

Aggregate Facility Study
SPP-2007-AG2-AFS-6
For Transmission Service
Requested by
Aggregate Transmission Customers

SPP Engineering, SPP Tariff Studies

SPP AGGREGATE FACILITY STUDY (SPP-2007-AG2-AFS-6)
July 25, 2008

Page 1 of 57

# Table of Contents

1.	Executive Summary	3
2.	Introduction	4
A. B. 3.	· · · · · · · · · · · · · · · · · · ·	9
A.B. C. D.	Model Development	11 12 13
4.	Study Results	. 14
A. B. 5.	· · · · · · · · · · · · · · · · · · ·	17
6.	Appendix A	. 19

## 1. Executive Summary

Pursuant to Attachment Z of the Southwest Power Pool Open Access Transmission Tariff (OATT), 797 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 \$25 Million. Additionally an indeterminate amount of assigned E & C cost for 3<sup>rd</sup> party facility upgrades are assignable to the customer. The total upgrade levelized revenue requirement for all transmission requests is \$29 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 \$23 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 July 25th, 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 August 9th, 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 second open season of 2007 commenced on June 1, 2007. All requests for long-term transmission service received prior to June 1, 2007 with a signed study agreement were then included in this second Aggregate Transmission Service Study (ATSS) of 2007.

Approximately 797 MW of long-term transmission service has been restudied in this Aggregate Facility Study (AFS) with over \$24 Million in transmission upgrades being proposed. The results of the AFS are detailed in Tables 1 through 7. A highly tangible benefit of studying transmission requests aggregately under the SPP OATT Attachment Z is the sharing of costs among customers using the same facility. The detailed results show individual upgrade costs by study as well as potential base plan allowances as determined by Attachments J and Z. The following URL can be used to access the SPP OATT:

(http://www.spp.org/Publications/SPP\_Tariff.pdf). In order to understand the extent to which base plan upgrades may be applied to both point-to-point and network transmission services, it is necessary to highlight the definition of Designated Resource. Per Section 1.9a of the SPP OATT, a Designated Resource is "[a]ny designated generation resource owned, purchased or leased by a Transmission Customer to serve load in the SPP Region. Designated Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Transmission Customer's load on a non-interruptible basis." Therefore, not only network service, but also point-to-point service has potential for base plan funding if the conditions for classifying upgrades associated with designated resources as base plan upgrades as defined in Section III.B of Attachment J are met.

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

- 1. Transmission Customer's commitment to the requested new or changed Designated Resource must have a duration of at least five years.
- 2. During the first year the Designated Resource is planned to be used by the Transmission Customer, the accredited capacity of the Transmission Customer's existing Designated Resources plus the lesser of (a) the planned maximum net

dependable capacity applicable to the Transmission Customer or (b) the requested capacity; shall not exceed 125% of the Transmission Customer's projected system peak responsibility determined pursuant to SPP Criteria 2.

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

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

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

Facilities identified as limiting the requested Transmission Service have been reviewed to determine the required in-service date of each Network Upgrade. The year that each Network Upgrade is required to accommodate a request is determined by interpolating between the applicable model years given the respective loading data. Both previously assigned facilities and the facilities assigned to this request for Transmission Service were evaluated.

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

limited by transmission owner planned projects, expansion plan projects, or customer assigned upgrades.

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

# A. Financial Analysis

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

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

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

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

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

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

# **B.** Third Party Facilities

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

All modeled facilities within the Transmission Provider system were monitored during the development of this Study as well as certain facilities in first-tier neighboring systems. Third-party facilities must be upgraded when it is determined that they are overloaded while accommodating the requested Transmission Service. An agreement between the Customer and 3<sup>rd</sup> Party Owner detailing the mitigation of the 3<sup>rd</sup> 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 3<sup>rd</sup> 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 115 kV and above. Voltage monitoring was performed for SPP control area buses 69 kV and above.

A 3 % transfer distribution factor (TDF) cutoff was applied to all SPP control area facilities. For first tier Non – SPP control area facilities, a 3 % TDF cutoff was applied to AECI, AMRN, and ENTR and a 2 % TDF cutoff was applied to MEC, NPPD, and OPPD. For voltage monitoring, a

0.02 per unit change in voltage must occur due to the transfer or modeling upgrades to be considered a valid limit to the transfer.

