

Aggregate Facility Study
SPP-2007-AG1-AFS-6
For Transmission Service
Requested by
Aggregate Transmission Customers

SPP Engineering, SPP Tariff Studies

SPP AGGREGATE FACILITY STUDY (SPP-2007-AG1-AFS-6)
December 10, 2007 (Revised December 13, 2007)
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1. Executive Summary

Pursuant to Attachment Z of the Southwest Power Pool Open Access Transmission Tariff (OATT), 1840 MW of long-term transmission service requests have been restudied in this Aggregate Facility Study (AFS). The first phase of the AFS consisted of a revision of the impact study to reflect the withdrawal of requests for which an Aggregate Facility Study Agreement was not executed. The principal objective of the AFS is to identify system problems and potential modifications necessary to facilitate these transfers while maintaining or improving system reliability as well as summarizing the operating limits and determination of the financial characteristics associated with facility upgrades. Facility upgrade costs are allocated on a prorated basis to all requests positively impacting any individual overloaded facility. Further, Attachment 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 the AFS is \$87 Million. Additionally an indeterminate amount of assigned E & C cost for 3rd party facility upgrades are assignable to the customer. The total upgrade levelized revenue requirement for all transmission requests is \$267 Million. This is based on full allocation of levelized revenue requirements for upgrades to customers without consideration of base plan funding. AFS data table 3 reflects the allocation of upgrade costs to each request without potential base plan funding based on either the requested reservation period or the deferred reservation period if applicable. Total upgrade levelized revenue requirements for all transmission requests after consideration of potential base plan funding is \$185 Million.

Third-party facilities must be upgraded when it is determined they are constrained in order to accommodate the requested Transmission Service. These include both first-tier neighboring

facilities outside SPP and Transmission Owner facilities within SPP that are not under the SPP OATT. In this AFS, third-party facilities were identified. Total engineering and construction cost estimates for required third-party facility upgrades are indeterminate.

The Transmission Provider will tender a Letter of Intent on December 10th, 2007. This will open a 15-day window for Customer response. To remain in the Aggregate Transmission Service Study (ATSS), the Transmission Provider must receive from the Transmission Customer (Customer) by December 25th, 2007, an executed Letter of Intent. The Letter of Intent will list options the Customer must choose to clarify their commitment to remain in the ATSS. The only action required on OASIS is to WITHDRAW the request or leave the request in STUDY mode.

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

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

2. <u>Introduction</u>

On January 21, 2005, the Federal Energy Regulatory Commission accepted Southwest Power Pool's proposed aggregate transmission study procedures in Docket ER05-109 to become effective February 1, 2005. In compliance with this Order, the first open season of 2007 commenced on October 1, 2006. All requests for long-term transmission service received prior to February 1, 2007 with a signed study agreement were then included in this first Aggregate Transmission Service Study (ATSS) of 2007.

Approximately 1840 MW of long-term transmission service has been restudied in this Aggregate Facility Study (AFS) with over \$86 Million in transmission upgrades being proposed. The results of the AFS are detailed in Tables 1 through 7. A highly tangible benefit of studying transmission requests aggregately under the SPP OATT Attachment 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 URL can be used to access the SPP OATT:

(http://www.spp.org/Publications/SPP_Tariff.pdf). In order to understand the extent to which base plan upgrades may be applied to both point-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. Table 7 (if applicable) lists deferment of expansion plan projects with different upgrades with the new required in service date as a result of this AFS.

A. Financial Analysis

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

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

facilities, and the carrying charges, excluding depreciation, associated with all removed usable facilities based on their respective book values.

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

Achievable Base Plan Avoided Revenue Requirements in the case of a Base Plan upgrade being displaced or deferred by an earlier in service date for a Requested Upgrade shall be determined per Attachment J, Section VII.B methodology. A deferred Base Plan upgrade being defined as a different requested network upgrade needed at an earlier date that negates the need for the initial base plan upgrade within the planning horizon. A displaced Base Plan upgrade being defined as the same network upgrade being displaced by a requested upgrade needed at an earlier date. Assumption of a 40 year service life is utilized for Base Plan funded projects unless provided otherwise by the Transmission Owner. A present worth analysis of revenue requirements on a common year basis between the Base Plan and Requested Upgrades was performed to determine avoided Base Plan revenue requirements due to the displacement or deferral of the Base Plan upgrade by the Requested Upgrade. The difference in present worth between the Base Plan and

Requested Upgrades is assigned to the transmission requests impacting this upgrade based on the displacement or deferral.

B. Third Party Facilities

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

All modeled facilities within the Transmission Provider system were monitored during the development of this Study as well as certain facilities in first-tier neighboring systems. Third-party facilities must be upgraded when it is determined that they are overloaded while accommodating the requested Transmission Service. An agreement between the Customer and 3rd Party Owner detailing the mitigation of the 3rd party impact must be provided to the Transmission Provider prior to tendering of a Transmission Service Agreement. These facilities also include those owned by members of the Transmission Provider who have not placed their facilities under the Transmission Provider's OATT. Upgrades on the Southwest Power Administration network requires prepayment of the upgrade cost prior to construction of the upgrade.

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

3. Study Methodology

A. Description

The system impact analysis was conducted to determine the steady-state impact of the requested service on the SPP and first tier Non - SPP control area systems. The steady-state analysis was done to ensure current SPP Criteria and NERC Reliability Standards requirements are fulfilled. The Southwest Power Pool conforms to the NERC Reliability Standards, which provide the strictest requirements, related to voltage violations and thermal overloads during normal conditions and during a contingency. It requires that all facilities be within normal operating ratings for normal system conditions and within emergency ratings after a contingency. Normal operating ratings and emergency operating ratings monitored are Rate A and B in the SPP MDWG models, respectively. The upper bound and lower bound of the normal voltage range monitored is 110% and 90%. Transmission Owner voltage monitoring criteria is used if more restrictive. The SPS Tuco 230 kV bus voltage is monitored at 92.5% due to pre-determined system stability limitations. The WERE Wolf Creek 345 kV bus voltage is monitored at 98.5% due to transmission operating procedure.

The contingency set includes all SPP control area branches and ties 69kV and above, first tier Non - SPP control area branches and ties 115 kV and above, any defined contingencies for these control areas, and generation unit outages for the control areas with SPP reserve share program redispatch. The monitor elements include all SPP control area branches, ties, and buses 69 kV and above, and all first tier Non – SPP control area branches and ties 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 twelve seasonal models to study the aggregate transfers of 1840 MW over a variety of requested service periods. The SPP MDWG 2007 Series Cases Update 2 2007, 2007/08 Winter Peak (07WP), 2008 April (08AP), 2008 Spring Peak (08G), 2008 Summer Peak (08SP), 2008 Summer Shoulder (08SH), 2008 Fall Peak (08FA), 2008/09 Winter Peak (08WP), 2009 Summer Peak (09SP), 2009/10 Winter Peak (09WP), 2012 Summer Peak (12SP), 2012/13 Winter Peak (12WP), and 2017 Summer Peak (17SP) 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. Five groups of requests were developed from the aggregate of 1840 MW in order to minimize counter flows among requested service. Each request was included in at least two of the four groups depending on the requested path. All requests were included in group five. From the twelve seasonal models, five system scenarios were developed. Scenario 1 includes SWPP OASIS transmission requests not already included in the SPP 2007 Series Cases flowing in a West to East direction with ERCOTN HVDC Tie South to North, ERCOTE HVDC Tie East to West, SPS exporting, and SPS importing from the Lamar HVDC Tie. Scenario 2 includes transmission requests not already included in the SPP 2007 Series Cases flowing in an East to West direction with ERCOTN HVDC tie North to South, ERCOTE HVDC tie East to West, SPS importing, and SPS exporting to the Lamar HVDC Tie. Scenario 3 includes transmission requests not already included in the SPP 2007 Series Cases flowing in a South to North direction with ERCOTN HVDC tie South to North, ERCOTE HVDC tie East to West, SPS exporting, and

SPS exporting to the Lamar HVDC Tie. Scenario 4 includes transmission requests not already included in the SPP 2007 Series Cases flowing in a North to South direction with ERCOTN HVDC tie North to South, ERCOTE HVDC tie East to West, SPS importing, and SPS importing from the Lamar HVDC tie. Scenario 5 include all transmission not already included in the SPP 2007 Series Cases with ERCOTN North to South, ERCOTE East to West, SPS importing and SPS exporting to the Lamar HVDC tie. The system scenarios were developed to minimize counter flows from previously confirmed, higher priority requests not included in the MDWG Base Case.

C. Transmission Request Modeling

Network Integration Transmission Service requests are modeled as Generation to Load transfers in addition to Generation to Generation transfers. The Generation to Load modeling is accomplished by developing a pre-transfer case by redispatching the existing designated network resource(s) down by the new designated network resource request amount and scaling down the applicable network load by the same amount proportionally. The post-transfer case for comparison is developed by scaling the network load back to the forecasted amount and dispatching the new designated network resource being requested. Network Integration Transmission Service requests are modeled as Generation to Load transfers in addition to Generation to Generation because the requested Network Integration Transmission Service is a request to serve network load with the new designated network resource and the impacts on transmission system are determined accordingly. If the Network Integration Transmission Service request application clearly documents that the existing designated network resource(s) is being replaced or undesignated by the new designated network resource then MW impact credits will be given to the request as is done for a redirect of existing transmission service. Point-To-Point Transmission Service requests are modeled as Generation to Generation transfers. Generation to Generation transfers are accomplished by developing a post-transfer case for comparison by dispatching the request source and redispatching the request sink.

D. Transfer Analysis

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

E. Curtailment and Redispatch Evaluation

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

SPP determined potential relief pairs to relieve the incremental MW impact on limiting facilities as identified in Table 6. Using the selected cases where the limiting facilities were identified, potential incremental and decremental units were identified by determining the generation amount available for increasing and decreasing from the units generation amount, maximum generation amount, and minimum generation amount. If the incremental or decremental amount

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

4. Study Results

A. Study Analysis Results

Tables 1 through 6 contain the steady-state analysis results of the AFS. Table 1 identifies the participating long-term transmission service requests included in the AFS. This table lists deferred start and stop dates both with and without redispatch (based on customer selection of redispatch if available), the minimum annual allocated ATC without upgrades and season of first impact. Table 2 identifies total E & C cost allocated to each Transmission Customer, letter of credit requirements, third party E & C cost assignments, potential base plan E & C funding (lower of allocated E & C or Attachment J Section III B criteria), total revenue requirements for assigned upgrades without consideration of potential base plan funding, point-to-point base rate charge, total revenue requirements for assigned upgrades with consideration of potential base plan funding, and final total cost allocation to the Transmission Customer. Table 3 provides additional details for each request including all assigned facility upgrades required, allocated E &

C costs, allocated revenue requirements for upgrades, upgrades not assigned to customer but required for service to be confirmed, credits to be paid for previously assigned AFS facility upgrades, and any third party upgrades required. Table 4 lists all upgrade requirements with associated solutions needed to provide transmission service for the AFS, Minimum ATC per upgrade with season of impact, Earliest Date Upgrade is required (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. Table 7 (if applicable) identifies deferred expansion plan projects that were replaced with requested upgrades at earlier dates.

The potential base plan funding allowable is contingent upon meeting each of the conditions for classifying upgrades associated with designated resources as base plan upgrades as defined in Section III.B of Attachment J. If the additional capacity of the new or changed designated resource exceeds the 125% resource to load forecast for the year of start of service, the requested resource is not eligible for base plan funding of required network upgrades and the full cost of the upgrades is assignable to the customer. If the 5 year term and 125% resource to load criteria are met, the lesser of the planned maximum net dependable capacity (NDC) or the requested capacity is multiplied by \$180,000 to determine the potential base plan funding allowable. When calculating Base Plan Funding amounts that include a wind farm, the amount used is 10% of the requested amount of service, or the NDC. The Maximum Potential Base Plan Funding Allowable may be less than the potential base plan funding allowable due to the E & C Cost allocated to the customer being lower than the potential amount allowable to the customer. The customer is responsible for any assigned upgrade costs in excess of Potential Base Plan Engineering and Construction Funding Allowable.

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"

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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 Transmission Provider will tender a Letter of Intent on December 10th, 2007. This will open a 15-day window for Customer response. To remain in the Aggregate Transmission Service Study (ATSS), the Transmission Provider must receive from the Transmission Customer (Customer) by December 25th, 2007, an executed Letter of Intent. The Letter of Intent will list options the Customer must choose to clarify their commitment to remain in the ATSS. The only action required on OASIS is to WITHDRAW the request or leave the request in STUDY mode.

The Transmission Provider must receive an unconditional and irrevocable letter of credit in the amount of the total allocated Engineering and Construction costs assigned to the Customer. This letter of credit is not required for those facilities that are base plan funded. This amount is for all assignable Network Upgrades less pre-payment requirements. The amount of the letter of credit will be adjusted down on an annual basis to reflect amortization of these costs. The Transmission Provider will issue 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.

6. Appendix A

PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

BASE CASES:
Solutions - Fixed slope decoupled Newton-Raphson solution (FDNS)
Tap adjustment – Stepping
Area interchange control – Tie lines and loads
Var limits – Apply immediately
Solution options - \underline{X} Phase shift adjustment
_ Flat start
_ Lock DC taps
_ Lock switched shunts
ACCC CASES:
Solutions – AC contingency checking (ACCC)
MW mismatch tolerance – 0.5
Contingency case rating – Rate B
Percent of rating – 100
Output code – Summary
Min flow change in overload report – 3mw
Excld cases w/ no overloads form report – YES
Exclude interfaces from report – NO
Perform voltage limit check – YES
Elements in available capacity table – 60000
Cutoff threshold for available capacity table – 99999.0
Min. contng. case Vltg chng for report – 0.02
Sorted output – None
Newton Solution:
Tap adjustment – Stepping
Area interchange control – Tie lines and loads
Var limits - Apply automatically
Solution options - \underline{X} Phase shift adjustment
_ Flat start
_ Lock DC taps
_ Lock switched shunts

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

					Requested	Requested	Requested	Deferred Start Date without interim	Deferred Stop Date without interim	Start Date with interim	Stop Date with interim	Mimimum Allocated ATC (MW) within	Season of Minimum
Customer	Study Number	Reservation	POR	POD	Amount	Start Date	Stop Date	redispatch	redispatch	redispatch	redispatch	reservation period	reservation period
EDE	AG1-2007-051	1222640	WPEK	EDE	100	11/1/2008	11/1/2028	6/1/2011	6/1/2031	6/1/2010	6/1/2030	0	09SP
INDP	AG1-2007-045	1221966	OPPD	INDN	6	6/1/2009	6/1/2034	6/1/2010	6/1/2035			0	12SP
KBPU	AG1-2007-043D	1221923	SPA	KACY	39	7/1/2010	7/1/2020	7/1/2010	7/1/2020				12SP
KBPU	AG1-2007-044D	1221925	WR	KACY	25	1/1/2008	1/1/2028	6/1/2010	6/1/2030			0	07WP
KCPS	AG1-2007-080	1223159	KCPL	EES	52	6/1/2007	6/1/2012	6/1/2010	6/1/2015	2/1/2008	2/1/2013	0	08SP
KCPS	AG1-2007-081	1223161	KCPL	SPA	15	1/1/2008	1/1/2009	6/1/2010	6/1/2011	1/1/2009	1/1/2010	0	08SP
KMEA	AG1-2007-007	1218859	GRDA	WR	1	5/1/2010	5/1/2026	6/1/2010	6/1/2026			0	12SP
KPP	AG1-2007-052	1222644	WR	WR	333	6/1/2007	6/1/2017	6/1/2010	6/1/2020			0	08SP
KPP	AG1-2007-054	1222904	WPEK	WPEK	3	6/1/2007	6/1/2017	6/1/2010	6/1/2020	2/1/2008	2/1/2018	0	08SP
KPP	AG1-2007-055	1222932	WR	WR	45	6/1/2007	6/1/2027	6/1/2011	6/1/2031			0	07WP
KPP	AG1-2007-056	1222937	WR	WPEK	5	6/1/2007	6/1/2027	6/1/2010	6/1/2030			0	07WP
KPP	AG1-2007-058	1222955	WR	WR	20	6/1/2007	6/1/2017	6/1/2010	6/1/2020			0	08SP
KPP	AG1-2007-064	1223078	WPEK	WPEK	15	6/1/2007	6/1/2017	6/1/2010	6/1/2020	2/1/2008	2/1/2018	0	09WP
SPRM	AG1-2007-042	1220082	SPA	SPA	275	10/1/2010	10/1/2050	10/1/2010	10/1/2050			0	12SP
UCU	AG1-2007-025D	1214263	MPS	WR	1	6/1/2007	6/1/2012	6/1/2010	6/1/2015			0	08SP
UCU	AG1-2007-023D	1214269	MPS	KCPL	2	6/1/2007	6/1/2012	6/1/2010	6/1/2015			0	08SP
UCU	AG1-2007-060D	1223092	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031			0	09SP
UCU	AG1-2007-060D	1223093	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031			0	09SP
UCU	AG1-2007-060D	1223094	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031			0	09SP
UCU	AG1-2007-060D	1223095	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031			0	09SP
UCU	AG1-2007-092	1223102	MPS	MPS	315	5/1/2010	5/1/2030	6/1/2010	6/1/2030	5/1/2010	5/1/2030	0	12SP
WFEC	AG1-2007-014	1217632	WFEC	WFEC	150	1/1/2011	1/1/2036					0	12SP
WRGS	AG1-2007-001D	1197077	EDE	WR	32	9/1/2007	9/1/2018	6/1/2011	6/1/2022	6/1/2010	6/1/2021	0	08SP
WRGS	AG1-2007-047D	1222005	WR	EES	106	10/1/2007	10/1/2010	6/1/2010	6/1/2013			0	08SP
					1840								
Note 1: Disregard Redispatch shown in Table 6 for limitations identified earlier than the start date with redispatch with the exception of limitations identified in the 2007 Summer Shoulder, and 2007 Fall Peak													

