
GSEC	AG1-2006-094	1034404	SECI	SPS	400	2/1/2011	2/1/2041			0	11SP
GSEC	AG1-2006-095	1034476	CSWS	CSWS	10	8/1/2006	8/1/2036	4/1/2011	4/1/2041	0	06SP
GSEC	AG1-2006-096	1034489	CSWS	CSWS	10	8/1/2006	8/1/2036	4/1/2011	4/1/2041	0	06SP
INDP	AG1-2006-051	1033791	KCPL	INDN	50	6/1/2010	6/1/2040			0	11SP
KCPS	AG1-2006-009	979750	KCPL	KCPL	168	6/1/2009	6/1/2029			0	11SP
KCPS	AG1-2006-070	1034307	KCPL	EES	103	6/1/2006	6/1/2007			0	06SP
KMEA	AG1-2006-068	1034247	GRDA	WR	1	5/1/2010	5/1/2026			0	11SP
KPP	AG1-2006-042	1032991	WPEK	WPEK	80	6/1/2006	6/1/2016			0	08SP
OGE	AG1-2006-040	1032973 [1]	OKGE	OKGE	120	9/1/2006	9/1/2031	12/1/2007	12/1/2032	0	06WP
OMPA	AG1-2006-010	977481	GRDA	OKGE	25	5/1/2007	5/1/2040			0	07FA
WRGS	AG1-2006-029D	1031553	KCPL	AECI	15	6/1/2006	6/1/2007			0	06SH
WRGS	AG1-2006-037D	1032955	AECI	KCPL	15	6/1/2006	6/1/2007			0	06SP

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

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	[6] Letter of Credit Amount Required	Potential Base Plan Engineering and Construction Funding Allowable	[7] Total Revenue Requirements for Assigned Upgrades over term of reservation WITHOUT potential base plan funding allocation in consideration of redispatch if applicable	Total Revenue Requirements for Assigned Upgrades over term of reservation WITH potential base plan funding allocation in consideration of redispatch if applicable	Point-to-Point Base Rate over reservation period	[4] Total Cost of Reservation Assignable to Customer contingent upon base plan funding
AEPM	AG1-2006-006D	1019914	$ 8,924,342	$ 8,234,429	$ 8,924,342	$ 16,370,374	$ -	$ -	Schedule 9 charges
AEPM	AG1-2006-007D	1023236	$ 4,153,473	$ 3,843,386	$ 1,440,000	$ 11,724,067	$ 7,659,358	$ -	$ 7,659,358
EDE	AG1-2006-027	1032183	$ -		$ -	$ -	$ -	$ -	Schedule 9 charges
GSEC	AG1-2006-094	1034404	$ 165,571,674	$ 165,571,674 [1]	$ 72,000,000	$ 709,264,735	$ 400,836,006	$ -	$ 400,836,006
GSEC	AG1-2006-095	1034476	$ 25,454,338	$ 25,550,375	$ -	$ 155,642,468	$ 155,642,468	$ -	$ 155,642,468
GSEC	AG1-2006-096	1034489	$ 25,454,338	$ 25,550,375	$ -	$ 155,642,468	$ 155,642,468	$ -	$ 155,642,468
INDP	AG1-2006-051	1033791	$ 1,476,836	$ 1,476,836	$ -	$ 6,132,418	$ 6,132,418	$ 15,840,000	$ 15,840,000
KCPS	AG1-2006-009	979750	$ 6,023,164	$ 5,323,164	$ 6,023,164	$ 17,490,605	$ -	$ -	Schedule 9 charges
KCPS	AG1-2006-070	1034307	$ 1,415,972	$ 1,415,972	$ -	$ 1,559,070	$ 1,559,070	$ 1,050,600	$ 1,559,070
KMEA	AG1-2006-068	1034247	$ 35,512	$ 35,512	$ 35,512	$ 98,061	$ -	$ 249,600	$ 249,600
KPP	AG1-2006-042	1032991	$ 2,168,000	$ 2,368,000 [5]	$ 2,168,000	$ 4,925,460	$ -	$ -	Schedule 9 charges
OGE	AG1-2006-040	1032973	$ 4,313,226	$ 2,983,239	$ 1,440,000	$ 15,862,241	$ 10,566,523	$ -	$ 10,566,523
OMPA	AG1-2006-010	977481	$ 768,951	$ 768,951	$ 768,951	$ 2,590,314	$ -	$ -	Schedule 9 charges
WRGS	AG1-2006-029D	1031553	$ -		$ -	$ -	$ -	$ 153,000	$ 153,000
WRGS	AG1-2006-037D	1032955	$ 189,528	$ 189,528	$ -	$ 208,682	$ 208,682	$ 158,400	$ 208,682
			$ 245,949,354		**$ 92,799,969**	**$ 1,097,510,963**	**$ 738,246,994**		

Note 1. 400MW potential base plan funding for year 2011 for GSEC

Note 2. For PTP 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. 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 required will be determined at a later date.

Note 3. 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 PTP base rate exceeds revenue requirements.

Note 5: 92MW potential base plan funding for year 2008 for KPP WPEK requests.

Note 6: 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 plus network upgrades for assigned upgrades less that $100,000 which are base plan funded but still require a letter of credit.

Note 7: Revenue Requirements are based upon customer's prior selection of intention to pursue redispatch if applicable.

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

Customer AEPM **Study Number** AG1-2006-006D

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
AEPM	1019914	CSWS	CSWS	168	7/1/2008	7/1/2013			$ 8,924,342	$ -	$ 8,924,342	
									$ 8,924,342	$ -	$ 8,924,342	$ 16,370,374

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1019914	ALUMAX TAP - BANN 138KV CKT 1	6/1/2008	6/1/2008		N/A	$ 689,913	$ 1,000,000	$ 1,369,256
	ANADARKO 138/69KV TRANSFORMER CKT 1	6/1/2011	6/1/2011		N/A	$ 1,783,570	$ 2,000,000	$ 3,153,661
	Mooreland - Potter 345 kV SPS	2/1/2011	2/1/2011		N/A	$ 2,136,241	$ 61,850,000	$ 3,567,258
	Mooreland - Potter 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 86,348	$ 2,500,000	$ 153,962
	Mooreland 345/138 kV Transformer	2/1/2011	2/1/2011		N/A	$ 570,997	$ 5,000,000	$ 1,018,108
	POTTER COUNTY INTERCHANGE (POTTR CO) 345/230/13.2KV TRANSFORMER CKT 1	2/1/2011	2/1/2011		N/A	$ 517,337	$ 8,727,217	$ 863,889
	Spearville - Mooreland 345 kV SUNC	2/1/2011	2/1/2011		N/A	$ 1,871,885	$ 31,000,000	$ 3,983,259
	Spearville - Mooreland 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 1,268,051	$ 21,000,000	$ 2,260,980
					Total	$ 8,924,342	$ 133,077,217	$ 16,370,374

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1019914	ALUMAX TAP - NORTHWEST TEXARKANA 138KV CKT 1	6/1/2007	6/1/2008	10/1/2007	N/A
	BANN - NW TEXARKANA-BANN T 138KV CKT 1	6/1/2013	6/1/2013		N/A
	LINWOOD - MCWILLIE STREET 138KV CKT 1	6/1/2007	6/1/2008	10/1/2007	N/A

Customer AEPM **Study Number** AG1-2006-007D

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
AEPM	1023236	WFEC	CSWS	80	1/1/2007	1/1/2027	12/1/2007	12/1/2027	$ 1,440,000	$ -	$ 4,156,399	
									$ 1,440,000	$ -	$ 4,156,399	$ 11,724,067

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1023236	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	6/1/2016	6/1/2016		N/A	$ 2,926	$ 15,000	$ -
	ALUMAX TAP - BANN 138KV CKT 1	6/1/2008	6/1/2008		N/A	$ 310,087	$ 1,000,000	$ 981,106
	FPL SWITCH - MOORELAND 138KV CKT 1 OKGE	6/1/2006	2/1/2008		Yes	$ 2,887	$ 120,000	$ 13,371
	FPL SWITCH - MOORELAND 138KV CKT 1 WFEC	6/1/2006	2/1/2008		Yes	$ 18,041	$ 750,000	$ 45,005
	FT SUPPLY 138/69KV TRANSFORMER CKT 1	12/1/2006	6/1/2008		Yes	$ 2,000,000	$ 2,000,000	$ 4,719,048
	HAMON BUTLER - MOREWOOD 69KV CKT 1	6/1/2006	2/1/2008		Yes	$ 1,158,024	$ 3,400,000	$ 3,035,013
	KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2006	6/1/2008	10/1/2007	N/A	$ 537,126	$ 1,750,000	$ 2,487,632
	MIDWAY 69 KV STATCOM	6/1/2006	10/1/2007		No	$ 127,308	$ 3,000,000	$ 442,891
					Total	$ 4,156,399	$ 12,035,000	$ 11,724,067

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1023236	ALUMAX TAP - NORTHWEST TEXARKANA 138KV CKT 1	6/1/2007	6/1/2008	10/1/2007	N/A
	BANN - NW TEXARKANA-BANN T 138KV CKT 1	6/1/2013	6/1/2013		N/A
	CASHION CAP BANK	12/1/2006	12/1/2007		No
	LINWOOD - MCWILLIE STREET 138KV CKT 1	6/1/2007	6/1/2008	10/1/2007	N/A

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

Customer **Study Number**
EDE AG1-2006-027

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
EDE	1032183	EES	EDE	50	6/1/2010	6/1/2040			$ -	$ -	$ -	
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1032183	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1032183	BULL SHOALS - BULL SHOALS 161KV CKT 1	6/1/2010	6/1/2010		N/A
	JAMESVILLE - SUB 415 - BLACKHAWK JCT. 69KV CKT 1	6/1/2013	6/1/2013		N/A
	JONES - JONESBORO 161KV CKT 1	6/1/2009	6/1/2009		N/A
	SUB 110 - ORONOGO JCT. (ORONOGO) 161/69/12.5KV TRANSFORMER CKT 1	6/1/2015	6/1/2015		N/A
	SUB 124 - AURORA H.T. - SUB 152 - MONETT H.T. 69KV CKT 1	6/1/2010	6/1/2010		N/A
	SUB 145 - JOPLIN WEST 7TH - SUB 64 - JOPLIN 10TH ST. 69KV CKT 1	6/1/2014	6/1/2014		N/A

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1032183	SUB 110 - ORONOGO JCT. - SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		N/A
	SUB 110 - ORONOGO JCT. (ORONOGO) 161/69/12.5KV TRANSFORMER CKT 1	6/1/2011	6/1/2011		N/A

Customer **Study Number**
GSEC AG1-2006-094

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
GSEC	1034404	SECI	SPS	400	2/1/2011	2/1/2041			$ 72,000,000	$ -	$ 165,571,674	
									$ 72,000,000	$ -	$ 165,571,674	$ 709,264,735

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1034404	ALTUS JCT TAP - RUSSELL 138KV CKT 1	6/1/2011	6/1/2011		N/A	$ 1,288,305	$ 3,125,000	$ 4,083,673
	CURRY COUNTY INTERCHANGE - ROOSEVELT COUNTY INTERCHANGE 115KV CKT 2	2/1/2011	2/1/2011		N/A	$ 1,494,659	$ 1,515,113	$ 6,703,514
	GREENSBURG - JUDSON LARGE 115KV CKT 1	6/1/2010	6/1/2010		N/A	$ 153,114	$ 153,114	$ 831,407
	LEA COUNTY INTERCHANGE 230KV CAPACITORS	2/1/2011	2/1/2011		N/A	$ 1,381,023	$ 1,381,023	$ 6,190,817
	Mooreland - Potter 345 kV SPS	2/1/2011	2/1/2011		N/A	$ 57,469,454	$ 61,850,000	$ 257,749,303
	Mooreland - Potter 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 2,322,937	$ 2,500,000	$ 7,425,144
	Mooreland 345/138 kV Transformer	2/1/2011	2/1/2011		N/A	$ 4,000,113	$ 5,000,000	$ 12,786,147
	Potter - Roosevelt 345KV	2/1/2011	2/1/2011		N/A	$ 38,504,390	$ 38,504,390	$ 172,606,556
	POTTER COUNTY INTERCHANGE (POTTR CO) 345/230/13.2KV TRANSFORMER CKT 1	2/1/2011	2/1/2011		N/A	$ 7,892,577	$ 8,727,217	$ 35,398,043
	ROOSEVELT COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 1	2/1/2011	2/1/2011		N/A	$ 3,161,726	$ 3,200,000	$ 14,180,275
	Spearville - Mooreland 345 kV SUNC	2/1/2011	2/1/2011		N/A	$ 28,557,782	$ 31,000,000	$ 129,472,703
	Spearville - Mooreland 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 19,345,594	$ 21,000,000	$ 61,837,154
					Total	$ 165,571,674	$ 177,955,857	$ 709,264,735

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1034404	Carter JCT Capcitor	6/1/2011	6/1/2011		N/A
	COX INTERCHANGE - LH-COX3 115KV CKT 1	6/1/2016	6/1/2016		N/A
	HALE CO INTERCHANGE - LH-COX3 115KV CKT 1	6/1/2016	6/1/2016		N/A
	MOORE COUNTY INTERCHANGE	12/1/2011	12/1/2011		N/A
	Seven Rivers to Pecos to Potash Junction 230kV	2/1/2011	2/1/2011		N/A
	SNYDER AEPW- SNYDER WFEC INTERCONNECTION	6/1/2015	6/1/2015		N/A
	YOAKUM COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 1	6/1/2012	6/1/2012		N/A

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

Customer	Study Number
GSEC	AG1-2006-095

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
GSEC	1034476	CSWS	CSWS	10	8/1/2006	8/1/2036	4/1/2011	4/1/2041	$ -	$ -	$ 25,454,338	
									$ -	$ -	$ 25,454,338	$ 155,642,468

