

Aggregate Facility Study
SPP-2007-AG1-AFS-7
For Transmission Service
Requested by
Aggregate Transmission Customers

SPP Engineering, SPP Tariff Studies

SPP AGGREGATE FACILITY STUDY (SPP-2007-AG1-AFS-7)

January 14, 2008

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1. Executive Summary

Pursuant to Attachment Z of the Southwest Power Pool Open Access Transmission Tariff (OATT), 1839 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 \$78 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 \$243 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 \$154 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 January 14, 2008. 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 January 29th, 2008, 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 1839 MW of long-term transmission service has been restudied in this Aggregate Facility Study (AFS) with over \$78 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:

- 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 1839 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 1839 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"

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 an attestation statement 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 January 14, 2008. 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 January 29th, 2008, 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 - 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

Customer	Study Number	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date without interim redispatch	Deferred Stop Date without interim redispatch	Start Date with interim redispatch	Stop Date with interim redispatch
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
INDP	AG1-2007-045	1221966	OPPD	INDN	6	6/1/2009	6/1/2034	6/1/2010	6/1/2035		
KBPU	AG1-2007-043D	1221923		KACY	39	7/1/2010	7/1/2020	7/1/2010	7/1/2020		
KBPU	AG1-2007-044D	1221925	WR	KACY	25	1/1/2008	1/1/2028	6/1/2010	6/1/2030		
KCPS	AG1-2007-080	1223159	KCPL	EES	52	6/1/2007	6/1/2012	6/1/2010	6/1/2015	3/1/2008	3/1/2013
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
KPP	AG1-2007-052	1222644	WR	WR	333	6/1/2007	6/1/2017	6/1/2010	6/1/2020		
KPP	AG1-2007-054	1222904	WPEK	WPEK	3	6/1/2007	6/1/2017	6/1/2010	6/1/2020	3/1/2008	3/1/2018
KPP	AG1-2007-055	1222932	WR	WR	45	6/1/2007	6/1/2027	6/1/2011	6/1/2031	6/1/2010	6/1/2030
KPP	AG1-2007-056	1222937	WR	WPEK	5	6/1/2007	6/1/2027	6/1/2010	6/1/2030		
KPP	AG1-2007-058	1222955	WR	WR	20	6/1/2007	6/1/2017	6/1/2010	6/1/2020		
KPP	AG1-2007-064	1223078	WPEK	WPEK	15	6/1/2007	6/1/2017	6/1/2010	6/1/2020	3/1/2008	3/1/2018
SPRM	AG1-2007-042	1220082	SPA	SPA	275	10/1/2010	10/1/2050	10/1/2010	10/1/2050		
UCU	AG1-2007-025D	1214263	MPS	WR	1	6/1/2007	6/1/2012	6/1/2010	6/1/2015		
UCU	AG1-2007-023D	1214269	MPS	KCPL	2	6/1/2007	6/1/2012	6/1/2010	6/1/2015		
UCU	AG1-2007-060D	1223092	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031		
UCU	AG1-2007-060D	1223093	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031		
UCU	AG1-2007-060D	1223094	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031		
UCU	AG1-2007-060D	1223095	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031		
UCU	AG1-2007-092	1223102	MPS	MPS	315	5/1/2010	5/1/2030	6/1/2010	6/1/2030	ı	
WFEC	AG1-2007-014	1217632	WFEC	WFEC	150	1/1/2011	1/1/2036	1/1/2011	1/1/2036		
WRGS	AG1-2007-001D	1197077	EDE	WR	32	9/1/2007	9/1/2018	6/1/2011	6/1/2022		
WRGS	AG1-2007-047D	1222005	WR	EES	106	10/1/2007	10/1/2010	6/1/2010	6/1/2013		
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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					-	otal Revenue		Total Revenue			,
			Construction Cost						quirements for		quirements for			⁴ Total Cost of
			of Upgrades				⁴Additional		gned Upgrades		igned Upgrades			Reservation
			Allocated to		² Potential Base Plan		Engineering and	_	over term of		over term of			Assignable to
			Customer for		Engineering and	-	Construction		reservation without		ervation WITH		int-to-Point	Customer contingent
			Revenue	¹ Letter of Credit	Construction	Notes	Cost for 3rd Party		ntial base plan	•	ential base plan		se Rate over	upon base plan
Customer	Study Number	Reservation	Requirements	Amount Required	Funding Allowable	es	Upgrades	func				reser	vation period	funding
EDE	AG1-2007-051	1222640		\$ 2,288,338	\$ 1,800,000			\$		\$	13,356,804			\$ 13,356,804
INDP	AG1-2007-045	1221966	+ -,		•			\$	1,031,651		1,031,651		1,584,000	, , ,
KBPU	AG1-2007-043D				•			\$	1,884,235		1,884,235		4,118,400	, , ,
KBPU	AG1-2007-044D	1221925	+ ,-	+ ,-	•			\$	3,467,349		3,467,349	*	5,280,000	+ -,,
KCPS	AG1-2007-080	1223159	+,-		•	12		\$	223,485		223,485	\$	2,808,000	, , ,
KCPS	AG1-2007-081	1223161	+,	+ -,	\$ -	12	2	\$	91,295	•	91,295	\$	162,000	\$ 162,000
KPP	AG1-2007-052	1222644	+ -,,-	\$ -	\$ 19,953,378			\$	52,328,842		-			Schedule 9 Charges
KPP	AG1-2007-054	1222904		\$ -	\$ -			\$	-	\$	-			Schedule 9 Charges
KPP	AG1-2007-055	1222932	+ ,,	\$ -	\$ 7,940,395			\$	-,,	\$	-			Schedule 9 Charges
KPP	AG1-2007-056	1222937	7	\$ -	\$ 142,864			\$	495,697	\$	-			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	\$ 62,467	\$ -	\$ 62,467			\$	137,724	\$	-	\$	113,880	\$ 113,880
UCU	AG1-2007-023D	1214269	\$ 86,821	\$ -	\$ 86,821			\$	194,219	\$	-	\$	105,600	\$ 105,600
UCU	AG1-2007-060D	1223092	\$ 3,460,951	\$ 1,660,921	\$ -	11		\$	13,019,127	\$	13,019,127	\$	28,998,000	\$ 28,998,000
UCU	AG1-2007-060D	1223093	\$ 3,460,951	\$ 1,660,921	\$ -	11		\$	13,019,127	\$	13,019,127	\$	28,998,000	\$ 28,998,000
UCU	AG1-2007-060D	1223094	\$ 3,460,951	\$ 1,660,921	\$ -	11		\$	13,019,127	\$	13,019,127	\$	28,998,000	\$ 28,998,000
UCU	AG1-2007-060D	1223095	\$ 3,460,951	\$ 1,660,921	\$ -	11	1	\$	13,019,127	\$	13,019,127	\$	28,998,000	\$ 28,998,000
UCU	AG1-2007-092	1223102	\$ 26,102,912	\$ 620,323	\$ -	11	1	\$	77,526,514	\$	77,526,514			\$ 77,526,514
WFEC	AG1-2007-014	1217632	\$ 50,000	\$ -	\$ 50,000			\$	155,461	\$	-			Schedule 9 Charges
WRGS	AG1-2007-001D	1197077	\$ 166,027	\$ -	\$ 166,027			\$	424,006	\$	-			Schedule 9 Charges
WRGS	AG1-2007-047D	1222005	\$ 1,972,155	\$ 1,915,820	\$ -	12	2	\$	4,386,946	\$	4,386,946	\$	3,434,400	\$ 4,386,946
Totals			\$ 77,920,997	·				\$	243,919,919	\$	154,044,786	-		·

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 of deferral.

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

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

							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	\$ -	\$ 5,560,217	\$ 20,016,306
									\$ 1,800,000	\$ -	\$ 5,560,217	\$ 20,016,306

 			Earliest Service			ated E & C				Revenue
Upgrade Name	COD			Available	Cost		Cos			uirements
ALLEN 69KV Capacitor	12/1/2007	6/1/2010			\$	3,686	9	500,000	\$	12,958
ATHENS 69KV Capacitor	12/1/2007	6/1/2010			\$	3,686	\$	500,000	\$	12,958
Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No	\$	718,200	\$	3,000,000	\$	3,070,418
Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$	718,200	\$	3,000,000	\$	3,070,418
East Manhattan - SW Manhattan 115kV Displacement	6/1/2009	6/1/2011		Yes	\$	383,150	\$	427,929	\$	1,271,044
EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2009	6/1/2011		Yes	\$	348,363	\$	397,477	\$	1,155,644
East Manhattan to Mcdowell 230 kV Displacement	6/1/2009	6/1/2011		Yes	\$	122,444	\$	128,218	\$	406,190
Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No	\$	837,899	\$	3,500,000	\$	3,582,150
JOPLIN 59 - SUB 439 - STATELINE 161KV CKT 1 Displacement	6/1/2011	6/1/2011			\$	726,684	\$	769,573	\$	2,272,722
JOPLIN 59 - SUB 59 - JOPLIN 26TH ST. 161/69kV TRANSFORMER CKT 1 Displacement	6/1/2011	6/1/2011			\$	930,840	\$	985,777	\$	2,911,225
SOUTHWEST - SOUTHWEST DISPOSAL 161KV CKT 1	6/1/2013	6/1/2013			\$	8,285	\$	246,000	\$	22,117
SUB 170 - NICHOLS ST SUB 80 - MARSHFIELD JCT. 69KV CKT 1 Displacement	6/1/2009	6/1/2010		No	\$	323,424	\$	323,424	\$	1,097,278
TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009			\$	155,602	\$	257,718	\$	579,266
TIOGA 69KV Capacitor	12/1/2007	6/1/2010			\$	3,686	\$	500,000	\$	12,958
West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010			\$	126,068	\$	526,598	\$	538,961
				Total	\$	5,560,217	\$	15,212,715	\$:	20.016.306

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

				Earliest Service	Redispatch
	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 271 - BAXTER SPRINGS WEST - SUB 404 - HOCKERVILLE 69KV CKT 1 Displacement	12/1/2012	12/1/2012		
	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		

Third Party Limitations.