Note 2: Start and Stop Dates with interim redispatch are determined based on customers choosing option to pursue redispatch to start service at Requested Start and Stop Dates or earliest date

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

			⁵ Engineering and Construction Cost of Upgrades Allocated to Customer for		² Potential Base Plan Engineering and	7	⁴ Additional Engineering and Construction	A	over term of eservation without	Re Ass	Total Revenue quirements for igned Upgrades over term of servation WITH		t-to-Point	⁴ Total Cost of Reservation Assignable to Customer contingent
			Revenue	¹ Letter of Credit	Construction	Notes	Cost for 3rd Party		otential base plan	•	ential base plan	Base	Rate over	upon base plan
Customer	Study Number	Reservation	Requirements	Amount Required	Funding Allowable		Upgrades	f	unding allocation	fun	ding allocation	reserva	tion period	funding
	AG1-2007-051	1222640	+ -,, -	\$ 2,669,087	\$ 1,800,000		Indeterminate	\$		\$	22,799,249			\$ 22,799,249
INDP	AG1-2007-045	1221966	*,	\$ 253,750	\$ -		\$ -	\$	1,121,001	\$	1,127,851	\$	1 1	\$ 1,584,000
	AG1-2007-043D	1221923		*, -	\$ -		Indeterminate	\$	1- 1	\$	2,074,381	\$, -,	\$ 4,118,400
	AG1-2007-044D	1221925			\$ -		\$ -	\$	- / /		3,383,539	\$		\$ 5,280,000
	AG1-2007-080	1223159		\$ 148,304	\$ -	12		\$,	\$	238,339	\$, ,	\$ 2,808,000
	AG1-2007-081	1223161	. ,	+ -,	\$ -	12		\$			96,140	\$	- /	\$ 162,000
KMEA	AG1-2007-007	1218859	\$ 1,936,325	\$ 1,756,325	\$ 180,000		Indeterminate	\$	3,348,252	\$	3,037,000	\$	364,416	\$ 3,037,000
KPP	AG1-2007-052	1222644	\$ 19,357,032		\$ 19,357,032		\$ -	\$	50,303,693	\$	-			Schedule 9 Charges
KPP	AG1-2007-054	1222904			\$ -		\$ -	\$	-	\$	-			Schedule 9 Charges
KPP	AG1-2007-055	1222932	\$ 6,284,466		\$ 6,284,466		\$ -	\$	22,394,574	\$	-			Schedule 9 Charges
KPP	AG1-2007-056	1222937	\$ 142,802		\$ 142,802		\$ -	\$	493,969	\$	-			Schedule 9 Charges
KPP	AG1-2007-058	1222955	\$ -		\$		\$ -	\$	-	\$	-			Schedule 9 Charges
KPP	AG1-2007-064	1223078	\$ -		\$		\$ -	\$	-	\$	-			Schedule 9 Charges
SPRM	AG1-2007-042	1220082	\$ 237,715		\$ 237,715		\$ -	\$	1,075,988	\$	-			Schedule 9 Charges
UCU	AG1-2007-025D	1214263	\$ 63,973		\$ 63,973		Indeterminate	\$			-	\$	113,880	\$ 113,880
UCU	AG1-2007-023D	1214269	\$ 89,454		\$ 89,454		Indeterminate	\$	198,461	\$	-	\$	105,600	\$ 105,600
UCU	AG1-2007-060D	1223092	\$ 4,030,390	\$ 1,660,921	\$ -	11	Indeterminate	\$	15,073,310	\$	15,073,310	\$	28,998,000	\$ 28,998,000
UCU	AG1-2007-060D	1223093	\$ 4,030,390	\$ 1,660,921	\$ -	11	Indeterminate	\$	15,073,310	\$	15,073,310	\$	28,998,000	\$ 28,998,000
UCU	AG1-2007-060D	1223094	\$ 4,030,390	\$ 1,660,921	\$ -	11	Indeterminate	\$	15,073,310	\$	15,073,310	\$	28,998,000	\$ 28,998,000
	AG1-2007-060D	1223095	\$ 4,030,390	\$ 1,660,921	\$ -	11	Indeterminate	\$	15,073,310	\$	15,073,310	\$	28,998,000	\$ 28,998,000
UCU	AG1-2007-092	1223102	\$ 30,142,014	\$ 620,323	\$ -	11	Indeterminate	\$	87,703,464	\$	87,703,464			\$ 87,703,464
WFEC	AG1-2007-014	1217632	\$ 50,000		\$ 50,000		Indeterminate	\$	155,461	\$	-		-	Schedule 9 Charges
WRGS	AG1-2007-001D	1197077	\$ 156,491		\$ 156,491		\$ -	\$	368,774	\$	-			Schedule 9 Charges
WRGS	AG1-2007-047D	1222005	\$ 1,989,665	\$ 1,933,178	\$ -	12	\$ -	\$	4,438,595	\$	4,438,595	\$	3,434,400	\$ 4,438,595
Totals	-		\$ 86,695,706				*	\$	267,148,093	\$	185,191,799			

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

Note 1: Letter of Credit required for financial security for transmission owner for network upgrades is determined by direct assigned engineering and construction costsless engineering and construction costs for upgrades when network customer is the transmission owner less the E & C of expedited projects. A letter of credit is not required for those upgrades which are base plan funded or paid out of PTP base rate. The LOC amount listed is based on a designated resource meeting OATT Attachments J requirements for base plan funding.

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

Note 3: Revenue Requirements (RR) are based upon deferred end dates if applicable. Deferred dates are based upon customer's choice to pursue redispatch. Achievable Base Plan Avoided RR in the case of a Base Plan upgrade being displaced or deferred by an earlier in service date for a Requested Upgrade shall be determined per Attachment J, Section VII.C methodology. Assumption of a 40 year service life is utilized for Base Plan funded projects. A present worth analysis of RR on a common year basis between the Base Plan and Requested Upgrades was performed to determine avoided Base Plan RR due to the displacement or deferral of the Base Plan upgrade by the Requested Upgrade. The incremental increase in present worth of a Requested Upgrade on a common year basis as a Base Plan upgrade is assigned to the transmission requests impacting the upgrade based on the displacement or deferral.

Note 4. 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. This includes prepayments required for any SWPA upgrades. Revenue requirements for 3rd Party facilities are not calculated. Total cost to customer is based on assumption of Revenue Requirements with confirmation of base plan funding. Customer is responsible for negotiating redispatch costs if applicable. Customer is also responsible to pay credits for previously assigned upgrades that are impacted by their request. Credits required will be determined at the conclusion of the study based on final MW impact allocation. Credits can be paid from base plan funding or PTP base rate if applicable.

Note 5: E & C allocation for determination of allocated revenue requirements DOES include those upgrades estimated at \$100,000 or less. If these upgrades are for a designated resource, they will be base plan funded if not paid by PTP base rate. Also E & C allocation for expedited projects is not included in this total but utilized for RR to expedite the required in- service date. Thus this number sets the cap for base plan funding allowable for remaining assigned upgrades.

Note 6: Midwest has 308MW of load with up to 385MW total resource cap for base plan funding in 2007 (not applicable on this study)

Note 7: Midwest has 317MW of load with up to 397MW total resource cap for base plan funding in 2013 (Not applicable on this study)

Note 8: Midwest has 315MW of load with up to 394MW total resource cap for base plan funding in 2012 (Not applicable in this study)

Note 9: RR with base plan funding may increase or decrease even if no base plan funding is applicable to a particular request if another request that shares the upgrade is now full base plan funded resulting in a different amortization period for the upgrade and thus different RR.

Note 10: Resource ratio exceeds 125% load criteria for base plan funding. (Note not applicable in this restudy)

Note 11: 2550 MW resource cap for 2010.

Note 12: Sinks outside SPP thus no base funding.

Customer Study Number EDE AG1-2007-051

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
EDE	1222640	WPEK	EDE	100	11/1/2008	11/1/2028	6/1/2011	6/1/2031	\$ 1,800,000	\$ -	\$ 8,099,440	\$ 29,313,899
									\$ 1,800,000	\$ -	\$ 8,099,440	\$ 29,313,899

				Earliest Service	Redispatch	Allo	cated E & C		Tota	l Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	t	Total E & C Cost	Req	uirements
1222640	ALLEN 69KV Capacitor	12/1/2007	6/1/2010)		\$	3,685	\$ 500,000	\$	12,954
	ATHENS 69KV Capacitor	12/1/2007	6/1/2010)		\$	3,685	\$ 500,000	\$	12,954
	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010)	No	\$	718,200	\$ 3,000,000	\$	3,082,604
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010)		\$	718,200	\$ 3,000,000	\$	3,082,604
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2009	6/1/2011		Yes	\$	384,076	\$ 428,963	\$	1,274,116
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2009	6/1/2011		Yes	\$	349,205	\$ 398,438	\$	1,158,437
	East Manhattan to Mcdowell 230 kV Displacement	6/1/2009	6/1/2011		Yes	\$	122,740	\$ 128,528	\$	407,172
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010)	No	\$	837,899	\$ 3,500,000	\$	3,596,367
	JOPLIN 59 - SUB 439 - STATELINE 161KV CKT 1 Displacement	6/1/2011	6/1/2011			\$	731,141	\$ 774,301	\$	2,341,504
	JOPLIN 59 - SUB 59 - JOPLIN 26TH ST. 161/69kV TRANSFORMER CKT 1 Displacement	6/1/2011	6/1/2011			\$	936,548	\$ 991,833	\$	2,999,326
	SOUTHWEST - SOUTHWEST DISPOSAL 161KV CKT 1	6/1/2013	6/1/2013	3		\$	8,285	\$ 246,000	\$	22,117
	SUB 170 - NICHOLS ST SUB 80 - MARSHFIELD JCT. 69KV CKT 1	6/1/2009	6/1/2010)	Yes	\$	3,000,000	\$ 3,000,000	\$	10,178,071
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009	9		\$	156,023	\$ 258,414	\$	580,833
	TIOGA 69KV Capacitor	12/1/2007	6/1/2010)		\$	3,685	\$ 500,000	\$	12,954
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010)		\$	126,068	\$ 526,599	\$	551,887
					Total	\$	8,099,440	\$ 17,753,076	\$	29,313,899

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1222640	ANZIO - FORT JUNCTION SWITCHING STATION 115KV CKT 1	12/1/2007	6/1/2010		Yes
	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2016	6/1/2016		
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		No
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013		
	BULL SHOALS - BULL SHOALS 161KV CKT 1	6/1/2009	11/1/2009		No
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	FT SMITH CAP BANK	6/1/2017	6/1/2017		
	JAMESVILLE - SUB 415 - BLACKHAWK JCT. 69KV CKT 1 EMDE	6/1/2011	6/1/2011		
	KERR - PENSACOLA 115KV CKT 1	12/1/2012	12/1/2012		
	NIXA 161KV CAP BANK	6/1/2017	6/1/2017		
	NORTON 161KV CAPACITOR	6/1/2013	6/1/2013		
	STRANGER CREEK TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	SUB 124 - AURORA H.T SUB 152 - MONETT H.T. 69KV CKT 1	6/1/2009	6/1/2009		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	SUB 145 - JOPLIN WEST 7TH - SUB 64 - JOPLIN 10TH ST. 69KV CKT 1	6/1/2010	6/1/2010		
	SUB 152 - MONETT H.T SUB 383 - MONETT 69KV CKT 1	6/1/2009	6/1/2009		
	SUB 383 - MONETT (MONETT) 161/69/12.5KV TRANSFORMER CKT 1	6/1/2014	6/1/2014		
	SUB 438 - RIVERSIDE 161KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1222640	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		

					Earliest Service	Redispatch	Allocated E &	
R	eservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost	Total E & C Cost
	1222640	5BEE BR - QUITMAN 161KV CKT 1	6/1/2009	6/1/2009			\$ -	\$ -
		5CLINTN - CLINTON WEST (AECC) 161KV CKT 1	6/1/2012	6/1/2012			\$ -	\$ -
		5FLIPN - BULL SHOALS HES 161KV CKT 1	6/1/2017	6/1/2017			\$ -	\$ -
		5HILLTOP 161.00 - 5ST_JOE 161.00 161KV CKT 1	6/1/2017	6/1/2017			\$ -	\$ -
		5ST_JOE	10/1/2008	10/1/2008			\$ -	\$ -
		CLINTON - OSCEOLA 161KV CKT 1	6/1/2017	6/1/2017			\$ -	\$ -
		EVERTON - HARRISON-EAST 161KV CKT 1	10/1/2008	10/1/2008			\$ -	\$ -
		HARRISON-EAST - SUMMIT 161KV CKT 1	6/1/2012	6/1/2012			\$ -	\$ -
		HUBEN (HUBEN) 345/161/13.8KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$ -	\$ -
		JAMESVILLE - SUB 415 - BLACKHAWK JCT. 69KV CKT 1 AECI	6/1/2011	6/1/2011			\$ -	\$ -
						Total	\$ -	\$ -

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

Customer Study Number INDP AG1-2007-045

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
INDP	1221966	OPPD	INDN	6	6/1/2009	6/1/2034	6/1/2010	6/1/2035	\$ -	\$ 1,584,000	\$ 253,750	\$ 1,127,851
									\$ -	\$ 1,584,000	\$ 253,750	\$ 1,127,851

				Earliest Service	Redispatch	Alloca	ated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1221966	COOK - LAKE ROAD 161KV CKT 1	6/1/2012	6/1/2012			\$	39,746	\$ 6,500,000	\$ 131,446
	COOK - ST JOE 161KV CKT 1	6/1/2010	6/1/2010			\$	25,107	\$ 4,400,000	\$ 94,985
	Craig (542978) Cap Bank Phase 1	6/1/2009				\$	44,248		
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$	44,248	\$ 3,000,000	\$ 221,087
	EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012	6/1/2012			\$	3,435	\$ 550,000	\$ 11,359
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009			\$	19,314	\$ 4,700,000	\$ 75,537
	GRANDVIEW EAST - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010			\$	834	\$ 180,000	\$ 3,155
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010			\$	51,622	\$ 3,500,000	\$ 257,932
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009			\$	740	\$ 180,000	\$ 2,894
	LONGVIEW - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010			\$	857	\$ 180,000	\$ 3,242
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010			\$	7,804	\$ 2,160,000	\$ 38,993
	ST JOE - WOODBINE 161KV CKT 1	6/1/2012	6/1/2012			\$	8,028	\$ 2,300,000	\$ 26,550
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010			\$	7,767	\$ 526,599	\$ 39,582
					Total	\$	253,750	\$ 31,176,599	\$ 1,127,851

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1221966	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013		
	Centerville Cap Bank	6/1/2009	6/1/2010		
	NORTON 161KV CAPACITOR	6/1/2013	6/1/2013		
	REDEL - STILWELL 161KV CKT 1	6/1/2008	6/1/2010		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		·
	SUBSTATION M 161/69KV TRANSFORMER CKT 1	6/1/2010	6/1/2010		

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

Customer Study Number KBPU AG1-2007-043D

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KBPU	1221923	SPA	KACY	39	7/1/2010	7/1/2020			\$ -	\$ 4,118,400	\$ 753,754	\$ 2,074,381
									\$ -	\$ 4,118,400	\$ 753,754	\$ 2,074,381

				Earliest Service	Redispatch	Alloc	ated E & C			Total	Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total I	E & C Cost	Requ	irements
1221923	COOK - LAKE ROAD 161KV CKT 1	6/1/2012	6/1/2012			\$	135,923	\$	6,500,000	\$	276,779
	COOK - ST JOE 161KV CKT 1	6/1/2010				\$	85,861	\$	4,400,000	\$	200,006
	Craig (542978) Cap Bank Phase 1	6/1/2009				\$	140,268	\$	3,000,000		428,758
	Craig (542978) Cap Bank Phase 2	6/1/2010				\$	140,268	\$	3,000,000	\$	428,758
	HALLMARK - RITCHFIELD 161KV CKT 1	6/1/2017				\$	6,146	\$	180,000	\$	8,499
	Hawthorn and W Gardner Cap Banks	6/1/2009				\$	163,646	\$	3,500,000	\$	500,218
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010			\$	36,708	\$	2,160,000	\$	112,206
	RITCHFIELD - SIBLEY 161KV CKT 1	6/1/2015				\$	6,146	\$	180,000		9,830
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010				\$	14,166		3,500,000		32,565
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010			\$	24,622	\$	526,599	\$	76,763
					Total	\$	753,754	\$:	26,946,599	\$	2,074,381

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1221923	ANTIOCH - OXFORD 161KV CKT 1	6/1/2008	6/1/2010		
	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2008	6/1/2010		
	BELTON SOUTH - TURNER ROAD SUBSTATION 161KV CKT 1	6/1/2008	6/1/2010		
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013		
	BULL SHOALS - BULL SHOALS 161KV CKT 1	6/1/2009	11/1/2009		
	Centerville Cap Bank	6/1/2009	6/1/2010		
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2010		
	MARTIN CITY - TURNER ROAD SUBSTATION 161KV CKT 1 Displacement	6/1/2008	6/1/2010		
	NORTON 161KV CAPACITOR	6/1/2013	6/1/2013		
	REDEL - STILWELL 161KV CKT 1	6/1/2008	6/1/2010		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		·
	WEST GARDNER (WGARD 11) 345-161-13_8KV TRANSFORMER CKT 11	6/1/2008	6/1/2009		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1221923	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	WICHITA - RENO 345KV	6/1/2009	6/1/2000		