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1034476	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	6/1/2016	6/1/2016		N/A	$ -	$ 15,000	$ -
	ALTUS JCT TAP - RUSSELL 138KV CKT 1	6/1/2011	6/1/2011		N/A	$ 918,347	$ 3,125,000	$ 2,931,324
	ANADARKO 138/69KV TRANSFORMER CKT 1	6/1/2011	6/1/2011		N/A	$ 108,215	$ 2,000,000	$ 345,418
	CURRY COUNTY INTERCHANGE - ROOSEVELT COUNTY INTERCHANGE 115KV CKT 2	2/1/2011	2/1/2011		N/A	$ 10,227	$ 1,515,113	$ 46,467
	ELDORADO - LAKE PAULINE 69KV CKT 1	6/1/2016	6/1/2016		N/A	$ -	$ 10,000	$ -
	GSEC Midway Interconnection	6/1/2006	6/1/2006		N/A	$ -	$ 70,000	$ -
	GYPSUM - RUSSELL 69KV CKT 1	6/1/2014	6/1/2014		N/A	$ 350,000	$ 700,000	$ 1,033,322
	HAMON BUTLER - MOREWOOD 69KV CKT 1	6/1/2006	2/1/2008		No	$ 85,580	$ 3,400,000	$ 309,281
	HOBART JUNCTION - TAMARAC TAP 138KV CKT 1	6/1/2013	6/1/2013		N/A	$ -	$ 100,000	$ -
	MIDWAY 69 KV STATCOM	6/1/2006	10/1/2007		No	$ 1,346,114	$ 3,000,000	$ 8,065,783
	Mooreland - Potter 345 kV SPS	2/1/2011	2/1/2011		N/A	$ 1,057,347	$ 61,850,000	$ 4,804,154
	Mooreland - Potter 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 42,738	$ 2,500,000	$ 137,565
	Mooreland 345/138 kV Transformer	2/1/2011	2/1/2011		N/A	$ 134,565	$ 5,000,000	$ 433,136
	POTTER COUNTY INTERCHANGE (POTTR CO) 345/230/13.2KV TRANSFORMER CKT 1	2/1/2011	2/1/2011		N/A	$ 122,591	$ 8,727,217	$ 557,004
	ROOSEVELT COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 1	2/1/2011	2/1/2011		N/A	$ 19,137	$ 3,200,000	$ 86,951
	Spearville - Mooreland 345 kV SUNC	2/1/2011	2/1/2011		N/A	$ 154,688	$ 31,000,000	$ 707,921
	Spearville - Mooreland 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 104,789	$ 21,000,000	$ 337,293
	Wichita - Reno Co 345KV	6/1/2006	4/1/2011		No	$ 21,000,000	$ 42,000,000	$ 135,846,849
					Total	$ 25,454,338	$ 189,212,330	$ 155,642,468

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1034476	Bowers Project	6/1/2010	6/1/2010		N/A
	Carter JCT Capcitor	6/1/2011	6/1/2011		N/A
	CLINTON CITY - THOMAS TAP 69KV CKT 1	6/1/2013	6/1/2012		N/A
	ELK CITY - ELK CITY 69KV CKT 1	6/1/2011	6/1/2011		N/A
	NICHOLS STATION 230/115KV TRANSFORMER CKT 1	12/1/2011	12/1/2011		N/A
	NICHOLS STATION 230/115KV TRANSFORMER CKT 2	6/1/2015	6/1/2015		N/A
	SNYDER AEPW- SNYDER WFEC INTERCONNECTION	6/1/2015	6/1/2015		N/A
	THOMAS TAP - WEATHERFORD 69KV CKT 1	6/1/2011	6/1/2011		N/A
	WEATHERFORD SOUTHEAST (WTH_SE) 138/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2010		N/A

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1034476	ARCADIA - REDBUD 345 KV CKT 1	6/1/2006	6/1/2006		N/A
	ARCADIA - REDBUD 345 KV CKT 2	6/1/2006	6/1/2006		N/A
	BEELINE - EXPLORER GLENPOOL 138KV CKT 1	6/1/2009	6/1/2009		N/A
	CACHE - SNYDER 138KV CKT 1	6/1/2008	6/1/2008		N/A
	EAST CENTRAL HENRYETTA - OKMULGEE 138KV CKT 1	12/1/2006	12/1/2006		N/A
	EAST CENTRAL HENRYETTA - WELEETKA 138KV CKT 1	6/1/2007	6/1/2007		N/A
	EXPLORER GLENPOOL - RIVERSIDE STATION 138KV CKT 1 AEPW	6/1/2009	6/1/2009		N/A
	EXPLORER GLENPOOL - RIVERSIDE STATION 138KV CKT 1 OKGE	6/1/2009	6/1/2009		N/A

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

Customer **Study Number**
GSEC AG1-2006-096

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
GSEC	1034489	CSWS	CSWS	10	8/1/2006	8/1/2036	4/1/2011	4/1/2041	$ -	$ -	$ 25,454,338	
									$ -	$ -	$ 25,454,338	$ 155,642,468

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1034489	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	6/1/2016	6/1/2016		N/A	$ -	$ 15,000	$ -
	ALTUS JCT TAP - RUSSELL 138KV CKT 1	6/1/2011	6/1/2011		N/A	$ 918,347	$ 3,125,000	$ 2,931,324
	ANADARKO 138/69KV TRANSFORMER CKT 1	6/1/2011	6/1/2011		N/A	$ 108,215	$ 2,000,000	$ 345,418
	CURRY COUNTY INTERCHANGE - ROOSEVELT COUNTY INTERCHANGE 115KV CKT 2	2/1/2011	2/1/2011		N/A	$ 10,227	$ 1,515,113	$ 46,467
	ELDORADO - LAKE PAULINE 69KV CKT 1	6/1/2016	6/1/2016		N/A	$ -	$ 10,000	$ -
	GSEC Midway Interconnection	6/1/2006	6/1/2006		N/A	$ -	$ 70,000	$ -
	GYPSUM - RUSSELL 69KV CKT 1	6/1/2014	6/1/2014		N/A	$ 350,000	$ 700,000	$ 1,033,322
	HAMON BUTLER - MOREWOOD 69KV CKT 1	6/1/2006	2/1/2008		No	$ 85,580	$ 3,400,000	$ 309,281
	HOBART JUNCTION - TAMARAC TAP 138KV CKT 1	6/1/2013	6/1/2013		N/A	$ -	$ 100,000	$ -
	MIDWAY 69 KV STATCOM	6/1/2006	10/1/2007		No	$ 1,346,114	$ 3,000,000	$ 8,065,783
	Mooreland - Potter 345 kV SPS	2/1/2011	2/1/2011		N/A	$ 1,057,347	$ 61,850,000	$ 4,804,154
	Mooreland - Potter 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 42,738	$ 2,500,000	$ 137,565
	Mooreland 345/138 kV Transformer	2/1/2011	2/1/2011		N/A	$ 134,565	$ 5,000,000	$ 433,136
	POTTER COUNTY INTERCHANGE (POTTR CO) 345/230/13.2KV TRANSFORMER CKT 1	2/1/2011	2/1/2011		N/A	$ 122,591	$ 8,727,217	$ 557,004
	ROOSEVELT COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 1	2/1/2011	2/1/2011		N/A	$ 19,137	$ 3,200,000	$ 86,951
	Spearville - Mooreland 345 kV SUNC	2/1/2011	2/1/2011		N/A	$ 154,688	$ 31,000,000	$ 707,921
	Spearville - Mooreland 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 104,789	$ 21,000,000	$ 337,293
	Wichita - Reno Co 345KV	6/1/2006	4/1/2011		No	$ 21,000,000	$ 42,000,000	$ 135,846,849
					Total	$ 25,454,338	$ 189,212,330	$ 155,642,468

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1034489	Bowers Project	6/1/2010	6/1/2010		N/A
	Carter JCT Capcitor	6/1/2011	6/1/2011		N/A
	CLINTON CITY - THOMAS TAP 69KV CKT 1	6/1/2013	6/1/2012		N/A
	ELK CITY - ELK CITY 69KV CKT 1	6/1/2011	6/1/2011		N/A
	NICHOLS STATION 230/115KV TRANSFORMER CKT 1	12/1/2011	12/1/2011		N/A
	NICHOLS STATION 230/115KV TRANSFORMER CKT 2	6/1/2015	6/1/2015		N/A
	SNYDER AEPW- SNYDER WFEC INTERCONNECTION	6/1/2015	6/1/2015		N/A
	THOMAS TAP - WEATHERFORD 69KV CKT 1	6/1/2011	6/1/2011		N/A
	WEATHERFORD SOUTHEAST (WTH_SE) 138/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2010		N/A

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1034489	ARCADIA - REDBUD 345 KV CKT 1	6/1/2006	6/1/2006		N/A
	ARCADIA - REDBUD 345 KV CKT 2	6/1/2006	6/1/2006		N/A
	BEELINE - EXPLORER GLENPOOL 138KV CKT 1	6/1/2009	6/1/2009		N/A
	CACHE - SNYDER 138KV CKT 1	6/1/2008	6/1/2008		N/A
	EAST CENTRAL HENRYETTA - OKMULGEE 138KV CKT 1	12/1/2006	12/1/2006		N/A
	EAST CENTRAL HENRYETTA - WELEETKA 138KV CKT 1	6/1/2007	6/1/2007		N/A
	EXPLORER GLENPOOL - RIVERSIDE STATION 138KV CKT 1 AEPW	6/1/2009	6/1/2009		N/A
	EXPLORER GLENPOOL - RIVERSIDE STATION 138KV CKT 1 OKGE	6/1/2009	6/1/2009		N/A

Customer **Study Number**
INDP AG1-2006-051

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
INDP	1033791	KCPL	INDN	50	6/1/2010	6/1/2040			$ -	$ 15,840,000	$ 1,476,836	
									$ -	$ 15,840,000	$ 1,476,836	$ 6,132,418

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1033791	166TH STREET - JAGGARD JUNCTION 115KV CKT 1	6/1/2009	6/1/2009		N/A	$ 213,144	$ 1,000,000	$ 1,104,684
	166TH STREET - JARBALO JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2009	6/1/2009		N/A	$ 404,973	$ 1,900,000	$ 577,160
	JAGGARD JUNCTION - PENTAGON 115KV CKT 1	6/1/2009	6/1/2009		N/A	$ 319,716	$ 1,500,000	$ 1,657,026
	STRANGER CREEK - NW LEAVENWORTH 115KV	6/1/2009	6/1/2009		N/A	$ 539,003	$ 2,400,000	$ 2,793,548
					Total	$ 1,476,836	$ 6,800,000	$ 6,132,418

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1033791	IATAN - ST JOE 345KV CKT 1	12/1/2011	4/1/2007		N/A
	IATAN5 161 - PLATTE CITY 161KV CKT 1	6/1/2011	6/1/2010		N/A

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

Customer KCPS **Study Number** AG1-2006-009

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
KCPS	979750	KCPL	KCPL	168	6/1/2009	6/1/2029			$ 6,023,164	$ -	$ 6,023,164	
									$ 6,023,164	$ -	$ 6,023,164	$ 17,490,605

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
979750	166TH STREET - JAGGARD JUNCTION 115KV CKT 1	6/1/2009	6/1/2009		N/A	$ 786,856	$ 1,000,000	$ 2,927,306
	166TH STREET - JARBALO JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2009	6/1/2009		N/A	$ 1,495,027	$ 1,900,000	$ 1,529,422
	COLLEGE - CRAIG 161KV CKT 1	6/1/2016	6/1/2016		N/A	$ 700,000	$ 700,000	$ 1,719,531
	JAGGARD JUNCTION - PENTAGON 115KV CKT 1	6/1/2009	6/1/2009		N/A	$ 1,180,284	$ 1,500,000	$ 4,390,959
	STRANGER CREEK - NW LEAVENWORTH 115KV	6/1/2009	6/1/2009		N/A	$ 1,860,997	$ 2,400,000	$ 6,923,386
					Total	$ 6,023,164	$ 7,500,000	$ 17,490,605

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
979750	AVONDALE - GLADSTONE 161KV CKT 1	6/1/2014	6/1/2014		N/A

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
979750	IATAN - ST JOE 345KV CKT 1	12/1/2011	4/1/2007		N/A
	IATAN5 161 - PLATTE CITY 161KV CKT 1	6/1/2011	6/1/2010		N/A

Customer KCPS **Study Number** AG1-2006-070

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
KCPS	1034307	KCPL	EES	103	6/1/2006	6/1/2007			$ -	$ 1,050,600	$ 1,415,972	
									$ -	$ 1,050,600	$ 1,415,972	$ 1,559,070

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1034307	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2006	2/1/2008	10/1/2007	Yes	$ 1,415,972	$ 1,605,500	$ 1,559,070
					Total	$ 1,415,972	$ 1,605,500	$ 1,559,070

Customer KMEA **Study Number** AG1-2006-068

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
KMEA	1034247	GRDA	WR	1	5/1/2010	5/1/2026			$ 35,512	$ 249,600	$ 35,512	
									$ 35,512	$ 249,600	$ 35,512	$ 98,061

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1034247	CURRY COUNTY INTERCHANGE - ROOSEVELT COUNTY INTERCHANGE 115KV CKT 2	2/1/2011	2/1/2011		N/A	$ -	$ 1,515,113	$ -
	Mooreland - Potter 345 kV SPS	2/1/2011	2/1/2011		N/A	$ 1,913	$ 61,850,000	$ 5,417
	Mooreland - Potter 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 77	$ 2,500,000	$ 185
	Mooreland 345/138 kV Transformer	2/1/2011	2/1/2011		N/A	$ 6,771	$ 5,000,000	$ 16,269
	POTTER COUNTY INTERCHANGE (POTTR CO) 345/230/13.2KV TRANSFORMER CKT 1	2/1/2011	2/1/2011		N/A	$ 3,784	$ 8,727,217	$ 10,715
	Spearville - Mooreland 345 kV SUNC	2/1/2011	2/1/2011		N/A	$ 13,692	$ 31,000,000	$ 43,189
	Spearville - Mooreland 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 9,275	$ 21,000,000	$ 22,286
					Total	$ 35,512	$ 131,592,330	$ 98,061

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1034247	CIRCLEVILLE - HOYT HTI SWITCHING JUNCTION 115KV CKT 1	5/1/2010	5/1/2010		N/A
	CIRCLEVILLE - KING HILL N.M. COOP 115KV CKT 1	5/1/2010	5/1/2010		N/A
	GRAY TAP - PENSACOLA 69KV CKT 1	6/1/2006	12/1/2008	10/1/2008	N/A
	KELLY - KING HILL N.M. COOP 115KV CKT 1	5/1/2010	5/1/2010		N/A

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1034247	412SUB - KANSAS TAP 161KV CKT 1	6/1/2015	6/1/2015		N/A
	412SUB - KERR 161KV CKT 1	6/1/2015	6/1/2015		N/A
	ARCADIA - REDBUD 345 KV CKT 1	6/1/2006	6/1/2006		N/A
	ARCADIA - REDBUD 345 KV CKT 2	6/1/2006	6/1/2006		N/A
	SUB 110 - ORONOGO JCT. - SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		N/A

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

Customer **Study Number**
KPP AG1-2006-042

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
KPP	1032991	WPEK	WPEK	80	6/1/2006	6/1/2016			$ 2,168,000	$ -	$ 2,168,000	
									$ 2,168,000	$ -	$ 2,168,000	$ 4,925,460