					Earliest Service	Redispatch	Allocated E &	Total E & C
R	eservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost	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 161.00 - EVERTON 161KV CKT 1	10/1/2008	10/1/2008			\$ -	\$ -
		CLINTON - OSCEOLA 161KV CKT 1	6/1/2017	6/1/2017			\$ 8,400,000	\$ 8,400,000
		EVERTON - HARRISON-EAST 161KV CKT 1	10/1/2008	10/1/2008			\$ -	\$ -
		HARRISON-EAST - SUMMIT 161KV CKT 1	6/1/2012	6/1/2012			\$ -	\$ -
		JAMESVILLE - SUB 415 - BLACKHAWK JCT. 69KV CKT 1 AECI	6/1/2011	6/1/2011			\$	\$ -
						Total	\$ 8,400,000	\$ 8,400,000

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

							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	\$ 229,365	\$ 1,031,651
									\$ -	\$ 1,584,000	\$ 229,365	\$ 1,031,651

				Earliest Service	Redispatch	Allocated E	& C	Total E & C	Tot	al Revenue
	Upgrade Name	COD	EOC	Date	Available	Cost		Cost	Re	quirements
1221966	COOK - LAKE ROAD 161KV CKT 1	6/1/2012	6/1/2012			\$ 39	,199	\$ 6,500,00	0 \$	129,637
	COOK - ST JOE 161KV CKT 1 Displacement	6/1/2010	6/1/2010			\$ 2	,726	\$ 477,70	9 \$	10,313
	Craig (542978) Cap Bank Phase 1	6/1/2009					,248			220,213
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$ 44	,248	\$ 3,000,00	0 \$	220,213
	EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012	6/1/2012			\$ 3	,435	\$ 550,00	0 \$	11,314
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009			\$ 19	,314	\$ 4,700,00	0 \$	75,238
	GRANDVIEW EAST - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010			\$	117	\$ 26,51	8 \$	441
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010			\$ 51	,622	\$ 3,500,00	0 \$	256,912
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009			\$	740	\$ 180,00	0 \$	2,883
	LONGVIEW - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010			\$	117	\$ 26,51	8 \$	441
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010			\$ 7	,804	\$ 2,160,00	0 \$	38,839
	ST JOE - WOODBINE 161KV CKT 1	6/1/2012	6/1/2012			\$ 8	,028	\$ 2,300,00	0 \$	26,550
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010			\$ 7	,767	\$ 526,59	8 \$	38,655
					Total	\$ 229	,365	\$ 26,947,34	4 \$	1.031.651

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

							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	\$ 675,164	\$ 1,884,235
									\$ -	\$ 4,118,400	\$ 675,164	\$ 1,884,235

				Earliest Service	Redispatch	Allocate	d E & C	Tota	al E & C	Total	Revenue
	Upgrade Name	COD	EOC	Date	Available	Cost		Cos	it	Requ	uirements
1221923	COOK - LAKE ROAD 161KV CKT 1	6/1/2012	6/1/2012			\$	134,050	\$	6,500,000	\$	272,965
	COOK - ST JOE 161KV CKT 1 Displacement	6/1/2010	6/1/2010			\$	9,322	\$	477,709	\$	21,715
	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010			\$ '	140,268	\$	3,000,000	\$	427,063
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$ ^	140,268	\$	3,000,000	\$	427,063
	HALLMARK - RITCHFIELD 161KV CKT 1	6/1/2017	6/1/2017			\$	6,057	\$	180,000	\$	8,376
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010			\$	163,646	\$	3,500,000	\$	498,240
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010			\$	36,708	\$	2,160,000	\$	111,762
	RITCHFIELD - SIBLEY 161KV CKT 1	6/1/2015	6/1/2015			\$	6,057	\$	180,000	\$	9,650
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010	5/1/2010			\$	14,166	\$	3,500,000	\$	32,436
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010			\$	24,622	\$	526,598	\$	74,965
					Total	\$ 6	675,164	\$	23,024,308	\$	1,884,235

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	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	6/1/2009		

Third Party Lir	nitations.			

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

							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	\$ 851,072	\$ 3,467,349
									\$ -	\$ 5,280,000	\$ 851,072	\$ 3,467,349

				Earliest Service	Redispatch	Allocated E	& C	Total E & C	Total Revenue
	Upgrade Name	COD	EOC	Date	Available	Cost		Cost	Requirements
1221925	COOK - LAKE ROAD 161KV CKT 1	6/1/2012	6/1/2012	2		\$ 89	,584	\$ 6,500,000	
	COOK - ST JOE 161KV CKT 1 Displacement	6/1/2010	6/1/2010)		\$ 6	,230	\$ 477,709	
	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010			\$ 201	,586	\$ 3,000,000	\$ 861,812
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010)		\$ 201	,586	\$ 3,000,000	\$ 861,812
	HALLMARK - RITCHFIELD 161KV CKT 1	6/1/2017	6/1/2017			\$ 2	,603	\$ 180,000	\$ 5,030
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010)		\$ 235	,183	\$ 3,500,000	\$ 1,005,444
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010)		\$ 30	,532	\$ 2,160,000	\$ 130,529
	RITCHFIELD - SIBLEY 161KV CKT 1	6/1/2015	6/1/2015	5		\$ 2	,603	\$ 180,000	\$ 5,796
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009			\$ 45	,780	\$ 257,718	\$ 170,427
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010)		\$ 35	,385	\$ 526,598	\$ 151,276
	·				Total	\$ 851	,072	\$ 19,782,026	\$ 3,467,349

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		
	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2016			
	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		
	Centerville Cap Bank	6/1/2009	6/1/2010		
	MARTIN CITY - TURNER ROAD SUBSTATION 161KV CKT 1	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		
	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
Reservation	Upgrade Name	COD	EOC	Date	Available
1221925	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	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			Available
1221925	166TH STREET - JAGGARD JUNCTION 115KV CKT 1	6/1/2008	6/1/2009		
	166TH STREET - JARBALO JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2008	6/1/2009		
	JAGGARD 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	\$ 138,433	\$ 223,485
									\$ -	\$ 2,808,000	\$ 138,433	\$ 223,485

				Earliest Service	Redispatch	Allocat	ted E & C	Tota	al E & C	Total	Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Cos	t	Requi	irements
1223159	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	131,727	\$	4,700,000	\$	212,834
	GRANDVIEW EAST - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010		Yes	\$	800	\$	26,518	\$	1,250
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	5,045	\$	180,000	\$	8,151
	LONGVIEW - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010		Yes	\$	861	\$	26,518	\$	1,250
					Total	\$	138,433	\$	4,933,036	\$	223,485

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	6/1/2008	6/1/2010		No
	REDEL - STILWELL 161KV CKT 1	6/1/2008			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

Third Party Limitations.

Reservation	Uograde Name	COD	FOC	Earliest Service Start Date			Total E & C Cost
	OVERTON 345.00 () 345/161/13.8KV TRANSFORMER CKT 1	12/1/2008	12/1/2008	Start Date	Available	\$ -	\$ -
					Total	\$ -	\$ -

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

							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	1223161	KCPL	SPA	15	1/1/2008	1/1/2009	6/1/2010	6/1/2011	\$ -	\$ 162,000	\$ 58,270	\$ 91,295
									\$ -	\$ 162,000	\$ 58,270	\$ 91,295

				Earliest Service	Redispatch	Allocate	d E & C	Tota	IE&C	Total Re	evenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Cost		Require	ements
1223161	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	41,596	\$	4,700,000	\$	61,232
	GRANDVIEW EAST - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010			\$	253	\$	26,518	\$	360
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	1,593	\$	180,000	\$	2,345
	LONGVIEW - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010			\$	253	\$	26,518	\$	360
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010			\$	14,575	\$	2,160,000	\$	26,998
					Total	S	58.270	S	7.093.036	S	91.295

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	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

Third Party Limitations.

Tima i dity Em							
		000		Earliest Service			Total E & C
Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost	Cost
1223161	5TRUMAN - TRUMANN WEST AECC 161KV CKT 1	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	•	6

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

Study Number AG1-2007-052

							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	1222644	WR	WR	333	6/1/2007	6/1/2017	6/1/2010	6/1/2020	\$ 19,953,378	\$ -	\$ 19,953,378	\$ 52,328,842
									\$ 19,953,378	\$ -	\$ 19,953,378	\$ 52,328,842

				Earliest Service	Redispatch	Allo	cated E & C	Tota	al E & C	Tota	al Revenue
Reservation	Upgrade Name	COD	EOC		Available	Cos		Cos	st	Req	uirements
1222644	ALLEN - LEHIGH TAP 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	1,623,378	\$	2,000,000	\$	4,246,548
	ALLEN 69KV Capacitor	12/1/2007	6/1/2010		No	\$	406,478	\$	500,000	\$	1,060,192
	ASH GROVE JCT2 - TIOGA 69KV CKT 1	6/1/2010	6/1/2010			\$	632,172	\$	767,000	\$	1,648,856
	ATHENS 69KV Capacitor	12/1/2007	6/1/2010		No	\$	406,478	\$	500,000	\$	1,060,192
	Athens to Owl Creek 69 kV	6/1/2008	6/1/2010		Yes	\$	894,662	\$	1,055,000	\$	2,333,492
	BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV CKT 1	6/1/2008			Yes	\$	2,210,078	\$	2,600,000	\$	5,764,411
	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	1,030,114	\$	1,480,000	\$	2,686,783
	CHANUTE TAP - TIOGA 69KV CKT 1	6/1/2010	6/1/2010			\$	82,121	\$	100,000	\$	214,191
	CITY OF IOLA - UNITED NO. 9 CONGER 69KV CKT 1	6/1/2008			Yes	\$	1,193,612	\$	1,440,000	\$	3,113,225
	COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	2,788,098	\$	3,280,000	\$	7,272,025
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2010	6/1/2010			\$	163,647	\$	200,000	\$	426,830
	DEARING 138KV Capacitor Displacement	6/1/2010	6/1/2010			\$	76,930	\$	94,020	\$	200,652
	Green to Vernon 69 kV	6/1/2008	6/1/2010		Yes	\$	2,200,727	\$	2,589,000	\$	5,740,022
	LEHIGH TAP - OWL CREEK 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	2,459,259	\$	2,900,000	\$	6,414,335
	LEHIGH TAP - UNITED NO. 9 CONGER 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	265,283	\$	310,000	\$	693,946
	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2009	6/1/2009			\$	197,318	\$	250,000	\$	555,228
	OAK - RAINBOW 69KV CKT 1	6/1/2008	6/1/2009		No	\$	1,262,557	\$	1,800,000	\$	3,523,727
	SUNFLOWER 69KV Capacitor Displacement	6/1/2010	6/1/2010			\$	71,232	\$	87,055	\$	185,790
	TIOGA 69KV Capacitor	12/1/2007	6/1/2010		No	\$	406,478	\$	500,000	\$	1,060,192
	Vernon to Athens 69 kV	6/1/2008	6/1/2010		Yes	\$	1,582,756	\$	1,862,000	\$	4,128,206
					Total	\$	19,953,378	\$	26,114,075	\$	52,328,842

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
Reservation	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

^{***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

							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	3/1/2008	3/1/2018	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

			Earliest Service	Redispatch	Allocated E & C	Total E & C	Total Revenue
Reservation Upgrade Name	COD	EOC	Date	Available	Cost	Cost	Requirements
1222904 None					\$ -	\$ -	\$ -
				Total	۹ .	ς .	٩ .