					Earliest Service	Redispatch	Allocate	d E &		
1	Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost		Total E	& C Cost
	1221923	GEORGETOWN - SEDALIA 161 CKT 1	5/1/2010	5/1/2010			\$	3,157	\$	780,000
						Total	\$	3 157	\$	780 000

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

Customer Study Number KBPU AG1-2007-044D

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KBPU	1221925	WR	KACY	25	1/1/2008	1/1/2028	6/1/2010	6/1/2030	\$ -	\$ 5,280,000	\$ 807,556	\$ 3,383,539
									\$ -	\$ 5,280,000	\$ 807,556	\$ 3,383,539

				Earliest Service	Redispatch	Alloca	ated E & C			Revenue
	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Require	ements
1221925	COOK - ST JOE 161KV CKT 1	6/1/2010	6/1/2010			\$	57,380	\$ 4,400,000	\$	186,800
	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010			\$	201,586	\$ 3,000,000	\$	865,232
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$	201,586	\$ 3,000,000		865,232
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010			\$	235,183	\$ 3,500,000	\$	1,009,435
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010			\$	30,532	\$ 2,160,000	\$	131,047
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009			\$	45,904	\$ 258,414	\$	170,889
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010			\$	35,385	\$ 526,599	\$	154,905
					Total	\$	807,556	\$ 16,845,012	\$	3,383,539

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1221925	ANTIOCH - OXFORD 161KV CKT 1	6/1/2008	6/1/2010		
	BELTON SOUTH - TURNER ROAD SUBSTATION 161KV CKT 1	6/1/2008	6/1/2010		
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		
	Centerville Cap Bank	6/1/2009	6/1/2010		
	MARTIN CITY - TURNER ROAD SUBSTATION 161KV CKT 1 Displacement	6/1/2008	6/1/2010		
	REDEL - STILWELL 161KV CKT 1	6/1/2008	6/1/2010		
	STRANGER CREEK - NW LEAVENWORTH 115KV	6/1/2010	6/1/2010		
	STRANGER CREEK TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	Summit - NE Saline 115 kV	12/1/2007	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009	·	
	WEST GARDNER (WGARD 11) 345-161-13_8KV TRANSFORMER CKT 11	6/1/2008	6/1/2009		_

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

					Earliest Service	Redispatch
ı	Reservation	Upgrade Name	COD	EOC	Date	Available
	1221925	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
ı		SUMMIT - RENO 345KV	6/1/2010	6/1/2010		

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

					Earliest Service	Redispatch
Reservat	ion Upgra	rade Name	COD	EOC	Date	Available
122	1925 166TH	TH STREET - JAGGARD JUNCTION 115KV CKT 1	6/1/2008	6/1/2009		
	166TH	TH STREET - JARBALO JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2008	6/1/2009		
	JAGG	GARD JUNCTION - PENTAGON 115KV CKT 1	6/1/2008	6/1/2009		

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

Customer Study Number KCPS AG1-2007-080

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KCPS	1223159	KCPL	EES	52	6/1/2007	6/1/2012	6/1/2010	6/1/2015	\$ -	\$ 2,808,000	\$ 148,304	\$ 238,339
									\$ -	\$ 2,808,000	\$ 148,304	\$ 238,339

				Earliest Service	Redispatch	Alloc	ated E & C		Total Re	venue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requirer	nents
1223159	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	131,727	\$ 4,700,000	\$	212,239
	GRANDVIEW EAST - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010		Yes	\$	5,685	\$ 180,000	\$	8,860
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	5,045			8,129
	LONGVIEW - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010		Yes	\$	5,847	\$ 180,000	\$	9,112
					Total	\$	148,304	\$ 5,240,000	\$	238,339

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1223159	AVONDALE - GLADSTONE 161KV CKT 1	6/1/2010	6/1/2010		
	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2008	6/1/2010		Yes
	MARTIN CITY - TURNER ROAD SUBSTATION 161KV CKT 1 Displacement	6/1/2008	6/1/2010		No
	REDEL - STILWELL 161KV CKT 1	6/1/2008	6/1/2010		Yes
	STRANGER CREEK TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	SUB 438 - RIVERSIDE 161KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009		
	WEST GARDNER (WGARD 11) 345-161-13 8KV TRANSFORMER CKT 11	6/1/2008	6/1/2009		Yes

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1223159	HUGO POWER PLANT - VALLIANT 345 KV AEPW	5/1/2010	5/1/2010		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	5/1/2010	5/1/2010		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		

Potential reservation deferral and redispatch requirement on the following upgrades due to positive MW Impact on limitations that require upgrade. No cost assignment due to negative MW impact on defined upgrade.

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Start Date	Available
1223159	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No

				Earliest Service	Redispatch	Allocated E &	
Reservation	Upgrade Name	COD				C Cost	Total E & C Cost
1223159	OVERTON 345.00 () 345/161/13.8KV TRANSFORMER CKT 1	12/1/2008	12/1/2008			\$ -	\$ -
					Total	\$ -	S -

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

Customer Study Number KCPS AG1-2007-081

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer		POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KCPS	1223161	KCPL	SPA	15	1/1/2008	1/1/2009	6/1/2010	6/1/2011	\$ -	\$ 162,000	\$ 61,405	\$ 96,140
									\$ -	\$ 162,000	\$ 61,405	\$ 96,140

				Earliest Service	Redispatch	Alloca	ited E & C		Total Reve	nue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requireme	nts
1223161	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	41,596	\$ 4,700,000	\$ 6	61,475
	GRANDVIEW EAST - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010			\$	1,795	\$ 180,000	\$	2,566
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	1,593	\$ 180,000	\$	2,354
	LONGVIEW - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010			\$	1,846			2,639
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010			\$	14,575	\$ 2,160,000	\$ 2	27,105
					Total	\$	61.405	\$ 7,400,000	\$ 9	96.140

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1223161	AVONDALE - GLADSTONE 161KV CKT 1	6/1/2010	6/1/2010		
	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2008	6/1/2010		No
	JONES - JONESBORO 161KV CKT 1 SWPA	6/1/2008	1/1/2009		No
	MARTIN CITY - TURNER ROAD SUBSTATION 161KV CKT 1 Displacement	6/1/2008	6/1/2010		No
	REDEL - STILWELL 161KV CKT 1	6/1/2008	6/1/2010		Yes
	STRANGER CREEK TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	SUB 438 - RIVERSIDE 161KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009		
	WEST GARDNER (WGARD 11) 345-161-13_8KV TRANSFORMER CKT 11	6/1/2008	6/1/2009		Yes

Potential reservation deferral and redispatch requirement on the following upgrades due to positive MW Impact on limitations that require upgrade. No cost assignment due to negative MW impact on defined upgrade.

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Start Date	Available
1223161	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No

Reservation	Upgrade Name	COD		Earliest Service Start Date	· re and parter.	Allocated E & C Cost	Total E & C Cost
1223161	5TRUMAN - TRUMANN WEST AECC 161KV CKT 1	6/1/2009	6/1/2009			\$ -	\$ -
	JONES - JONESBORO 161KV CKT 1 ENTR	6/1/2008	6/1/2008			\$ -	\$ -
	JONESBORO - JONESBORO NORTH (AECC) 161KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	JONESBORO NORTH (AECC) - PARAGOULD SOUTH (AECC) 161KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	OVERTON 345.00 () 345/161/13.8KV TRANSFORMER CKT 1	12/1/2008	12/1/2008			\$ -	\$ -
					Total	¢ .	e

Customer Study Number KMEA AG1-2007-007

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KMEA	1218859	GRDA	WR	1	5/1/2010	5/1/2026	6/1/2010	6/1/2026	\$ 180,000	\$ 364,416	\$ 1,936,325	\$ 3,348,252
									\$ 180,000	\$ 364,416	\$ 1,936,325	\$ 3,348,252

•				Earliest Service	Redispatch	Allo	cated E & C		Total	Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cos	t	Total E & C Cost	Requ	irements
1218859	ALLEN 69KV Capacitor	12/1/2007	6/1/2010			\$	82	\$ 500,000	\$	257
	ATHENS 69KV Capacitor	12/1/2007	6/1/2010			\$	82	\$ 500,000	\$	257
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2010	6/1/2010			\$	556	\$ 200,000	\$	1,727
	DEARING 138KV Capacitor Displacement	6/1/2010				\$	261			811
	JOPLIN 59 - SUB 439 - STATELINE 161KV CKT 1 Displacement	6/1/2011				\$	9			25
	JOPLIN 59 - SUB 59 - JOPLIN 26TH ST. 161/69kV TRANSFORMER CKT 1 Displacement	6/1/2011				\$	11	\$ 991,833	\$	31
	LOCUST GROVE - LONE STAR 115KV CKT 1	6/1/2017	6/1/2017			\$	1,935,000	\$ 1,935,000	\$	3,344,134
	SUNFLOWER 69KV Capacitor Displacement	6/1/2010				\$	242			752
	TIOGA 69KV Capacitor	12/1/2007	6/1/2010			\$	82	\$ 500,000	\$	257
					Total	\$	1.936.325	\$ 5.582.209	\$	3.348.252

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1218859	412SUB - KANSAS TAP 161KV CKT 1	6/1/2012	6/1/2012		
	412SUB - KERR 161KV CKT 1	6/1/2012	6/1/2012		
	ANTIOCH - OXFORD 161KV CKT 1	6/1/2008	6/1/2010		
	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2016	6/1/2016		
	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2008	6/1/2010		
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		
	Centerville Cap Bank	6/1/2009	6/1/2010		
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2010		
	FT SMITH CAP BANK	6/1/2017	6/1/2017		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1	6/1/2012	6/1/2012		
	KERR - PENSACOLA 115KV CKT 1	12/1/2012	12/1/2012		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1	6/1/2012	6/1/2012		
	SUB 124 - AURORA H.T SUB 383 - MONETT 161KV CKT 1	6/1/2016	6/1/2016		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	SUB 438 - RIVERSIDE 161KV	6/1/2010	6/1/2010		
	WEST GARDNER (WGARD 11) 345-161-13 8KV TRANSFORMER CKT 11	6/1/2008	6/1/2009		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1218859	ARCADIA - REDBUD 345 KV CKT 1	6/1/2006	6/1/2006		
	ARCADIA - REDBUD 345 KV CKT 2	6/1/2006	6/1/2006		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

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

				Earliest Service	Redispatori
Reservation	Upgrade Name	COD	EOC	Date	Available
1218859	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2008	6/1/2010		
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2008	6/1/2010		

Potential reservation deferral and redispatch requirement on the following upgrades due to positive MW Impact on limitations that require upgrade. No cost assignment due to negative MW impact on defined upgrade.

					Earliest Service	Redispatch
Reserv	ation	Upgrade Name	COD	EOC	Start Date	Available
1	218859	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No
		Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No

Reservation	Upgrade Name	COD		Earliest Service Start Date		Allocated E & C Cost	Total E & C Cost
1218859	MIAMI - MIAMI EAST NEO 69KV CKT 1	6/1/2017	6/1/2017			\$ -	\$ -
	SARATOGA - SOUTHWEST CITY 69KV CKT 1	6/1/2017	6/1/2017			\$ -	\$ -
					Total	\$.	\$ -

Study Number AG1-2007-052

							Deferred Start		Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KPP	1222644	WR	WR	333	6/1/2007	6/1/2017	6/1/2010	6/1/2020	\$ 19,357,032	\$ -	\$ 21,643,253	\$ 56,455,398
	_		•		•			•	\$ 19,357,032	\$ -	\$ 21,643,253	\$ 56,455,398

				Earliest Service		All	ocated E & C				l Revenue
	Upgrade Name	COD	EOC	Date	Available	Co	ost	Total E	& C Cost	Requ	uirements
1222644	ALLEN 69KV Capacitor	12/1/2007	6/1/2010		No	\$	406,408	\$	500,000	\$	1,060,009
	ARKANSAS CITY - PARIS 69KV CKT 1 #1 Displacement	6/1/2008	6/1/2010		Yes	\$	5,665	\$	8,706	\$	14,916
	ASH GROVE JCT2 - TIOGA 69KV CKT 1	6/1/2010	6/1/2010			\$	632,172	\$	767,000	\$	1,633,875
	ATHENS 69KV Capacitor	12/1/2007	6/1/2010		No	\$	406,408	\$	500,000	\$	1,060,009
	Athens to Owl Creek 69 kV	6/1/2008	6/1/2010		Yes	\$	894,662	\$ 1	,055,000	\$	2,312,292
	BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	2,210,078	\$ 2	2,600,000	\$	5,712,041
	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	1,030,114	\$ 1	,480,000	\$	2,662,373
	CHANUTE TAP - TIOGA 69KV CKT 1	6/1/2010	6/1/2010			\$	82,121	\$	100,000	\$	212,245
	CITY OF IOLA - UNITED NO. 9 CONGER 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	1,193,612		,440,000		3,084,941
	CITY OF WINFIELD - RAINBOW 69KV CKT 1	6/1/2008	6/1/2010			\$	950,725	\$ 1	,560,000	\$	2,483,49
	CITY OF WINFIELD - RAINBOW 69KV CKT 1	6/1/2008			No	\$	950,725		,560,000		2,483,49
	COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	2,788,098	\$ 3	3,280,000		7,205,958
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2010	6/1/2010			\$	163,177	\$	200,000	\$	421,738
	CRESWELL - OAK 69KV CKT 1 #1 Displacement	6/1/2008	6/1/2010		Yes	\$	20,909	\$	32,132	\$	54,619
	CRESWELL - OAK 69KV CKT 1 #2 Displacement	6/1/2008	6/1/2010		Yes	\$	175,218	\$	269,267	\$	452,85
	DEARING 138KV Capacitor Displacement	6/1/2010	6/1/2010			\$	76,709		94,020		198,25
	Green to Vernon 69 kV	6/1/2008	6/1/2010		Yes	\$	2,200,727	\$ 2	2,589,000	\$	5,687,872
	LEHIGH TAP - OWL CREEK 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	2,459,259		2,900,000		6,356,059
	LEHIGH TAP - UNITED NO. 9 CONGER 69KV CKT 1	6/1/2008			Yes	\$	265,283		310,000		687,642
	OAK - RAINBOW 69KV CKT 1	6/1/2008	6/1/2009			\$	1,158,037	\$ 1	,800,000	\$	3,204,770
	OAK - RAINBOW 69KV CKT 1	6/1/2008	6/1/2009		No	\$	1,158,037	\$ 1	,800,000	\$	3,204,77
	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1 Displacement	12/1/2007	6/1/2010			\$	177,459	\$	413,284	\$	463,440
	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1 Displacement	12/1/2007	6/1/2010		No	\$		\$	413,284		463,440
	SUNFLOWER 69KV Capacitor Displacement	6/1/2010	6/1/2010			\$	71,027	\$	87,055		183,572
	TIOGA 69KV Capacitor	12/1/2007	6/1/2010		No	\$	406,408	\$	500,000	\$	1,060,009
	Vernon to Athens 69 kV	6/1/2008	6/1/2010		Yes	\$	1,582,756	\$ 1	,862,000	\$	4,090,700
					Total	\$	21.643.253	\$ 28	3,120,748	\$	56,455,398

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1222644	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2008	6/1/2010		Yes
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2010		Yes
	Fort Scott - SW Bourbon 161 kV	6/1/2010	6/1/2010		
	ROSE HILL JUNCTION - WEAVER 69KV CKT 1	12/1/2007	6/1/2010		Yes

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

					Earliest Service	Redispatch
R	eservation	Upgrade Name	COD	EOC	Date	Available
	1222644	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2008	6/1/2010		Yes
		COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2008	6/1/2010		Yes

[|] COPFEYVILLE 1AP - DEARING 1996 V GAT 1 WENC "Reservation 1222644 and 1222955 were studied as one request
"A Transmission Operating Directive will need to be developed to document the minimum allowable generation per season in order maintain system reliability and evaluation of short term transmission service requests.

***34.5 kV System Impacts and Upgrades have yet to be determined.

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

Customer Study Number KPP AG1-2007-054

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KPP	1222904	WPEK	WPEK	3	6/1/2007	6/1/2017	6/1/2010	6/1/2020	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1222904	None					\$ -	\$ -	\$ -
					Total	\$ -	٠.	\$.