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1032991	Ellsworth 34.5 kV System Improvements	6/1/2008	6/1/2008		N/A	$ -	$ 100,000	$ -
	Greenleaf 34.5 kV System Improvements	6/1/2008	6/1/2008		N/A	$ 797,000	$ 797,000	$ 1,403,696
	Greensburg 34.5 kV System Improvements	6/1/2008	6/1/2008		N/A	$ 721,000	$ 721,000	$ 1,852,073
	North West Great Bend 34.5 kV System Improvements	6/1/2008	6/1/2008		N/A	$ 150,000	$ 150,000	$ 385,313
	Plainville 34.5 kV System Improvements	6/1/2008	6/1/2008		N/A	$ 200,000	$ 200,000	$ 513,751
	Smith Center 34.5 kV System Improvements	6/1/2008	6/1/2008		N/A	$ -	$ 100,000	$ -
	South Dodge 34.5 KV System Improvements	6/1/2008	6/1/2008		N/A	$ 300,000	$ 300,000	$ 770,627
					Total	$ 2,168,000	$ 2,368,000	$ 4,925,460

Customer **Study Number**
OGE AG1-2006-040

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
OGE	1032973	OKGE	OKGE	120	9/1/2006	9/1/2031	12/1/2007	12/1/2032	$ 1,440,000	$ -	$ 4,313,226	
									$ 1,440,000	$ -	$ 4,313,226	$ 15,862,241

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1032973	FPL SWITCH - MOORELAND 138KV CKT 1 OKGE	6/1/2006	2/1/2008		Yes	$ 117,113	$ 120,000	$ 633,638
	FPL SWITCH - MOORELAND 138KV CKT 1 WFEC	6/1/2006	2/1/2008		Yes	$ 731,959	$ 750,000	$ 1,999,245
	HAMON BUTLER - MOREWOOD 69KV CKT 1	6/1/2006	2/1/2008		Yes	$ 2,070,816	$ 3,400,000	$ 5,942,406
	KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2006	6/1/2008	10/1/2007	N/A	$ 1,212,874	$ 1,750,000	$ 6,562,238
	MIDWAY 69 KV STATCOM	6/1/2006	10/1/2007		No	$ 180,464	$ 3,000,000	$ 724,714
					Total	$ 4,313,226	$ 9,020,000	$ 15,862,241

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1032973	CASHION CAP BANK	12/1/2006	12/1/2007		No
	COLONY - FT SMITH 161KV CKT 1	6/1/2011	6/1/2011		N/A
	PENNSYLVANIA - WESTMOORE 138KV CKT 1	10/1/2007	6/1/2008	12/1/2007	N/A

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1032973	IODINE - WOODWARD 138kV CKT 1	6/1/2006	12/1/2006		N/A

Customer **Study Number**
OMPA AG1-2006-010

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
OMPA	977481	GRDA	OKGE	25	5/1/2007	5/1/2040			$ 768,951	$ -	$ 768,951	
									$ 768,951	$ -	$ 768,951	$ 2,590,314

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
977481	Mooreland - Potter 345 kV SPS	2/1/2011	2/1/2011		N/A	$ 127,697	$ 61,850,000	$ 456,181
	Mooreland - Potter 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 5,162	$ 2,500,000	$ 14,759
	Mooreland 345/138 kV Transformer	2/1/2011	2/1/2011		N/A	$ 152,988	$ 5,000,000	$ 437,430
	POTTER COUNTY INTERCHANGE (POTTR CO) 345/230/13.2KV TRANSFORMER CKT 1	2/1/2011	2/1/2011		N/A	$ 68,337	$ 8,727,217	$ 244,125
	Spearville - Mooreland 345 kV SUNC	2/1/2011	2/1/2011		N/A	$ 247,265	$ 31,000,000	$ 958,890
	Spearville - Mooreland 345 kV WFEC	2/1/2011	2/1/2011		N/A	$ 167,502	$ 21,000,000	$ 478,929
					Total	$ 768,951	$ 130,077,217	$ 2,590,314

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
977481	GRAY TAP - PENSACOLA 69KV CKT 1	6/1/2006	12/1/2008	10/1/2008	Yes
	PENNSYLVANIA - WESTMOORE 138KV CKT 1	10/1/2007	6/1/2008	12/1/2007	Yes
	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3	6/1/2013	6/1/2013		N/A

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
977481	412SUB - KANSAS TAP 161KV CKT 1	6/1/2015	6/1/2015		N/A
	412SUB - KERR 161KV CKT 1	6/1/2015	6/1/2015		N/A
	ARCADIA - REDBUD 345 KV CKT 1	6/1/2006	6/1/2006		N/A
	ARCADIA - REDBUD 345 KV CKT 2	6/1/2006	6/1/2006		N/A
	SUB 110 - ORONOGO JCT. - SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		N/A

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

Customer **Study Number**
WRGS AG1-2006-029D

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
WRGS	1031553	KCPL	AECI	15	6/1/2006	6/1/2007			$ -	$ 153,000	$ -	
									$ -	$ 153,000	$ -	$ -

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1031553	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available
1031553	SOUTH WAVERLY 161/69KV TRANSFORMER CKT 1 Redispatch	6/1/2006	10/1/2006		Yes

Customer **Study Number**
WRGS AG1-2006-037D

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date	Deferred Stop Date	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocate E & C Cost	Total Revenue Requirements
WRGS	1032955	AECI	KCPL	15	6/1/2006	6/1/2007			$ -	$ 158,400	$ 189,528	
									$ -	$ 158,400	$ 189,528	$ 208,682

Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1032955	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2006	2/1/2008	10/1/2007	Yes	$ 189,528	$ 1,605,500	$ 208,682
					Total	$ 189,528	$ 1,605,500	$ 208,682

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

Transmission Owner	Upgrade	Solution	Minimum ATC per Upgrade (MW)	Season of Minimum Allocated ATC	Earliest Data Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AEPW	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	Reset Relays @ 36th & Lewis	189	16SP	6/1/2016	6/1/2016	$ 15,000
AEPW	ALUMAX TAP - BANN 138KV CKT 1	Replace six (6) 138 kV switches, five at Bann & one at Alumax Tap. Rebuild 0.67 miles of 1024 ACAR with 2156 ACSR. Replace wavetrap & jumpers @ Bann. Replace breaker 3300 @ Bann.	0	16SP	6/1/2008	6/1/2008	$ 1,000,000
AEPW	ELDORADO - LAKE PAULINE 69KV CKT 1	Reset CTs @ Lake Pauline	5	16SP	6/1/2016	6/1/2016	$ 10,000
AEPW	HOBART JUNCTION - TAMARAC TAP 138KV CKT 1	Replace Hobart Jct. Wavetrap	0	16SP	6/1/2013	6/1/2013	$ 100,000
KACP	COLLEGE - CRAIG 161KV CKT 1	Reconductor 4 miles with 1192.5 ACSS, 558 normal/emergency rating and upgrade breaker.	122	16SP	6/1/2016	6/1/2016	$ 700,000
MIPU	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	Conductor	0	06SP	6/1/2006	2/1/2008	$ 1,605,500
OKGE	FPL SWITCH - MOORELAND 138KV CKT 1 OKGE	OGE would rebuild .18 miles of 267AS33 with 795AS33. This would raise OGE's summer and winter Rate B to 287MVA. The limit will still be at WFEC's Mooreland at 390A & 600A.	54	06FA	6/1/2006	2/1/2008	$ 120,000
OKGE	KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1	Replace bus tie with 100MVA transforme	88	08SP	6/1/2006	6/1/2008	$ 1,750,000
SPS	CURRY COUNTY INTERCHANGE - ROOSEVELT COUNTY INTERCHANGE 115KV CKT 2	Upgrade Roosevelt to Curry 115 kV circuit w/795 ACSF	0	11SP	2/1/2011	2/1/2011	$ 1,515,113
SPS	GSEC Midway Interconnection	New Delivery Point tapping 69 kV Tie Line from AEPW Shamrock to SPS Magic City	0	06SP	6/1/2006	6/1/2006	$ 70,000
SPS	LEA COUNTY INTERCHANGE 230KV CAPACITORS	Install 2 - 50 MVar capacitor banks on the 230 kV bus at Lea County Interchang	0	11WP	2/1/2011	2/1/2011	$ 1,381,023
SPS	MIDWAY 69 KV STATCOM	Install 18 MVAR STATCOM at SPS Midway 69 kV	0	07AP	6/1/2006	10/1/2007	$ 3,000,000
SPS	Mooreland - Potter 345 kV SPS	New 345 kV line from Potter to Mooreland on wooden h-frame structures	0	11SP	2/1/2011	2/1/2011	$ 61,850,000
SPS	Potter - Roosevelt 345KV	New 345 kV circuit from Potter - Roosevelt 2-795 ACSR & 345/230 kV 560 MVA transformer	0	11SP	2/1/2011	2/1/2011	$ 38,504,390
SPS	POTTER COUNTY INTERCHANGE (POTTR CO) 345/230/13.2KV TRANSFORMER CKT 1	New 345/230 kV 560 MVA transformer	0	11SP	2/1/2011	2/1/2011	$ 8,727,217
SPS	ROOSEVELT COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 1	Add 2nd transformer 230/115 kV 252 MVA	0	16SP	2/1/2011	2/1/2011	$ 3,200,000
SUNC	Spearville - Mooreland 345 kV SUNC	New 345 kV line from Spearville to Kansas/Oklahoma Stateline	0	11SP	2/1/2011	2/1/2011	$ 31,000,000
WEPL	Ellsworth 34.5 kV System Improvements	Add 1X3.00 Mvar Cap bank at 34.5 kV bus in the Ellsworth City Su	0	08SP	6/1/2008	6/1/2008	$ 100,000
WEPL	Greenleaf 34.5 kV System Improvements	Build a new 5.1 mile 34.5 kV line from Greenleaf to the City of Washingto	0	08SP	6/1/2008	6/1/2008	$ 797,000
WEPL	GREENSBURG - JUDSON LARGE 115KV CKT 1	Replace relaying	47	16SP	6/1/2010	6/1/2010	$ 153,114
WEPL	Greensburg 34.5 kV System Improvements	Build a new 4.5 miles 34.5 kV line From Greensburg 115/34.5 kV Sub to the City o Greensburg	0	08SP	6/1/2008	6/1/2008	$ 721,000
WEPL	North West Great Bend 34.5 kV System Improvements	Add 2x0.8 Mvar Cap banks	0	08SP	6/1/2008	6/1/2008	$ 150,000
WEPL	Plainville 34.5 kV System Improvements	Add 3x1.2 Mvar cap bank	0	08SP	6/1/2008	6/1/2008	$ 200,000
WEPL	Smith Center 34.5 kV System Improvements	Add 1X1.2 Mvar cap bank	0	08SP	6/1/2008	6/1/2008	$ 100,000
WEPL	South Dodge 34.5 KV System Improvements	2x0.6 Mvar at Englewood + 2x0.6 Mvar at Ashlan	0	08SP	6/1/2008	6/1/2008	$ 300,000
WERE	166TH STREET - JAGGARD JUNCTION 115KV CKT 1	Tear down and rebuild 3.66 mile 166-Jaggard 115 kV line	0	11SP	6/1/2009	6/1/2009	$ 1,000,000
WERE	166TH STREET - JARBALO JUNCTION SWITCHING STATION 115KV CKT 1	Tear down and rebuild 7.22 mile Jarbalo-166 115 kV line	0	11WP	6/1/2009	6/1/2009	$ 1,900,000
WERE	JAGGARD JUNCTION - PENTAGON 115KV CKT 1	Tear down and rebuild Jaggard - Pentagon 115 kV line	0	11WP	6/1/2009	6/1/2009	$ 1,500,000
WERE	STRANGER CREEK - NW LEAVENWORTH 115KV	Teardown/rebuild Jarbalo-NW Leavenworth 115 kV line with double circuit tap to Stranger Creek	0	16SP	6/1/2009	6/1/2009	$ 2,400,000
WERE	Wichita - Reno Co 345KV	Build 345kV from Wichita to Reno Co	0	11WP	6/1/2006	4/1/2011	$ 42,000,000
WFEC	ALTUS JCT TAP - RUSSELL 138KV CKT 1	Reconductor 12.5 miles from 336 to 795 ACSR	244	16SP	6/1/2011	6/1/2011	$ 3,125,000
WFEC	ANADARKO 138/69KV TRANSFORMER CKT 1	Install 2nd 112 MVA auto in parallel with existing Un	50	16SP	6/1/2011	6/1/2011	$ 2,000,000
WFEC	FPL SWITCH - MOORELAND 138KV CKT 1 WFEC	Upgrade terminal equipment FPL Sw & Mooreland	54	06FA	6/1/2006	2/1/2008	$ 750,000
WFEC	FT SUPPLY 138/69KV TRANSFORMER CKT 1	Install 2nd 70 MVA auto at Ft Supply	58	07AP	12/1/2006	6/1/2008	$ 2,000,000
WFEC	GYPSUM - RUSSELL 69KV CKT 1	Reconductor 1/0 to 336 ACSR - 3.1 miles	0	16SP	6/1/2014	6/1/2014	$ 700,000
WFEC	HAMON BUTLER - MOREWOOD 69KV CKT 1	Reconductor 1/0 to 336 ACSR - 15.0 miles	0	16SP	6/1/2006	2/1/2008	$ 3,400,000
WFEC	Mooreland - Potter 345 kV WFEC	345 kV line Termina	0	11SP	2/1/2011	2/1/2011	$ 2,500,000
WFEC	Mooreland 345/138 kV Transformer	New Mooreland 345/138 kV Transformer	0	11SP	2/1/2011	2/1/2011	$ 5,000,000
WFEC	Spearville - Mooreland 345 kV WFEC	New 345 kV line from Kansas/Oklahoma Stateline to Mooreland	0	11SP	2/1/2011	2/1/2011	$ 21,000,000

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	Minimum ATC per Upgrade (MW)	Season of Minimum Allocated ATC	Earliest Data Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)
MIPU	IATAN - ST JOE 345KV CKT 1	Circuit Breaker	159	11WP	12/1/2011	4/1/2007
MIPU	IATAN5 161 - PLATTE CITY 161KV CKT 1	Terminal Equipment	0	11WP	6/1/2011	6/1/2010
OKGE	IODINE - WOODWARD 138kV CKT 1	New line will be in service by 12/1/200	38	06FA	6/1/2006	12/1/2006