# **B.** Model Development

SPP used eleven seasonal models to study the aggregate transfers of 797 MW over a variety of requested service periods. The SPP MDWG 2007 Series Cases Update 2 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 797 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 1<sup>st</sup>-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 attestation statements 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 July 25th, 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 August 9th, 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 – Stepp	ping
Area interchange contr	ol – Tie lines and loads
Var limits – Apply imr	nediately
Solution options - $\underline{X}$	Phase shift adjustment
	Flat start
_ ·	Lock DC taps
	Lock switched shunts
ACCC CASES:	
Solutions – AC conting	gency checking (ACCC)
MW mismatch tolerand	ce - 0.5
Contingency case ratin	g – Rate B
Percent of rating – 100	
Output code – Summa	•
Min flow change in ov	
	·loads form report – YES
Exclude interfaces from	•
Perform voltage limit o	
Elements in available of	
	ailable capacity table – 99999.0
	chng for report – 0.02
Sorted output – None	
Newton Solution:	
Tap adjustment – Step	
_	ol – Tie lines and loads
Var limits - Apply auto	•
_	Phase shift adjustment
	Flat start
	Lock DC taps
	Lock switched shunts

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

												Mimimum	Season of Minimum
								Deferred Start	Deferred Stop			Allocated ATC	Allocated ATC
								Date without		Start Date	Stop Date	(MW) within	within
					Requested	Requested	Requested	interim	interim	with interim	with interim	reservation	reservation
Customer	Study Number	Reservation	POR	POD	Amount	Start Date	Stop Date	redispatch	redispatch	redispatch	redispatch	period	period
AEPM	AG2-2007-049	1283585	WFEC	CSWS	15	6/1/2008		6/1/2011	6/1/2016		6/1/2016		08SP
AEPM	AG2-2007-051	1283682		CSWS	152	6/1/2008		6/1/2011	6/1/2016	6/1/2011	6/1/2016		08SP
AEPM	AG2-2007-107	1286446	CSWS	CSWS	100	1/1/2009	1/1/2010	6/1/2011	6/1/2012	6/1/2011	6/1/2012	0	09SP
CWEP	AG2-2007-047	1283676	EES	SPA	12	6/1/2010	6/1/2040	6/1/2013	6/1/2043	6/1/2013	6/1/2043	0	12SP
KCPS	AG2-2007-109	1286498		EES	82	1/1/2009	6/1/2010	1/1/2009	6/1/2010	1/1/2009	6/1/2010		09SP
KEPC	AG2-2007-028	1281648	WR	EDE	6	1/1/2008	1/1/2019	6/1/2009	6/1/2020	9/1/2008	9/1/2019	0	08SP
KPP	AG2-2007-072	1285893	WR	WR	8	11/1/2007	11/1/2017	6/1/2011	6/1/2021	9/1/2008	9/1/2018	0	08SP
MIDW	AG2-2007-012	1268955	WR	WR	5	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013	0	08SP
MIDW	AG2-2007-013	1268959	WR	WR	1	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013	0	08SP
MIDW	AG2-2007-014	1268965	WR	WR	1	6/1/2008	6/1/2013	12/1/2009	12/1/2014	9/1/2008	9/1/2013	0	08SP
MIDW	AG2-2007-034	1281706	WR	WR	25	3/1/2008	3/1/2027	6/1/2011	6/1/2030	9/1/2008	9/1/2027	0	08SP
MIDW	AG2-2007-069	1285864	WR	WR	4	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013	0	08SP
MIDW	AG2-2007-069	1285865	WR	WR	3	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013	0	08SP
MIDW	AG2-2007-069	1285866	WR	WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013	0	08SP
MIDW	AG2-2007-069	1285867	WR	WR	1	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013	0	08SP
MIDW	AG2-2007-070	1285869	WR	WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013		08SP
MIDW	AG2-2007-071	1285872	WR	WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	9/1/2008	9/1/2013		08SP
MIDW	AG2-2007-071	1285873	WR	WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	9/1/2008	9/1/2013		08SP
MIDW	AG2-2007-078	1285946	WR	WR	3	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013		08SP
MIDW	AG2-2007-078	1285947	WR	WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013	0	08SP
MIDW	AG2-2007-078	1285948		WR	1	6/1/2008		12/1/2009	12/1/2014	10/1/2008	10/1/2013		08SP
MIDW	AG2-2007-079	1285949		WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013		08SP
MIDW	AG2-2007-079	1285950		WR	1	6/1/2008	6/1/2013	12/1/2009	12/1/2014	10/1/2008	10/1/2013		08SP
MIDW	AG2-2007-080	1285951		WR	2	6/1/2008		6/1/2011	6/1/2016	9/1/2008	9/1/2013		08SP
MIDW	AG2-2007-080	1285952		WR	2	6/1/2008		6/1/2011	6/1/2016	9/1/2008			08SP
MIDW	AG2-2007-080	1285953		WR	1	6/1/2008		6/1/2011	6/1/2016				08SP
SPRM	AG2-2007-110	1286502		SPA	25	12/1/2008		6/1/2010		6/1/2010			09SP
SPSM	AG2-2007-067	1280570		SPS	80	1/1/2009		1/1/2009	1/1/2029	1/1/2009			12SP
SPSM	AG2-2007-067	1280571		SPS	70	1/1/2009		1/1/2009	1/1/2029	1/1/2009	1/1/2029		12SP
WFEC	AG2-2007-016	1278401		WFEC	19	12/15/2007		6/1/2011	6/1/2036	6/1/2011	6/1/2036		08SP
WRGS	AG2-2007-011D	1268638		AMRN	20	6/1/2010		6/1/2010		6/1/2010			12SP
WRGS	AG2-2007-017D	1278809		SPA	20	3/1/2010		3/1/2010	3/1/2040	3/1/2010			12SP
WRGS	AG2-2007-018D	1278811		SPA	20			3/1/2010		3/1/2010			12SP
WRGS	AG2-2007-019D	1278813	_	SPA	7	3/1/2010		3/1/2010	3/1/2040	3/1/2010			12SP
WRGS	AG2-2007-092D	1286201	SECI	WR	99	3/1/2009	3/1/2019	6/1/2011	6/1/2021	6/1/2011	6/1/2021	0	09SP