^{*}Reservation 1223078 and 1222904 were studied as one request

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

Customer Study Number KPP AG1-2007-055

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD		Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KPP	1222932	WR	WR	45	6/1/2007	6/1/2027	6/1/2011	6/1/2031	\$ 6,284,466	\$ -	\$ 7,771,529	\$ 27,764,182
									\$ 6,284,466	\$ -	\$ 7,771,529	\$ 27,764,182

				Earliest Service	Redispatch	Allo	cated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cos	t	Total E & C Cost	Requirements
1222932	ALLEN 69KV Capacitor	12/1/2007	6/1/2010		No	\$	88,149	\$ 500,000	\$ 309,87
	ARKANSAS CITY - PARIS 69KV CKT 1 #1 Displacement	6/1/2008	6/1/2010		Yes	\$	3,040	\$ 8,706	\$ 10,78
	ASH GROVE JCT2 - TIOGA 69KV CKT 1	6/1/2010	6/1/2010			\$	134,828	\$ 767,000	\$ 469,66
	ATHENS 69KV Capacitor	12/1/2007	6/1/2010		No	\$	88,149	\$ 500,000	\$ 309,8
	Athens to Owl Creek 69 kV	6/1/2008	6/1/2010		Yes	\$	150,807	\$ 1,055,000	\$ 525,33
	BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	375,890	\$ 2,600,000	\$ 1,309,3
	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	441,217	\$ 1,480,000	\$ 1,536,9
	CHANUTE TAP - TIOGA 69KV CKT 1	6/1/2010	6/1/2010			\$	17,879	\$ 100,000	\$ 62,2
	CITY OF IOLA - UNITED NO. 9 CONGER 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	246,388	\$ 1,440,000	\$ 858,2
	CITY OF WINFIELD - RAINBOW 69KV CKT 1	6/1/2008	6/1/2010			\$	609,275	\$ 1,560,000	\$ 2,145,0
	CITY OF WINFIELD - RAINBOW 69KV CKT 1	6/1/2008	6/1/2010		No	\$	609,275	\$ 1,560,000	\$ 2,145,0
	COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	474,200	\$ 3,280,000	\$ 1,651,8
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2010	6/1/2010			\$	33,678	\$ 200,000	\$ 117,3
	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No	\$	206,802	\$ 3,000,000	\$ 887,6
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$	206,802	\$ 3,000,000	\$ 887,6
	CRESWELL - OAK 69KV CKT 1 #1 Displacement	6/1/2008	6/1/2010		Yes	\$	11,223	\$ 32,132	\$ 39,
	CRESWELL - OAK 69KV CKT 1 #2 Displacement	6/1/2008	6/1/2010		Yes	\$	94,048	\$ 269,267	\$ 327,6
	DEARING 138KV Capacitor Displacement	6/1/2010	6/1/2010			\$	15,832	\$ 94,020	\$ 55,1
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		Yes	\$	428,621	\$ 534,485	\$ 1,248,7
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2009	6/1/2011		Yes	\$	40,230	\$ 428,963	\$ 133,4
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2009	6/1/2011		Yes	\$	36,596	\$ 398,438	\$ 121,4
	East Manhattan to Mcdowell 230 kV Displacement	6/1/2009	6/1/2011		Yes	\$	5,638	\$ 128,528	\$ 18,7
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010			\$	40,144	\$ 59,633	\$ 139,
	Green to Vernon 69 kV	6/1/2008	6/1/2010		Yes	\$	374,300	\$ 2,589,000	\$ 1,303,8
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No	\$	241,269	\$ 3,500,000	\$ 1,035,5
	LEHIGH TAP - OWL CREEK 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	414,541	\$ 2,900,000	\$ 1,444,0
	LEHIGH TAP - UNITED NO. 9 CONGER 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	44,717	\$ 310,000	\$ 156,2
	OAK - RAINBOW 69KV CKT 1	6/1/2008	6/1/2009			\$	641,963	\$ 1,800,000	\$ 2,394,4
	OAK - RAINBOW 69KV CKT 1	6/1/2008	6/1/2009		No	\$	641,963	\$ 1,800,000	\$ 2,394,
	OXFORD 138KV Capacitor Displacement	6/1/2008	6/1/2010		No	\$	174,111	\$ 174,111	\$ 606,
	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1 Displacement	12/1/2007	6/1/2010			\$	235,825	\$ 413,284	\$ 830,0
	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1 Displacement	12/1/2007	6/1/2010		No	\$	235,825	\$ 413,284	\$ 830,
	SUNFLOWER 69KV Capacitor Displacement	6/1/2010	6/1/2010			\$	14,659	\$ 87,055	\$ 51,0
	TIOGA 69KV Capacitor	12/1/2007	6/1/2010		No	\$	88,149	\$ 500,000	\$ 309,
	Vernon to Athens 69 kV	6/1/2008	6/1/2010		Yes	\$	269,195	\$ 1,862,000	\$ 937,
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010			\$	36,301		
		-			Total	\$	7.771.529	\$ 39.871.505	\$ 27,764,

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1222932	ANZIO - FORT JUNCTION SWITCHING STATION 115KV CKT 1	12/1/2007	6/1/2010		Yes
	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2016	6/1/2016		
	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		No
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013		
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	4/1/2008	6/1/2010		No
	CHASE - WHITE JUNCTION 69KV CKT 1	6/1/2008	6/1/2010		Yes
	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	6/1/2011	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	4/1/2008	6/1/2010		Yes
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2010		Yes
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	FORT JUNCTION SWITCHING STATION - MCDOWELL CREEK SWITCHING STATION 115KV CKT	6/1/2009	6/1/2010		Yes
	Fort Scott - SW Bourbon 161 kV	6/1/2010	6/1/2010		
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	NORTON 161KV CAPACITOR	6/1/2013	6/1/2013		
	ROSE HILL JUNCTION - WEAVER 69KV CKT 1	12/1/2007	6/1/2010		Yes
	SENECA 115KV Capacitor	4/1/2008	6/1/2010		No
	STRANGER CREEK TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	SUB 438 - RIVERSIDE 161KV	6/1/2010	6/1/2010		
	Summit - NE Saline 115 kV	12/1/2007	6/1/2010		Yes
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009		
	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1222932	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1222932	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2008	6/1/2010		Yes
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2008	6/1/2010		Yes
	SUMMIT - RENO 345KV	4/1/2008	6/1/2010		Yes
	WICHITA - RENO 345KV	12/1/2007	6/1/2009		Yes

[&]quot;A Transmission Operating Directive will need to be developed to document the minimum allowable generation per season in order maintain system reliability and evaluation of short term transmission service requests.
""34.5 kV System Impacts and Upgrades have yet to be determined.

Customer Study Number KPP AG1-2007-056

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KPP	1222937	WR	WPEK	5	6/1/2007	6/1/2027	6/1/2010	6/1/2030	\$ 142,802	\$ -	\$ 142,802	\$ 493,969
									\$ 142,802	\$ -	\$ 142,802	\$ 493,969

			Earliest Service	Redispatch	Allocate	ed E & C		Total Revenue
Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requirements
Craig (542978) Cap Bank Phase 1	6/1/2009			No	\$	14,901	\$ 3,000,000	
Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$	14,901	\$ 3,000,000	\$ 63,957
EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013			\$	76,580	\$ 534,485	\$ 223,108
East Manhattan - SW Manhattan 115kV Displacement	6/1/2009	6/1/2011			\$	985	\$ 428,963	\$ 3,268
EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2009	6/1/2011			\$	895	\$ 398,438	\$ 2,969
East Manhattan to Mcdowell 230 kV Displacement	6/1/2009	6/1/2011			\$	36	\$ 128,528	\$ 119
EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010			\$	14,503	\$ 59,633	\$ 50,520
Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No	\$	17,385	\$ 3,500,000	\$ 74,619
West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010			\$	2,616	\$ 526,599	\$ 11,452
				Total	\$	142,802	\$ 11,576,646	\$ 493,969

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1222937	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		No
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013		
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	4/1/2008	6/1/2010		No
	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	6/1/2011	6/1/2011		
	CIRCLE - SANDHILL ARK VALLEY CO-OP D.P. JUNCTION 115 KV CKT 1	6/1/2010	6/1/2010		
	CLAY CENTER - GREENLEAF 115KV CKT 1	4/1/2008	6/1/2010		Yes
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	HARPER 138KV Capacitor	6/1/2008	6/1/2009		No
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 MIDW	6/1/2017	6/1/2017		
	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 WERE	6/1/2017	6/1/2017		
	HUNTSVILLE - ST_JOHN 115KV CKT 1	6/1/2017	6/1/2017		
	NORTON 161KV CAPACITOR	6/1/2013	6/1/2013		
	SANDHILL ARK VALLEY CO-OP D.P. JUNCTION - TOWER 33 115 KV CKT 1	6/1/2010	6/1/2010		
	SENECA 115KV Capacitor	4/1/2008	6/1/2010		No
	STRANGER CREEK TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	Summit - NE Saline 115 kV	12/1/2007	6/1/2010		Yes
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009		
	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1222937	RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
	RENO 345/115KV CKT 2	6/1/2010	6/1/2010		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		

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 Date Available

1222937 SUMMIT - RENO 345KV 4/1/2008 6/1/2010 Yes

WICHITA - RENO 345KV 12/1/2007 6/1/2009 Yes

WICHITA - RENO 345KV

12/1/2007 6/1/2009 Yes

**A Transmission Operating Directive will need to be developed to document the minimum allowable generation per season in order maintain system reliability and evaluation of short term transmission service requests.

^{***34.5} kV System Impacts and Upgrades have yet to be determined.

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

Customer Study Number KPP AG1-2007-058

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KPP	1222955	WR	WR	20	6/1/2007	6/1/2017	6/1/2010	6/1/2020	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1222955	None					\$ -	\$ -	\$ -
					Total	¢	e .	¢

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

Study Number AG1-2007-064

							Deferred Start		Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date			Redispatch	Allowable	Base Rate	C Cost	Requirements
KPP	1223078	WPEK	WPEK	15	6/1/2007	6/1/2017	6/1/2010	6/1/2020	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

			Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1223078 None					\$ -	\$ -	\$
				Total	\$ -	\$ -	S

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1223078	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	4/1/2008	6/1/2010		No
	CIRCLE - RENO COUNTY 115KV CKT 2	12/1/2009	6/1/2010		Yes
	CLAY CENTER - GREENLEAF 115KV CKT 1	4/1/2008	6/1/2010		Yes
	SENECA 115KV Capacitor	4/1/2008	6/1/2010		No

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1223078	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

^{*}Reservation 1223078 and 1222904 were studied as one request

^{**}A Transmission Operating Directive will need to be developed to document the minimum allowable generation per season in order maintain system reliability and evaluation of short term transmission service requests.
***34.5 kV System Impacts and Upgrades have yet to be determined.

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

Customer Study Number SPRM AG1-2007-042

							Deferred Start	Deferred Stop	Potenti	ial Base				
				Requested	Requested	Requested	Date Without	Date Without	Plan Fu	unding	Point-to-Point	Allocat	ted E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowa	ble	Base Rate	C Cost	t	Requirements
SPRM	1220082	SPA	SPA	275	10/1/2010	10/1/2050			\$	237,715	\$ -	\$	237,715	\$ 1,075,988
									\$	237.715	\$ -	\$	237.715	\$ 1,075,988

				Earliest Service	Redispatch	Alloc	ated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1220082	SOUTHWEST - SOUTHWEST DISPOSAL 161KV CKT 1	6/1/2013	6/1/2013			\$	237,715	\$ 246,000	\$ 1,075,988
					Total	\$	237.715	\$ 246,000	\$ 1.075,988

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1220082	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013		
	JAMES RIVER - TWIN OAKS 69KV CKT 1	6/1/2015	6/1/2015		
	KICKAPOO - SUNSET 69KV CKT 1	6/1/2014	6/1/2014		
	NEERGARD - NORTON 69KV CKT 1	6/1/2010	6/1/2010		
	NIXA (NXA X1) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2012	6/1/2012		

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

Customer UCU Study Number AG1-2007-023D

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
UCU	1214269	MPS	KCPL	2	6/1/2007	6/1/2012	6/1/2010	6/1/2015	\$ 89,454	\$ 105,600	\$ 89,454	\$ 198,461
									\$ 89,454	\$ 105,600	\$ 89,454	\$ 198,461

				Earliest Service	Redispatch	Allocated E &		Total Revenue
	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1214269	ALLEN 69KV Capacitor	12/1/2007	6/1/2010		No	\$ 866	\$ 500,000	\$ 1,915
	ATHENS 69KV Capacitor	12/1/2007	6/1/2010		No	\$ 866	\$ 500,000	\$ 1,915
	Athens to Owl Creek 69 kV	6/1/2008	6/1/2010			\$ 4,848	\$ 1,055,000	\$ 10,622
	BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV CKT 1	6/1/2008	6/1/2010			\$ 7,070	\$ 2,600,000	\$ 15,490
	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2008	6/1/2010			\$ 4,368	\$ 1,480,000	\$ 9,570
	COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	6/1/2008	6/1/2010			\$ 8,919	\$ 3,280,000	\$ 19,542
	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No	\$ 6,733	\$ 3,000,000	\$ 16,788
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010)		\$ 6,733	\$ 3,000,000	\$ 16,788
	GEORGETOWN - SEDALIA 161KV CKT 1 MIPU	6/1/2010	6/1/2010)		\$ 5,713	\$ 4,000,000	\$ 10,626
	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 MIPU	6/1/2010	6/1/2010)		\$ 3,701	\$ 2,400,000	\$ 6,883
	Green to Vernon 69 kV	6/1/2008	6/1/2010)		\$ 7,040	\$ 2,589,000	\$ 15,425
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010)	No	\$ 7,855	\$ 3,500,000	\$ 19,586
	LEHIGH TAP - OWL CREEK 69KV CKT 1	6/1/2008	6/1/2010)		\$ 13,327	\$ 2,900,000	\$ 29,200
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010	5/1/2010)		\$ 4,304	\$ 3,500,000	\$ 8,098
	TIOGA 69KV Capacitor	12/1/2007	6/1/2010)	No	\$ 866	\$ 500,000	\$ 1,915
	Vernon to Athens 69 kV	6/1/2008	6/1/2010)		\$ 5,063	\$ 1,862,000	\$ 11,093
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010)		\$ 1,182	\$ 526,599	\$ 3,006
					Total	\$ 89,454	\$ 37.192.599	\$ 198,461

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1214269	BELTON SOUTH - TURNER ROAD SUBSTATION 161KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		No
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013		
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	Fort Scott - SW Bourbon 161 kV	6/1/2010	6/1/2010		
	MARTIN CITY - TURNER ROAD SUBSTATION 161KV CKT 1 Displacement	6/1/2008	6/1/2010		Yes
	NORTON 161KV CAPACITOR	6/1/2013	6/1/2013		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	SUB 438 - RIVERSIDE 161KV	6/1/2010	6/1/2010		
	WEST GARDNER (WGARD 11) 345-161-13 8KV TRANSFORMER CKT 11	6/1/2008	6/1/2009		No

				Earliest Service	Redispatch	Allocate	ed E &		
Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost		Total	I E & C Cost
1214269	GEORGETOWN - GEORGETOWN TAP 2 69KV CKT 1	5/1/2010	5/1/2010			\$	292	\$	160,000
	GEORGETOWN - SEDALIA 161 CKT 1	5/1/2010	5/1/2010			\$	959	\$	780,000
	GEORGETOWN - SEDALIA 161KV CKT 1 AECI	6/1/2010	6/1/2010			\$	5,713	\$	4,000,000
	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 AECI	6/1/2010	6/1/2010			\$	771	\$	500,000
					Total	\$	7 735	6	5.440.000

Customer Study Number UCU AG1-2007-025D

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
UCU		MPS	WR	1	6/1/2007	6/1/2012	6/1/2010	6/1/2015	\$ 63,973	\$ 113,880	\$ 63,973	\$ 139,473
									\$ 63,973	\$ 113,880	\$ 63,973	\$ 139,473

				Earliest Service	Redispatch	Allocat	ed E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1214263	ALLEN 69KV Capacitor	12/1/2007	6/1/2010)	No	\$	810	\$ 500,000	\$ 1,791
	ATHENS 69KV Capacitor	12/1/2007			No	\$	810		
	Athens to Owl Creek 69 kV	6/1/2008				\$	4,683		
	BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV CKT 1	6/1/2008				\$	6,962	\$ 2,600,000	
	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2008	6/1/2010)		\$	4,302	\$ 1,480,000	
	COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	6/1/2008				\$	8,783	\$ 3,280,000	\$ 19,244
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2010				\$	314		
	Craig (542978) Cap Bank Phase 1	6/1/2009			No	\$	1,410		
	Craig (542978) Cap Bank Phase 2	6/1/2010				\$	1,410		
	DEARING 138KV Capacitor Displacement	6/1/2010				\$	148		
	GEORGETOWN - SEDALIA 161KV CKT 1 MIPU	6/1/2010				\$	2,794		
	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 MIPU	6/1/2010				\$	1,884	\$ 2,400,000	
	Green to Vernon 69 kV	6/1/2008	6/1/2010)		\$	6,933		
	Hawthorn and W Gardner Cap Banks	6/1/2009			No	\$	1,645		
	LEHIGH TAP - OWL CREEK 69KV CKT 1	6/1/2008				\$	12,872		
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010				\$	2,033		
	SUNFLOWER 69KV Capacitor Displacement	6/1/2010				\$	137		
	TIOGA 69KV Capacitor	12/1/2007			No	\$	810		
	Vernon to Athens 69 kV	6/1/2008				\$	4,986		
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010	0	-	\$	247	\$ 526,599	\$ 628
					Total	\$	63,973	\$ 37,573,674	\$ 139,473

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1214263	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2008	6/1/2010		Yes
	BELTON SOUTH - TURNER ROAD SUBSTATION 161KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		No
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013		
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2010		Yes
	Fort Scott - SW Bourbon 161 kV	6/1/2010	6/1/2010		
	MARTIN CITY - TURNER ROAD SUBSTATION 161KV CKT 1 Displacement	6/1/2008	6/1/2010		Yes
	NORTON 161KV CAPACITOR	6/1/2013	6/1/2013		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	SUB 438 - RIVERSIDE 161KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1214263	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
121426	3 COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2008	6/1/2010		Yes
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2008	6/1/2010		Yes

				Earliest Service	Redispatch	Allocate	dE&		
Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost		Total	E & C Cost
1214263	GEORGETOWN - GEORGETOWN TAP 2 69KV CKT 1	5/1/2010	5/1/2010			\$	156	\$	160,000
	GEORGETOWN - SEDALIA 161 CKT 1	5/1/2010	5/1/2010			\$	453	\$	780,000
	GEORGETOWN - SEDALIA 161KV CKT 1 AECI	6/1/2010	6/1/2010			\$	2,794	\$	4,000,000
	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 AECI	6/1/2010	6/1/2010			\$	393	\$	500,000
					Total	\$	3.796	S	5.440.000