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

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

Transmission Owner	Upgrade	Solution	Minimum ATC per Upgrade (MW)	Season of Minimum Allocated ATC	Earliest Data Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)
AEPW	ALUMAX TAP - NORTHWEST TEXARKANA 138KV CKT 1	Rebuild 1.68 miles of 1024 ACAR with 2156 ACSR, Replace wavetrap & jumpers with 2156 ACSR. Replace Switch 2285 @ Alumax Tap.	0	11SP	6/1/2007	6/1/2008
AEPW	BANN - NW TEXARKANA-BANN T 138KV CKT 1	Reset Relays	0	16SP	6/1/2013	6/1/2013
AEPW	CLINTON CITY - THOMAS TAP 69KV CKT 1	Rebuild 13.68 miles of 4/0 ACSR with 795 ACSR	0	16SP	6/1/2013	6/1/2012
AEPW	ELK CITY - ELK CITY 69KV CKT 1	Replace CTS & jumpers	0	11SP	6/1/2011	6/1/2011
AEPW	LINWOOD - MCWILLIE STREET 138KV CKT 1	Rebuild 2.09 miles of 666 ACSR with 1272 ACSR	0	07SP	6/1/2007	6/1/2008
AEPW	WEATHERFORD SOUTHEAST (WTH_SE) 138/69/13.8KV TRANSFORMER CKT 1	Install new 90 MVA Autc	0	11SP	6/1/2010	6/1/2010
AEPW	SNYDER AEPW- SNYDER WFEC INTERCONNECTION	New Tie line between AEPW's Snyder and WFEC's Snyde	325	16SP	6/1/2015	6/1/2015
EMDE	JAMESVILLE - SUB 415 - BLACKHAWK JCT. 69KV CKT 1	Replace Jumpers to breaker #6950 at Blackhawk Jct	0	16SP	6/1/2013	6/1/2013
EMDE	SUB 110 - ORONOGO JCT. (ORONOGO) 161/69/12.5KV TRANSFORMER CKT 1	Replace 75 MVA Auto-xfmr at Oronogo Jct with 150 MVA Auto-xfmr and install 69 kV bank breaker. Auto-xfmr will have an impedance similar to Aurora 59468, 59537, 59704.	0	16SP	6/1/2015	6/1/2015
EMDE	SUB 124 - AURORA H.T. - SUB 152 - MONETT H.T. 69KV CKT 1	Change CT Ratio on breaker #6936 at Aurora #12	0	11SP	6/1/2010	6/1/2010
EMDE	SUB 145 - JOPLIN WEST 7TH - SUB 64 - JOPLIN 10TH ST. 69KV CKT 1	Replace 600 amp disconnects and leads to breaker #6965 at Joplin #6	0	16SP	6/1/2014	6/1/2014
GRDA	GRAY TAP - PENSACOLA 69KV CKT 1	Rebuild of Pensacola - Jayline (not owned by GRDA -- have tried to convince owner)	0	06SP	6/1/2006	12/1/2008
KACP	AVONDALE - GLADSTONE 161KV CKT 1	Replace 800 amp wavetrap at Gladstone with 1200 amp wavetra	0	16SP	6/1/2014	6/1/2014
KACP	SOUTH WAVERLY 161/69KV TRANSFORMER CKT 1 Redispatch	Redispatch for the 06 Summer Shoulde	0	06SH	6/1/2006	10/1/2006
OKGE	COLONY - FT SMITH 161KV CKT 1	Reconductor 2.2 miles to Drake ACCC/TW and change terminal equipment at Ft. Smith & Colony to 2000A.	0	11SP	6/1/2011	6/1/2011
OKGE	PENNSYLVANIA - WESTMOORE 138KV CKT 1	Replace the disconnect switches for breaker 108 at Pennsylvania Substation. Replac the 1200A trap. Increase CTR. Relay replacement may be required.	0	07FA	10/1/2007	6/1/2008
SPS	Bowers Project	Tap Elk City - Grapevine. New line from Stateline Tap to Graves Co. New 115/69xfmr a Graves Co.	0	07SP	6/1/2010	6/1/2010
SPS	COX INTERCHANGE - LH-COX3 115KV CKT 1	Rebuild Cox-LHCox 115 kV circuit w/397 ACSF	349	16SP	6/1/2016	6/1/2016
SPS	HALE CO INTERCHANGE - LH-COX3 115KV CKT 1	Rebuild Hale - LHCox 115 kV circuit w/397 ACSF	350	16SP	6/1/2016	6/1/2016
SPS	MOORE COUNTY INTERCHANGE	Add 2nd 230 kV circuit and 2nd 230/115 kV transformer at Moore. 230 kV constructior using 795 ACSR.	0	11WP	12/1/2011	12/1/2011
SPS	NICHOLS STATION 230/115KV TRANSFORMER CKT 1	Upgrade 230/115 kV Transformer with 252 MVA	0	11SP	12/1/2011	12/1/2011
SPS	NICHOLS STATION 230/115KV TRANSFORMER CKT 2	Upgrade 230/115 kV Transformer with 252 MVA	0	16SP	6/1/2015	6/1/2015
SPS	Seven Rivers to Pecos to Potash Junction 230kV	Seven Rivers to Pecos to Potash Junction 230k	0	16SP	2/1/2011	2/1/2011
SPS	THOMAS TAP - WEATHERFORD 69KV CKT 1	Rebuild 0.9 miles of 4/0 ACSR with 795 ACSR. Replace Weatherford wavetrap	0	11SP	6/1/2011	6/1/2011
SPS	YOAKUM COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 1	Upgrade Transformer 230/115 kV 252 MVA	0	16SP	6/1/2012	6/1/2012
SWPA	BULL SHOALS - BULL SHOALS 161KV CKT 1	Replace bus at Bull Shoals	0	16SP	6/1/2010	6/1/2010
SWPA	JONES - JONESBORO 161KV CKT 1	Change the ratio on the metering CTs to 1200/5 and adjust the meter	0	16SP	6/1/2009	6/1/2009
WERE	CIRCLEVILLE - HOYT HTI SWITCHING JUNCTION 115KV CKT 1	Rebuild 16.66 mile Circleville-Hoyt HTI Junction 115 kV line	0	10WP	5/1/2010	5/1/2010
WERE	CIRCLEVILLE - KING HILL N.M. COOP 115KV CKT 1	Rebuild 15.15 mile line with 1192.5 kcmil ACSR and replace CT	0	10WP	5/1/2010	5/1/2010
WERE	KELLY - KING HILL N.M. COOP 115KV CKT 1	Reconductor 9.61 mile line with 1192.5 kcmil ACSR and replace CTs	0	10WP	5/1/2010	5/1/2010
WERE	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3	Add third 345-138 kV transformer at Rose Hil	0	16SP	6/1/2013	6/1/2013
WFEC	Carter JCT Capcitor	Increase 6 to 24 MVAR at Carter JCT	0	16SP	6/1/2011	6/1/2011
WFEC	CASHION CAP BANK	Install 12MVAR Cap Bank at Cashior	0	06WP	12/1/2006	12/1/2007
WFEC	SNYDER AEPW- SNYDER WFEC INTERCONNECTION	New Tie line between AEPW's Snyder and WFEC's Snyde	325	16SP	6/1/2015	6/1/2015

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

Transmission Owner	Upgrade	Solution	Earliest Data Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)
AEPW	CACHE - SNYDER 138KV CKT 1	Replace Snyder wavetrap	6/1/2008	6/1/2008
AEPW	EAST CENTRAL HENRYETTA - OKMULGEE 138KV CKT 1	Replace Okmulgee Wavetrap	12/1/2006	12/1/2006
AEPW	EAST CENTRAL HENRYETTA - WELEETKA 138KV CKT 1	Replace Weleetka Wavetrap	6/1/2007	6/1/2007
AEPW	EXPLORER GLENPOOL - RIVERSIDE STATION 138KV CKT 1 AEPW	Reconductor 1.9 miles with ACCC. Replace wave trap jumpers at Riverside	6/1/2009	6/1/2009
EMDE	SUB 110 - ORONOGO JCT. - SUB 167 - RIVERTON 161KV CKT 1	Reconductor Oronogo 59467 to Riverton 59469 with Bundled 556 ACSF	6/1/2011	6/1/2011
EMDE	SUB 110 - ORONOGO JCT. (ORONOGO) 161/69/12.5KV TRANSFORMER CKT 1	Installl new 161/12 kV 22.4 transmer and take load off 69 kV systen	6/1/2011	6/1/2011
GRRD	412SUB - KANSAS TAP 161KV CKT 1	Reconductor 9.7 miles with 1590MCM ACSR	6/1/2015	6/1/2015
GRRD	412SUB - KERR 161KV CKT 1	Reconductor 12.5 miles with 1590MCM ACSR	6/1/2015	6/1/2015
OKGE	ARCADIA - REDBUD 345 KV CKT 1	Sponsored Project to Uprate Terminal Equipmen	6/1/2006	6/1/2006
OKGE	ARCADIA - REDBUD 345 KV CKT 2	Sponsored Project to Uprate Terminal Equipmen	6/1/2006	6/1/2006
OKGE	BEELINE - EXPLORER GLENPOOL 138KV CKT 1	Reconductor .92miles of line with Drake ACCC/TW	6/1/2009	6/1/2009
OKGE	EXPLORER GLENPOOL - RIVERSIDE STATION 138KV CKT 1 OKGE	Reconductor 1.82 miles line with Drake ACCC/TW	6/1/2009	6/1/2009

Table 5 - Third Party Facility Constraints

Transmission Owner	Upgrade	Solution	Minimum ATC per Upgrade (MW)	Season of Minimum Allocated ATC	Earliest Date Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
	None						

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

Upgrade: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Limiting Facility: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Direction: To->From
Line Outage: ORRICK - SIBLEY 161KV CKT 1
Flowgate: 592055923515924459202111O6SP
Date Redispatch Needed: 6/1/06 - 10/1/06
Season Flowgate Identified: 2006 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount
1032955	0.8	4.8
1034307	4.1	4.8

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
MIPU	'GREENWOOD 161KV'	255.8	-0.18518	MIPU	'SIBLEY 161KV'	230.2233	0.19121	-0.37639	13
MIPU	'ARIES 161KV'	595	-0.14198	MIPU	'SIBLEY 161KV'	230.2233	0.19121	-0.33319	14
MIPU	'GREENWOOD 161KV'	255.8	-0.18518	MIPU	'SIBLEY 69KV'	45.99999	0.16359	-0.34877	14
MIPU	'ARIES 161KV'	595	-0.14198	MIPU	'SIBLEY 69KV'	45.99999	0.16359	-0.30557	16
MIPU	'RALPH GREEN 69KV'	73.7	-0.11371	MIPU	'SIBLEY 161KV'	230.2233	0.19121	-0.30492	16
MIPU	'RALPH GREEN 69KV'	73.7	-0.11371	MIPU	'SIBLEY 69KV'	45.99999	0.16359	-0.2773	17
MIPU	'NEVADA 69KV'	20.3	-0.04556	MIPU	'SIBLEY 161KV'	230.2233	0.19121	-0.23677	20
MIPU	'GREENWOOD 161KV'	255.8	-0.18518	MIPU	'LAKE ROAD 161KV'	35	0.03552	-0.2207	22
MIPU	'GREENWOOD 161KV'	255.8	-0.18518	MIPU	'LAKE ROAD 34KV'	92	0.03552	-0.2207	22
MIPU	'NEVADA 69KV'	20.3	-0.04556	MIPU	'SIBLEY 69KV'	45.99999	0.16359	-0.20915	23
MIPU	'ARIES 161KV'	595	-0.14198	MIPU	'LAKE ROAD 161KV'	35	0.03552	-0.1775	27
MIPU	'ARIES 161KV'	595	-0.14198	MIPU	'LAKE ROAD 34KV'	92	0.03552	-0.1775	27
MIPU	'RALPH GREEN 69KV'	73.7	-0.11371	MIPU	'LAKE ROAD 161KV'	35	0.03552	-0.14923	32
MIPU	'RALPH GREEN 69KV'	73.7	-0.11371	MIPU	'LAKE ROAD 34KV'	92	0.03552	-0.14923	32
MIPU	'GREENWOOD 161KV'	255.8	-0.18518	MIPU	'SOUTH HARPER 161KV'	232.4752	-0.04893	-0.13625	35
MIPU	'ARIES 161KV'	595	-0.14198	MIPU	'SOUTH HARPER 161KV'	232.4752	-0.04893	-0.09305	52
MIPU	'NEVADA 69KV'	20.3	-0.04556	MIPU	'LAKE ROAD 161KV'	35	0.03552	-0.08108	60
MIPU	'NEVADA 69KV'	20.3	-0.04556	MIPU	'LAKE ROAD 34KV'	92	0.03552	-0.08108	60
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'HAWTHORN 161KV'	455	0.04087	-0.07753	62
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'HAWTHORN 161KV'	314	0.04087	-0.07753	62
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 13KV'	36	0.03795	-0.07461	65
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 13KV'	36	0.03795	-0.07461	65
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 13KV'	38	0.03795	-0.07461	65
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 161KV'	35	0.03795	-0.07461	65
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 161KV'	38	0.03795	-0.07461	65
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 161KV'	27.89355	0.03795	-0.07461	65
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'HAWTHORN 161KV'	455	0.04087	-0.06978	69
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'HAWTHORN 161KV'	314	0.04087	-0.06978	69
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 13KV'	36	0.03795	-0.06686	72
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 13KV'	36	0.03795	-0.06686	72
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 13KV'	38	0.03795	-0.06686	72
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 161KV'	35	0.03795	-0.06686	72
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 161KV'	38	0.03795	-0.06686	72
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 161KV'	27.89355	0.03795	-0.06686	72
MIPU	'RALPH GREEN 69KV'	73.7	-0.11371	MIPU	'SOUTH HARPER 161KV'	232.4752	-0.04893	-0.06478	75
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'IATAN 345KV'	396	0.0154	-0.05206	93

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: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Limiting Facility: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Direction: To->From
Line Outage: ORRICK - SIBLEY 161KV CKT 1
Flowgate: 592055923515924459202111O7SP
Date Redispatch Needed: 6/1/07 - 10/1/07
Season Flowgate Identified: 2007 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount
1032955	0.8	4.7
1034307	4.0	4.7