^{*}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

							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	1222932	WR	WR	45	6/1/2007	6/1/2027	6/1/2011	6/1/2031	\$ 7,940,395	\$ -	\$ 7,940,395	\$ 28,403,695
									\$ 7,940,395	\$ -	\$ 7,940,395	\$ 28,403,695

				Earliest Service			cated E & C			al Revenue
	Upgrade Name	COD	EOC		Available	Cos		Co		uirements
1222932	ALLEN - LEHIGH TAP 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	369,871		2,000,000	1,304,0
	ALLEN 69KV Capacitor	12/1/2007	6/1/2010)	No	\$	88,161	\$	500,000	309,9
	ARKANSAS CITY - PARIS 69KV CKT 1 #1 Displacement	6/1/2008			Yes	\$	8,706		8,706	31,1
	ASH GROVE JCT2 - TIOGA 69KV CKT 1	6/1/2010	6/1/2010			\$	134,828	\$	767,000	\$ 473,9
	ATHENS 69KV Capacitor	12/1/2007	6/1/2010)	No	\$	88,161	\$	500,000	\$ 309,9
	Athens to Owl Creek 69 kV	6/1/2008	6/1/2010		Yes	\$	150,807		1,055,000	\$ 530,1
	BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	375,890	\$	2,600,000	\$ 1,321,3
	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2008	6/1/2010		Yes	\$	441,217	\$	1,480,000	\$ 1,551,0
	CHANUTE TAP - TIOGA 69KV CKT 1	6/1/2010	6/1/2010			\$	17,879	\$	100,000	\$ 62,8
	CITY OF IOLA - UNITED NO. 9 CONGER 69KV CKT 1	6/1/2008	6/1/2010)	Yes	\$	246,388	\$	1,440,000	\$ 866,1
	CITY OF WINFIELD - RAINBOW 69KV CKT 1	6/1/2008	6/1/2010)	No	\$	1,560,000	\$	1,560,000	\$ 5,542,6
	COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	6/1/2008	6/1/2010)	Yes	\$	474,200	\$	3,280,000	\$ 1,666,9
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2010	6/1/2010)		\$	33,758	\$	200,000	\$ 118,6
	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010)	No	\$	206,802	\$	3,000,000	\$ 884,1
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010)		\$	206,802	\$	3,000,000	\$ 884,
	CRESWELL - OAK 69KV CKT 1 #1 Displacement	6/1/2008	6/1/2010)	Yes	\$	43,528	\$	43,528	\$ 154,
	CRESWELL - OAK 69KV CKT 1 #2 Displacement	6/1/2008	6/1/2010)	Yes	\$	269,267	\$	269,267	\$ 946.
	DEARING 138KV Capacitor Displacement	6/1/2010	6/1/2010)		\$	15,870	\$	94,020	\$ 55,
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013	3	Yes	\$	428,621	\$	534,485	\$ 1,263,
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2009	6/1/2011		Yes	\$	40,133	\$	427,929	\$ 133,
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2009	6/1/2011		Yes	\$	36,508	\$	397,477	\$ 121,
	East Manhattan to Mcdowell 230 kV Displacement	6/1/2009	6/1/2011		Yes	\$	5,624	\$	128,218	\$ 18,
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010)		\$	40,328	\$	59,907	\$ 140,
	Green to Vernon 69 kV	6/1/2008	6/1/2010)	Yes	\$	374,300	\$	2,589,000	\$ 1,315,
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010)	No	\$	241,269	\$	3,500,000	\$ 1,031,
	LEHIGH TAP - OWL CREEK 69KV CKT 1	6/1/2008	6/1/2010)	Yes	\$	414,541	\$	2,900,000	\$ 1,457,
	LEHIGH TAP - UNITED NO. 9 CONGER 69KV CKT 1	6/1/2008	6/1/2010)	Yes	\$	44,717	\$	310,000	\$ 157,
	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2009	6/1/2009			\$	49,030	\$	250,000	\$ 185,
	OAK - RAINBOW 69KV CKT 1	6/1/2008	6/1/2009		No	\$	537,443	\$	1,800,000	\$ 2,021,
	OXFORD 138KV Capacitor Displacement	6/1/2008	6/1/2010		No	\$	174,111	\$	174,111	\$ 612,
	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1 Displacement	12/1/2007	6/1/2010		No	\$	413,284	\$	413,284	\$ 1.468.
	SUNFLOWER 69KV Capacitor Displacement	6/1/2010	6/1/2010			\$	14,694	\$	87,055	\$ 51,
	TIOGA 69KV Capacitor	12/1/2007	6/1/2010)	No	\$	88,161	\$	500,000	309,
	Vernon to Athens 69 kV	6/1/2008	6/1/2010		Yes	\$	269,195		1,862,000	946.
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010				\$	36,301		526,598	155,
					Total	\$			38.357.585	28,403,

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

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

				Earliest Service	
			EOC		Available
1222932	ANZIO - FORT JUNCTION SWITCHING STATION 115KV CKT 1	12/1/2007			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 C	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
L	Reservation	Upgrade Name	COD	EOC	Date	Available
ſ	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
ſ		SUMMIT - RENO 345KV	4/1/2008	6/1/2010		Yes
ſ		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.

							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	\$ 142,864	\$ -	\$ 142,864	\$ 495,697
									\$ 142,864	\$ -	\$ 142,864	\$ 495,697

				Earliest Service	arliest Service Redispatch		Allocated E & C		E&C	Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Cost		Requirements
1222937	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No	\$	14,901	\$	3,000,000	\$ 63,70
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$	14,901	\$	3,000,000	
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013			\$	76,580	\$	534,485	\$ 225,68
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2009	6/1/2011			\$	983	\$	427,929	\$ 3,26
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2009	6/1/2011			\$	893	\$	397,477	\$ 2,96
	East Manhattan to Mcdowell 230 kV Displacement	6/1/2009	6/1/2011			\$	36	\$	128,218	\$ 11
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010			\$	14,569	\$	59,907	\$ 50,75
	Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No	\$	17,385	\$	3,500,000	\$ 74,32
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010			\$	2,616	\$	526,598	\$ 11,18
	·				Total	\$	142,864	\$ 1	1,574,615	\$ 495,69

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

				Earliest Service	Redispatch
	Upgrade Name	COD			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	n Upg	grade Name			(COD	EOC	Date	Available
12229	937 REI	NO 345/115KV CKT 1				6/1/2009	6/1/2009		
	REI	NO 345/115KV CKT 2				6/1/2010	6/1/2010		
	SHI	MMIT - 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
1222937	SUMMIT - RENO 345KV	4/1/2008	6/1/2010		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

							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	3/1/2008	3/1/2018	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

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

^{*}Reservation 1222644 and 1222955 were studied as one request

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

							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	1223078	WPEK	WPEK	15	6/1/2007	6/1/2017	6/1/2010	6/1/2020	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

			Earliest Service	Redispatch	Allocated E & C	Total E & C	Total Revenue
Reservation Upgrade Name	COD	EOC	Date	Available	Cost	Cost	Requirements
1223078 None					\$ -	\$ -	\$ -
				Total	٠.	٩ .	٠.

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

^{*}Reservation 1*Reservation 1223078 and 1222904 were studied as one request

^{**}A Transmiss **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 Sys34.5 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

							Deferred Start	Deferred Stop	Potent	tial Base			
				Requested	Requested	Requested	Date Without	Date Without	Plan F	unding	Point-to-Point	Allocated E &	Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowa	able	Base Rate	C Cost	Requirements
SPRM	1220082	SPA	SPA	275	10/1/2010	10/1/2050			\$	237,715	\$ -	\$ 237,71	5 \$ 1,075,988
									\$	237,715	\$ -	\$ 237,71	5 \$ 1,075,988

			Earliest Service		Allocated E & C	Total E & C	Total Revenue
Reservation Upgrade Name		EOC	Date	Available	Cost	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 Study Number UCU 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	\$ 86,821	\$ 105,600	\$ 86,821	\$ 194,219
									\$ 86,821	\$ 105,600	\$ 86,821	\$ 194,219

			Earliest Service		Allocated E & C			Total Revenue
Upgrade Name	COD	EOC		Available	Cost	Cos		Requirements
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	\$ 10,719
BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV CKT 1	6/1/2008	6/1/2010			\$ 7,070	\$	2,600,000	\$ 15,632
BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2008	6/1/2010)		\$ 4,368	\$	1,480,000	\$ 9,658
COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	6/1/2008	6/1/2010)		\$ 8,919	\$	3,280,000	\$ 19,721
Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010)	No	\$ 6,733	\$	3,000,000	\$ 16,722
Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010)		\$ 6,733	\$	3,000,000	\$ 16,722
GEORGETOWN - SEDALIA 161KV CKT 1 MIPU	6/1/2010	6/1/2010)		\$ 3,080	\$	4,000,000	\$ 5,706
GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 MIPU	6/1/2010	6/1/2010)		\$ 3,701	\$	2,400,000	\$ 6,856
Green to Vernon 69 kV	6/1/2008	6/1/2010)		\$ 7,040	\$	2,589,000	\$ 15,566
Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No	\$ 7,855	\$	3,500,000	\$ 19,508
LEHIGH TAP - OWL CREEK 69KV CKT 1	6/1/2008	6/1/2010)		\$ 13,327	\$	2,900,000	\$ 29,467
SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010	5/1/2010)		\$ 4,304	\$	3,500,000	\$ 8,066
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	\$ 11,195
West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010)		\$ 1,182	\$	526,598	\$ 2,936
	•	•	•	Total	\$ 86,821	\$	37,192,598	\$ 194,219

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

				Earliest Service	Redispatch
		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	6/1/2008	6/1/2010		No
	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

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
1214269	ALLEN - LEHIGH TAP 69KV CKT 1	6/1/2008	6/1/2010		No

				Earliest Service	Redispatch	Allocated	IE&	Tota	al E & C
Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost		Cost	t
1214269	GEORGETOWN - GEORGETOWN TAP 2 69KV CKT 1	5/1/2010	5/1/2010			\$	729	\$	400,000
	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			\$	3,080	\$	4,000,000
	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 AECI	6/1/2010	6/1/2010			\$	771	\$	500,000
					Total	\$	5,539	\$	5,680,000

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

Customer Study Number UCU AG1-2007-025D

							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	1214263	MPS	WR	1	6/1/2007	6/1/2012	6/1/2010	6/1/2015	\$ 62,467	\$ 113,880	\$ 62,467	\$ 137,724
									\$ 62,467	\$ 113,880	\$ 62,467	\$ 137,724