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

Customer Study Number UCU AG1-2007-060D

				Requested	Requested				Potential Base Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
UCU	1223092	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031	\$ -	\$ 28,998,000	\$ 4,482,596	
UCU	1223093	EES	MPS	75	3/1/2009		6/1/2011	6/1/2031	\$ -	\$ 28,998,000	\$ 4,482,596	
UCU	1223094	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031	\$ -	\$ 28,998,000	\$ 4,482,596	\$ 15,073,310
UCU	1223095	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031	\$ -	\$ 28,998,000	\$ 4,482,596	\$ 15,073,310
									\$ -	\$ 115,992,000	\$ 17,930,384	\$ 60,293,241

servation	Upgrade Name	COD	EOC	Earliest Service Redispa Date Available		Total E & C Cost	Total Revenue Requirements
1223092	3RDST - ARKOMA 161KV CKT 1	6/1/2017	6/1/2017		\$ 325,000	\$ 1,300,000	\$ 871,
	CLARKSVILLE - DARDANELLE 161KV CKT 1	6/1/2012	6/1/2012		\$ 452,206	\$ 3,000,000	\$
	COOK - LAKE ROAD 161KV CKT 1	6/1/2012	6/1/2012		\$ 925,053	\$ 6,500,000	\$ 2,870,
	COOK - ST JOE 161KV CKT 1	6/1/2010	6/1/2010		\$ 584,342	\$ 4,400,000	\$ 2,074,
	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010	No	\$ 295,267	\$ 3,000,000	\$ 1,384,
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010		\$ 295,267	\$ 3,000,000	\$ 1,384,
	EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012	6/1/2012		\$ 79,947	\$ 550,000	\$ 248,
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009	Yes	\$ 474,695	\$ 4,700,000	\$ 1,741,
	GRANDVIEW EAST - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010	Yes	\$ 20,487	\$ 180,000	\$ 72,
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010	No	\$ 344,478	\$ 3,500,000	\$ 1,614,
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009	Yes	\$ 18,180	\$ 180,000	\$ 66
	LONGVIEW - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010	Yes	\$ 21,070	\$ 180,000	\$ 74
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010	Yes	\$ 349,080	\$ 2,160,000	\$ 1,636
	MARYVILLE - MARYVILLE 161KV CKT 1 MIPU	6/1/2012	6/1/2012		\$ -	\$ -	\$
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010	5/1/2010		\$ 58,818	\$ 3,500,000	\$ 206,
	ST JOE - WOODBINE 161KV CKT 1	6/1/2012	6/1/2012		\$ 186,877		
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010			\$ 51,829	\$ 526,599	\$ 247
	,		1	Total	\$ 4,482,596	\$ 38,976,599	\$ 15,073
1223003	3RDST - ARKOMA 161KV CKT 1	6/1/2017	6/1/2017	Total	\$ 325,000		
	CLARKSVILLE - DARDANELLE 161KV CKT 1	6/1/2012			\$ 452,206		
	COOK - LAKE ROAD 161KV CKT 1	6/1/2012			\$ 925,053	\$ 6,500,000	
	COOK - ST JOE 161KV CKT 1	6/1/2010		 	\$ 584,342		
	Craig (542978) Cap Bank Phase 1	6/1/2009		No	\$ 295,267		
	Craig (542978) Cap Bank Phase 2	6/1/2010		INO	\$ 295,267		
	EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012		l	\$ 79.947		
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2012		Yes	\$ 474.695		
	GRANDVIEW EAST - MARTIN CITT 161KV CKT 1	6/1/2009		Yes	\$ 20.487		
	Hawthorn and W Gardner Cap Banks	6/1/2009		No.	\$ 344.478		
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2010	Yes	\$ 18.180		
	LONGVIEW - SAMPSON 161KV CKT 1	6/1/2009			\$ 21.070		
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009		Yes	\$ 349,080		
	MARYVILLE - MARYVILLE 161KV CKT 1 MIPU	6/1/2009		Yes	\$ 349,080	\$ 2,160,000	\$ 1,636
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2012			\$ 58.818		
	ST JOE - WOODBINE 161KV CKT 1	6/1/2010			\$ 186.877		
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2012			\$ 186,877		
	West Gardner 345 kV Tap on Stillweir-Swissvale 345 kV 50 Additional WVAK Displacemen	6/1/2010	6/1/2010				
				Total	\$ 4,482,596		
	3RDST - ARKOMA 161KV CKT 1	6/1/2017			\$ 325,000		
	CLARKSVILLE - DARDANELLE 161KV CKT 1	6/1/2012			\$ 452,206		
	COOK - LAKE ROAD 161KV CKT 1	6/1/2012			\$ 925,053		
	COOK - ST JOE 161KV CKT 1	6/1/2010			\$ 584,342		
	Craig (542978) Cap Bank Phase 1	6/1/2009		No	\$ 295,267		
	Craig (542978) Cap Bank Phase 2	6/1/2010			\$ 295,267		
	EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012			\$ 79,947		
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008		Yes	\$ 474,695		
	GRANDVIEW EAST - SAMPSON 161KV CKT 1	6/1/2009		Yes	\$ 20,487		
	Hawthorn and W Gardner Cap Banks	6/1/2009		No	\$ 344,478		
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008		Yes	\$ 18,180		
	LONGVIEW - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010	Yes	\$ 21,070		
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009		Yes	\$ 349,080		
	MARYVILLE - MARYVILLE 161KV CKT 1 MIPU	6/1/2012			\$ -	\$ -	\$
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010			\$ 58,818		
	ST JOE - WOODBINE 161KV CKT 1	6/1/2012			\$ 186,877		
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010		\$ 51,829	\$ 526,599	\$ 247
				Total	\$ 4,482,596	\$ 38,976,599	\$ 15.

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

1223095 3RDST - ARKOMA 161KV CKT 1	6/1/2017	6/1/2017		\$ 325,000	\$ 1,300,000	\$	871,689
CLARKSVILLE - DARDANELLE 161KV CKT 1	6/1/2012	6/1/2012		\$ 452,206	\$ 3,000,000	\$	
COOK - LAKE ROAD 161KV CKT 1	6/1/2012	6/1/2012		\$ 925,053	\$ 6,500,000	\$ 2	2,870,35
COOK - ST JOE 161KV CKT 1	6/1/2010	6/1/2010		\$ 584,342	\$ 4,400,000	\$ 2	2,074,16
Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010	No	\$ 295,267	\$ 3,000,000	\$ 1	1,384,08
Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010		\$ 295,267	\$ 3,000,000	\$ 1	1,384,08
EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012	6/1/2012		\$ 79,947	\$ 550,000	\$	248,05
GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009	Yes	\$ 474,695	\$ 4,700,000	\$ 1	1,741,87
GRANDVIEW EAST - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010	Yes	\$ 20,487	\$ 180,000	\$	72,7
Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010	No	\$ 344,478	\$ 3,500,000	\$ 1	1,614,76
KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009	Yes	\$ 18,180	\$ 180,000	\$	66,7
LONGVIEW - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010	Yes	\$ 21,070	\$ 180,000	\$	74,78
MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010	Yes	\$ 349,080	\$ 2,160,000	\$ 1	1,636,33
MARYVILLE - MARYVILLE 161KV CKT 1 MIPU	6/1/2012	6/1/2012		\$ -	\$	\$	
SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010	5/1/2010		\$ 58,818	\$ 3,500,000	\$	206,03
ST JOE - WOODBINE 161KV CKT 1	6/1/2012	6/1/2012		\$ 186,877	\$ 2,300,000	\$	579,8
West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010		\$ 51,829	\$ 526,599	\$	247,7
·			Total	\$ 4.482.596	\$ 38.976.599	\$ 15	5.073.3

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

				Earliest Service	Redispatch
eservation	Upgrade Name	COD	EOC	Date	Available
1223092	5CALCR - NORFORK 161KV CKT 1 SWPA	6/1/2009	6/1/2009		
	ARKOMA - FT SMITHW 161KV CKT 1	6/1/2017	6/1/2017		
	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		No
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013		
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2010		Yes
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 AEPW	6/1/2009	6/1/2011		No
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 OKGE	6/1/2009	6/1/2011		No
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	6/1/2009	6/1/2009		
	EAST 20MVAR CAPACITOR	6/1/2012	6/1/2012		
	EDMOND SUB	6/1/2009	12/1/2009		Yes
	Freeman to Harrisonville West 69 kV	6/1/2009	6/1/2009		
	FT SMITH CAP BANK	6/1/2017	6/1/2017		
	JONES - JONESBORO 161KV CKT 1 SWPA	6/1/2008	1/1/2009		No
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 AEPW	6/1/2009	6/1/2011		Yes
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 OKGE	6/1/2009	6/1/2011		Yes
	NORTON 161KV CAPACITOR	6/1/2013	6/1/2013		
	REDEL - STILWELL 161KV CKT 1	6/1/2008	6/1/2010		Yes
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	WEST GARDNER (WGARD 11) 345-161-13 8KV TRANSFORMER CKT 11	6/1/2008	6/1/2009		Yes
1223093	5CALCR - NORFORK 161KV CKT 1 SWPA	6/1/2009	6/1/2009		
	ARKOMA - FT SMITHW 161KV CKT 1	6/1/2017	6/1/2017		
	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		No
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013		
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2010		Yes
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 AEPW	6/1/2009	6/1/2011		No
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 OKGE	6/1/2009	6/1/2011		No
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	6/1/2009	6/1/2009		
	EAST 20MVAR CAPACITOR	6/1/2012	6/1/2012		
	EDMOND SUB	6/1/2009	12/1/2009		Yes
	Freeman to Harrisonville West 69 kV	6/1/2009	6/1/2009		
	FT SMITH CAP BANK	6/1/2017	6/1/2017		
	JONES - JONESBORO 161KV CKT 1 SWPA	6/1/2008			No
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 AEPW	6/1/2009			Yes
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 OKGE	6/1/2009	6/1/2011		Yes
	NORTON 161KV CAPACITOR	6/1/2013			
	REDEL - STILWELL 161KV CKT 1	6/1/2008			Yes
	SUB 124 - AURORA H.T. 161KV	6/1/2010			
	WEST GARDNER (WGARD 11) 345-161-13 8KV TRANSFORMER CKT 11	6/1/2008			Yes

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

1223094	5CALCR - NORFORK 161KV CKT 1 SWPA	6/1/2009	6/1/2009	
	ARKOMA - FT SMITHW 161KV CKT 1	6/1/2017	6/1/2017	
	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2008	6/1/2010	Yes
	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2008	6/1/2010	Yes
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010	No
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013	
	Centerville Cap Bank	6/1/2009	6/1/2010	No
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2010	Yes
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 AEPW	6/1/2009	6/1/2011	No
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 OKGE	6/1/2009	6/1/2011	No
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	6/1/2009	6/1/2009	
	EAST 20MVAR CAPACITOR	6/1/2012	6/1/2012	
	EDMOND SUB	6/1/2009	12/1/2009	Yes
	Freeman to Harrisonville West 69 kV	6/1/2009	6/1/2009	
	FT SMITH CAP BANK	6/1/2017	6/1/2017	
	JONES - JONESBORO 161KV CKT 1 SWPA	6/1/2008	1/1/2009	No
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 AEPW	6/1/2009	6/1/2011	Yes
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 OKGE	6/1/2009	6/1/2011	Yes
	NORTON 161KV CAPACITOR	6/1/2013	6/1/2013	
	REDEL - STILWELL 161KV CKT 1	6/1/2008	6/1/2010	Yes
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010	
	WEST GARDNER (WGARD 11) 345-161-13 8KV TRANSFORMER CKT 11	6/1/2008	6/1/2009	Yes
1223095	5CALCR - NORFORK 161KV CKT 1 SWPA	6/1/2009	6/1/2009	
	ARKOMA - FT SMITHW 161KV CKT 1	6/1/2017	6/1/2017	
	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2008	6/1/2010	Yes
	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2008	6/1/2010	Yes
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010	No
	BROOKLINE - SUMMIT 345 kV CKT 1	6/1/2013	6/1/2013	
	Centerville Cap Bank	6/1/2009	6/1/2010	No
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2010	Yes
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 AEPW	6/1/2009	6/1/2011	No
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 OKGE	6/1/2009	6/1/2011	No
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	6/1/2009	6/1/2009	
	EAST 20MVAR CAPACITOR	6/1/2012	6/1/2012	
	EDMOND SUB	6/1/2009	12/1/2009	Yes
	Freeman to Harrisonville West 69 kV	6/1/2009	6/1/2009	
	FT SMITH CAP BANK	6/1/2017	6/1/2017	
	JONES - JONESBORO 161KV CKT 1 SWPA	6/1/2008	1/1/2009	No
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 AEPW	6/1/2009	6/1/2011	Yes
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 OKGE	6/1/2009	6/1/2011	Yes
	NORTON 161KV CAPACITOR	6/1/2013	6/1/2013	
	REDEL - STILWELL 161KV CKT 1	6/1/2008	6/1/2010	Yes
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010	
	WEST GARDNER (WGARD 11) 345-161-13 8KV TRANSFORMER CKT 11	6/1/2008	6/1/2009	Yes

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1223092	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		
1223093	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		
1223094	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		
1223095	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

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

•				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1223092	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2008	6/1/2010		Yes
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2008	6/1/2010		Yes
	MUSKOGEE - PECAN CREEK 345KV CKT 1	6/1/2009			
	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2008			Yes
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2008	6/1/2010		Yes
	MUSKOGEE - PECAN CREEK 345KV CKT 1	6/1/2009			
1223094	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2008	6/1/2010		Yes
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2008	6/1/2010		Yes
	MUSKOGEE - PECAN CREEK 345KV CKT 1	6/1/2009	6/1/2009		
1223095	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2008	6/1/2010		Yes
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2008	6/1/2010		Yes
	MUSKOGEE - PECAN CREEK 345KV CKT 1	6/1/2009	6/1/2009		

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

				Earliest Service	Redispatch	Alloca	ited E & C	İ
rvation	Upgrade Name	COD	EOC	Start Date	Available	Cost		Total E & C
1223092	5BEE BR - QUITMAN 161KV CKT 1	6/1/2009	6/1/2009			\$		\$
	5CLINTN - CLINTON WEST (AECC) 161KV CKT 1	6/1/2012	6/1/2012			\$		\$
	5HILLTOP 161.00 - 5ST JOE 161.00 161KV CKT 1	6/1/2017	6/1/2017			\$		Š
	5ST JOE 161.00 - EVERTON 161KV CKT 1	10/1/2008	10/1/2008			\$		Š
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 ENTR	6/1/2009	6/1/2011		No	\$		Š
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 ENTR	6/1/2009	6/1/2009		140	\$		S
	EVERTON - HARRISON-EAST 161KV CKT 1	10/1/2008	10/1/2008		1	\$		\$
	GEORGETOWN - SEDALIA 161 CKT 1	5/1/2010	5/1/2010			\$	13,108	
	JONES - JONESBORO 161KV CKT 1 ENTR	6/1/2008	6/1/2008		+	\$	13,100	\$ 700
					.,			
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 ENTR	6/1/2009	6/1/2011		Yes	\$		\$
	MARYVILLE - MARYVILLE 161KV CKT 1 AECI	6/1/2012	6/1/2012			\$		\$
	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	6/1/2009	6/1/2009			\$	-	\$
	STILWELL 345/161KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$	-	\$
	THOMAS HILL (THOMAS H) 345/161/13.8KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$	-	\$
						\$	13,108	\$ 780
1223093	5BEE BR - QUITMAN 161KV CKT 1	6/1/2009	6/1/2009			\$	-	\$
	5CLINTN - CLINTON WEST (AECC) 161KV CKT 1	6/1/2012	6/1/2012			\$	-	\$
	5HILLTOP 161.00 - 5ST JOE 161.00 161KV CKT 1	6/1/2017	6/1/2017			\$		\$
	5ST JOE 161.00 - EVERTON 161KV CKT 1	10/1/2008	10/1/2008			\$		Š
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 ENTR	6/1/2009	6/1/2011		No	\$		\$
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 ENTR	6/1/2009	6/1/2009			\$		Š
	EVERTON - HARRISON-EAST 161KV CKT 1	10/1/2008	10/1/2008			\$		Š
	GEORGETOWN - SEDALIA 161 CKT 1	5/1/2010	5/1/2010			\$	13,108	
	JONES - JONESBORO 161KV CKT 1 ENTR	6/1/2008	6/1/2008			\$	10,100	\$
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 ENTR	6/1/2009	6/1/2011		Yes	\$		\$
		6/1/2009	6/1/2011		res	\$		\$
	MARYVILLE - MARYVILLE 161KV CKT 1 AECI							
	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	6/1/2009	6/1/2009			\$	-	\$
	STILWELL 345/161KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$		\$
	THOMAS HILL (THOMAS H) 345/161/13.8KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$		\$
						\$	13,108	
1223094	5BEE BR - QUITMAN 161KV CKT 1	6/1/2009	6/1/2009			\$	-	\$
	5CLINTN - CLINTON WEST (AECC) 161KV CKT 1	6/1/2012	6/1/2012			\$	-	\$
	5HILLTOP 161.00 - 5ST_JOE 161.00 161KV CKT 1	6/1/2017	6/1/2017			\$	-	\$
	5ST_JOE 161.00 - EVERTON 161KV CKT 1	10/1/2008	10/1/2008			\$	-	\$
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 ENTR	6/1/2009	6/1/2011		No	\$	-	\$
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 ENTR	6/1/2009	6/1/2009			\$	-	\$
	EVERTON - HARRISON-EAST 161KV CKT 1	10/1/2008	10/1/2008			\$	-	\$
	GEORGETOWN - SEDALIA 161 CKT 1	5/1/2010	5/1/2010			\$	13,108	\$ 780
	JONES - JONESBORO 161KV CKT 1 ENTR	6/1/2008	6/1/2008			\$	-	\$
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 ENTR	6/1/2009	6/1/2011		Yes	\$		S
	MARYVILLE - MARYVILLE 161KV CKT 1 AECI	6/1/2012	6/1/2012			\$		Š
	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	6/1/2009	6/1/2009		1	\$		\$
	STILWELL 345/161KV TRANSFORMER CKT 1	6/1/2017	6/1/2017		 	\$		S
	THOMAS HILL (THOMAS H) 345/161/13.8KV TRANSFORMER CKT 1	6/1/2017	6/1/2017		1	\$		\$
	THOWAS THEE (THOWAS TI) 343/101/13.0KV TIXANSI SIKWEK SKI I	0/1/2017	0/1/2017		+	_	40.465	
					1	\$	13,108	
1223095	5BEE BR - QUITMAN 161KV CKT 1	6/1/2009	6/1/2009		1	\$		\$
	5CLINTN - CLINTON WEST (AECC) 161KV CKT 1	6/1/2012	6/1/2012		1	\$		\$
	5HILLTOP 161.00 - 5ST_JOE 161.00 161KV CKT 1	6/1/2017	6/1/2017			\$	-	\$
	5ST_JOE	10/1/2008	10/1/2008			\$	-	\$
	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 ENTR	6/1/2009	6/1/2011		No	\$	-	\$
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 ENTR	6/1/2009	6/1/2009			\$		\$
	EVERTON - HARRISON-EAST 161KV CKT 1	10/1/2008	10/1/2008			\$	-	\$
	GEORGETOWN - SEDALIA 161 CKT 1	5/1/2010	5/1/2010			\$	13,108	\$ 780
	JONES - JONESBORO 161KV CKT 1 ENTR	6/1/2008	6/1/2008			\$		\$
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 ENTR	6/1/2009	6/1/2011		Yes	\$		\$
	MARYVILLE - MARYVILLE 161KV CKT 1 AECI	6/1/2012	6/1/2012			\$		S
	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	6/1/2012	6/1/2009		1	\$		\$
					+			
	STILWELL 345/161KV TRANSFORMER CKT 1 THOMAS HILL (THOMAS H) 345/161/13.8KV TRANSFORMER CKT 1	6/1/2017 6/1/2017	6/1/2017 6/1/2017		1	\$		\$