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
MIPU	'GREENWOOD 161KV'	255.8	-0.18515	MIPU	'SIBLEY 161KV'	232.7727	0.19105	-0.3762	13
MIPU	'ARIES 161KV'	595	-0.14194	MIPU	'SIBLEY 161KV'	232.7727	0.19105	-0.33299	14
MIPU	'GREENWOOD 161KV'	255.8	-0.18515	MIPU	'SIBLEY 69KV'	45.99999	0.16339	-0.34854	14
MIPU	'ARIES 161KV'	595	-0.14194	MIPU	'SIBLEY 69KV'	45.99999	0.16339	-0.30533	16
MIPU	'GREENWOOD 161KV'	255.8	-0.18515	MIPU	'LAKE ROAD 161KV'	35	0.03534	-0.22049	21
MIPU	'GREENWOOD 161KV'	255.8	-0.18515	MIPU	'LAKE ROAD 34KV'	92	0.03534	-0.22049	21
MIPU	'ARIES 161KV'	595	-0.14194	MIPU	'LAKE ROAD 161KV'	35	0.03534	-0.17728	27
MIPU	'ARIES 161KV'	595	-0.14194	MIPU	'LAKE ROAD 34KV'	92	0.03534	-0.17728	27
MIPU	'GREENWOOD 161KV'	255.8	-0.18515	MIPU	'SOUTH HARPER 161KV'	274.6863	-0.04884	-0.13631	35
MIPU	'ARIES 161KV'	595	-0.14194	MIPU	'SOUTH HARPER 161KV'	274.6863	-0.04884	-0.0931	51
MIPU	'NEVADA 69KV'	20.3	-0.04529	MIPU	'LAKE ROAD 161KV'	35	0.03534	-0.08063	59
MIPU	'NEVADA 69KV'	20.3	-0.04529	MIPU	'LAKE ROAD 34KV'	92	0.03534	-0.08063	59
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'HAWTHORN 161KV'	455	0.04042	-0.07711	61
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'HAWTHORN 161KV'	314	0.04042	-0.07711	61
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 13KV'	36	0.03717	-0.07386	64
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 13KV'	36	0.03717	-0.07386	64
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 13KV'	38	0.03717	-0.07386	64
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 161KV'	35	0.03717	-0.07386	64
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 161KV'	38	0.03717	-0.07386	64
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 161KV'	32.55078	0.03717	-0.07386	64
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'HAWTHORN 161KV'	455	0.04042	-0.06922	68
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'HAWTHORN 161KV'	314	0.04042	-0.06922	68
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 13KV'	36	0.03717	-0.06597	72
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 13KV'	36	0.03717	-0.06597	72
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 13KV'	38	0.03717	-0.06597	72
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 161KV'	35	0.03717	-0.06597	72
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 161KV'	38	0.03717	-0.06597	72
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 161KV'	32.55078	0.03717	-0.06597	72
MIPU	'RALPH GREEN 69KV'	73.7	-0.11364	MIPU	'SOUTH HARPER 161KV'	274.6863	-0.04884	-0.0648	73

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

KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'IATAN 345KV'	396	0.01542	-0.05211	91

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: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Limiting Facility: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Direction: To->From
Line Outage: ORRICK - RICHMOND 161KV CKT 1
Flowgate: 592055923515924459236111O6SP
Date Redispatch Needed: 6/1/06 - 10/1/06
Season Flowgate Identified: 2006 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount
1032955	0.8	4.8
1034307	4.1	4.8

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
MIPU	'GREENWOOD 161KV'	255.8	-0.18518	MIPU	'SIBLEY 161KV'	230.2233	0.19121	-0.37639	13
MIPU	'ARIES 161KV'	595	-0.14198	MIPU	'SIBLEY 161KV'	230.2233	0.19121	-0.33319	14
MIPU	'GREENWOOD 161KV'	255.8	-0.18518	MIPU	'SIBLEY 69KV'	45.99999	0.16359	-0.34877	14
MIPU	'ARIES 161KV'	595	-0.14198	MIPU	'SIBLEY 69KV'	45.99999	0.16359	-0.30557	16
MIPU	'RALPH GREEN 69KV'	73.7	-0.11371	MIPU	'SIBLEY 161KV'	230.2233	0.19121	-0.30492	16
MIPU	'RALPH GREEN 69KV'	73.7	-0.11371	MIPU	'SIBLEY 69KV'	45.99999	0.16359	-0.2773	17
MIPU	'NEVADA 69KV'	20.3	-0.04556	MIPU	'SIBLEY 161KV'	230.2233	0.19121	-0.23677	20
MIPU	'GREENWOOD 161KV'	255.8	-0.18518	MIPU	'LAKE ROAD 161KV'	35	0.03552	-0.2207	22
MIPU	'GREENWOOD 161KV'	255.8	-0.18518	MIPU	'LAKE ROAD 34KV'	92	0.03552	-0.2207	22
MIPU	'NEVADA 69KV'	20.3	-0.04556	MIPU	'SIBLEY 69KV'	45.99999	0.16359	-0.20915	23
MIPU	'ARIES 161KV'	595	-0.14198	MIPU	'LAKE ROAD 161KV'	35	0.03552	-0.1775	27
MIPU	'ARIES 161KV'	595	-0.14198	MIPU	'LAKE ROAD 34KV'	92	0.03552	-0.1775	27
MIPU	'RALPH GREEN 69KV'	73.7	-0.11371	MIPU	'LAKE ROAD 161KV'	35	0.03552	-0.14923	32
MIPU	'RALPH GREEN 69KV'	73.7	-0.11371	MIPU	'LAKE ROAD 34KV'	92	0.03552	-0.14923	32
MIPU	'GREENWOOD 161KV'	255.8	-0.18518	MIPU	'SOUTH HARPER 161KV'	232.4752	-0.04893	-0.13625	35
MIPU	'ARIES 161KV'	595	-0.14198	MIPU	'SOUTH HARPER 161KV'	232.4752	-0.04893	-0.09305	52
MIPU	'NEVADA 69KV'	20.3	-0.04556	MIPU	'LAKE ROAD 161KV'	35	0.03552	-0.08108	60
MIPU	'NEVADA 69KV'	20.3	-0.04556	MIPU	'LAKE ROAD 34KV'	92	0.03552	-0.08108	60
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'HAWTHORN 161KV'	455	0.04087	-0.07753	62
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'HAWTHORN 161KV'	314	0.04087	-0.07753	62
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 13KV'	36	0.03795	-0.07461	65
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 13KV'	36	0.03795	-0.07461	65
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 13KV'	38	0.03795	-0.07461	65
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 161KV'	35	0.03795	-0.07461	65
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 161KV'	38	0.03795	-0.07461	65
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'NORTHEAST 161KV'	27.89355	0.03795	-0.07461	65
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'HAWTHORN 161KV'	455	0.04087	-0.06978	69
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'HAWTHORN 161KV'	314	0.04087	-0.06978	69
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 13KV'	36	0.03795	-0.06686	72
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 13KV'	36	0.03795	-0.06686	72
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 13KV'	38	0.03795	-0.06686	72
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 161KV'	35	0.03795	-0.06686	72
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 161KV'	38	0.03795	-0.06686	72
KACP	'MONTROSE 161KV'	27.81216	-0.02891	KACP	'NORTHEAST 161KV'	27.89355	0.03795	-0.06686	72
MIPU	'RALPH GREEN 69KV'	73.7	-0.11371	MIPU	'SOUTH HARPER 161KV'	232.4752	-0.04893	-0.06478	75
KACP	'MARSHALL 161KV'	39.1	-0.03666	KACP	'IATAN 345KV'	396	0.0154	-0.05206	93

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: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Limiting Facility: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Direction: To->From
Line Outage: ORRICK - RICHMOND 161KV CKT 1
Flowgate: 592055923515924459236111O7SP
Date Redispatch Needed: 6/1/07 - 10/1/07
Season Flowgate Identified: 2007 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount
1032955	0.8	4.7
1034307	4.0	4.7

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
MIPU	'GREENWOOD 161KV'	255.8	-0.18515	MIPU	'SIBLEY 161KV'	232.7727	0.19105	-0.3762	13
MIPU	'ARIES 161KV'	595	-0.14194	MIPU	'SIBLEY 161KV'	232.7727	0.19105	-0.33299	14
MIPU	'GREENWOOD 161KV'	255.8	-0.18515	MIPU	'SIBLEY 69KV'	45.99999	0.16339	-0.34854	14
MIPU	'ARIES 161KV'	595	-0.14194	MIPU	'SIBLEY 69KV'	45.99999	0.16339	-0.30533	16
MIPU	'GREENWOOD 161KV'	255.8	-0.18515	MIPU	'LAKE ROAD 161KV'	35	0.03534	-0.22049	21
MIPU	'GREENWOOD 161KV'	255.8	-0.18515	MIPU	'LAKE ROAD 34KV'	92	0.03534	-0.22049	21
MIPU	'ARIES 161KV'	595	-0.14194	MIPU	'LAKE ROAD 161KV'	35	0.03534	-0.17728	27
MIPU	'ARIES 161KV'	595	-0.14194	MIPU	'LAKE ROAD 34KV'	92	0.03534	-0.17728	27
MIPU	'GREENWOOD 161KV'	255.8	-0.18515	MIPU	'SOUTH HARPER 161KV'	274.6863	-0.04884	-0.13631	35
MIPU	'ARIES 161KV'	595	-0.14194	MIPU	'SOUTH HARPER 161KV'	274.6863	-0.04884	-0.0931	51
MIPU	'NEVADA 69KV'	20.3	-0.04529	MIPU	'LAKE ROAD 161KV'	35	0.03534	-0.08063	59
MIPU	'NEVADA 69KV'	20.3	-0.04529	MIPU	'LAKE ROAD 34KV'	92	0.03534	-0.08063	59
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'HAWTHORN 161KV'	455	0.04042	-0.07711	61
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'HAWTHORN 161KV'	314	0.04042	-0.07711	61
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 13KV'	36	0.03717	-0.07386	64
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 13KV'	36	0.03717	-0.07386	64
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 13KV'	38	0.03717	-0.07386	64
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 161KV'	35	0.03717	-0.07386	64
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 161KV'	38	0.03717	-0.07386	64
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'NORTHEAST 161KV'	32.55078	0.03717	-0.07386	64
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'HAWTHORN 161KV'	455	0.04042	-0.06922	68
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'HAWTHORN 161KV'	314	0.04042	-0.06922	68
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 13KV'	36	0.03717	-0.06597	72

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

KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 13KV'	36	0.03717	-0.06597	72
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 13KV'	38	0.03717	-0.06597	72
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 161KV'	35	0.03717	-0.06597	72
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 161KV'	38	0.03717	-0.06597	72
KACP	'MONTROSE 161KV'	27.68166	-0.0288	KACP	'NORTHEAST 161KV'	32.55078	0.03717	-0.06597	72
MIPU	'RALPH GREEN 69KV'	73.7	-0.11364	MIPU	'SOUTH HARPER 161KV'	274.6863	-0.04884	-0.0648	73
KACP	'MARSHALL 161KV'	39.1	-0.03669	KACP	'IATAN 345KV'	396	0.01542	-0.05211	91

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: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Limiting Facility: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Direction: To->From
Line Outage: PLEASANT HILL () 345/161/13.8KV TRANSFORMER CKT 1
Flowgate: 59205592351PHILL737511106SP
Date Redispatch Needed: 6/1/06 - 10/1/06
Season Flowgate Identified: 2006 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount
1032955	0.5	3.6
1034307	3.1	3.6

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
MIPU	'GREENWOOD 161KV'	255.8	-0.2726	MIPU	'SIBLEY 161KV'	230.2233	0.15485	-0.42745	8
MIPU	'ARIES 161KV'	595	-0.24243	MIPU	'SIBLEY 161KV'	230.2233	0.15485	-0.39728	9
MIPU	'GREENWOOD 161KV'	255.8	-0.2726	MIPU	'SIBLEY 69KV'	45.99999	0.13272	-0.40532	9
MIPU	'ARIES 161KV'	595	-0.24243	MIPU	'SIBLEY 69KV'	45.99999	0.13272	-0.37515	10
MIPU	'RALPH GREEN 69KV'	73.7	-0.16187	MIPU	'SIBLEY 161KV'	230.2233	0.15485	-0.31672	11
MIPU	'GREENWOOD 161KV'	255.8	-0.2726	MIPU	'LAKE ROAD 161KV'	35	0.02878	-0.30138	12
MIPU	'GREENWOOD 161KV'	255.8	-0.2726	MIPU	'LAKE ROAD 34KV'	92	0.02878	-0.30138	12
MIPU	'RALPH GREEN 69KV'	73.7	-0.16187	MIPU	'SIBLEY 69KV'	45.99999	0.13272	-0.29459	12
MIPU	'ARIES 161KV'	595	-0.24243	MIPU	'LAKE ROAD 161KV'	35	0.02878	-0.27121	13
MIPU	'ARIES 161KV'	595	-0.24243	MIPU	'LAKE ROAD 34KV'	92	0.02878	-0.27121	13
MIPU	'GREENWOOD 161KV'	255.8	-0.2726	MIPU	'SOUTH HARPER 161KV'	232.4752	-0.05024	-0.22236	16
MIPU	'NEVADA 69KV'	20.3	-0.06432	MIPU	'SIBLEY 161KV'	230.2233	0.15485	-0.21917	17
MIPU	'NEVADA 69KV'	20.3	-0.06432	MIPU	'SIBLEY 69KV'	45.99999	0.13272	-0.19704	18
MIPU	'ARIES 161KV'	595	-0.24243	MIPU	'SOUTH HARPER 161KV'	232.4752	-0.05024	-0.19219	19
MIPU	'RALPH GREEN 69KV'	73.7	-0.16187	MIPU	'LAKE ROAD 161KV'	35	0.02878	-0.19065	19
MIPU	'RALPH GREEN 69KV'	73.7	-0.16187	MIPU	'LAKE ROAD 34KV'	92	0.02878	-0.19065	19
MIPU	'RALPH GREEN 69KV'	73.7	-0.16187	MIPU	'SOUTH HARPER 161KV'	232.4752	-0.05024	-0.11163	32
MIPU	'NEVADA 69KV'	20.3	-0.06432	MIPU	'LAKE ROAD 161KV'	35	0.02878	-0.0931	39
MIPU	'NEVADA 69KV'	20.3	-0.06432	MIPU	'LAKE ROAD 34KV'	92	0.02878	-0.0931	39
KACP	'MONTROSE 161KV'	27.81216	-0.04268	KACP	'HAWTHORN 161KV'	455	0.03194	-0.07462	49
KACP	'MONTROSE 161KV'	27.81216	-0.04268	KACP	'HAWTHORN 161KV'	314	0.03194	-0.07462	49
KACP	'MONTROSE 161KV'	27.81216	-0.04268	KACP	'NORTHEAST 13KV'	36	0.02881	-0.07149	51
KACP	'MONTROSE 161KV'	27.81216	-0.04268	KACP	'NORTHEAST 13KV'	36	0.02881	-0.07149	51
KACP	'MONTROSE 161KV'	27.81216	-0.04268	KACP	'NORTHEAST 13KV'	38	0.02881	-0.07149	51
KACP	'MONTROSE 161KV'	27.81216	-0.04268	KACP	'NORTHEAST 161KV'	35	0.02881	-0.07149	51
KACP	'MONTROSE 161KV'	27.81216	-0.04268	KACP	'NORTHEAST 161KV'	38	0.02881	-0.07149	51
KACP	'MONTROSE 161KV'	27.81216	-0.04268	KACP	'NORTHEAST 161KV'	27.89355	0.02881	-0.07149	51
KACP	'MARSHALL 161KV'	39.1	-0.02274	KACP	'HAWTHORN 161KV'	455	0.03194	-0.05468	66
KACP	'MARSHALL 161KV'	39.1	-0.02274	KACP	'HAWTHORN 161KV'	314	0.03194	-0.05468	66
KACP	'MONTROSE 161KV'	27.81216	-0.04268	KACP	'IATAN 345KV'	396	0.0114	-0.05408	67
KACP	'MARSHALL 161KV'	39.1	-0.02274	KACP	'NORTHEAST 13KV'	36	0.02881	-0.05155	70
KACP	'MARSHALL 161KV'	39.1	-0.02274	KACP	'NORTHEAST 13KV'	36	0.02881	-0.05155	70
KACP	'MARSHALL 161KV'	39.1	-0.02274	KACP	'NORTHEAST 13KV'	38	0.02881	-0.05155	70
KACP	'MARSHALL 161KV'	39.1	-0.02274	KACP	'NORTHEAST 161KV'	35	0.02881	-0.05155	70
KACP	'MARSHALL 161KV'	39.1	-0.02274	KACP	'NORTHEAST 161KV'	38	0.02881	-0.05155	70
KACP	'MARSHALL 161KV'	39.1	-0.02274	KACP	'NORTHEAST 161KV'	27.89355	0.02881	-0.05155	70
KACP	'MARSHALL 161KV'	39.1	-0.02274	KACP	'IATAN 345KV'	396	0.0114	-0.03414	106