Reservation	Upgrade Name	COD	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost		Total Revenue Requirements
	ALLEN 69KV Capacitor	12/1/2007			No	\$ 810		
	ATHENS 69KV Capacitor	12/1/2007	6/1/2010		No	\$ 810	\$ 500,000	\$ 1,791
	Athens to Owl Creek 69 kV	6/1/2008	6/1/2010			\$ 4,683	\$ 1,055,000	\$ 10,355
	BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV CKT 1	6/1/2008	6/1/2010			\$ 6,962	\$ 2,600,000	
	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2008				\$ 4,302	\$ 1,480,000	
	COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	6/1/2008				\$ 8,783	\$ 3,280,000	
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2010				\$ 315	\$ 200,000	
	Craig (542978) Cap Bank Phase 1	6/1/2009			No	\$ 1,410	\$ 3,000,000	
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$ 1,410		
	DEARING 138KV Capacitor Displacement	6/1/2010	6/1/2010			\$ 148	\$ 94,020	
	GEORGETOWN - SEDALIA 161KV CKT 1 MIPU	6/1/2010				\$ 1,021	\$ 4,000,000	
	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 MIPU	6/1/2010	6/1/2010			\$ 1,884	\$ 2,400,000	\$ 3,490
	Green to Vernon 69 kV	6/1/2008	6/1/2010			\$ 6,933		\$ 15,330
	Hawthorn and W Gardner Cap Banks	6/1/2009			No	\$ 1,645		
	LEHIGH TAP - OWL CREEK 69KV CKT 1	6/1/2008	6/1/2010			\$ 12,872	\$ 2,900,000	\$ 28,461
	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2009	6/1/2009			\$ 266	\$ 250,000	\$ 635
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010	5/1/2010			\$ 2,033	\$ 3,500,000	\$ 3,810
	SUNFLOWER 69KV Capacitor Displacement	6/1/2010	6/1/2010			\$ 137	\$ 87,055	
	TIOGA 69KV Capacitor	12/1/2007	6/1/2010		No	\$ 810	\$ 500,000	\$ 1,791
	Vernon to Athens 69 kV	6/1/2008				\$ 4,986		
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010			\$ 247	\$ 526,598	\$ 613
				_	Total	\$ 62,467	\$ 37,823,673	\$ 137,724

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	6/1/2008	6/1/2010		No
	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		

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
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
1214	63 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

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
1214263	ALLEN - LEHIGH TAP 69KV CKT 1	6/1/2008	6/1/2010		No

Reservation	Upgrade Name	COD		Earliest Service Start Date		Allocated C Cost		Tota Cost	al E & C
1214263	GEORGETOWN - GEORGETOWN TAP 2 69KV CKT 1	5/1/2010	5/1/2010			\$	391	\$	400,000
	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			\$	1,021	\$	4,000,000
	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 AECI	6/1/2010	6/1/2010			\$	393	\$	500,000
					Total	\$	2,258	\$	5,680,000

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

							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	1223092	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031	\$ -	\$ 28,998,000	\$ 3,913,156	\$ 13,019,127
UCU	1223093	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031	\$ -	\$ 28,998,000	\$ 3,913,156	\$ 13,019,127
UCU	1223094	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031	\$ -	\$ 28,998,000	\$ 3,913,156	\$ 13,019,127
UCU	1223095	EES	MPS	75	3/1/2009	3/1/2029	6/1/2011	6/1/2031	\$	\$ 28,998,000	\$ 3,913,156	\$ 13,019,127
									\$ -	\$ 115,992,000	\$ 15,652,624	\$ 52,076,507

Reservation	Upgrade Name	COD	EOC	Earliest Service Date	Redispatch Available	Allo	cated E & C	Tota		al Revenue uirements
	ISRDST - ARKOMA 161KV CKT 1	6/1/2017		Date	Available	\$	325,000		1,300,000	871,689
1223092		6/1/2017				\$				871,089
	CLARKSVILLE - DARDANELLE 161KV CKT 1						452,206		3,000,000	\$ 0.000.700
	COOK - LAKE ROAD 161KV CKT 1	6/1/2012				\$	912,304		6,500,000	2,830,796
	COOK - ST JOE 161KV CKT 1 Displacement	6/1/2010			NI.	\$	63,442		477,709	225,192
	Craig (542978) Cap Bank Phase 1	6/1/2009			No	\$	295,267		3,000,000	1,378,615
	Craig (542978) Cap Bank Phase 2	6/1/2010				\$	295,267		3,000,000	1,378,615
	EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012	6/1/2012			\$	79,947		550,000	\$ 247,072
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008			Yes	\$	474,695		4,700,000	\$ 1,734,985
	GRANDVIEW EAST - SAMPSON 161KV CKT 1 Displacement	6/1/2009			Yes	\$	2,883		26,518	10,194
	Hawthorn and W Gardner Cap Banks	6/1/2009			No	\$	344,478		3,500,000	1,608,383
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008			Yes	\$	18,180		180,000	\$ 66,447
	LONGVIEW - SAMPSON 161KV CKT 1 Displacement	6/1/2009			Yes	\$	2,883		26,518	10,194
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009			Yes	\$	349,080		2,160,000	1,629,870
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010				\$	58,818		3,500,000	\$ 205,222
	ST JOE - WOODBINE 161KV CKT 1	6/1/2012				\$	186,877		2,300,000	579,862
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010			\$	51,829		526,598	241,992
					Total	\$	3,913,156	\$	34,747,344	\$ 13,019,127
1223093	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			\$	912,304	\$	6,500,000	\$ 2,830,796
	COOK - ST JOE 161KV CKT 1 Displacement	6/1/2010	6/1/2010			\$	63,442	\$	477,709	\$ 225,192
	Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No	\$	295,267	\$	3,000,000	\$ 1,378,615
	Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$	295,267		3,000,000	1,378,615
	EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012				\$	79,947		550,000	247,072
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008			Yes	\$	474,695		4.700,000	\$ 1.734.985
	GRANDVIEW EAST - SAMPSON 161KV CKT 1 Displacement	6/1/2009			Yes	Š	2,883		26,518	10,194
	Hawthorn and W Gardner Cap Banks	6/1/2009			No	\$	344,478		3,500,000	1.608.383
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008			Yes	ŝ	18,180		180,000	66,447
	LONGVIEW - SAMPSON 161KV CKT 1 Displacement	6/1/2009			Yes	\$	2,883		26,518	10,194
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009			Yes	\$	349,080		2,160,000	1,629,870
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010			103	\$	58.818		3,500,000	\$ 205,222
	ST JOE - WOODBINE 161KV CKT 1	6/1/2012				\$	186.877		2,300,000	579,862
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010				\$	51,829		526,598	241,992
	The Caranist of the NV Tap of Calment Concerning to the NV of Adamson and NV NV Displacement	0, 1,2010	0/1/2010		Total	\$	3,913,156		34,747,344	13,019,127
4000004	3RDST - ARKOMA 161KV CKT 1	6/1/2017	6/1/2017		TOTAL	\$	325,000		1,300,000	871.689
1223094	CLARKSVILLE - DARDANELLE 161KV CKT 1	6/1/2017				\$	452,206		3.000,000	\$ 871,088
	COOK - LAKE ROAD 161KV CKT 1	6/1/2012				\$	912,304		6,500,000	2,830,796
	COOK - ST JOE 161KV CKT 1 Displacement	6/1/2012				\$	63,442		477,709	225,192
		6/1/2010			No	\$	295,267		3,000,000	1.378.615
	Craig (542978) Cap Bank Phase 1	6/1/2009			INO					
	Craig (542978) Cap Bank Phase 2					\$	295,267		3,000,000	1,378,615
	EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012			V	\$	79,947		550,000	247,072
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008			Yes	\$	2,883		4,700,000	1,734,985
	GRANDVIEW EAST - SAMPSON 161KV CKT 1 Displacement	6/1/2009			Yes	\$	3,018		26,518	10,194
	Hawthorn and W Gardner Cap Banks	6/1/2009			No	\$	344,478		3,500,000	1,608,383
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008			Yes	\$	18,180		180,000	66,447
	LONGVIEW - SAMPSON 161KV CKT 1 Displacement	6/1/2009			Yes	\$	2,883		26,518	10,194
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009			Yes	\$	349,080		2,160,000	\$ 1,629,870
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010				\$	58,818		3,500,000	205,222
	ST JOE - WOODBINE 161KV CKT 1	6/1/2012				\$	186,877		2,300,000	579,862
	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010			\$	51,829		526,598	241,992
					Total	\$	3,913,156	\$	34,747,344	\$ 13,019,127

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	\$ 871,68
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		\$	912,304	6,500,000	\$ 2,830,79
COOK - ST JOE 161KV CKT 1 Displacement	6/1/2010	6/1/2010		\$	63,442	477,709	\$ 225,19
Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010	No	\$	295,267	3,000,000	\$ 1,378,61
Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010		\$	295,267	3,000,000	\$ 1,378,61
EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012	6/1/2012		\$	79,947	550,000	\$ 247,07
GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009	Yes	\$	474,695	4,700,000	\$ 1,734,98
GRANDVIEW EAST - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010	Yes	\$	2,883	26,518	\$ 10,19
Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010	No	\$	344,478	3,500,000	\$ 1,608,38
KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009	Yes	\$	18,180	180,000	\$ 66,44
LONGVIEW - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010	Yes	\$	2,883	26,518	\$ 10,19
MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010	Yes	\$	349,080	2,160,000	\$ 1,629,87
SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010	5/1/2010		\$	58,818	3,500,000	\$ 205,22
ST JOE - WOODBINE 161KV CKT 1	6/1/2012	6/1/2012		\$	186,877	\$ 2,300,000	\$ 579,86
West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010		\$	51,829	526,598	\$ 241,99
·			Total	S	3.913.156	34.747.344	\$ 13.019.12