Customer Study Number UCU AG1-2007-092

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
UCU	1223102	MPS	MPS	315	5/1/2010	5/1/2030	6/1/2010	6/1/2030	\$ -	\$ -	\$ 30,142,014	\$ 87,703,464
									\$ -	\$ -	\$ 30,142,014	\$ 87,703,464

				Earliest Service	Redispatch	Allo	ocated E & C			Tota	l Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cos	st	Total	E & C Cost	Req	uirements
1223102	COOK - LAKE ROAD 161KV CKT 1	6/1/2012	6/1/2012			\$	2,624,118	\$	6,500,000	\$	7,413,140
	COOK - ST JOE 161KV CKT 1	6/1/2010	6/1/2010			\$	1,894,285	\$	4,400,000	\$	6,121,679
	EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012	6/1/2012			\$	226,778	\$	550,000	\$	640,607
	GEORGETOWN - SEDALIA 161KV CKT 1 MIPU	6/1/2010	6/1/2010			\$	3,991,493	\$	4,000,000	\$	12,583,527
	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 MIPU	6/1/2010	6/1/2010			\$	2,394,415	\$	2,400,000	\$	7,548,600
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009			\$	2,378,367	\$	4,700,000	\$	7,945,660
	GRANDVIEW EAST - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010			\$	79,802	\$	180,000	\$	257,876
	HALLMARK - RITCHFIELD 161KV CKT 1	6/1/2017	6/1/2017			\$	173,854	\$	180,000	\$	333,520
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009			\$	91,086	\$	180,000	\$	304,301
	KNOB NOSTER - SEDALIA WEST NORTH BUS 69KV CKT 1	6/1/2013	6/1/2013			\$	6,000,000	\$	6,000,000	\$	15,349,428
	LONGVIEW - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010			\$	76,952	\$	180,000	\$	248,666
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010			\$	620,323	\$	2,160,000	\$	2,642,648
	MARYVILLE - MARYVILLE 161KV CKT 1 MIPU	6/1/2012	6/1/2012			\$	-	\$	-	\$	-
	RITCHFIELD - SIBLEY 161KV CKT 1	6/1/2015	6/1/2015			\$	173,854	\$	180,000	\$	385,776
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010	5/1/2010			\$	3,244,223	\$	3,500,000	\$	10,346,513
	ST JOE - WOODBINE 161KV CKT 1	6/1/2012	6/1/2012			\$	1,544,464	\$	2,300,000	\$	4,363,114
	WARRENSBURG EAST - WARRENSBURG PLANT 69KV CKT 1	6/1/2012	6/1/2012			\$	2,450,000	\$	2,450,000	\$	6,723,080
	WARRENSBURG EAST 161/69KV TRANSFORMER CKT 1	6/1/2016	6/1/2016			\$	2,178,000	\$	2,178,000	\$	4,495,329
					Total	\$	30,142,014	\$	42,038,000	\$	87,703,464

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1223102	ANTIOCH - OXFORD 161KV CKT 1	6/1/2008	6/1/2010		Yes
	AVONDALE - GLADSTONE 161KV CKT 1	6/1/2010	6/1/2010		
	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		No
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	EAST 20MVAR CAPACITOR	6/1/2012	6/1/2012		
	EDMOND SUB	6/1/2009	12/1/2009		No
	REDEL - STILWELL 161KV CKT 1	6/1/2008	6/1/2010		Yes
	WEST GARDNER (WGARD 11) 345-161-13 8KV TRANSFORMER CKT 11	6/1/2008	6/1/2009		No

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1223102	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

Potential reservation deferral and redispatch requirement on the following upgrades due to positive MW Impact on limitations that require upgrade. No cost assignment due to negative MW impact on defined upgrade.

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Start Date	Available
1223102	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No

				Earliest Service	Redispatch	Allocated E &	
Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost	Total E & C Cost
1223102	GEORGETOWN - GEORGETOWN TAP 2 69KV CKT 1	5/1/2010	5/1/2010			\$ 159,552	\$ 160,000
	GEORGETOWN - SEDALIA 161 CKT 1	5/1/2010	5/1/2010			\$ 722,998	\$ 780,000
	GEORGETOWN - SEDALIA 161KV CKT 1 AECI	6/1/2010	6/1/2010			\$ 3,991,493	\$ 4,000,000
	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 AECI	6/1/2010	6/1/2010			\$ 498,836	\$ 500,000
	GEORGETOWN (GEORGETO) 161/69/13.2KV TRANSFORMER CKT 1	5/1/2010	5/1/2010			\$ 1,000,000	\$ 1,000,000
	GEORGETOWN TAP 2 - SEDALIA 69KV CKT 1	5/1/2010	5/1/2010			\$ 1,200,000	\$ 1,200,000
	MARYVILLE - MARYVILLE 161KV CKT 1 AECI	6/1/2012	6/1/2012			\$ -	\$ -
	THOMAS HILL (THOMAS H) 345/161/13.8KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$ -	\$ -
					Total	\$ 7,572,879	\$ 7,640,000

Customer Study Number WFEC AG1-2007-014

				Requested	Requested		Deferred Start Date Without	Potential Base Plan Funding		Allocated E &	Total Revenue
Customer	Reservation	POR									Requirements
WFEC	1217632	WFEC	WFEC	150	1/1/2011	1/1/2036		\$ 50,000	\$ -	\$ 1,241,176	\$ 155,461
								\$ 50,000	\$ -	\$ 1,241,176	\$ 155,461

				Earliest Service	Redispatch	Allo	cated E & C	:		Total Re	evenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cos	st	Total	E & C Cost	Require	ments
1217632	CLARKSVILLE - DARDANELLE 161KV CKT 1	6/1/2012	6/1/2012			\$	1,191,176	\$	3,000,000	\$	-
	ROCKY POINT - SUNNYSIDE 138KV CKT 1	6/1/2017	6/1/2017			\$	50,000	\$	50,000	\$	155,461
					Total	\$	1.241.176	\$	3.050.000	\$	155,461

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1217632	ACME - WEST NORMAN 69KV CKT 1	6/1/2012	6/1/2012		
	CANADIAN - CEDAR LANE 138KV CKT 1	6/1/2012	6/1/2012		
	COLBERT - TEXOMA 138 KV CKT 1	6/1/2012	6/1/2012		
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	6/1/2009	6/1/2009		
	FRANKLIN SW - MIDWEST TAP 138KV CKT 1 OKGE	6/1/2012	6/1/2012		
	FRANKLIN SW - MIDWEST TAP 138KV CKT 1 WFEC	6/1/2012	6/1/2012		
	FRANKLIN SW 138/69KV TRANSFORMER CKT 1	6/1/2012	6/1/2012		
	FT SMITH CAP BANK	6/1/2017	6/1/2017		
	HAMMETT - MEEKER 138KV CKT 1	6/1/2012	6/1/2012		
	Norman Area Voltage Conversion	6/1/2012	6/1/2012		
	PAOLI 138/69KV TRANSFORMER CKT 1	12/1/2012	12/1/2012		
	RUSSETT - RUSSETT 138KV CKT 1 OKGE	6/1/2017	6/1/2017		
	RUSSETT - RUSSETT 138KV CKT 1 WFEC	6/1/2017	6/1/2017		
	WOODWARD - WOODWARD 69KV CKT 1	12/1/2012	12/1/2012		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1217632	ARCADIA - REDBUD 345 KV CKT 1	6/1/2006	6/1/2006		
	ARCADIA - REDBUD 345 KV CKT 2	6/1/2006	6/1/2006		
	FPL SWITCH - MOORELAND 138KV CKT 1 OKGE	6/1/2006	4/1/2008		
	FPL SWITCH - MOORELAND 138KV CKT 1 WFEC	6/1/2006	4/1/2008		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	5/1/2010	5/1/2010		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	5/1/2010	5/1/2010		

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

		•							Earliest Service	Redispatch
Reservation	Upgrade Name					COD	EOC		Date	Available
1217632	LANE - ATOKA	- TUPELO 138KV				6/1/2017		6/1/2017		
	MUSKOGEE - F	PECAN CREEK 345KV C	KT 1			6/1/2009		6/1/2009		

				Earliest Service	Redispatch	Allocated E &	
Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost	Total E & C Cost
1217632	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 ENTR	6/1/2009	6/1/2009			\$ -	\$ -
	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	6/1/2009	6/1/2009			\$	\$
					Total	\$ -	\$ -

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

Customer Study Number WRGS AG1-2007-001D

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
WRGS	1197077	EDE	WR	32	9/1/2007	9/1/2018	6/1/2011	6/1/2022	\$ 156,491	\$ -	\$ 156,491	\$ 368,774
									\$ 156,491	\$ -	\$ 156,491	\$ 368,774

				Earliest Service	Redispatch	Alloca	ted E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1197077	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2010	6/1/2010			\$	2,276	\$ 200,000	\$ 6,072
	DEARING 138KV Capacitor Displacement	6/1/2010	6/1/2010			\$	1,070	\$ 94,020	\$ 2,855
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013			Yes	\$	29,285	\$ 534,485	\$ 65,342
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2009			Yes	\$	3,672	\$ 428,963	
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2009	6/1/2011		Yes	\$	11,742	\$ 398,438	\$ 29,832
	East Manhattan to Mcdowell 230 kV Displacement	6/1/2009	6/1/2011		Yes	\$	115	\$ 128,528	\$ 292
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010			\$	4,987	\$ 59,633	\$ 13,304
	JOPLIN 59 - SUB 439 - STATELINE 161KV CKT 1 Displacement	6/1/2011	6/1/2011			\$	43,151	\$ 774,301	\$ 101,763
	JOPLIN 59 - SUB 59 - JOPLIN 26TH ST. 161/69kV TRANSFORMER CKT 1 Displacement	6/1/2011	6/1/2011			\$	55,274	\$ 991,833	\$ 130,352
	LITCHFIELD - AQUARIUS - HUDSON JUNCTION 69KV CKT 1 Displacement	6/1/2014	6/1/2014			\$	3,844	\$ 3,844	\$ 6,770
	SUB 389 - JOPLIN SOUTHWEST - SUB 422 - JOPLIN 24TH & CONNECTICUT 161KV CKT 1 Displa	6/1/2008	11/1/2008		Yes	\$	85	\$ 85	\$ 222
	SUNFLOWER 69KV Capacitor Displacement	6/1/2010	6/1/2010			\$	990	\$ 87,055	\$ 2,641
					Total	\$	156,491	\$ 3,701,185	\$ 368,774

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1197077	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2016	6/1/2016		
	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2008	6/1/2010		Yes
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		No
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	CIRCLE - SANDHILL ARK VALLEY CO-OP D.P. JUNCTION 115 KV CKT 1	6/1/2010	6/1/2010		
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2010		Yes
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	Fort Scott - SW Bourbon 161 kV	6/1/2010	6/1/2010		
	FT SMITH CAP BANK	6/1/2017	6/1/2017		
	GILL ENERGY CENTER EAST - INTERSTATE 138KV CKT 1	6/1/2016	6/1/2016		
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	SANDHILL ARK VALLEY CO-OP D.P. JUNCTION - TOWER 33 115 KV CKT 1	6/1/2010	6/1/2010		
	STRANGER CREEK - NW LEAVENWORTH 115KV	6/1/2010	6/1/2010		
	STRANGER CREEK TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	SUB 124 - AURORA H.T SUB 383 - MONETT 161KV CKT 1	6/1/2016	6/1/2016		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	SUB 145 - JOPLIN WEST 7TH - SUB 341 - JOPLIN NORTHWEST 69KV CKT 1	6/1/2009	6/1/2010		Yes
	SUB 383 - MONETT (MONETT) 161/69/12.5KV TRANSFORMER CKT 1	6/1/2014	6/1/2014		
	Summit - NE Saline 115 kV	12/1/2007	6/1/2010		Yes
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009		
	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		

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

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1197077	ARCADIA - REDBUD 345 KV CKT 1	6/1/2006	6/1/2006		
	ARCADIA - REDBUD 345 KV CKT 2	6/1/2006	6/1/2006		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	6/1/2009	6/1/2009		
	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		
	WICHITA - RENO 345KV	6/1/2009	6/1/2009		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1197077	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2008	6/1/2010		Yes
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2008	6/1/2010		Yes
	SUMMIT - RENO 345KV	4/1/2008	6/1/2010		Yes
	WICHITA - RENO 345KV	12/1/2007	6/1/2009		Yes

Potential reservation deferral and redispatch requirement on the following upgrades due to positive MW Impact on limitations that require upgrade. No cost assignment due to negative MW impact on defined upgrade.

				Earliest Service	
Reservation	Upgrade Name	COD	EOC	Start Date	Available
	ALLEN 69KV Capacitor	12/1/2007	6/1/2010		No
	ATHENS 69KV Capacitor	12/1/2007	6/1/2010		No
	Athens to Owl Creek 69 kV	6/1/2008	6/1/2010		Yes
	BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV CKT 1	6/1/2008	6/1/2010		No
	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2008	6/1/2010		No
	COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	6/1/2008	6/1/2010		No
	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No
	Green to Vernon 69 kV	6/1/2008	6/1/2010		No
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No
	LEHIGH TAP - OWL CREEK 69KV CKT 1	6/1/2008	6/1/2010		No
	TIOGA 69KV Capacitor	12/1/2007	6/1/2010		No
	Vernon to Athens 69 kV	6/1/2008	6/1/2010		No

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

Customer Study Number WRGS AG1-2007-047D

							Deferred Start	Deferred Stop	Potential Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan Funding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
WRGS	1222005	WR	EES	106	10/1/2007	10/1/2010	6/1/2010	6/1/2013	\$ -	\$ 3,434,400	\$ 1,989,665	\$ 4,438,595
									\$ -	\$ 3,434,400	\$ 1,989,665	\$ 4,438,595

				Earliest Service	Redispatch	Allo	cated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cos	t	Total E & C Cost	Requirements
1222005	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No	\$	484,786	\$ 3,000,000	\$ 1,112,
	Craig (542978) Cap Bank Phase 2	6/1/2010				\$	484,786	\$ 3,000,000	
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008			Yes	\$	230,217		
	GRANDVIEW EAST - SAMPSON 161KV CKT 1	6/1/2009				\$	9,936		
	Hawthorn and W Gardner Cap Banks	6/1/2009			No	\$	565,583	\$ 3,500,000	
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	8,817	\$ 180,000	
	LONGVIEW - SAMPSON 161KV CKT 1	6/1/2009	6/1/2010			\$	10,218	\$ 180,000	
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009			Yes	\$	53,739	\$ 2,160,000	
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009				\$	56,487		
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacemer	6/1/2010	6/1/2010			\$	85,096	\$ 526,599	\$ 199,
					Total	\$	1,989,665	\$ 17,685,012	\$ 4,438,5

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1222005	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		No
	Centerville Cap Bank	6/1/2009	6/1/2010		No
	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	6/1/2011	6/1/2011		
	REDEL - STILWELL 161KV CKT 1	6/1/2008	6/1/2010		Yes
	STRANGER CREEK - NW LEAVENWORTH 115KV	6/1/2010	6/1/2010		
	STRANGER CREEK TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1222005	HUGO POWER PLANT - VALLIANT 345 KV AEPW	5/1/2010	5/1/2010		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	5/1/2010	5/1/2010		
	SUMMIT - RENO 345KV	6/1/2010	6/1/2010		