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

Customer	Chudu Niverhae	Basawatian	Co		Cre	<sup>1</sup> Letter of edit Amount Required	Pla	Potential Base an Engineering d Construction Fundable	Notes	<sup>4</sup> Additional Engineering and Construction Cost for 3rd	A W	<sup>3</sup> Total Revenue Requirements for ssigned Upgrades Over Term of Reservation VITHOUT Potential Base Plan Funding	A I P	<sup>3 5</sup> Total Revenue Requirements for ssigned Upgrades Over Term of Reservation WITH otential Base Plan	В	Point-to-Point ase Rate Over Reservation Period		<sup>4</sup> Total Cost of Reservation Assignable to istomer Contingent Upon Base Plan
Customer AEPM	Study Number AG2-2007-049	Reservation 1283585	\$	1,835,562		1,436,483	Ф	Allowable 270,000	z	Party Upgrades Indeterminate	\$	Allocation 3,397,500		Funding Allocation 2,862,193	Ф		\$	Funding 2,862,193
AEPM	AG2-2007-049 AG2-2007-051	1283682	\$	1,238,089		1,430,403	\$	86,173		Indeterminate	\$			2,002,193	\$		٠	hedule 9 Charges
AEPM	AG2-2007-051 AG2-2007-107	1283682	\$	981,493		-	\$	80,173		Indeterminate	\$		\$	83,204	\$		\$	83,204
CWEP	AG2-2007-107 AG2-2007-047	1283676	\$	100,000		-	\$	-			\$	, ,	\$	83,204	Φ	3,888,000	٠	3,888,000
KCPS	AG2-2007-047 AG2-2007-109	1286498	\$	,	\$	163.236	\$	-		Indeterminate -	\$		\$	191,239	Φ	1,254,600	\$	1,254,600
KEPC	AG2-2007-109 AG2-2007-028	1281648	\$	,	_	103,230	\$	-		7	\$		\$	191,239	\$	, ,	+	hedule 9 Charges
KPP	AG2-2007-028 AG2-2007-072	1285893	\$		\$		\$	-		Indeterminate -	\$		\$	-	\$			hedule 9 Charges
MIDW	AG2-2007-072 AG2-2007-012	1268955	\$		\$		\$	-	6	7	\$		\$		\$		\$	472,500
MIDW	AG2-2007-012 AG2-2007-013	1268959	\$	-	\$	-	\$	-	6	'	\$		\$		\$	,	+	
MIDW	AG2-2007-013 AG2-2007-014	1268965	\$	-	\$	-	\$	-	6		\$		\$	-	\$	- ,	\$	94,500 94,500
MIDW		1281706	\$	-	\$		\$	-	0	\$ -	\$		\$		\$	- ,	٠	- /
MIDW	AG2-2007-034 AG2-2007-069	1281706	\$	-	\$		\$	-	6	7	\$		\$	-	\$			hedule 9 Charges 378,000
MIDW	AG2-2007-069 AG2-2007-069	1285865	\$		\$		\$	-	6	*	\$		\$		\$		\$	283,500