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

				Earliest Service Redispato
Reservation	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	i
	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		Yes
1223093	5CALCR - NORFORK 161KV CKT 1 SWPA	6/1/2009	6/1/2009	i
	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	i
	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		
	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	1 7
	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	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	1.55
	REDEL - STILWELL 161KV CKT 1	6/1/2008		Yes
	SUB 124 - AURORA H.T. 161KV	6/1/2010	6/1/2010	1.55
	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	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	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	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	ated E & C	Total	IE&C
eservation	Upgrade Name	COD	EOC	Start Date	Available	Cost		Cost	
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			\$	-	\$	
	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	\$	780,0
	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	\$		\$	
	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	6/1/2009	6/1/2009			\$	-	\$	
						\$	13,108		780,00
1223003	5BEE BR - QUITMAN 161KV CKT 1	6/1/2009	6/1/2009			\$	10,100	\$	700,00
1220000	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			\$		S	
	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		110	\$		\$	
	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		780,0
	JONES - JONESBORO 161KV CKT 1 ENTR	6/1/2008	6/1/2008			\$	10,100	-	700,0
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 ENTR	6/1/2009	6/1/2011		Yes	\$		\$	
	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	6/1/2009	6/1/2009		103	\$		\$	
	ROSSELEVILLE EAST - ROSSELEVILLE SOOTT TOTAL CRIT	6/1/2009	0/1/2009			\$	13,108		780.00
1222004	5BEE BR - QUITMAN 161KV CKT 1	6/1/2009	6/1/2009			\$	13,106	\$	780,00
1223094	5CLINTN - CLINTON WEST (AECC) 161KV CKT 1	6/1/2009	6/1/2009			\$		\$	
	SHILLTOP	6/1/2012	6/1/2012			\$		\$	
	5ST JOE 161.00 - EVERTON 161KV CKT 1	10/1/2008	10/1/2017			\$		S	
	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	6/1/2011		NO	\$		\$	
	EVERTON - HARRISON-EAST 161KV CKT 1	10/1/2009	10/1/2009			\$		\$	
	GEORGETOWN - SEDALIA 161 CKT 1	5/1/2010	5/1/2010			\$	13,108		780.0
	JONES - JONESBORO 161KV CKT 1 ENTR	6/1/2010	6/1/2010			\$	13,108	_	780,0
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 ENTR	6/1/2008	6/1/2008		V	\$		\$	
	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	6/1/2009	6/1/2011		Yes	\$		_	
	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH TOTAL CRIT	6/1/2009	0/1/2009			_			
			2///2222			\$	13,108		780,0
1223095	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	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			\$	-	Ψ	
	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		780,0
	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	\$	-	Ψ	
	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	6/1/2009	6/1/2009	l	l	\$	-	\$	

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	\$ -	\$ -	\$ 26,104,944	\$ 77,526,514
									\$ -	\$ -	\$ 26,104,944	\$ 77,526,514

Pasanyation	Upgrade Name	COD	EOC	Earliest Service Date		Allo	ocated E & C	Tot Cos		al Revenue quirements
	ICOOK - LAKE ROAD 161KV CKT 1	6/1/2012			Available	© CO:	2,587,952		6,500,000	7,364,870
	COOK - ST JOE 161KV CKT 1 Displacement	6/1/2010				8	205,663		477,709	669,532
	EAST - INDUSTRIAL PARK 161KV CKT 1	6/1/2012				8	226,778		550.000	642,779
	IGEORGETOWN - SEDALIA 161KV CKT 1 MIPU	6/1/2010				\$	3,995,899		4,000,000	12,640,125
	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 MIPU	6/1/2010				\$	2,394,415		2,400,000	7,574,192
	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009			\$	2,378,367		4,700,000	7,972,597
	GRANDVIEW EAST - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010			\$	11,757	\$	26,518	\$ 34,146
	HALLMARK - RITCHFIELD 161KV CKT 1	6/1/2017	6/1/2017			\$	171,340	\$	180,000	\$ 331,121
	KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009			\$	91,086		180,000	\$ 305,332
	KNOB NOSTER - SEDALIA WEST NORTH BUS 69KV CKT 1	6/1/2013				\$	6,000,000	\$	6,000,000	\$ 15,401,465
	LONGVIEW - SAMPSON 161KV CKT 1 Displacement	6/1/2009				\$	11,337		26,518	34,146
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010			\$	620,323	\$	2,160,000	\$ 2,651,979
	RITCHFIELD - SIBLEY 161KV CKT 1	6/1/2015	6/1/2015			\$	171,340	\$	180,000	\$ 381,487
	SEDALIA - SEDALIA SUB 161KV CKT 1	5/1/2010	5/1/2010			\$	3,244,223	\$	3,500,000	\$ 10,381,590
	ST JOE - WOODBINE 161KV CKT 1	6/1/2012	6/1/2012			\$	1,544,464	\$	2,300,000	\$ 4,395,281
	WARRENSBURG EAST - WARRENSBURG PLANT 69KV CKT 1	6/1/2012	6/1/2012			\$	2,450,000	\$	2,450,000	\$ 6,745,872
•		•	•		Total	\$	26.104.944	\$	35.630.746	\$ 77.526.514

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
	ANTIOCH - OXFORD 161KV CKT 1	6/1/2008			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			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.

Crodito may be	required for the following notwork approace directly accigned to transmission education of in provide	agg. ogato c	nuuy.		
				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1223102	ACYGNE - 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

Reservation	Upgrade Name	COD		Earliest Service Start Date		Alloc C Co	cated E &	Tot Cos	al E & C
	GEORGETOWN - GEORGETOWN TAP 2 69KV CKT 1	5/1/2010			Available	¢ CO:	398.880		400.000
	GEORGETOWN - SEDALIA 161 CKT 1	5/1/2010				\$	722,998	_	780,000
	GEORGETOWN - SEDALIA 161KV CKT 1 AECI	6/1/2010	6/1/2010			\$	3,995,899	\$	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			\$	1,500,000	\$	1,500,000
	GEORGETOWN TAP 2 - SEDALIA 69KV CKT 1	5/1/2010	5/1/2010			\$	2,200,000	\$	2,200,000
					Total	\$	9,316,613	\$	9,380,000

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

Customer Study Number WFEC AG1-2007-014

							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
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	Allocated E & C	Total E & C	Total Revenue
Reservation Upgrade Name	COD	EOC	Date	Available	Cost	Cost	Requirements
1217632 CLARKSVILLE - DARDANELLE 161KV CKT 1	6/1/2012	6/1/2012			\$ 1,191,176	\$ 3,000,000	\$ -
ROCKY POINT - SUNNYSIDE 138KV CKT 1	6/1/201	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
	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
	LANE - ATOKA - TUPELO 138KV	6/1/2017	6/1/2017		
	MUSKOGEE - PECAN CREEK 345KV CKT 1	6/1/2009	6/1/2009		_

				Earliest Service	Redispatch	Allocated E &	Total E & C
Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost	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	\$ 166,027	\$ -	\$ 166,027	\$ 424,006
									\$ 166,027	\$ -	\$ 166,027	\$ 424,006

				Earliest Service	Redispatch	Allocated E & C	Tota	al E & C	Total Revenue
		COD			Available	Cost	Cos		Requirements
1197077	ALLEN - LEHIGH TAP 69KV CKT 1	6/1/2008	6/1/2010			\$ 6,751	\$	2,000,000	\$ 19,600
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2010	6/1/2010			\$ 2,281	\$	200,000	\$ 6,603
	DEARING 138KV Capacitor Displacement	6/1/2010	6/1/2010			\$ 1,072	\$	94,020	\$ 3,103
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013			\$ 29,285	\$	534,485	
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2009	6/1/2011			\$ 3,664	\$	427,929	\$ 10,009
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2009	6/1/2011			\$ 11,714	\$	397,477	\$ 32,000
	East Manhattan to Mcdowell 230 kV Displacement	6/1/2009	6/1/2011			\$ 115	\$	128,218	\$ 314
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010			\$ 5,010	\$	59,907	\$ 14,371
	JOPLIN 59 - SUB 439 - STATELINE 161KV CKT 1 Displacement	6/1/2011	6/1/2011			\$ 42,888	\$	769,573	\$ 107,736
	JOPLIN 59 - SUB 59 - JOPLIN 26TH ST. 161/69kV TRANSFORMER CKT 1 Displacement	6/1/2011	6/1/2011			\$ 54,937	\$	985,777	\$ 138,003
	LITCHFIELD - AQUARIUS - HUDSON JUNCTION 69KV CKT 1 Displacement	6/1/2014	6/1/2014			\$ 3,829	\$	3,829	
	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2009	6/1/2009			\$ 3,386	\$	250,000	\$ 10,575
	SUB 389 - JOPLIN SOUTHWEST - SUB 422 - JOPLIN 24TH & CONNECTICUT 161KV CKT 1 Disp	6/1/2008	10/30/2008			\$ 102	\$	102	\$ 294
	SUNFLOWER 69KV Capacitor Displacement	6/1/2010	6/1/2010			\$ 993	\$	87,055	\$ 2,875
					Total	\$ 166,027	\$	5,938,373	\$ 424,006

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		
	BLUE SPRINGS EAST CAP BANK	6/1/2009	6/1/2010		
	Centerville Cap Bank	6/1/2009	6/1/2010		
	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		
	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		
	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		
	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 b	Credits may be required for the following network upgrades directly assigned to transmission customers in previous aggregate study.										
Reservation	Upgrade Name	COD	EOC								
					 						
					İ						
					1						

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	\$ 1,972,155	\$ 4,386,946
									\$ -	\$ 3,434,400	\$ 1,972,155	\$ 4,386,946

			Earliest Service	Redispatch	Alloc	ated E & C	Tota	al E & C	Tota	l Revenue
Upgrade Name	COD	EOC	Date	Available	Cost		Cos	st	Req	uirements
Craig (542978) Cap Bank Phase 1	6/1/2009	6/1/2010		No	\$	484,786	\$	3,000,000	\$	1,108,126
Craig (542978) Cap Bank Phase 2	6/1/2010	6/1/2010			\$	484,786	65	3,000,000	\$	1,108,126
GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	230,217	\$	4,700,000	\$	416,575
GRANDVIEW EAST - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010			\$	1,398	\$	26,518	\$	2,447
Hawthorn and W Gardner Cap Banks	6/1/2009	6/1/2010		No	\$	565,583	65	3,500,000	\$	1,292,812
KC SOUTH - LONGVIEW 161KV CKT 1	6/1/2008	12/1/2009		Yes	\$	8,817	\$	180,000	\$	15,954
LONGVIEW - SAMPSON 161KV CKT 1 Displacement	6/1/2009	6/1/2010			\$	1,398	65	26,518	\$	2,447
MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2010		Yes	\$	53,739	\$	2,160,000	\$	122,837
TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	6/1/2009	6/1/2009			\$	56,335	\$	257,718	\$	123,110
West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAR Displacement	6/1/2010	6/1/2010			\$	85,096	65	526,598	\$	194,513
				Total	\$	1,972,155	\$	17,377,352	\$	4,386,946

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			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.