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 Date Available

1222005 SUMMIT - RENO 345KV 4/1/2008 6/1/2010 Yes

WICHITA - RENO 345KV 12/1/2007 6/1/2009 Yes

Transmission Owner	Upgrade	Solution	Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AEPW	LOCUST GROVE - LONE STAR 115KV CKT 1	Rebuild 2.15 miles of 266 ACSR with 795 ACSF	6/1/2017	6/1/201	7 \$1,935,000.00
EMDE	JOPLIN 59 - SUB 439 - STATELINE 161KV CKT 1 Displacement	Install new line from Sub #439 to new Sub Joplin 59	6/1/201	6/1/201	1 \$774,300.74
EMDE	JOPLIN 59 - SUB 59 - JOPLIN 26TH ST. 161/69kV TRANSFORMER CKT 1 Displacement	Install 3-wind transformer from 161 kV Joplin 59 bus to Sub #59 Joplin 26th S	6/1/201	6/1/201	1 \$991,833.45
		Reconductor line from Sub #80 to Sub #170 from 1/0 CU to 556 ACSR and replace			
EMDE	SUB 170 - NICHOLS ST SUB 80 - MARSHFIELD JCT. 69KV CKT 1	Jumpers in Sub #80	6/1/2009	6/1/2010	\$3,000,000.00
EMDE	SUB 389 - JOPLIN SOUTHWEST - SUB 422 - JOPLIN 24TH & CONNECTICUT 161KV CKT 1 Displacement	Change CT Ratio at Sub #389 on Breaker #16170 for 268 MVA Rate B	6/1/2000	10/30/200	\$84.60
KACP	Craig (542978) Cap Bank Phase '	add 150 Mvar cap bnk Craig 542978 during the 09SP and abov	6/1/2009		\$3,000,000.00
KACP	Craig (542978) Cap Bank Phase :	add 150 Mvar cap bnk Craig 542978	6/1/2010		
KACP	Hawthorn and W Gardner Cap Banks	New Hawthorn 100 MVAR cap bank, New West Gardner 100 MVAR cap bank	6/1/2009	6/1/2010	\$3,500,000.00
KACP	MARTIN CITY - REDEL 161KV CKT 1	reconductor 1192 acss upgrade terminal equip 2000 am	6/1/2009	6/1/2010	
ICAGI	WANTINGTH - REBEE TOTAL ONLY	New West Gardner 50 MVAR cap bank. West Gardner 345 kV Tap on Stilwell-Swissvali	0/1/200	0/1/2011	92,100,000.00
KACP	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	line	6/1/2010	6/1/2010	\$526,598,53
MIPU	COOK - LAKE ROAD 161KV CKT 1	Reconductor	6/1/2012	6/1/201	\$6,500,000,00
	COOK - ST JOE 161KV CKT 1				
MIPU		Conductor, Switch, Relay	6/1/2010		
MIPU	EAST - INDUSTRIAL PARK 161KV CKT 1	increase clearance limit and replace switch	6/1/2012		\$550,000.00
MIPU	GEORGETOWN - SEDALIA 161KV CKT 1 MIPU	Rebuild 161kV line from Sedalia West – George Town to a bundled 795 26/7 ACS	6/1/2010		\$4,000,000.00
MIPU	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 MIPU	New 161kV line from new plant site George Town, built for a bundled 795 26/7 ACS	6/1/2010		\$2,400,000.00
MIPU	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	Reconductor to Bundled Drake	6/1/2008		\$4,700,000.00
MIPU	GRANDVIEW EAST - SAMPSON 161KV CKT 1	replace wavetrap:	6/1/2009	6/1/2010	\$180,000.00
MIPU	HALLMARK - RITCHFIELD 161KV CKT 1	replace wavetrap:	6/1/2017	6/1/201	\$180,000.00
MIPU	KC SOUTH - LONGVIEW 161KV CKT 1	replace wavetraps	6/1/2008		
MIPU	KNOB NOSTER - SEDALIA WEST NORTH BUS 69KV CKT 1	Rebuild Sedalia North - Knobnoster 69kV line to at least a 477 26/7 ACSR conduct	6/1/2013	6/1/2013	\$6,000,000.00
MIPU	LONGVIEW - SAMPSON 161KV CKT 1	replace wavetrap:	6/1/2009	6/1/2010	\$180,000.00
MIPU	MARYVILLE - MARYVILLE 161KV CKT 1 MIPU	Indeterminate	6/1/2012	6/1/2012	\$0.00
MIPU	RITCHFIELD - SIBLEY 161KV CKT 1	replace wavetraps	6/1/2015		\$180,000.00
MIPU	SEDALIA - SEDALIA SUB 161KV CKT 1	Line rebuild to bundled 795 26/7 ACSR conducto	5/1/2010		\$3,500,000.00
MIPU	ST JOE - WOODBINE 161KV CKT 1	reconductor	6/1/2012		\$2,300,000.00
MIPU	WARRENSBURG EAST - WARRENSBURG PLANT 69KV CKT 1	Upgrade line to 795 26/7 ACSR conducto	6/1/2012		2 \$2,300,000.00
MIPU	WARRENSBURG EAST 161/69KV TRANSFORMER CKT 1	upgrade transformer	6/1/201		\$2,450,000.00
OKGE	3RDST - ARKOMA 161KV CKT 1	Replace 8-1200A switches & 2-wave traps	6/1/2017		7 \$1,300,000.00 7 \$50,000.00
	ROCKY POINT - SUNNYSIDE 138KV CKT 1	Reset CT at Rocky Poin	6/1/2017		
SPRM	SOUTHWEST - SOUTHWEST DISPOSAL 161KV CKT 1	Reconductor 1192 AAC with 1158.4 ACSS/TW	6/1/2013		\$246,000.00
SWPA	CLARKSVILLE - DARDANELLE 161KV CKT 1	Reconductor Clarksville-Dardanelle lin	6/1/2012		\$3,000,000.00
WERE	ALLEN 69KV Capacitor	Allen 69 kV 15 MVAR Capacitor Additior	12/1/200	6/1/2010	\$500,000.00
WERE	ARKANSAS CITY - PARIS 69KV CKT 1 #1 Displacement	Replace Disconnect Switches and Bus Jumpers at Paris and Ark City 69 kV substations	6/1/2008	6/1/2010	\$8,705.77
WERE	ASH GROVE JCT2 - TIOGA 69KV CKT 1	Rebuild 2.13 miles	6/1/2010	6/1/2010	\$767,000.00
WERE	ATHENS 69KV Capacitor	Athens 69 kV 15 MVAR Capacitor Addition	12/1/200		\$500,000.00
WERE	Athens to Owl Creek 69 k\	Rebuild 2.93 miles Athens to Owl Creek 69 kV (138kV/69kV Operation	6/1/2008		\$1,055,000.00
WERE	BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV CKT 1	Rebuild 7.2 miles (138kV/69kV Operation	6/1/2008		\$2,600,000.00
WERE	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	Rebuild 4.1 miles (138kV/69kV Operation	6/1/2000	6/1/2010	\$1,480,000.00
WERE	CHANUTE TAP - TIOGA 69KV CKT 1	Replace Jumpers	6/1/2010		
WERE	CITY OF IOLA - UNITED NO. 9 CONGER 69KV CKT 1	Tear down / Rebuild 4-mile 69 kV line; 954 kcmiol ACSI	6/1/200		
	CITY OF WINFIELD - RAINBOW 69KV CKT 1	Rebuild 3.99-mile Rainbow-Winfield 69 kV line, 954 ACSI	6/1/200	6/1/2010	\$1,560,000.00
WERE					
WERE	COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	Rebuild 9.22 miles (138kV/69kV Operation	6/1/2000		
WERE	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	Replace Disconnect Switches, Wavetrap, Breaker, Jumper	6/1/2010		
WERE	CRESWELL - OAK 69KV CKT 1 #1 Displacement	Replace jumpers and bus, and reset CTs and relaying. Rebuild substation	6/1/2008	6/1/2010	\$32,132.19
WERE	CRESWELL - OAK 69KV CKT 1 #2 Displacement	Rebuild 5.82 miles	6/1/2008		
WERE	DEARING 138KV Capacitor Displacemen	Dearing 138 kV 20 MVAR Capacitor Addition	6/1/2010		\$94,019.80
WERE	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	Rebuild 27 miles 345kV construction operated as 230k	6/1/2013	6/1/201:	\$534,484.83
WERE	East Manhattan - SW Manhattan 115kV Displacemer	Build new 115kV line from East Manhattan to new SW Manhattan substatic	6/1/2009	6/1/201	1 \$428,963.26
WERE	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	Add second parallel 230-115kV transformer at E Manhatta	6/1/2009	6/1/201	1 \$398,437.90
		The East Manhattan-McDowell 115 kV is built as a 230 kV line, but is operated at 115 k'	1	1	
WERE	East Manhattan to Mcdowell 230 kV Displacement	Substation work will have to be performed in order to convert this line.	6/1/2009	6/1/201	\$128,528.09
WERE	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	Replace Disconnect Switches, Wavetrap, Breaker, Jumper	6/1/2010	6/1/2010	\$59,633.42
WERE	Green to Vernon 69 kV	Rebuild 7.19 miles Green to Vernon 69 kV (138kV/69kV Operation	6/1/2008		
WERE	LEHIGH TAP - OWL CREEK 69KV CKT 1	Tear down / Rebuild 8.47-mile 69 kV line; 954 kcmil ACSI	6/1/2008		\$2,900,000.00
WERE	LEHIGH TAP - UNITED NO. 9 CONGER 69KV CKT 1	Tear down / Rebuild 0.91-mile 69 kV line; 954 kcmiol ACS	6/1/200		\$310,000.00
WERE	LITCHFIELD - AQUARIUS - HUDSON JUNCTION 69KV CKT 1 Displacement	Replace 69 kV disconnect switches at Aquarius	6/1/2014		\$3.843.96
WERE	OAK - RAINBOW 69KV CKT 1	Tear down / Rebuild 5.10-mile Oak-Rainbow 69 kV using 954 kcmil ACS	6/1/2008		
WERE					
	OXFORD 138KV Capacitor Displacemen	Install 30 MVAR Capacitor Bank at Oxford 138 k	6/1/2000		\$174,110.82
WERE WERE	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1 Displacement	Rebuild 5.43 mile Rose Hill Junction-Richland as a 138 kV line but operate at 69 k	12/1/200		\$413,284.06
	SUNFLOWER 69KV Capacitor Displacement	Sunflower 69 kV 15 MVAR Capacitor Addition	6/1/2010		\$87,055.39
WERE	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	Convert 161 kV Line to 115 kV Operatio	6/1/2009		
WERE	TIOGA 69KV Capacitor	Tioga 69 kV 15 MVAR Capacitor Additior	12/1/200		\$500,000.00
WERE	Vernon to Athens 69 kV	Rebuild 5.17 miles Green to Vernon 69 kV (138kV/69kV Operation	6/1/2008	6/1/2010	\$1,862,000.0

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

Transmission			Upgrade Required	Estimated Date of Upgrade Completion
Owner	Upgrade Control of the Control of th	Solution	(COD)	(EOC)
AEPW	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	Tie Line, Reconductor 1.09 miles of 795 ACSR with 1590 ACSR	6/1/2008	6/1/2010
		Increase CT ration at Pecan Creek from 800-5 to 2000-5 to allow a 1500 amp rating of lir		
OKGE	MUSKOGEE - PECAN CREEK 345KV CKT 1	section.	6/1/2009	
WERE	166TH STREET - JAGGARD JUNCTION 115KV CKT 1	Tear down and rebuild 3.66 mile 166-Jaggard 115 kV line	6/1/2008	6/1/2009
WERE	166TH STREET - JARBALO JUNCTION SWITCHING STATION 115KV CKT 1	Tear down and rebuild 7.22 mile Jarbalo-166 115 kV line	6/1/2008	6/1/2009
WERE	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	Tie Line, Rebuild 3.93 miles of 795 ACSR with 1590 ACSR	6/1/2008	6/1/2010
WERE	JAGGARD JUNCTION - PENTAGON 115KV CKT 1	Tear down and rebuild Jaggard - Pentagon 115 kV line	6/1/2008	6/1/2009
WEDE	SUMMIT DENO ASSOCI	Install new 50.55-mile 345 kV line from Reno county to Summit; 31 miles of 115 kV line between Circle and S Philips would be rebuilt as double circuit with the 345 kV line to	4/4/0000	0/4/2040
WERE	SUMMIT - RENO 345KV	minimize ROW impacts; Substation work required at Summit for new 345 kV terminal	4/1/2008	6/1/2010
WERE	WICHITA - RENO 345KV	40 mile 345 kV transmission line from existing Wichita 345 kV substation to a new 345-115 kV substation in Reno County east northeast of Hutchinson (Wichita to Reno)	12/1/2007	6/1/2009
WERE	WICHITA - RENO 345KV	Build 345kV from Wichita to Reno Co	12/1/2007	
WFEC	LANE - ATOKA - TUPELO 138KV		6/1/2017	

ᅜ	pansion rian r	Frojects - The requested service is contingent upon completion of the foil	lowing upgrades. Cost is not assignable	e to the transmission customer.