MIDW	AG2-2007-069 AG2-2007-069	1285866	\$		\$	-	\$	-	6		\$		\$	-	\$			189,000
MIDW	AG2-2007-069 AG2-2007-069	1285867	\$		\$		\$	-	6		\$		\$	-	\$			94,500
MIDW	AG2-2007-069 AG2-2007-070	1285869	\$		\$		\$	-	6	*	\$		\$		\$	,		189,000
	AG2-2007-070 AG2-2007-071	1285869	_		-		_	-	6				\$	-	,			
MIDW MIDW		1285872	\$		\$	-	\$	-	6		\$		_	-	\$			189,000 189,000
MIDW	AG2-2007-071 AG2-2007-078	1285873	\$		\$	-	\$	-	6		\$		\$	-	\$	,		283,500
MIDW		1285946			\$	-	\$	-	6		\$		\$	-	\$	,		
	AG2-2007-078		\$		\$	-	-	-						-	\$	/	•	189,000 94,500
MIDW	AG2-2007-078	1285948	\$		\$	-	\$	-	6		\$		\$	-	\$	- ,		
MIDW	AG2-2007-079	1285949	\$		\$	-	\$	-	6		\$		\$	-	\$			189,000
MIDW	AG2-2007-079	1285950	\$		\$	-	\$	-			\$		\$	-	\$			94,500
MIDW MIDW	AG2-2007-080 AG2-2007-080	1285951 1285952	\$		\$	-	\$	-	6	•	\$		\$	-	\$	,		189,000
MIDW	AG2-2007-080 AG2-2007-080	1285952	\$		\$		\$	-	6		\$		\$	-	\$	,	\$	189,000 94,500
SPRM	AG2-2007-080 AG2-2007-110	1285953	\$		\$		\$	-	0	*	\$		\$	-	\$	,	+	hedule 9 Charges
SPSM	AG2-2007-110 AG2-2007-067	1280570	\$		\$		\$	-		Indeterminate -	\$		\$	-	\$			hedule 9 Charges
SPSM	AG2-2007-067 AG2-2007-067	1280570	\$		\$		\$	-		\$ -	\$		\$	-	\$			hedule 9 Charges hedule 9 Charges
WFEC	AG2-2007-067 AG2-2007-016	1280571	\$		\$		\$	342.000		*	\$		\$	7.154.176	\$		\$	7.154.176
WRGS	AG2-2007-016 AG2-2007-011D			196,764	-	196.764	-	342,000		Indeterminate -	\$	-, - ,-	-	, - , -	\$	1.080.000	•	1.080.000
WRGS	AG2-2007-011D AG2-2007-017D	1268638 1278809	\$	9,700,000		190,704	\$	-		Indeterminate	,	,	\$	258,523		6,480,000	•	1 1
WRGS			_	, ,	_	-		-			\$		\$	-	\$	, ,		6,480,000
WRGS	AG2-2007-018D	1278811	\$	1,165,527	_		\$	-		Indeterminate	\$		\$	-	\$	-,,	_	6,480,000
WRGS	AG2-2007-019D AG2-2007-092D	1278813 1286201	\$	334,473 8,500,000			\$	1,782,000		Indeterminate -	\$		•	14,960,686	_	2,268,000	\$	2,268,000 16,742,686
Grand Total	AGZ-2007-092D	1200201	Δ	27 010 000	Ф	-	Φ	1,702,000		Φ -	1 \$		\$	22 979 921	Φ	-	Ф	10,742,080