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: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Limiting Facility: BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1
Direction: To->From
Line Outage: PLEASANT HILL () 345/161/13.8KV TRANSFORMER CKT 1
Flowgate: 59205592351PHILL737511107SP
Date Redispatch Needed: 6/1/07 - 10/1/07
Season Flowgate Identified: 2007 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount
1032955	0.5	0.5

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
MIPU	'ARIES 161KV'	595	-0.24241	MIPU	'SIBLEY 161KV'	232.7727	0.15465	-0.39706	1
MIPU	'ARIES 161KV'	595	-0.24241	MIPU	'SIBLEY 69KV'	45.99999	0.1325	-0.37491	1
MIPU	'GREENWOOD 161KV'	255.8	-0.2726	MIPU	'SIBLEY 161KV'	232.7727	0.15465	-0.42725	1
MIPU	'GREENWOOD 161KV'	255.8	-0.2726	MIPU	'SIBLEY 69KV'	45.99999	0.1325	-0.4051	1
MIPU	'ARIES 161KV'	595	-0.24241	MIPU	'LAKE ROAD 161KV'	35	0.02858	-0.27099	2
MIPU	'ARIES 161KV'	595	-0.24241	MIPU	'LAKE ROAD 34KV'	92	0.02858	-0.27099	2
MIPU	'GREENWOOD 161KV'	255.8	-0.2726	MIPU	'LAKE ROAD 161KV'	35	0.02858	-0.30118	2
MIPU	'GREENWOOD 161KV'	255.8	-0.2726	MIPU	'LAKE ROAD 34KV'	92	0.02858	-0.30118	2
MIPU	'GREENWOOD 161KV'	255.8	-0.2726	MIPU	'SOUTH HARPER 161KV'	274.6863	-0.05019	-0.22241	2
MIPU	'RALPH GREEN 69KV'	73.7	-0.16184	MIPU	'SIBLEY 161KV'	232.7727	0.15465	-0.31649	2
MIPU	'RALPH GREEN 69KV'	73.7	-0.16184	MIPU	'SIBLEY 69KV'	45.99999	0.1325	-0.29434	2
MIPU	'ARIES 161KV'	595	-0.24241	MIPU	'SOUTH HARPER 161KV'	274.6863	-0.05019	-0.19222	3
MIPU	'RALPH GREEN 69KV'	73.7	-0.16184	MIPU	'LAKE ROAD 161KV'	35	0.02858	-0.19042	3
MIPU	'RALPH GREEN 69KV'	73.7	-0.16184	MIPU	'LAKE ROAD 34KV'	92	0.02858	-0.19042	3
MIPU	'RALPH GREEN 69KV'	73.7	-0.16184	MIPU	'SOUTH HARPER 161KV'	274.6863	-0.05019	-0.11165	4
MIPU	'NEVADA 69KV'	20.3	-0.06403	MIPU	'LAKE ROAD 161KV'	35	0.02858	-0.09261	5
MIPU	'NEVADA 69KV'	20.3	-0.06403	MIPU	'LAKE ROAD 34KV'	92	0.02858	-0.09261	5

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

KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'HAWTHORN 161KV'	455	0.03149	-0.07409	7
KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'HAWTHORN 161KV'	314	0.03149	-0.07409	7
KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'NORTHEAST 13KV'	36	0.02805	-0.07065	7
KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'NORTHEAST 13KV'	36	0.02805	-0.07065	7
KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'NORTHEAST 13KV'	38	0.02805	-0.07065	7
KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'NORTHEAST 161KV'	35	0.02805	-0.07065	7
KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'NORTHEAST 161KV'	38	0.02805	-0.07065	7
KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'NORTHEAST 161KV'	32.55078	0.02805	-0.07065	7
KACP	'MARSHALL 161KV'	39.1	-0.02291	KACP	'HAWTHORN 161KV'	455	0.03149	-0.0544	9
KACP	'MARSHALL 161KV'	39.1	-0.02291	KACP	'HAWTHORN 161KV'	314	0.03149	-0.0544	9
KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'IATAN 345KV'	396	0.01139	-0.05399	9
KACP	'MARSHALL 161KV'	39.1	-0.02291	KACP	'NORTHEAST 13KV'	36	0.02805	-0.05096	10
KACP	'MARSHALL 161KV'	39.1	-0.02291	KACP	'NORTHEAST 13KV'	36	0.02805	-0.05096	10
KACP	'MARSHALL 161KV'	39.1	-0.02291	KACP	'NORTHEAST 13KV'	38	0.02805	-0.05096	10
KACP	'MARSHALL 161KV'	39.1	-0.02291	KACP	'NORTHEAST 161KV'	35	0.02805	-0.05096	10
KACP	'MARSHALL 161KV'	39.1	-0.02291	KACP	'NORTHEAST 161KV'	38	0.02805	-0.05096	10
KACP	'MARSHALL 161KV'	39.1	-0.02291	KACP	'NORTHEAST 161KV'	32.55078	0.02805	-0.05096	10
SWPA	'STOCKTON 161KV'	7.900002	-0.03235	SWPA	'CLARENCE CANNON DAM 69KV'	39.2	0.00498	-0.03733	13
KACP	'MARSHALL 161KV'	39.1	-0.02291	KACP	'IATAN 345KV'	396	0.01139	-0.0343	14
KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'BULL CREEK 161KV'	308	-0.00865	-0.03395	14
SWPA	'STOCKTON 161KV'	7.900002	-0.03235	SWPA	'SIKESTON 161KV'	235	-0.00028	-0.03207	15
KACP	'MONTROSE 161KV'	27.68166	-0.0426	KACP	'LACYGNE UNIT 345KV'	958	-0.01131	-0.03129	16
SWPA	'STOCKTON 161KV'	7.900002	-0.03235	SWPA	'JONESBORO 161KV'	63	-0.00167	-0.03068	16
SWPA	'STOCKTON 161KV'	7.900002	-0.03235	SWPA	'KENNETT 69KV'	7.2	-0.00098	-0.03137	16
SWPA	'STOCKTON 161KV'	7.900002	-0.03235	SWPA	'MALDEN 69KV'	7	-0.00075	-0.0316	16
SWPA	'STOCKTON 161KV'	7.900002	-0.03235	SWPA	'PARAGOULD 69KV'	5.5	-0.00138	-0.03097	16
SWPA	'STOCKTON 161KV'	7.900002	-0.03235	SWPA	'POPLAR BLUFF 69KV'	6	-0.00092	-0.03143	16

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: FPL SWITCH - MOORELAND 138KV CKT 1 OKGE & FPL SWITCH - MOORELAND 138KV CKT 1 WFEC
Limiting Facility: FPL SWITCH - MOORELAND 138KV CKT 1
Direction: From->To
Line Outage: DEWEY - IODINE 138KV CKT 1
Flowgate: 557855599915478754796112O7WP
Date Redispatch Needed: 12/1/07 - 4/1/08
Season Flowgate Identified: 2007 Winter Peak

Reservation	Relief Amount	Aggregate Relief Amount
1023236	0.3	7.4
1032973	7.1	7.4

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
OKGE	'AES 161KV'	78.99999	0.00003	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97305	8
OKGE	'HORSESHOE LAKE 138KV'	91	0.00022	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97286	8
OKGE	'HORSESHOE LAKE 138KV'	380.5	0.00022	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97286	8
OKGE	'HORSESHOE LAKE 138KV'	380	0.00022	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97286	8
OKGE	'HORSESHOE LAKE 69KV'	16	0.00021	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97287	8
OKGE	'MCCLAIN 138KV'	42	0.00034	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97274	8
OKGE	'MUSKOGEE 161KV'	31	0.00003	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97305	8
OKGE	'MUSKOGEE 161KV'	166	0.00003	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97305	8
OKGE	'MUSKOGEE 345KV'	20	0.00004	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97304	8
OKGE	'MUSTANG 138KV'	365.5	0.00035	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97273	8
OKGE	'MUSTANG 69KV'	106	0.0004	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97268	8
OKGE	'ONE OAK 345KV'	319	0.00012	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97296	8
OKGE	'REDBUD 345KV'	421.65	0.00014	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97294	8
OKGE	'REDBUD 345KV'	900	0.00014	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97294	8
OKGE	'SEMINOLE 138KV'	309.2084	0.00018	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.9729	8
OKGE	'SEMINOLE 345KV'	507.6	0.00018	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.9729	8
OKGE	'SOONER 138KV'	24.99997	-0.00031	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97339	8
OKGE	'SOUTH 4TH ST 69KV'	42.7	-0.00162	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.9747	8
OKGE	'TINKER 5G 138KV'	62	0.00024	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97284	8
OKGE	'AES 161KV'	78.99999	0.00003	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81255	9
OKGE	'HORSESHOE LAKE 138KV'	380.5	0.00022	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81236	9
OKGE	'HORSESHOE LAKE 138KV'	380	0.00022	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81236	9
OKGE	'HORSESHOE LAKE 138KV'	91	0.00022	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81236	9
OKGE	'HORSESHOE LAKE 69KV'	16	0.00021	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81237	9
OKGE	'MCCLAIN 138KV'	42	0.00034	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81224	9
OKGE	'MUSKOGEE 161KV'	31	0.00003	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81255	9
OKGE	'MUSKOGEE 161KV'	166	0.00003	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81255	9
OKGE	'MUSKOGEE 345KV'	20	0.00004	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81254	9
OKGE	'MUSTANG 138KV'	365.5	0.00035	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81223	9
OKGE	'MUSTANG 69KV'	106	0.0004	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81218	9
OKGE	'ONE OAK 345KV'	319	0.00012	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81246	9
OKGE	'REDBUD 345KV'	900	0.00014	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81244	9
OKGE	'REDBUD 345KV'	421.65	0.00014	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81244	9
OKGE	'SEMINOLE 138KV'	309.2084	0.00018	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.8124	9
OKGE	'SEMINOLE 345KV'	507.6	0.00018	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.8124	9
OKGE	'SOONER 138KV'	24.99997	-0.00031	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81289	9
OKGE	'SOUTH 4TH ST 69KV'	42.7	-0.00162	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.8142	9
OKGE	'TINKER 5G 138KV'	62	0.00024	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81234	9
WFEC	'MORLND 138KV'	148.9085	-0.02454	WFEC	'SLEEPING BEAR 138KV'	80	0.05338	-0.07792	96

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: FPL SWITCH - MOORELAND 138KV CKT 1 OKGE & FPL SWITCH - MOORELAND 138KV CKT 1 WFEC
Limiting Facility: FPL SWITCH - MOORELAND 138KV CKT 1
Direction: From->To
Line Outage: IODINE - WOODWARD 138KV CKT 1
Flowgate: 557855599915479654785112O7WP
Date Redispatch Needed: 12/1/07 - 4/1/08
Season Flowgate Identified: 2007 Winter Peak

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

Reservation	Relief Amount	Aggregate Relief Amount
1023236	0.5	10.9
1032973	10.4	10.9

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
OKGE	'AES 161KV'	78.99999	0.00003	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97305	11
OKGE	'HORSESHOE LAKE 138KV'	380.5	0.00022	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97286	11
OKGE	'HORSESHOE LAKE 138KV'	380	0.00022	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97286	11
OKGE	'HORSESHOE LAKE 138KV'	91	0.00022	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97286	11
OKGE	'HORSESHOE LAKE 69KV'	16	0.00021	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97287	11
OKGE	'MCCLAIN 138KV'	42	0.00034	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97274	11
OKGE	'MUSKOGEE 161KV'	166	0.00003	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97305	11
OKGE	'MUSKOGEE 161KV'	31	0.00003	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97305	11
OKGE	'MUSKOGEE 345KV'	20	0.00004	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97304	11
OKGE	'MUSTANG 138KV'	365.5	0.00035	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97273	11
OKGE	'MUSTANG 69KV'	106	0.0004	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97268	11
OKGE	'ONE OAK 345KV'	319	0.00012	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97296	11
OKGE	'REDBUD 345KV'	900	0.00014	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97294	11
OKGE	'REDBUD 345KV'	421.65	0.00014	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97294	11
OKGE	'SEMINOLE 138KV'	309.2084	0.00018	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.9729	11
OKGE	'SEMINOLE 345KV'	507.6	0.00018	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.9729	11
OKGE	'SOONER 138KV'	24.99997	-0.00031	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97339	11
OKGE	'SOUTH 4TH ST 69KV'	42.7	-0.00162	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.9747	11
OKGE	'TINKER 5G 138KV'	62	0.00024	OKGE	'FPLWND2 34KV'	101.9968	0.97308	-0.97284	11
OKGE	'AES 161KV'	78.99999	0.00003	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81255	13
OKGE	'HORSESHOE LAKE 138KV'	380	0.00022	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81236	13
OKGE	'HORSESHOE LAKE 138KV'	91	0.00022	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81236	13
OKGE	'HORSESHOE LAKE 138KV'	380.5	0.00022	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81236	13
OKGE	'HORSESHOE LAKE 69KV'	16	0.00021	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81237	13
OKGE	'MCCLAIN 138KV'	42	0.00034	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81224	13
OKGE	'MUSKOGEE 161KV'	31	0.00003	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81255	13
OKGE	'MUSKOGEE 161KV'	166	0.00003	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81255	13
OKGE	'MUSKOGEE 345KV'	20	0.00004	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81254	13
OKGE	'MUSTANG 138KV'	365.5	0.00035	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81223	13
OKGE	'MUSTANG 69KV'	106	0.0004	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81218	13
OKGE	'ONE OAK 345KV'	319	0.00012	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81246	13
OKGE	'REDBUD 345KV'	900	0.00014	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81244	13
OKGE	'REDBUD 345KV'	421.65	0.00014	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81244	13
OKGE	'SEMINOLE 138KV'	309.2084	0.00018	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.8124	13
OKGE	'SEMINOLE 345KV'	507.6	0.00018	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.8124	13
OKGE	'SOONER 138KV'	24.99997	-0.00031	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81289	13
OKGE	'SOUTH 4TH ST 69KV'	42.7	-0.00162	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.8142	13
OKGE	'TINKER 5G 138KV'	62	0.00024	OKGE	'SLEEPING BEAR 34KV'	120	0.81258	-0.81234	13
WFEC	'MORLND 138KV'	148.9085	-0.02454	WFEC	'SLEEPING BEAR 138KV'	80	0.05338	-0.07792	140