Transmission Owner	Upgrade	Solution	Earliest Data Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)
AEPW	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	Rebuild 8.37 miles of 795 ACSR with 1590 ACSR & reset relays @ BSI	6/1/2008	6/1/2010
AEPW	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	Rebuild 13.11 miles of 795 ACSR with 1590 ACSR	6/1/2009	6/1/2010
AEPW	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 AEPW MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 AEPW	Rebuild 17.96 miles of 250 Copperweld with 1272 ACSF	6/1/2009	6/1/2011
AEPW EMDE	JAMESVILLE - SUB 415 - BLACKHAWK JCT. 69KV CKT 1 EMDE	Rebuild 7.43 miles of 250 CWC with 795 ACSF Replace Jumpers to breaker #6950 at Blackhawk Jc	6/1/2009	6/1/2011 6/1/2011
EMDE	SUB 124 - AURORA H.T SUB 152 - MONETT H.T. 69KV CKT 1	Change CT Ratio on breaker #6936 at Aurora #12	6/1/2009	6/1/2009
EMDE	SUB 124 - AURORA H.T SUB 383 - MONETT 161KV CKT 1	Change CT Ratio at Sub #383 on Breaker #16186 for 268 MVA Rate Install 3 - stages of 22 MVAR each for total of 66 MVAR capacitor bank at Aurora Sub #12	6/1/2016	6/1/2016
EMDE EMDE	SUB 124 - AURORA H.T. 161KV SUB 145 - JOPLIN WEST 7TH - SUB 341 - JOPLIN NORTHWEST 69KV CKT 1	bus# 547537 Reconductor 2.25 miles of the line from 59539 to 59574 with 556 conductor	6/1/2010 6/1/2009	6/1/2010 6/1/2010
	OUR AND LORD BUILDING THE COURSE OF THE COUR	Replace Disconnect Switches and Leads on Breaker #6965 at Sub #64 and #6932 at Su		
EMDE EMDE	SUB 145 - JOPLIN WEST 7TH - SUB 64 - JOPLIN 10TH ST. 69KV CKT 1 SUB 152 - MONETT H.T SUB 383 - MONETT 69KV CKT 1	#145 Replace 4/0 Cu jumpers with 500 MCM Cu, new Rate: 54 / 6	6/1/2010	6/1/2010 6/1/2009
EMDE	SUB 271 - BAXTER SPRINGS WEST - SUB 404 - HOCKERVILLE 69KV CKT 1	Change CT Settings for Rate B 61 MVA	12/1/2012	12/1/2012
EMDE	SUB 383 - MONETT (MONETT) 161/69/12.5KV TRANSFORMER CKT 1	Install new line from Sub #383 to new Sub MONETT 5. Install 3-wind transformer from 16 kV new bus to Monett city south 69kV	6/1/2014	
EMDE GRDA	SUB 438 - RIVERSIDE 161KV 412SUB - KANSAS TAP 161KV CKT 1	Install 3 - stages of 22 MVAR each for a total of 66 MVAR capacitor bank at Riverside Su #438 547497 Reconductor 9.7 miles with 1590MCM ACSR	6/1/2010 6/1/2012	6/1/2010 6/1/2012
GRDA	412SUB - KERR 161KV CKT 1	Reconductor 12.5 miles with 1590MCM ACSF	6/1/2012	6/1/2012
GRDA	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1	Rebuild line to 1590 ACSF	6/1/2012	6/1/2012
GRDA	KERR - PENSACOLA 115KV CKT 1	Rebuild 22 miles of line from 4/0 Cu to 795 ACSR for 161k\	12/1/2012	12/1/2012
GRDA	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1	Rebuild line to 1590 ACSF	6/1/2012	6/1/2012
INDN	SUBSTATION M 161/69KV TRANSFORMER CKT 1	Upgrade Transformer	6/1/2010	6/1/2010
KACP KACP	ANTIOCH - OXFORD 161KV CKT 1 AVONDALE - GLADSTONE 161KV CKT 1	Reconductor 5 miles with 1192.5 ACSS, 558 normal/emergency ratir Upgrade Wavetrap at Gladstone from 800 amps to 1200 amp	6/1/2010	6/1/2010 6/1/2010
KACP	Centerville Cap Bani	20 Mvar at Centerville	6/1/2009	6/1/2010
KACP	REDEL - STILWELL 161KV CKT 1	Reconductor line with 1192 ACSS and upgrade terminal equipment for 2000 amp Replace 400/440 Mva Tx with 600/660 Mva T	6/1/2008	6/1/2010
KACP	WEST GARDNER (WGARD 11) 345-161-13_8KV TRANSFORMER CKT 11	Tear down and rebuild 73.4% Ownership 28.79 mile HEC-Huntsville 115 kV line and repla		
MIDW	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 MIDW	CT, wavetrap and relays. Rebuild 26.5 miles Huntsville - St. John 115 kV line and replace CT, wavetrap, breakers, a	6/1/2017	6/1/2017
MIDW MIPU	HUNTSVILLE - ST_JOHN 115KV CKT 1 BELTON SOUTH - TURNER ROAD SUBSTATION 161KV CKT 1	relays. Reconductor to Bundled Drake	6/1/2017	6/1/2017 6/1/2010
MIPU	BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	Upgrade to conductor Bundled Draki	6/1/2008	6/1/2010
MIPU	BLUE SPRINGS EAST CAP BANK	Add 50 MVAR cap bank at Blue Springs Eas	6/1/2009	6/1/2010
MIPU	EAST 20MVAR CAPACITOR	Add 20MVAR capacitor at East 161k\	6/1/2012	6/1/2012
MIPU	EDMOND SUB	Add a new 161/34.5 kV Sub at Edmont	6/1/2009	12/1/2009
MIPU	Freeman to Harrisonville West 69 k\	set overcurrent relay to trip the lin	6/1/2009	6/1/2009
MIPU	MARTIN CITY - TURNER ROAD SUBSTATION 161KV CKT 1	Upgrade to bundled 795 26/7 ACSR conducto	6/1/2008	6/1/2010
OKGE	ARKOMA - FT SMITHW 161KV CKT 1	Replace 1200A terminal equipment at Arkoma to 2000A and rebuild 4.47 miles of line 1590AS52.	6/1/2017	6/1/2017
OKGE	CANADIAN - CEDAR LANE 138KV CKT 1	Replace a trap at Cedar Lane to 1200/	6/1/2012	6/1/2012
OKGE	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 OKGE	Rebuild 17.96 miles of 250 Copperweld with 1272 ACSF	6/1/2009	6/1/2011
		Reconductor 1.27 miles of line to 1590AS52. WFEC will have to provide upgrade solution		
OKGE	FRANKLIN SW - MIDWEST TAP 138KV CKT 1 OKGE	also for their Franklin (WFEC).	6/1/2012	6/1/2012
OKGE OKGE	FT SMITH CAP BANK MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 OKGE	Install a cap bank at the FT Smith 345 bu Rebuild 7.43 miles of 250 CWC with 795 ACSF	6/1/2017	6/1/2017
OKGE	RUSSETT - RUSSETT 138KV CKT 1 OKGE	Replace trap and increase CTR. Pending verification of relay	6/1/2017	6/1/2011 6/1/2017
		Build a 345 kV line from Brookline to Summit substation and install a 345/161 k		
SPRM SPRM	BROOKLINE - SUMMIT 345 kV CKT 1 JAMES RIVER - TWIN OAKS 69KV CKT 1	autotransformer at Summit Reconductor 636 ACSR with 762.8 ACSS/TW	6/1/2013	6/1/2013 6/1/2015
SPRM	KICKAPOO - SUNSET 69KV CKT 1	Reconductor 636 ACSR with 762.8 ACSS/TW	6/1/2014	6/1/2014
SPRM	NEERGARD - NORTON 69KV CKT 1	Transfer load & Reconductor 636 ACSR with 477 ACSS/TV	6/1/2010	6/1/2010
SPRM	NORTON 161KV CAPACITOR	Install 30 Mvar capacitor at Norton 161 kV bu	6/1/2013	6/1/2013
SWPA	SCALCR - NORFORK 161KV CKT 1 SWPA	Replace buswork within bay and change metering CT ratio, replace wavetraps. Entergy malso reconductor their line to increase the rating.	6/1/2009	6/1/2009
SWPA SWPA	BULL SHOALS - BULL SHOALS 161KV CKT 1 DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	Replace buswork in Bull Shoals switchyard Replace wave trap, disconnect switches, current transformers, and breaker. Bus will lim	6/1/2009	11/1/2009 6/1/2009
SWPA	JONES - JONESBORO 161KV CKT 1 SWPA	rating to 1340 amps. Change the ratio on the metering CTs to 1200/5 and adjust the mete	6/1/2008	1/1/2009
SWPA	NIXA (NXA X1) 161/69/13.8KV TRANSFORMER CKT 1	Replace with 70MVA transformer	6/1/2012	6/1/2012
SWPA	NIXA 161KV CAP BANK	25Mvar Cap at Nixa	6/1/2017	6/1/2017
WEPL	CLAY CENTER - GREENLEAF 115KV CKT 1	Building a new 115 kV tie with Westar from Greenleaf to Clay Centi	4/1/2008	6/1/2010
WEPL	HARPER 138KV Capacitor	Install 1 - 20 MVar capacitor banl	6/1/2008	6/1/2009
WERE	ANZIO - FORT JUNCTION SWITCHING STATION 115KV CKT 1	Tear down / Rebuild 3.53-mile section of line, 556.5 kcmil ACS	12/1/2007	6/1/2010
WERE	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2 CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	Add second Auburn 230-115 kV transformer Reset terminal equipmen Tear days (Pab III 4.2 mile Chape White Junetice 60 kV line Replace evicting 2/	6/1/2016 4/1/2008	6/1/2016 6/1/2010
WERE	CHASE - WHITE JUNCTION 69KV CKT 1	Tear down / Rebuild 7.3-mile Chase - White Junction 69 kV line. Replace existing 2/ copper conductor with 795 kcmil ACSR conductor.	6/1/2008	6/1/2010
WERE	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	Rebuild Circle - HEC GT 115 kV line	6/1/2011	6/1/2011
WERE	CIRCLE - RENO COUNTY 115KV CKT 2	Rebuild 6.25-miles	12/1/2009	6/1/2010
WERE	CIRCLE - SANDHILL ARK VALLEY CO-OP D.P. JUNCTION 115 KV CKT 1	Rebuld 4.8 miles	6/1/2010	6/1/2010
WERE WERE	COWSKIN - WESTLINK 69KV FORT JUNCTION SWITCHING STATION - MCDOWELL CREEK SWITCHING STATION 115KV CKT 1	Rebuild 2.11 miles Rebuild 11-mile McDowell-Ft Junction 115 kV 1&2 with 1192.5 kcmil ACS	6/1/2010	6/1/2010 6/1/2010
		Tap Litchfield-Marmaton 161 kV with new SW Bourbon Sub to Ft Scott, and new 161/69 k		
WERE	Fort Scott - SW Bourbon 161 kV	transformer at Ft Scott.	6/1/2010	6/1/2010
WERE WERE	GILL ENERGY CENTER EAST - INTERSTATE 138KV CKT 1 HOOVER SOUTH - TYLER 69KV	Replace wave tra; Rebuild 1.94 miles Tear drawn and rebuild 26.6% Ownership 28.79 mile HEC. Huntsville 115 kV line and repla	6/1/2016	6/1/2016 6/1/2010
WERE WERE	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 WERE ROSE HILL JUNCTION - WEAVER 69KV CKT 1	Tear down and rebuild 26.6% Ownership 28.79 mile HEC-Huntsville 115 kV line and repla CT, wavetrap and relays. Rebuild 5.73 mile Weaver-Rose Hill Junction as a 138 kV line but operate at 69 k	6/1/2017 12/1/2007	6/1/2017 6/1/2010
WERE	SANDHILL ARK VALLEY CO-OP D.P. JUNCTION - TOWER 33 115 KV CKT 1	Rebuild 4.1 miles and operate line close	6/1/2010	
WERE	SENECA 115KV Capacitor	Seneca 115kV Add 2 10.9Mvar cap: Rebuild 11.62-mile Jarbalo-NW Leavenworth 115 kV line and tap in & out of Stranger 11	4/1/2008	6/1/2010
WERE WERE	STRANGER CREEK - NW LEAVENWORTH 115KV STRANGER CREEK TRANSFORMER CKT 2	kV Install second Stranger Creek 345-115 transforms	6/1/2010	6/1/2010 6/1/2009
WERE	Summit - NE Saline 115 kV	Tear down 6.0-miles of Summit-Northview 115 kV, Build 6.0-mile double circuit Summ Northview 115 kV and Build new 0.5-mile single circuit to Northview-South Gate double circuit and disconnect tower to Northview.	12/1/2007	6/1/2010
WERE	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	Convert 161 kV Line to 115 kV Operatio	6/1/2007	6/1/2010
WERE	TYLER - WESTLINK 69KV	Rebuild 2.66 miles and operate line normally close	6/1/2010	6/1/2010
WFEC	ACME - WEST NORMAN 69KV CKT 1	Reconductor 4 miles from 4/0 to 795 ACSF	6/1/2012	6/1/2012
WFEC	COLBERT - TEXOMA 138 KV CKT 1	Build new 138kV line from Colbert to Texom	6/1/2012	6/1/2012
WFEC	FRANKLIN SW - MIDWEST TAP 138KV CKT 1 WFEC	Replace switches and wavetrap at Franklin Switch to 2000 Replace 70 MVA Auto with 112 MVA autotranformer (100 MVA base Rating), Upgrade 13	6/1/2012	6/1/2012
WFEC	FRANKLIN SW 138/69KV TRANSFORMER CKT 1	and 69 KV buswork and switches. Install 10 miles of 138 kV from MEEKER sub to Hammett Sub and install termal equipmen	6/1/2012	6/1/2012
WFEC	HAMMETT - MEEKER 138KV CKT 1 Norman Area Voltage Conversion	Install 10 miles of 138 kV from MEEKER Sub to Hammett Sub and install termal equipmer Convert Canadian - OU - Cole - Criner to 138 KV and Canadian-Goldsby-OU-W Norma Acme-Franklin	6/1/2012	6/1/2012 6/1/2012
WFEC	PAOLI 138/69KV TRANSFORMER CKT 1	Upgrade to 70 MVA	12/1/2012	12/1/2012
WFEC	RUSSETT - RUSSETT 138KV CKT 1 WFEC	Upgrade Terminal Equip CTs at Russet	6/1/2017	6/1/2017
WFEC	WOODWARD - WOODWARD 69KV CKT 1	replace the 336.4 conductor with 795, 1.5 double circuit 795/336.4 H-frame @ \$310,000/i (the other circuit is the Woodward – Taloga line) 1.9 single circuit 795 H-frame @ \$250.00/mi	12/1/2012	12/1/2012
		p		.2/ //2012

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

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

Transmission Owner	Upgrade		Upgrade Required	Estimated Date of Upgrade Completion (EOC)
AEPW	HUGO POWER PLANT - VALLIANT 345 KV AEPW	Vallient 345 KV line termina	5/1/2010	5/1/2010
EMDE	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	Reconductor Oronogo 59467 to Riverton 59469 with Bundled 556 ACS	6/1/2011	6/1/2011
KACP	LACYGNE - WEST GARDNER 345KV CKT 1	KCPL Sponsored Project to Reconductor Line to be In-Service by 6/1/200	6/1/2006	6/1/2006
OKGE	ARCADIA - REDBUD 345 KV CKT 1	Sponsored Project to Uprate Terninal Equipmer	6/1/2006	6/1/2006
OKGE	ARCADIA - REDBUD 345 KV CKT 2	Sponsored Project to Uprate Terninal Equipmer	6/1/2006	6/1/2006
OKGE	FPL SWITCH - MOORELAND 138KV CKT 1 OKGE	OGE would rebuild .18 miles of 267AS33 with 795AS33. This would raise OGEs summer and winter Rate B to 287MVA. The limit will still be at WFECs Mooreland at 390A & 600A.	6/1/2006	4/1/2008
WERE	RENO 345/115KV CKT 1	New stepdown transformer at a new substation in Reno County east northeast of Hutchinsp	n 6/1/2009	6/1/2009
WERE	RENO 345/115KV CKT 2	Install 2nd stepdown transformer at Reno County substation east northeast of Hutchinson	6/1/2010	6/1/2010
WERE	SUMMIT - RENO 345KV	Install new 50.55-mile 345 kV line from Reno county to Summit; 31 miles of 115 kV line between Circle and S Philips would be rebuilt as double circuit with the 345 kV line to minimize ROW impacts; Substation work required at Summit for new 345 kV terminal	6/1/2010	6/1/2010
WERE WERE	WICHITA - RENO 345KV WICHITA - RENO 345KV	40 mile 345 kV transmission line from existing Wichita 345 kV substation to a new 345-115 kV substation in Reno County east northeast of Hutchinson (Wichita to Reno) Build 345kV from Wichita to Reno C	6/1/2009	
WFEC	FPL SWITCH - MOORELAND 138KV CKT 1 WFEC	Upgrade terminal equipment FPL Sw & Moorelan	6/1/2006	4/1/2008
WFEC	HUGO POWER PLANT - VALUANT 345 KV WEEC	New 345/138 kv Auto, and 19 miles 345 K)	5/1/2010	

Table 5 - Third Party Facility Constraints

					Estimated
Transmission			Earliest Data Upgrade		Engineering &
Owner	UpgradeName	Solution		Completion (EOC)	
AECI	MIAMI - MIAMI EAST NEO 69KV CKT 1	Indeterminate	6/1/2017	6/1/2017	Indeterminate
ENTR	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 ENTR	Rebuild 17.96 miles of 250 Copperweld with 1272 ACSR.	6/1/2009	6/1/2011	Indeterminate
ENTR	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 ENTR	Rebuild 7.43 miles of 250 CWC with 795 ACSR	6/1/2009	6/1/2011	Indeterminate
AECI	CLINTON - OSCEOLA 161KV CKT 1	Uprate line to 100C	6/1/2017	6/1/2017	Indeterminate
AECI	GEORGETOWN - GEORGETOWN TAP 2 69KV CKT 1	Rebuild Georgtown tap to Georgetown 69 kV	5/1/2010	5/1/2010	\$ 160,000
AECI	GEORGETOWN - SEDALIA 161 CKT 1	Additional Equipment at Georgetown	5/1/2010	5/1/2010	\$ 780,000
		Rebuild 161kV line from Sedalia West - George Town to a			
AECI	GEORGETOWN - SEDALIA 161KV CKT 1 AECI	bundled 795 26/7 ACSR	6/1/2010	6/1/2010	\$ 4,000,000
		New 161kV line from new plant site George Town, built for a			
AECI	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 AECI	bundled 795 26/7 ACSR	6/1/2010	6/1/2010	\$ 500,000
AECI	GEORGETOWN (GEORGETO) 161/69/13.2KV TRANSFORMER CKT 1	Replace transformer at Georgetown	5/1/2010	5/1/2010	\$ 1,000,000
AECI	GEORGETOWN TAP 2 - SEDALIA 69KV CKT 1	Rebuild Georgtown tap to Sedalia 69 kV	5/1/2010	5/1/2010	\$ 1,200,000
AECI	HUBEN (HUBEN) 345/161/13.8KV TRANSFORMER CKT 1	Indeterminate	6/1/2017	6/1/2017	Indeterminate
AECI	JAMESVILLE - SUB 415 - BLACKHAWK JCT. 69KV CKT 1 AECI	Reset CT	6/1/2011	6/1/2011	Indeterminate
AECI	MARYVILLE - MARYVILLE 161KV CKT 1 AECI	Indeterminate	6/1/2012	6/1/2012	Indeterminate
AECI	SARATOGA - SOUTHWEST CITY 69KV CKT 1	Indeterminate	6/1/2017	6/1/2017	Indeterminate
AECI	STILWELL 345/161KV TRANSFORMER CKT 1	Indeterminate	6/1/2017	6/1/2017	Indeterminate
AECI	THOMAS HILL (THOMAS H) 345/161/13.8KV TRANSFORMER CKT 1	Indeterminate	6/1/2017	6/1/2017	Indeterminate
AMRN	OVERTON 345.00 () 345/161/13.8KV TRANSFORMER CKT 1	Indeterminate	12/1/2008	12/1/2008	Indeterminate
ENTR	5BEE BR - QUITMAN 161KV CKT 1	Indeterminate	6/1/2009	6/1/2009	Indeterminate
ENTR	5CLINTN - CLINTON WEST (AECC) 161KV CKT 1	Indeterminate	6/1/2012	6/1/2012	Indeterminate
ENTR	5FLIPN - BULL SHOALS HES 161KV CKT 1	Indeterminate	6/1/2017	6/1/2017	Indeterminate
ENTR	5HILLTOP 161.00 - 5ST_JOE 161.00 161KV CKT 1	Indeterminate	6/1/2017	6/1/2017	Indeterminate
ENTR	5ST_JOE 161.00 - EVERTON 161KV CKT 1	Indeterminate	10/1/2008	10/1/2008	Indeterminate
ENTR	5TRUMAN - TRUMANN WEST AECC 161KV CKT 1	Indeterminate	6/1/2009	6/1/2009	Indeterminate
ENTR	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 ENTR	Indeterminate	6/1/2009	6/1/2009	Indeterminate
ENTR	EVERTON - HARRISON-EAST 161KV CKT 1	Indeterminate	10/1/2008	10/1/2008	Indeterminate
ENTR	HARRISON-EAST - SUMMIT 161KV CKT 1	Indeterminate	6/1/2012	6/1/2012	Indeterminate
ENTR	JONES - JONESBORO 161KV CKT 1 ENTR	Indeterminate	6/1/2008	6/1/2008	Indeterminate
ENTR	JONESBORO - JONESBORO NORTH (AECC) 161KV CKT 1	Indeterminate	6/1/2008	6/1/2008	Indeterminate
ENTR	JONESBORO NORTH (AECC) - PARAGOULD SOUTH (AECC) 161KV CKT 1	Indeterminate	6/1/2008	6/1/2008	Indeterminate
ENTR	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	Indeterminate	6/1/2009	6/1/2009	Indeterminate