Grand Total \$ 27,010,000 \$ 28,945,471 \$ 22,979,921

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

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

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

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

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

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

Note 6: Base Plan Funding is indeterminate due to lack of information

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

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue
Customer	ivesel varion	i Oik	י סט	Aillouit	Start Date	Stop Date	Redispaton	Redispateri	Allowable	Dase Nate	COSI	Requirements
AEPM	1283585	WFEC	CSWS	15	6/1/2008	6/1/2013	6/1/2011	6/1/2016	\$ 270,000	\$ -	\$ 1,835,562	\$ 3,397,500
		-				_			\$ 270,000	\$ -	\$ 1,835,562	\$ 3,397,500

				Earliest Service	Redispatch	Alloc	ated E & C		Tota	al Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Req	uirements
1283585	CLARENCE - MONTGOMERY 230KV CKT 1 CELE	6/1/2009	6/1/2011		No	\$	121,921	\$ 2,200,000	\$	-
	DIANA - LONE STAR SOUTH 138KV CKT 1	12/1/2009	6/1/2010	4/1/2010	Yes	\$	8,497	\$ 150,000	\$	14,990
	FT SUPPLY - WOODWARD 69KV CKT 1	6/1/2008	6/1/2011		Yes	\$	1,705,144	\$ 4,500,000	\$	3,382,510
					Total	\$	1,835,562	\$ 6,850,000	\$	3,397,500

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
1283585	ALVA - KNOBHILL 69KV CKT 1	6/1/2010	6/1/2010		
	ARSENAL HILL (ARSHILL1) 138/69/12.47KV TRANSFORMER CKT 1	6/1/2013	6/1/2013		
	ARSENAL HILL (ARSHILL2) 138/69/14.5KV TRANSFORMER CKT 2	6/1/2013	6/1/2013		
	BENTONVILLE SHANE LANE - EAST CENTERTON 161KV CKT 1	6/1/2013	6/1/2013		
	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	6/1/2013	6/1/2013		
	FLINT CREEK - EAST CENTERTON 161KV CKT 1	6/1/2013	6/1/2013		
	LAWTON EASTSIDE (LES 2) 138/69/13.8KV TRANSFORMER CKT 2	12/1/2012	12/1/2012		
	MOORELAND - MOREWOOD SW 138KV CKT 1	9/1/2008	6/1/2010		Yes
	SOUTHWEST SHREVEPORT - SOUTHWEST SHREVEPORT TAP 138KV CKT 1	6/1/2009	6/1/2009		
	SUB 438 - RIVERSIDE 161KV	6/1/2013	6/1/2013		

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

					Earliest Service	Redispatch
R	eservation	Upgrade Name	COD	EOC	Date	Available
	1283585	FT SUPPLY 138/69KV TRANSFORMER CKT 1	12/1/2006	6/1/2008		
		HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
		HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
		KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2006	6/1/2008		

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
1283585	BROKEN BOW - CRAIG JUNCTION 138KV CKT 1	9/1/2008	6/1/2009		Yes
	SOUTHWEST SHREVEPORT (SW SHV 1) 345/138/13.8KV TRANSFORMER CKT 1	9/1/2008	6/1/2009		Yes
	SOUTHWEST SHREVEPORT (SW SHV 1) 345/138/13.8KV TRANSFORMER CKT 2	9/1/2008	6/1/2009		Yes