									Earliest Service	Redispatch
Reservation	Upgrade Na	ne					COD	EOC	Date	Available
1222005	SUMMIT - R	ENC	O 345KV				4/1/2008	6/1/2010		Yes
	WICHITA - F	EN	O 345KV				12/1/2007	6/1/2009		Yes

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

Transmission			Upgrade Required		Estimated Engineering &
Owner	Upgrade	Solution	(COD)	(EOC)	Construction Cost
EMDE	JOPLIN 59 - SUB 439 - STATELINE 161KV CKT 1 Displacement	Install new line from Sub #439 to new Sub Joplin 59	06/01/11	06/01/11	\$769,572.57
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 St.	06/01/11	06/01/11	\$985,777.49
EMDE	SUB 170 - NICHOLS ST SUB 80 - MARSHFIELD JCT. 69KV CKT 1 Displacement	Reconductor line from Sub #80 to Sub #170 from 1/0 CU to 556 ACSR and replace Jumpers in Sub #80	06/01/09	06/01/10	\$323,424.22
EMDE	SUB 271 - BAXTER SPRINGS WEST - SUB 404 - HOCKERVILLE 69KV CKT 1 Displacement	Change CT Settings for Rate B 61 MVA	12/01/12	12/01/12	\$150,000.00
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	06/01/08	10/30/08	\$101.87
KACP	Craig (542978) Cap Bank Phase 1	add 150 Mvar cap bnk Craig 542978 during the 09SP and abov	06/01/09	06/01/10	\$3,000,000.00
KACP	Craig (542978) Cap Bank Phase 2	add 150 Mvar cap bnk Craig 542978 New Hawthorn 100 MVAR cap bank, New West Gardner 100 MVAR cap	06/01/10	06/01/10	\$3,000,000.00
KACP	Hawthorn and W Gardner Cap Banks	bank.	06/01/09	06/01/10	
KACP	MARTIN CITY - REDEL 161KV CKT 1	reconductor 1192 acss upgrade terminal equip 2000 am _l	06/01/09	06/01/10	\$2,160,000.00
KACP	West Gardner 345 kV Tap on Stillwell-Swissvale 345 kV 50 Additional MVAF Displacement	New West Gardner 50 MVAR cap bank. West Gardner 345 kV Tap on Stilwell-Swissvale line	06/01/10		
MIPU	COOK - LAKE ROAD 161KV CKT 1	Reconductor	06/01/12	06/01/12	\$6,500,000.00
MIPU	COOK - ST JOE 161KV CKT 1 Displacement	Conductor, Switch, Relay	06/01/10	06/01/10	\$477,709.48
MIPU	EAST - INDUSTRIAL PARK 161KV CKT 1	increase clearance limit and replace switch: Rebuild 161kV line from Sedalia West – George Town to a bundled 795	06/01/12	06/01/12	\$550,000.00
MIPU	GEORGETOWN - SEDALIA 161KV CKT 1 MIPU	26/7 ACSR	06/01/10	06/01/10	\$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 ACSR	06/01/10	06/01/10	\$2,400,000.00
MIPU	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1	Reconductor to Bundled Drake	06/01/10	12/01/09	\$4,700,000.00
MIPU	GRANDVIEW EAST - SAMPSON 161KV CKT 1 Displacement	replace wavetraps	06/01/09	06/01/10	\$26,518.03
MIPU	HALLMARK - RITCHFIELD 161KV CKT 1 Displacement	replace wavetraps	06/01/17	06/01/17	\$180,000.00
MIPU	KC SOUTH - LONGVIEW 161KV CKT 1	replace wavetraps	06/01/08	12/01/09	\$180,000.00
MIPU	KNOB NOSTER - SEDALIA WEST NORTH BUS 69KV CKT 1	Rebuild Sedalia North - Knobnoster 69kV line to at least a 477 26/7 ACSF conductor	06/04/45	06/04/43	\$6.000.000.00
MIPU	LONGVIEW - SAMPSON 161KV CKT 1	replace wavetraps	06/01/13 06/01/09	06/01/13	\$26,518.03
MIPU	RITCHFIELD - SIBLEY 161KV CKT 1 Displacement	replace wavetraps	06/01/15	06/01/15	\$180,000.00
MIPU	SEDALIA - SEDALIA SUB 161KV CKT 1	Line rebuild to bundled 795 26/7 ACSR conducto	05/01/10	05/01/10	\$3,500,000.00
MIPU	ST JOE - WOODBINE 161KV CKT 1	reconductor	06/01/12		\$2,300,000.00
MIPU	WARRENSBURG EAST - WARRENSBURG PLANT 69KV CKT 1	Upgrade line to 795 26/7 ACSR conductor	06/01/12	06/01/12	\$2,450,000.00
OKGE	3RDST - ARKOMA 161KV CKT 1 ROCKY POINT - SUNNYSIDE 138KV CKT 1	Replace 8-1200A switches & 2-wave traps	06/01/17	06/01/17	\$1,300,000.00 \$50,000.00
OKGE SPRM	SOUTHWEST - SOUTHWEST DISPOSAL 161KV CKT 1	Reset CT at Rocky Point Reconductor 1192 AAC with 1158.4 ACSS/TW	06/01/17 06/01/13	06/01/17 06/01/13	\$246,000.00
SWPA	CLARKSVILLE - DARDANELLE 161KV CKT 1	Reconductor Clarksville-Dardanelle line	06/01/12	06/01/12	\$3,000,000.00
WERE	ALLEN - LEHIGH TAP 69KV CKT 1	Tear down / Rebuild 5.69-mile line; 954 kcmil ACSF	06/01/08	06/01/10	\$2,000,000.00
WERE	ALLEN 69KV Capacitor	Allen 69 kV 15 MVAR Capacitor Addition	12/01/07	06/01/10	\$500,000.00
WERE	ARKANSAS CITY - PARIS 69KV CKT 1 #1 Displacement	Replace Disconnect Switches and Bus Jumpers at Paris and Ark City 69 kt substations	06/01/08	06/01/10	\$8,705.77
WERE	ASH GROVE JCT2 - TIOGA 69KV CKT 1	Rebuild 2.13 miles	06/01/10	06/01/10	\$767,000.00
WERE	ATHENS 69KV Capacitor	Athens 69 kV 15 MVAR Capacitor Additior	12/01/07	06/01/10	\$500,000.00
WERE	Athens to Owl Creek 69 kV	Rebuild 2.93 miles Athens to Owl Creek 69 kV (138kV/69kV Operation)	06/01/08	06/01/10	\$1,055,000.00
WERE	BURLINGTON JUNCTION - COFFEY COUNTY NO. 3 WESTPHALIA 69KV	Rebuild 7.2 miles (138kV/69kV Operation)	06/01/08	06/01/10	\$2,600,000.00
WERE	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	Rebuild 4.1 miles (138kV/69kV Operation)	06/01/08	06/01/10	\$1,480,000.00
WERE	CHANUTE TAP - TIOGA 69KV CKT 1	Replace Jumpers	06/01/10	06/01/10	\$100,000.00
WERE	CITY OF IOLA - UNITED NO. 9 CONGER 69KV CKT 1	Tear down / Rebuild 4-mile 69 kV line; 954 kcmiol ACSF	06/01/08	06/01/10	\$1,440,000.00
WERE	CITY OF WINFIELD - RAINBOW 69KV CKT 1	Rebuild 3.99-mile Rainbow-Winfield 69 kV line, 954 ACSF	06/01/08	06/01/10	\$1,560,000.00
WERE	COFFEY COUNTY NO. 3 WESTPHALIA - GREEN 69KV CKT 1	Rebuild 9.22 miles (138kV/69kV Operation	06/01/08	06/01/10	\$3,280,000.00
WERE	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	Replace Disconnect Switches, Wavetrap, Breaker, Jumpers	06/01/10	06/01/10	\$200,000.00
WERE	CRESWELL - OAK 69KV CKT 1 #1 Displacement	Replace jumpers and bus, and reset CTs and relaying. Rebuild substation:	. 06/01/08		
WERE	CRESWELL - OAK 69KV CKT 1 #2 Displacement	Rebuild 5.82 miles	06/01/08	06/01/10	\$269,266.61
WERE	DEARING 138KV Capacitor Displacement EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	Dearing 138 kV 20 MVAR Capacitor Additior	06/01/10	06/01/10	\$94,019.80
WERE	Displacement	Rebuild 27 miles 345kV construction operated as 230kV Build new 115kV line from East Manhattan to new SW Manhattan	06/01/13	06/01/13	\$534,484.83
WERE	East Manhattan - SW Manhattan 115kV Displacement	substation	06/01/09	06/01/11	\$427,929.35
WERE	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	Add second parallel 230-115kV transformer at E Manhattan	06/01/09	06/01/11	\$397,477.16
		The East Manhattan-McDowell 115 kV is built as a 230 kV line, but is operated at 115 kV. Substation work will have to be performed in order to]	
WERE	East Manhattan to Mcdowell 230 kV Displacement EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1	convert this line.	06/01/09		
WERE	Displacement	Replace Disconnect Switches, Wavetrap, Breaker, Jumpers	06/01/10		
WERE	Green to Vernon 69 kV	Rebuild 7.19 miles Green to Vernon 69 kV (138kV/69kV Operation	06/01/08	06/01/10	\$2,589,000.00
WERE WERE	LEHIGH TAP - OWL CREEK 69KV CKT 1 LEHIGH TAP - UNITED NO. 9 CONGER 69KV CKT 1	Tear down / Rebuild 8.47-mile 69 kV line; 954 kcmil ACSF Tear down / Rebuild 0.91-mile 69 kV line; 954 kcmiol ACSF	06/01/08	06/01/10 06/01/10	\$2,900,000.00 \$310,000.00
	ELISTINA - GRITED NO. 3 GONGEN GRAV GRAT	. Sa. Gomm, Robulid 6.5 Filmic 65 KV IIIIE, 554 KUIIIGI AGGI	30/01/00	. 00/01/10	φ510,000.00
WERE	LITCHFIELD - AQUARIUS - HUDSON JUNCTION 69KV CKT 1 Displacement	Replace 69 kV disconnect switches at Aquarius.	06/01/14		
WERE	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	Replace bus and Jumpers at NE Parsons 138 kV substatio	06/01/09	06/01/09	\$250,000.00
	L	Tear down / Rebuild 5.10-mile Oak-Rainbow 69 kV using 954 kcmil ACSR	06/01/08	06/01/09	\$1,800,000.00
WERE	IOAK - RAINBOW 69KV CKT 1			. 00/01/03	
WERE WERE	OAK - RAINBOW 69KV CKT 1 OXFORD 138KV Capacitor Displacement	Install 30 MVAR Capacitor Bank at Oxford 138 k\	06/01/08	06/01/10	\$174,110.82
WERE	OXFORD 138KV Capacitor Displacement	Install 30 MVAR Capacitor Bank at Oxford 138 k\ Rebuild 5.43 mile Rose Hill Junction-Richland as a 138 kV line but operate			
WERE WERE	OXFORD 138KV Capacitor Displacement RICHLAND - ROSE HILL JUNCTION 69KV CKT 1 Displacement	Install 30 MVAR Capacitor Bank at Oxford 138 k\ Rebuild 5.43 mile Rose Hill Junction-Richland as a 138 kV line but operati at 69 kV.	12/01/07	06/01/10	\$413,284.06
WERE WERE WERE	OXFORD 138KV Capacitor Displacement RICHLAND - ROSE HILL JUNCTION 69KV CKT 1 Displacement SUNFLOWER 69KV Capacitor Displacement	Install 30 MVAR Capacitor Bank at Oxford 138 k\ Rebuild 5.43 mile Rose Hill Junction-Richland as a 138 kV line but operati at 69 kV. Sunflower 69 kV 15 MVAR Capacitor Additior	12/01/07 06/01/10	06/01/10 06/01/10	\$413,284.06 \$87,055.39
WERE WERE	OXFORD 138KV Capacitor Displacement RICHLAND - ROSE HILL JUNCTION 69KV CKT 1 Displacement	Install 30 MVAR Capacitor Bank at Oxford 138 k\ Rebuild 5.43 mile Rose Hill Junction-Richland as a 138 kV line but operati at 69 kV.	12/01/07	06/01/10	\$413,284.06