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: FPL SWITCH - MOORELAND 138KV CKT 1 OKGE & FPL SWITCH - MOORELAND 138KV CKT 1 WFEC
Limiting Facility: FPL SWITCH - MOORELAND 138KV CKT 1
Direction: From->To
Line Outage: WOODWARD (WOODWRD2) 138/69/13.2KV TRANSFORMER CKT 1
Flowgate: 55785559991WOODODWRD24214207WP
Date Redispatch Needed: 12/1/07 - 4/1/08
Season Flowgate Identified: 2007 Winter Peak

Reservation	Relief Amount	Aggregate Relief Amount
1032973	11.2	11.2

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
OKGE	'AES 161KV'	78.99999	0.00036	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89921	12
OKGE	'MUSKOGEE 161KV'	31	0.00043	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89914	12
OKGE	'MUSKOGEE 161KV'	166	0.00043	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89914	12
OKGE	'MUSKOGEE 345KV'	20	0.00051	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89906	12
OKGE	'SOONER 138KV'	24.99997	-0.00271	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.90228	12
OKGE	'SOUTH 4TH ST 69KV'	42.7	-0.01641	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.91598	12
OKGE	'HORSESHOE LAKE 138KV'	380	0.00255	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89702	13
OKGE	'HORSESHOE LAKE 138KV'	380.5	0.00255	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89702	13
OKGE	'HORSESHOE LAKE 138KV'	91	0.00255	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89702	13
OKGE	'HORSESHOE LAKE 69KV'	16	0.00245	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89712	13
OKGE	'MCCLAIN 138KV'	42	0.00386	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89571	13
OKGE	'MUSTANG 138KV'	365.5	0.00418	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89539	13
OKGE	'MUSTANG 69KV'	106	0.00454	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89503	13
OKGE	'ONE OAK 345KV'	336	0.00168	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89789	13
OKGE	'REDBUD 345KV'	900	0.00173	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89784	13
OKGE	'REDBUD 345KV'	421.65	0.00173	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89784	13
OKGE	'SEMINOLE 138KV'	319.6471	0.00195	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89762	13
OKGE	'SEMINOLE 345KV'	507.6	0.00203	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89754	13
OKGE	'TINKER 5G 138KV'	62	0.00276	OKGE	'FPLWND2 34KV'	101.9968	0.89957	-0.89681	13
OKGE	'AES 161KV'	78.99999	0.00036	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73441	15
OKGE	'HORSESHOE LAKE 138KV'	91	0.00255	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73222	15
OKGE	'HORSESHOE LAKE 138KV'	380	0.00255	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73222	15
OKGE	'HORSESHOE LAKE 138KV'	380.5	0.00255	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73222	15
OKGE	'HORSESHOE LAKE 69KV'	16	0.00245	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73232	15
OKGE	'MCCLAIN 138KV'	42	0.00386	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73091	15
OKGE	'MUSKOGEE 161KV'	31	0.00043	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73434	15
OKGE	'MUSKOGEE 161KV'	166	0.00043	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73434	15
OKGE	'MUSKOGEE 345KV'	20	0.00051	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73426	15
OKGE	'MUSTANG 138KV'	365.5	0.00418	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73059	15
OKGE	'MUSTANG 69KV'	106	0.00454	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73023	15
OKGE	'ONE OAK 345KV'	336	0.00168	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73309	15
OKGE	'REDBUD 345KV'	421.65	0.00173	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73304	15
OKGE	'REDBUD 345KV'	900	0.00173	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73304	15
OKGE	'SEMINOLE 138KV'	319.6471	0.00195	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73282	15

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

OKGE	'SEMINOLE 345KV'	507.6	0.00203	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73274	15
OKGE	'SOONER 138KV'	24.99997	-0.00271	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73748	15
OKGE	'SOUTH 4TH ST 69KV'	42.7	-0.01641	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.75118	15
OKGE	'TINKER 5G 138KV'	62	0.00276	OKGE	'SLEEPING BEAR 34KV'	120	0.73477	-0.73201	15

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: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Limiting Facility: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Direction: From->To
Line Outage: FT SUPPLY - IODINE 138KV CKT 1
Flowgate: 559195592015592055957111 07G
Date Redispatch Needed: Starting 2007 4/1 - 6/1 Until EOC of Upgrade
Season Flowgate Identified: 2007 Spring Peak

Reservation	Relief Amount	Aggregate Relief Amount
1023236	18.0	18.0

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
WFEC	'MORLND 138KV'	320	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	18

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: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Limiting Facility: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Direction: From->To
Line Outage: FT SUPPLY - IODINE 138KV CKT 1
Flowgate: 559195592015592055957111 07WP
Date Redispatch Needed: 12/1/07 - 4/1/08
Season Flowgate Identified: 2007 Winter Peak

Reservation	Relief Amount	Aggregate Relief Amount
1023236	18.5	18.5

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
WFEC	'MORLND 138KV'	148.9085	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	18

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: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Limiting Facility: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Direction: From->To
Line Outage: FT SUPPLY - IODINE 138KV CKT 1
Flowgate: 559195592015592055957131 07AP
Date Redispatch Needed: Starting 2007 4/1 - 6/1 Until EOC of Upgrade
Season Flowgate Identified: 2007 April Minimum

Reservation	Relief Amount	Aggregate Relief Amount
1023236	22.1	22.1

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
WFEC	'ANADARKO 138KV'	259.9101	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	22
WFEC	'ANADARKO 138KV'	90	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	22
WFEC	'ANADARKO 69KV'	76	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	22
WFEC	'HUGO 138KV'	191.9206	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	22
WFEC	'MORLND 138KV'	320	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	22

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: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Limiting Facility: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Direction: From->To
Line Outage: IODINE - MOORELAND 138KV CKT 1
Flowgate: 559195592015595755999111 07G
Date Redispatch Needed: Starting 2007 4/1 - 6/1 Until EOC of Upgrade
Season Flowgate Identified: 2007 Spring Peak

Reservation	Relief Amount	Aggregate Relief Amount
1023236	15.4	15.4

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
WFEC	'MORLND 138KV'	320	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	15

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: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Limiting Facility: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Direction: From->To
Line Outage: IODINE - MOORELAND 138KV CKT 1
Flowgate: 559195592015595755999111 07WP
Date Redispatch Needed: 12/1/07 - 4/1/08
Season Flowgate Identified: 2007 Winter Peak

Reservation	Relief Amount	Aggregate Relief Amount

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

1023236	15.3	15.3							
Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
WFEC	'MORLND 138KV'	148.9085	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	15

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: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Limiting Facility: FT SUPPLY 138/69KV TRANSFORMER CKT 1
Direction: From->To
Line Outage: IODINE - MOORELAND 138KV CKT 1
Flowgate: 559195592015595755999913107AP
Date Redispatch Needed: Starting 2007 4/1 - 6/1 Until EOC of Upgrade
Season Flowgate Identified: 2007 April Minimum

Reservation	Relief Amount	Aggregate Relief Amount
1023236	20.6	20.6

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
WFEC	'ANADARKO 138KV'	90	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	21
WFEC	'ANADARKO 138KV'	259.9101	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	21
WFEC	'ANADARKO 69KV'	76	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	21
WFEC	'HUGO 138KV'	191.9206	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	21
WFEC	'MORLND 138KV'	320	0	WFEC	'SLEEPING BEAR 138KV'	80	1	-1	21

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: GRAY TAP - PENSACOLA 69KV CKT 1
Limiting Facility: GRAY TAP - PENSACOLA 69KV CKT 1
Direction: To->From
Line Outage: KANSAS - KANSAS TAP 161KV CKT 1
Flowgate: 5446554428154516545141310 8SP
Date Redispatch Needed: Starting 2008 6/1 - 10/1 Until EOC
Season Flowgate Identified: 2008 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount
977481	0.7	0.7

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
GRDA	'KERR 115KV'	28.5	0.01611	GRDA	'PENSACOLA 69KV'	6.50354	0.12967	-0.11356	6
GRDA	'KERR 161KV'	28.5	0.01034	GRDA	'PENSACOLA 69KV'	6.50354	0.12967	-0.11933	6
GRDA	'SALINA 161KV'	72.43279	0.01034	GRDA	'PENSACOLA 69KV'	6.50354	0.12967	-0.11933	6

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: GRAY TAP - PENSACOLA 69KV CKT 1
Limiting Facility: GRAY TAP - PENSACOLA 69KV CKT 1
Direction: To->From
Line Outage: KANSAS (KANAUTO1) 161/69/13.8KV TRANSFORMER CKT 1
Flowgate: 54465544281KANSNAUTO15213108SP
Date Redispatch Needed: Starting 2008 6/1 - 10/1 Until EOC
Season Flowgate Identified: 2008 Summer Peak

Reservation	Relief Amount	Aggregate Relief Amount
977481	0.7	0.7

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
GRDA	'KERR 115KV'	28.5	0.01611	GRDA	'PENSACOLA 69KV'	6.50354	0.12967	-0.11356	6
GRDA	'KERR 161KV'	28.5	0.01034	GRDA	'PENSACOLA 69KV'	6.50354	0.12967	-0.11933	6
GRDA	'SALINA 161KV'	72.43279	0.01034	GRDA	'PENSACOLA 69KV'	6.50354	0.12967	-0.11933	6

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: HAMON BUTLER - MOREWOOD 69KV CKT 1
Limiting Facility: HAMON BUTLER - MOREWOOD 69KV CKT 1
Direction: From->To
Line Outage: MOORELAND - MOREWOOD SW 138KV CKT 1
Flowgate: 55942560001559995600111407WP
Date Redispatch Needed: 12/1/07 - 4/1/08
Season Flowgate Identified: 2007 Winter Peak

Reservation	Relief Amount	Aggregate Relief Amount
1023236	2.6	6.4
1032973	3.8	6.4

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
OKGE	'MUSKOGEE 161KV'	31	0.00098	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.0893	71
OKGE	'MUSKOGEE 161KV'	166	0.00098	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.0893	71
OKGE	'SEMINOLE 138KV'	304.5346	0.00043	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08985	71
OKGE	'SEMINOLE 345KV'	507.6	0.00091	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08937	71
OKGE	'HORSESHOE LAKE 138KV'	91	0.00193	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08835	72
OKGE	'HORSESHOE LAKE 138KV'	380	0.00193	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08835	72
OKGE	'HORSESHOE LAKE 138KV'	380.5	0.00193	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08835	72
OKGE	'MCCLAIN 138KV'	42	0.00173	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08855	72
OKGE	'REDBUD 345KV'	900	0.00223	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08805	72

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

OKGE	'REDBUD 345KV'	421.65	0.00223	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08805	72
OKGE	'TINKER 5G 138KV'	62	0.00165	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08863	72
OKGE	'MUSTANG 138KV'	365.5	0.00242	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08786	73
OKGE	'MUSTANG 69KV'	106	0.00319	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08709	73
OKGE	'ONE OAK 345KV'	319	0.00294	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.08734	73
OKGE	'MUSKOGEE 161KV'	166	0.00098	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08366	76
OKGE	'MUSKOGEE 161KV'	31	0.00098	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08366	76
OKGE	'SEMINOLE 138KV'	304.5346	0.00043	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08421	76
OKGE	'SEMINOLE 345KV'	507.6	0.00091	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08373	76
OKGE	'HORSESHOE LAKE 138KV'	380	0.00193	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08271	77
OKGE	'HORSESHOE LAKE 138KV'	91	0.00193	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08271	77
OKGE	'HORSESHOE LAKE 138KV'	380.5	0.00193	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08271	77
OKGE	'MCCLAIN 138KV'	42	0.00173	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08291	77
OKGE	'MUSTANG 138KV'	365.5	0.00242	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08222	77
OKGE	'REDBUD 345KV'	900	0.00223	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08241	77
OKGE	'REDBUD 345KV'	421.65	0.00223	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08241	77
OKGE	'TINKER 5G 138KV'	62	0.00165	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08299	77
OKGE	'MUSTANG 69KV'	106	0.00319	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.08145	78
OKGE	'ONE OAK 345KV'	319	0.00294	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.0817	78
OKGE	'SOUTH 4TH ST 69KV'	42.7	0.02148	OKGE	'SLEEPING BEAR 34KV'	120	0.09028	-0.0688	93
OKGE	'SOUTH 4TH ST 69KV'	42.7	0.02148	OKGE	'FPLWND2 34KV'	101.9968	0.08464	-0.06316	101

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: PENNSYLVANIA - WESTMOORE 138KV CKT 1
Limiting Facility: PENNSYLVANIA - WESTMOORE 138KV CKT 1
Direction: To->From
Line Outage: HOLLYWOOD - INDIAN HILLS 138KV CKT 1
Flowgate: 549255488715495354954123O7FA
Date Redispatch Needed: Starting 2007 10/1 - 12/1 Until EOC of Upgrade
Season Flowgate Identified: 2007 Fall Peak