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

Transmission Owner	Upgrade	Solution	Earliest Data Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)
AEPW	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	Tie Line, Reconductor 1.09 miles of 795 ACSR with 1590 ACSR	06/01/08	06/01/10
OKGE	MUSKOGEE - PECAN CREEK 345KV CKT 1	Increase CT ration at Pecan Creek from 800-5 to 2000-5 to allow a 1500 amp rating of line section.	06/01/09	06/01/09
WERE	166TH STREET - JAGGARD JUNCTION 115KV CKT 1	Tear down and rebuild 3.66 mile 166-Jaggard 115 kV line	06/01/08	
WERE		Tear down and rebuild 7.22 mile Jarbalo-166 115 kV line.	06/01/08	
WERE	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	Tie Line, Rebuild 3.93 miles of 795 ACSR with 1590 ACSR	06/01/08	
WERE	JAGGARD JUNCTION - PENTAGON 115KV CKT 1	Tear down and rebuild Jaggard - Pentagon 115 kV line	06/01/08	06/01/09
WERE	SUMMIT - RENO 345KV	Install new 50.55-mile 345 kV line from Reno county to Summit; 31 miles o 115 kV line between Circle and S Philips would be rebuilt as double circuit with the 345 kV line to minitize ROW impacts; Substation work required at Summit for new 345 kV terminal		06/01/10
WERE	WICHITA - RENO 345KV	40 mile 345 kV transmission line from existing Wichita 345 kV substation tr a new 345-115 kV substation in Reno County east northeast of Hutchinson (Wichita to Reno)	12/01/07	06/01/09
WERE	WICHITA - RENO 345KV	Build 345kV from Wichita to Reno Co	12/01/07	
WFEC	LANE - ATOKA - TUPELO 138KV		06/01/17	06/01/17

WFEC	LANE - ATOKA - TUPELO 138KV		06/01/17	06/01/17
Expansion Plan	Projects - The requested service is contingent upon completion of the follow	ving upgrades. Cost is not assignable to the transmission custom		
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 @ BSE	06/01/08	06/01/1
AEPW	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	Rebuild 13.11 miles of 795 ACSR with 1590 ACSR & reset relays @ BSE	06/01/08	06/01/1
AEPW	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 AEPW	Rebuild 17.96 miles of 755 ACSR with 1350 ACSR	06/01/09	06/01/1
AEPW	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 AEPW	Rebuild 7.43 miles of 250 CWC with 795 ACSR	06/01/09	06/01/1
EMDE	JAMESVILLE - SUB 415 - BLACKHAWK JCT. 69KV CKT 1 EMDE	Replace Jumpers to breaker #6950 at Blackhawk Jct	06/01/11	06/01/1
EMDE	SUB 124 - AURORA H.T SUB 152 - MONETT H.T. 69KV CKT 1	Change CT Ratio on breaker #6936 at Aurora #124	06/01/09	06/01/0
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 E	06/01/16	06/01/1
EMDE	SUB 124 - AURORA H.T. 161KV	Install 3 - stages of 22 MVAR each for total of 66 MVAR capacitor bank at Aurora Sub #124 bus# 547537	06/01/10	06/01/1
EMDE	SUB 145 - JOPLIN WEST 7TH - SUB 341 - JOPLIN NORTHWEST 69KV CKT 1			06/01/1
EMDE	SUB 145 - JOPLIN WEST 7TH - SUB 64 - JOPLIN 10TH ST. 69KV CKT 1	Replace Disconnect Switches and Leads on Breaker #6965 at Sub #64 and #6932 at Sub #145	06/01/10	06/01/1
EMDE	SUB 152 - MONETT H.T SUB 383 - MONETT 69KV CKT 1	Replace 4/0 Cu jumpers with 500 MCM Cu, new Rate: 54 / 65	06/01/10	06/01/1
	SOUTH THE SOUTH OF THE STATE OF	Install new line from Sub #383 to new Sub MONETT 5. Install 3-wind	33/31/03	00/01/0
EMDE	SUB 383 - MONETT (MONETT) 161/69/12.5KV TRANSFORMER CKT 1	transformer from 161 kV new bus to Monett city south 69kV	06/01/14	06/01/1
	0UD 400 DIVERGIRE 404/04	Install 3 - stages of 22 MVAR each for a total of 66 MVAR capacitor bank a		00/04/4
EMDE	SUB 438 - RIVERSIDE 161KV	Riverside Sub #438 547497	06/01/10	06/01/1
GRDA INDN	KERR - PENSACOLA 115KV CKT 1 SUBSTATION M 161/69KV TRANSFORMER CKT 1	Rebuild 22 miles of line from 4/0 Cu to 795 ACSR for 161k\ Upgrade Transformer	12/01/12 06/01/10	12/01/1 06/01/1
KACP	ANTIOCH - OXFORD 161KV CKT 1	Reconductor 5 miles with 1192.5 ACSS, 558 normal/emergency rating	06/01/10	06/01/1
KACP	AVONDALE - GLADSTONE 161KV CKT 1	Upgrade Wavetrap at Gladstone from 800 amps to 1200 amps	06/01/10	06/01/1
KACP	Centerville Cap Bank	20 Mvar at Centerville	06/01/09	06/01/1
KACP	REDEL - STILWELL 161KV CKT 1	Reconductor line with 1192 ACSS and upgrade terminal equipment for 200 amps	06/01/08	06/01/1
KACP	WEST GARDNER (WGARD 11) 345-161-13_8KV TRANSFORMER CKT 11	Replace 400/440 Mva Tx with 600/660 Mva T:	06/01/08	06/01/0
NACE	WEST GARDNER (WGARD 11) 343-101-13_0KV TRANSFORMER CKT 11	Tear down and rebuild 73.4% Ownership 28.79 mile HEC-Huntsville 115 k		06/01/0
MIDW	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 MIDW	line and replace CT, wavetrap and relays.	06/01/17	06/01/1
		Rebuild 26.5 miles Huntsville - St. John 115 kV line and replace CT		
MIDW	HUNTSVILLE - ST_JOHN 115KV CKT 1	wavetrap, breakers, and relays.	06/01/17	06/01/1
MIPU MIPU	BELTON SOUTH - TURNER ROAD SUBSTATION 161KV CKT 1 BLUE SPRINGS EAST - DUNCAN ROAD 161KV CKT 1	Reconductor to Bundled Drake Upgrade to conductor Bundled Drake	06/01/08 06/01/08	06/01/1 06/01/1
MIPU	BLUE SPRINGS EAST - DUNCAN ROAD 16 TRV CRT 1	Add 50 MVAR cap bank at Blue Springs Eas	06/01/08	06/01/1
MIPU	EAST 20MVAR CAPACITOR	Add 20MVAR capacitor at East 161kV	06/01/12	06/01/1
MIPU	EDMOND SUB	Add a new 161/34.5 kV Sub at Edmond	06/01/09	12/01/0
MIPU	Freeman to Harrisonville West 69 kV	set overcurrent relay to trip the line	06/01/09	06/01/0
MIPU	MARTIN CITY - TURNER ROAD SUBSTATION 161KV CKT 1	Upgrade to bundled 795 26/7 ACSR conducto	06/01/08	06/01/1
		Replace 1200A terminal equipment at Arkoma to 2000A and rebuild 4.47		
OKGE	ARKOMA - FT SMITHW 161KV CKT 1	miles of line to 1590AS52.	06/01/17	06/01/1
OKGE	CANADIAN - CEDAR LANE 138KV CKT 1	Replace a trap at Cedar Lane to 1200A	06/01/12	06/01/1
OKGE	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 OKGE	Rebuild 17.96 miles of 250 Copperweld with 1272 ACSR	06/01/09	06/01/1
OKGE	FRANKLIN SW - MIDWEST TAP 138KV CKT 1 OKGE	Reconductor 1.27 miles of line to 1590AS52. WFEC will have to provide upgrade solution also for their Franklin (WFEC).	06/01/12	06/01/1
OKGE	IFT SMITH CAP BANK	Install a cap bank at the FT Smith 345 bu:	06/01/12	06/01/1
OKGE	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 OKGE	Rebuild 7.43 miles of 250 CWC with 795 ACSR	06/01/09	06/01/1
OKGE	RUSSETT - RUSSETT 138KV CKT 1 OKGE	Replace trap and increase CTR. Pending verification of relays	06/01/17	06/01/1
CDDM	DDOOKLING CUMMIT OAS IN OKT A	Build a 345 kV line from Brookline to Summit substation and install a	00/04/40	00/01/1
SPRM SPRM	BROOKLINE - SUMMIT 345 KV CKT 1 JAMES RIVER - TWIN OAKS 69KV CKT 1	345/161 kV autotransformer at Summit Reconductor 636 ACSR with 762.8 ACSS/TW	06/01/13 06/01/15	06/01/1 06/01/1
SPRM	KICKAPOO - SUNSET 69KV CKT 1	Reconductor 636 ACSR with 762.8 ACSS/TW Reconductor 636 ACSR with 762.8 ACSS/TW	06/01/15	06/01/1
SPRM	NEERGARD - NORTON 69KV CKT 1	Transfer load & Reconductor 636 ACSR with 477 ACSS/TW	06/01/10	06/01/1
SPRM	NORTON 161KV CAPACITOR	Install 30 Mvar capacitor at Norton 161 kV bu:	06/01/13	06/01/1
SWPA	5CALCR - NORFORK 161KV CKT 1 SWPA	Replace buswork within bay and change metering CT ratio, replace wavetraps. Entergy must also reconductor their line to increase the rating.	06/01/09	06/01/0
SWPA	BULL SHOALS - BULL SHOALS 161KV CKT 1	Replace buswork in Bull Shoals switchyard	06/01/09	11/01/0
SWPA	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	Replace wave trap, disconnect switches, current transformers, and breaker Bus will limit rating to 1340 amps.	06/01/09	06/01/0
SWPA	JONES - JONESBORO 161KV CKT 1 SWPA	Change the ratio on the metering CTs to 1200/5 and adjust the meter	06/01/08	01/01/0
SWPA	NIXA (NXA X1) 161/69/13.8KV TRANSFORMER CKT 1	Replace with 70MVA transformer.	06/01/12	06/01/1
SWPA	NIXA 161KV CAP BANK	25Mvar Cap at Nixa	06/01/17	06/01/1
WEPL	CLAY CENTER - GREENLEAF 115KV CKT 1	Building a new 115 kV tie with Westar from Greenleaf to Clay Cente	04/01/08	06/01/1

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

WERE	ANZIO - FORT JUNCTION SWITCHING STATION 115KV CKT 1	Tear down / Rebuild 3.53-mile section of line, 556.5 kcmil ACSF	12/01/07	06/01/10
WERE	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	Add second Auburn 230-115 kV transformer	06/01/16	06/01/16
WERE	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	Reset terminal equipment	04/01/08	06/01/10
WERE	CHASE - WHITE JUNCTION 69KV CKT 1	Tear down / Rebuild 7.3-mile Chase - White Junction 69 kV line. Replace existing 2/0 copper conductor with 795 kcmil ACSR conductor.	06/01/08	06/01/10
WERE	CIRCLE - HUTCHINSON GAS TURBINE STATION 115KV CKT 1	Rebuild Circle - HEC GT 115 kV line	06/01/11	06/01/11
WERE	CIRCLE - RENO COUNTY 115KV CKT 2	Rebuild 6.25-miles	12/01/09	06/01/10
WERE	CIRCLE - SANDHILL ARK VALLEY CO-OP D.P. JUNCTION 115 KV CKT 1	Rebuld 4.8 miles	06/01/10	06/01/10
WERE	COWSKIN - WESTLINK 69KV	Rebuild 2.11 miles	06/01/10	06/01/10
	FORT JUNCTION SWITCHING STATION - MCDOWELL CREEK SWITCHING			
WERE	STATION 115KV CKT 1	Rebuild 11-mile McDowell-Ft Junction 115 kV 1&2 with 1192.5 kcmil ACSR	06/01/09	06/01/10
		Tap Litchfield-Marmaton 161 kV with new SW Bourbon Sub to Ft Scott, and		
WERE	Fort Scott - SW Bourbon 161 kV	new 161/69 kV transformer at Ft Scott.	06/01/10	06/01/10
WERE	GILL ENERGY CENTER EAST - INTERSTATE 138KV CKT 1	Replace wave trap	06/01/16	06/01/16
WERE	HOOVER SOUTH - TYLER 69KV	Rebuild 1.94 miles	06/01/10	06/01/10
		Tear down and rebuild 26.6% Ownership 28.79 mile HEC-Huntsville 115 k\		
WERE	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 WERE	line and replace CT, wavetrap and relays.	06/01/17	06/01/17
		Rebuild 5.73 mile Weaver-Rose Hill Junction as a 138 kV line but operate a		
WERE	ROSE HILL JUNCTION - WEAVER 69KV CKT 1	69 kV.	12/01/07	06/01/1
WERE	SANDHILL ARK VALLEY CO-OP D.P. JUNCTION - TOWER 33 115 KV CKT 1	Rebuld 4.1 miles and operate line closed	06/01/10	06/01/10
WERE	SENECA 115KV Capacitor	Seneca 115kV Add 2 10.9Mvar caps	04/01/08	06/01/10
	CENEON TRANS CAPACION	Rebuild 11.62-mile Jarbalo-NW Leavenworth 115 kV line and tap in & out o	0 1/0 1/00	00/01/10
WERE	STRANGER CREEK - NW LEAVENWORTH 115KV	Stranger 115 kV	06/01/10	06/01/10
WERE	STRANGER CREEK TRANSFORMER CKT 2	Install second Stranger Creek 345-115 transforme	06/01/09	06/01/09
WERE	Summit - NE Saline 115 kV	Tear down 6.0-miles of Summit-Northview 115 kV, Build 6.0-mile double circuit Summit-Northview 115 kV and Build new 0.5-mile single circuit to Northview-South Gate double circuit and disconnect tower to Northview.	12/01/07	06/01/10
WERE	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1 Displacement	Convert 161 kV Line to 115 kV Operatior	06/01/09	06/01/09
WERE	TYLER - WESTLINK 69KV	Rebuild 2.66 miles and operate line normally close	06/01/10	06/01/10
WFEC	ACME - WEST NORMAN 69KV CKT 1	Reconductor 4 miles from 4/0 to 795 ACSR	06/01/12	06/01/12
WFEC	COLBERT - TEXOMA 138 KV CKT 1	Build new 138kV line from Colbert to Texoma	06/01/12	06/01/12
WFEC	FRANKLIN SW - MIDWEST TAP 138KV CKT 1 WFEC	Replace switches and wavetrap at Franklin Switch to 2000/	06/01/12	06/01/12
WFEC	FRANKLIN SW 138/69KV TRANSFORMER CKT 1	Replace 70 MVA Auto with 112 MVA autotranformer (100 MVA base Rating), Upgrade 138 and 69 KV buswork and switches.	06/01/12	06/01/12
WFEC	HAMMETT - MEEKER 138KV CKT 1	Install 10 miles of 138 kV from MEEKER sub to Hammett Sub and install termal equipment	06/01/12	06/01/1:
WILC	I I ANNINIETT - WILLIAM TOOKY CKT T	Convert Canadian - OU - Cole - Criner to 138 KV and Canadian-Goldsby	00/01/12	00/01/12
WFEC	Norman Area Voltage Conversion	OU-W Norman-Acme-Franklin	06/01/12	06/01/12
WFEC	PAOLI 138/69KV TRANSFORMER CKT 1	Upgrade to 70 MVA	12/01/12	12/01/1
WFEC	RUSSETT - RUSSETT 138KV CKT 1 WFEC	Upgrade Terminal Equip CTs at Russet	06/01/17	06/01/1
		replace the 336.4 conductor with 795, 1.5 double circuit 795/336.4 H-frame @ \$310,000/mi (the other circuit is the Woodward – Taloga line) 1.9 singl		
WFEC	WOODWARD - WOODWARD 69KV CKT 1	circuit 795 H-frame @ \$250,000/mi	12/01/12	12/01/1:

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

Transmission Owner	Upgrade	Solution	Upgrade Required	Estimated Date of Upgrade Completion (EOC)
AEPW	HUGO POWER PLANT - VALLIANT 345 KV AEPW	Vallient 345 KV line termina	05/01/10	05/01/10
EMDE	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	Reconductor Oronogo 59467 to Riverton 59469 with Bundled 556 ACSR	06/01/11	06/01/11
KACP	LACYGNE - WEST GARDNER 345KV CKT 1	KCPL Sponsored Project to Reconductor Line to be In-Service by 6/1/2006		
OKGE	ARCADIA - REDBUD 345 KV CKT 1	Sponsored Project to Uprate Terninal Equipmen	06/01/06	06/01/06
OKGE	ARCADIA - REDBUD 345 KV CKT 2	Sponsored Project to Uprate Terninal Equipmen	06/01/06	06/01/06
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.	06/01/06	04/01/08
WERE	RENO 345/115KV CKT 1	New stepdown transformer at a new substation in Reno County eas northeast of Hutchinson	06/01/09	06/01/09
WERE	RENO 345/115KV CKT 2	Install 2nd stepdown transformer at Reno County substation east northeas of Hutchinson	06/01/10	06/01/10
WERE	SUMMIT - RENO 345KV	Install new 50.55-mile 345 kV line from Reno county to Summit; 31 miles o 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		06/01/10
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)		
WERE	WICHITA - RENO 345KV	Build 345kV from Wichita to Reno Co	06/01/09	
WFEC	FPL SWITCH - MOORELAND 138KV CKT 1 WFEC	Upgrade terminal equipment FPL Sw & Mooreland	06/01/06	
WFEC	HUGO POWER PLANT - VALLIANT 345 KV WFEC	New 345/138 kv Auto, and 19 miles 345 KV	05/01/10	

Table 5 - Third Party Facility Constraints

Transmission		Solution	Earliest Data Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
Owner AECI	UpgradeName CLINTON - OSCEOLA 161KV CKT 1	Rebuild with 954 ACSR	6/1/2017	6/1/2017	\$8,400,000.00
AECI	GEORGETOWN - GEORGETOWN TAP 2 69KV CKT 1	Reconductor with 795 ACSR.	5/1/2010		
AECI	GEORGETOWN - GEORGETOWN TAP 2 69KV CKT T	Additional Equipment at Georgetown	5/1/2010		
AECI	GEORGETOWN - SEDALIA 161 CKT 1	Rebuild 161kV line from Sedalia West –	5/1/2010	5/1/2010	\$780,000.00
AECI	GEORGETOWN - SEDALIA 161KV CKT 1 AECI		6/1/2010	6/1/2010	£4 000 000 00
AECI	GEORGETOWN - SEDALIA 161KV CKT 1 AECI	George Town to a bundled 795 26/7 ACSR	6/1/2010	6/1/2010	\$4,000,000.00
	05000550000 050000 0000 00000 00000 000	New 161kV line from new plant site George	0/4/0040		*****
AECI	GEORGETOWN - SEDALIA SUB 161.00 161KV CKT 1 AECI	Town, built for a bundled 795 26/7 ACSR	6/1/2010		
AECI	GEORGETOWN (GEORGETO) 161/69/13.2KV TRANSFORMER CKT 1	Replace transformer at Georgetown	5/1/2010		
AECI	GEORGETOWN TAP 2 - SEDALIA 69KV CKT 1	Rebuild Georgtown tap to Sedalia 69 kV	5/1/2010		
AECI	JAMESVILLE - SUB 415 - BLACKHAWK JCT. 69KV CKT 1 AECI	Reset CT	6/1/2011		Indeterminate
AMRN	OVERTON 345.00 () 345/161/13.8KV TRANSFORMER CKT 1	Indeterminate	12/1/2008		Indeterminate
ENTR	5BEE BR - QUITMAN 161KV CKT 1	Indeterminate	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
		Rebuild 17.96 miles of 250 Copperweld with			
ENTR	DANVILLE (APL) - MAGAZINE REC 161KV CKT 1 ENTR	1272 ACSR.	6/1/2009	6/1/2011	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		Indeterminate
ENTR	JONES - JONESBORO 161KV CKT 1 ENTR	Indeterminate	6/1/2008		Indeterminate
ENTR	JONESBORO - JONESBORO NORTH (AECC) 161KV CKT 1	Indeterminate	6/1/2008		Indeterminate
ENTR	JONESBORO NORTH (AECC) - PARAGOULD SOUTH (AECC) 161KV CKT 1	Indeterminate	6/1/2008		Indeterminate
LIVITY	SONE SBOKE NOKTH (AESS) - FAKAGOSEB GOSTH (AESS) TOTKY OKT T	macterminate	0/1/2000	0/1/2000	macterninate
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
ENTR	RUSSELLVILLE EAST - RUSSELLVILLE SOUTH 161KV CKT 1	Indeterminate	6/1/2009	6/1/2009	Indeterminate