Reservation	Relief Amount	Aggregate Relief Amount
977481	0.8	0.8

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
OKGE	'SMITH COGEN 138KV'	110	-0.19229	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.54727	1
OKGE	'CONTINENTAL EMPIRE 138KV'	64	-0.01233	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.36731	2
OKGE	'HORSESHOE LAKE 138KV'	380.5	-0.0583	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.41328	2
OKGE	'HORSESHOE LAKE 138KV'	380	-0.0583	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.41328	2
OKGE	'HORSESHOE LAKE 138KV'	91	-0.0583	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.41328	2
OKGE	'HORSESHOE LAKE 69KV'	16	-0.056	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.41098	2
OKGE	'MUSKOGEE 161KV'	31	-0.0016	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.35658	2
OKGE	'MUSKOGEE 161KV'	166	-0.0016	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.35658	2
OKGE	'MUSKOGEE 345KV'	20	-0.00178	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.35676	2
OKGE	'MUSTANG 138KV'	365.5	-0.13538	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.49036	2
OKGE	'MUSTANG 69KV'	106	-0.13972	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.4947	2
OKGE	'ONE OAK 345KV'	236	-0.01875	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.37373	2
OKGE	'REDBUD 345KV'	900	-0.01763	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.37261	2
OKGE	'REDBUD 345KV'	421.65	-0.01763	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.37261	2
OKGE	'SEMINOLE 138KV'	47.26129	0.01443	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.34055	2
OKGE	'SEMINOLE 345KV'	406.08	0.01418	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.3408	2
OKGE	'SOONER 138KV'	24.99997	-0.01389	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.36887	2
OKGE	'SOUTH 4TH ST 69KV'	42.7	-0.01312	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.3681	2
OKGE	'TINKER 5G 138KV'	62	-0.02998	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.38496	2
OKGE	'WOODWARD 24KV'	9.3	-0.00592	OKGE	'MCCLAIN 138KV'	478	0.35498	-0.3609	2
OKGE	'SMITH COGEN 138KV'	110	-0.19229	OKGE	'AES 161KV'	320	0.00089	-0.19318	4
OKGE	'SMITH COGEN 138KV'	110	-0.19229	OKGE	'FPLWND2 34KV'	43.0032	-0.00582	-0.18647	4
OKGE	'SMITH COGEN 138KV'	110	-0.19229	OKGE	'MUSKOGEE 345KV'	1516	-0.00178	-0.19051	4
OKGE	'SMITH COGEN 138KV'	110	-0.19229	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.20672	4
OKGE	'SMITH COGEN 138KV'	110	-0.19229	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.20647	4
OKGE	'SMITH COGEN 138KV'	110	-0.19229	OKGE	'SOONER 138KV'	505	-0.01389	-0.1784	4
OKGE	'SMITH COGEN 138KV'	110	-0.19229	OKGE	'SOONER 345KV'	513	-0.01395	-0.17834	4
OKGE	'MUSTANG 138KV'	365.5	-0.13538	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.14981	5
OKGE	'MUSTANG 138KV'	365.5	-0.13538	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.14956	5
OKGE	'MUSTANG 69KV'	106	-0.13972	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.15415	5
OKGE	'MUSTANG 69KV'	106	-0.13972	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.1539	5
OKGE	'SMITH COGEN 138KV'	110	-0.19229	OKGE	'ONE OAK 345KV'	100	-0.01875	-0.17354	5
OKGE	'MUSTANG 138KV'	365.5	-0.13538	OKGE	'AES 161KV'	320	0.00089	-0.13627	6
OKGE	'MUSTANG 138KV'	365.5	-0.13538	OKGE	'FPLWND2 34KV'	43.0032	-0.00582	-0.12956	6
OKGE	'MUSTANG 138KV'	365.5	-0.13538	OKGE	'MUSKOGEE 345KV'	1516	-0.00178	-0.1336	6
OKGE	'MUSTANG 69KV'	106	-0.13972	OKGE	'AES 161KV'	320	0.00089	-0.14061	6
OKGE	'MUSTANG 69KV'	106	-0.13972	OKGE	'FPLWND2 34KV'	43.0032	-0.00582	-0.1339	6
OKGE	'MUSTANG 69KV'	106	-0.13972	OKGE	'MUSKOGEE 345KV'	1516	-0.00178	-0.13794	6
OKGE	'MUSTANG 69KV'	106	-0.13972	OKGE	'SOONER 138KV'	505	-0.01389	-0.12583	6
OKGE	'MUSTANG 69KV'	106	-0.13972	OKGE	'SOONER 345KV'	513	-0.01395	-0.12577	6
OKGE	'MUSTANG 138KV'	365.5	-0.13538	OKGE	'ONE OAK 345KV'	100	-0.01875	-0.11663	7
OKGE	'MUSTANG 138KV'	365.5	-0.13538	OKGE	'SOONER 138KV'	505	-0.01389	-0.12149	7
OKGE	'MUSTANG 138KV'	365.5	-0.13538	OKGE	'SOONER 345KV'	513	-0.01395	-0.12143	7
OKGE	'MUSTANG 69KV'	106	-0.13972	OKGE	'ONE OAK 345KV'	100	-0.01875	-0.12097	7
OKGE	'HORSESHOE LAKE 138KV'	380	-0.0583	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.07273	11
OKGE	'HORSESHOE LAKE 138KV'	380.5	-0.0583	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.07273	11
OKGE	'HORSESHOE LAKE 138KV'	91	-0.0583	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.07273	11
OKGE	'HORSESHOE LAKE 138KV'	380.5	-0.0583	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.07248	11
OKGE	'HORSESHOE LAKE 138KV'	91	-0.0583	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.07248	11
OKGE	'HORSESHOE LAKE 138KV'	380	-0.0583	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.07248	11
OKGE	'HORSESHOE LAKE 69KV'	16	-0.056	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.07043	11
OKGE	'HORSESHOE LAKE 69KV'	16	-0.056	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.07018	11
OKGE	'HORSESHOE LAKE 138KV'	380	-0.0583	OKGE	'AES 161KV'	320	0.00089	-0.05919	14
OKGE	'HORSESHOE LAKE 138KV'	91	-0.0583	OKGE	'AES 161KV'	320	0.00089	-0.05919	14
OKGE	'HORSESHOE LAKE 138KV'	380.5	-0.0583	OKGE	'AES 161KV'	320	0.00089	-0.05919	14
OKGE	'HORSESHOE LAKE 138KV'	91	-0.0583	OKGE	'MUSKOGEE 345KV'	1516	-0.00178	-0.05652	14
OKGE	'HORSESHOE LAKE 138KV'	380	-0.0583	OKGE	'MUSKOGEE 345KV'	1516	-0.00178	-0.05652	14
OKGE	'HORSESHOE LAKE 138KV'	380.5	-0.0583	OKGE	'MUSKOGEE 345KV'	1516	-0.00178	-0.05652	14
OKGE	'HORSESHOE LAKE 69KV'	16	-0.056	OKGE	'AES 161KV'	320	0.00089	-0.05689	14

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

OKGE	'HORSESHOE LAKE 138KV'	380	-0.0583	OKGE	'FPLWND2 34KV'	43.0032	-0.00582	-0.05248	15
OKGE	'HORSESHOE LAKE 138KV'	91	-0.0583	OKGE	'FPLWND2 34KV'	43.0032	-0.00582	-0.05248	15
OKGE	'HORSESHOE LAKE 138KV'	380.5	-0.0583	OKGE	'FPLWND2 34KV'	43.0032	-0.00582	-0.05248	15
OKGE	'HORSESHOE LAKE 69KV'	16	-0.056	OKGE	'MUSKOGEE 345KV'	1516	-0.00178	-0.05422	15
OKGE	'HORSESHOE LAKE 69KV'	16	-0.056	OKGE	'FPLWND2 34KV'	43.0032	-0.00582	-0.05018	16
OKGE	'HORSESHOE LAKE 138KV'	380	-0.0583	OKGE	'SOONER 138KV'	505	-0.01389	-0.04441	18
OKGE	'HORSESHOE LAKE 138KV'	91	-0.0583	OKGE	'SOONER 138KV'	505	-0.01389	-0.04441	18
OKGE	'HORSESHOE LAKE 138KV'	380.5	-0.0583	OKGE	'SOONER 138KV'	505	-0.01389	-0.04441	18
OKGE	'HORSESHOE LAKE 138KV'	380	-0.0583	OKGE	'SOONER 345KV'	513	-0.01395	-0.04435	18
OKGE	'HORSESHOE LAKE 138KV'	380.5	-0.0583	OKGE	'SOONER 345KV'	513	-0.01395	-0.04435	18
OKGE	'HORSESHOE LAKE 138KV'	91	-0.0583	OKGE	'SOONER 345KV'	513	-0.01395	-0.04435	18
OKGE	'TINKER 5G 138KV'	62	-0.02998	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.04441	18
OKGE	'TINKER 5G 138KV'	62	-0.02998	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.04416	18
OKGE	'HORSESHOE LAKE 69KV'	16	-0.056	OKGE	'SOONER 138KV'	505	-0.01389	-0.04211	19
OKGE	'HORSESHOE LAKE 69KV'	16	-0.056	OKGE	'SOONER 345KV'	513	-0.01395	-0.04205	19
OKGE	'HORSESHOE LAKE 138KV'	91	-0.0583	OKGE	'ONE OAK 345KV'	100	-0.01875	-0.03955	20
OKGE	'HORSESHOE LAKE 138KV'	380	-0.0583	OKGE	'ONE OAK 345KV'	100	-0.01875	-0.03955	20
OKGE	'HORSESHOE LAKE 138KV'	380.5	-0.0583	OKGE	'ONE OAK 345KV'	100	-0.01875	-0.03955	20
WFEC	'MORLND 138KV'	320	-0.00582	WFEC	'ANADARKO 138KV'	227.1198	0.03305	-0.03887	21
OKGE	'HORSESHOE LAKE 69KV'	16	-0.056	OKGE	'ONE OAK 345KV'	100	-0.01875	-0.03725	22
OKGE	'ONE OAK 345KV'	236	-0.01875	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.03318	24
OKGE	'ONE OAK 345KV'	236	-0.01875	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.03293	24
OKGE	'REDBUD 345KV'	900	-0.01763	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.03206	25
OKGE	'REDBUD 345KV'	421.65	-0.01763	OKGE	'SEMINOLE 138KV'	457.7387	0.01443	-0.03206	25
OKGE	'REDBUD 345KV'	421.65	-0.01763	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.03181	25
OKGE	'REDBUD 345KV'	900	-0.01763	OKGE	'SEMINOLE 345KV'	590.52	0.01418	-0.03181	25
AEPW	'COGENTRIX 345KV'	229	-0.0049	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.03115	26
AEPW	'NORTHEASTERN STATION 138KV'	198	-0.00457	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.03082	26
AEPW	'NORTHEASTERN STATION 345KV'	94.99997	-0.00435	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.0306	26
AEPW	'OEC 345KV'	1210	-0.00407	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.03032	26
AEPW	'RIVERSIDE STATION 138KV'	523	-0.00442	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.03067	26
OKGE	'TINKER 5G 138KV'	62	-0.02998	OKGE	'AES 161KV'	320	0.00089	-0.03087	26
AEPW	'TULSA POWER STATION 138KV'	147	-0.00475	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.031	26
AEPW	'TULSA POWER STATION 138KV'	147	-0.00475	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.031	26
AEPW	'TULSA POWER STATION 69KV'	24	-0.00475	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.031	26
AEPW	'TULSA POWER STATION 69KV'	33	-0.00475	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.031	26
AEPW	'TULSA POWER STATION 69KV'	23	-0.00475	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.031	26
AEPW	'MID-CONTINENT 138KV'	142.11	-0.00392	AEPW	'SOUTHWESTERN STATION 138KV'	29	0.02625	-0.03017	27

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: SOUTH WAVERLY 161/69KV TRANSFORMER CKT 1 Redispatch
Limiting Facility: SOUTH WAVERLY 161/69KV TRANSFORMER CKT 1
Direction: From->To
Line Outage: NORTON - NORTON 161KV CKT 1
Flowgate: 58063580941961055806411206SH
Date Redispatch Needed: 6/1/06 - 10/1/06
Season Flowgate Identified: 2006 Summer Shoulder

Reservation	Relief Amount	Aggregate Relief Amount
1031553	1.0	1.0

Source Control Area	Source	Maximum Increment(MW)	GSF	Sink Control Area	Sink	Maximum Decrement(MW)	GSF	Factor	Redispatch Amount (MW)
KACP	'CITY OF HIGGINSVILLE 69KV'	36	-0.24049	KACP	'MARSHALL 161KV'	30	0.06905	-0.30954	3
KACP	'CITY OF HIGGINSVILLE 69KV'	36	-0.24049	KACP	'HAWTHORN 161KV'	455	-0.00474	-0.23575	4
KACP	'CITY OF HIGGINSVILLE 69KV'	36	-0.24049	KACP	'HAWTHORN 161KV'	254.7039	-0.00474	-0.23575	4
KACP	'CITY OF HIGGINSVILLE 69KV'	36	-0.24049	KACP	'IATAN 345KV'	396	-0.00378	-0.23671	4
KACP	'CITY OF HIGGINSVILLE 69KV'	36	-0.24049	KACP	'LACYGNE UNIT 345KV'	962	-0.00432	-0.23617	4
KACP	'CITY OF HIGGINSVILLE 69KV'	36	-0.24049	KACP	'MONTROSE 161KV'	353.6914	-0.00673	-0.23376	4
KACP	'BULL CREEK 161KV'	308	-0.00461	KACP	'MARSHALL 161KV'	30	0.06905	-0.07366	13
KACP	'GARDNER 161KV'	11	-0.00466	KACP	'MARSHALL 161KV'	30	0.06905	-0.07371	13
KACP	'GRAND AVENUE 161KV'	65	-0.00476	KACP	'MARSHALL 161KV'	30	0.06905	-0.07381	13
KACP	'HAWTHORN 161KV'	59.29614	-0.00474	KACP	'MARSHALL 161KV'	30	0.06905	-0.07379	13
KACP	'MONTROSE 161KV'	27.30858	-0.00673	KACP	'MARSHALL 161KV'	30	0.06905	-0.07578	13
KACP	'NORTHEAST 13KV'	56	-0.00476	KACP	'MARSHALL 161KV'	30	0.06905	-0.07381	13
KACP	'NORTHEAST 13KV'	56	-0.00476	KACP	'MARSHALL 161KV'	30	0.06905	-0.07381	13
KACP	'NORTHEAST 13KV'	58	-0.00476	KACP	'MARSHALL 161KV'	30	0.06905	-0.07381	13
KACP	'NORTHEAST 13KV'	59	-0.00476	KACP	'MARSHALL 161KV'	30	0.06905	-0.07381	13
KACP	'NORTHEAST 161KV'	55	-0.00476	KACP	'MARSHALL 161KV'	30	0.06905	-0.07381	13
KACP	'NORTHEAST 161KV'	58	-0.00476	KACP	'MARSHALL 161KV'	30	0.06905	-0.07381	13
KACP	'NORTHEAST 161KV'	58	-0.00476	KACP	'MARSHALL 161KV'	30	0.06905	-0.07381	13
KACP	'NORTHEAST 161KV'	58	-0.00476	KACP	'MARSHALL 161KV'	30	0.06905	-0.07381	13
KACP	'PAOLA COMBUSTION TURBINES 161KV	77	-0.00464	KACP	'MARSHALL 161KV'	30	0.06905	-0.07369	13

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