Tilliu Faity Lilliit	autrio.					•	
Reservation	Upgrade Name	COD	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cos
	3ALPINE# 115.00 - 3AMITY * 115.00 115KV CKT 1	4/1/2008	4/1/2008			\$ -	\$
	3ALPINE# 115.00 - 3BISMRK 115KV CKT 1	4/1/2008	4/1/2008			\$ -	\$
	3BISMRK - 3HSEHVW 115KV CKT 1	4/1/2008	4/1/2008			\$ -	\$
	4TAMINA 138.00 - TAMINA 138KV CKT 1	6/1/2008	6/1/2008			\$ -	\$
	8WELLS 500.00 500/230KV TRANSFORMER CKT 1	6/1/2008	6/1/2008			\$ -	\$
	CHINA - SABINE 230KV CKT 1	6/1/2008	6/1/2008			\$ -	\$
	CLARENCE - MONTGOMERY 230KV CKT 1 ENTR	6/1/2009	6/1/2009			\$ -	\$
	HARTBURG - INLAND-ORANGE 230KV CKT 1	6/1/2008				\$ -	\$
	OAK RIDGE - TAMINA 138KV 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	Reservation	POR	POD	•		Requested	Date Without		Potential Base Plan Funding Allowable	Point-to-Point	Allocated E & C	Total Revenue Requirements
AEPM	1283682	WFEC	CSWS	152	6/1/2008	6/1/2013	6/1/2011	6/1/2016	\$ 86,173	\$ -	\$ 1,238,089	\$ 152,027
									\$ 86.173	\$ -	\$ 1,238,089	\$ 152.027

				Earliest Service	Redispatch	Allo	cated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cos	t	Total E & C Cost	Requirements
1283682	CLARENCE - MONTGOMERY 230KV CKT 1 CELE	6/1/2009	6/1/2011		No	\$	1,151,916	\$ 2,200,000	\$ -
	DIANA - LONE STAR SOUTH 138KV CKT 1	12/1/2009	6/1/2010	4/1/2010	Yes	\$	86,173	\$ 150,000	\$ 152,027
					Total	\$	1,238,089	\$ 2,350,000	\$ 152,027

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
1283682	ARSENAL HILL (ARSHILL1) 138/69/12.47KV TRANSFORMER CKT 1	6/1/2013	6/1/2013		
	ARSENAL HILL (ARSHILL2) 138/69/14.5KV TRANSFORMER CKT 2	6/1/2013	6/1/2013		
	BENTONVILLE SHANE LANE - EAST CENTERTON 161KV CKT 1	6/1/2013	6/1/2013		
	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	6/1/2013	6/1/2013		
	FLINT CREEK - EAST CENTERTON 161KV CKT 1	6/1/2013	6/1/2013		
	LAWTON EASTSIDE (LES 2) 138/69/13.8KV TRANSFORMER CKT 2	12/1/2012	12/1/2012		
	SOUTHWEST SHREVEPORT - SOUTHWEST SHREVEPORT TAP 138KV CKT 1	6/1/2009	6/1/2009		
	SUB 438 - RIVERSIDE 161KV	6/1/2013	6/1/2013		

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
1283682	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		

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
1283682	BROKEN BOW - CRAIG JUNCTION 138KV CKT 1	9/1/2008	6/1/2009		Yes
	SOUTHWEST SHREVEPORT (SW SHV 1) 345/138/13.8KV TRANSFORMER CKT 1	9/1/2008	6/1/2009		Yes
	SOUTHWEST SHREVEPORT (SW SHV 1) 345/138/13.8KV TRANSFORMER CKT 2	9/1/2008	6/1/2009		Yes

Reservation	Upgrade Name	COD		Earliest Service Start Date		Allocated E & C Cost	Total E & C Cost
1283682	4TAMINA 138.00 - TAMINA 138KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	8WELLS 500.00 500/230KV TRANSFORMER CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	CHINA - SABINE 230KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	CLARENCE - MONTGOMERY 230KV CKT 1 ENTR	6/1/2009	6/1/2009			\$ -	\$ -
	HARTBURG - INLAND-ORANGE 230KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	OAK RIDGE - TAMINA 138KV 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	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E Cost	& C Total Revenue Requirements
AEPM	1286446	CSWS	CSWS	100	1/1/2009	1/1/2010	6/1/2011	6/1/2012	\$	\$ -	\$ 981,4	93 \$ 83,204
									S -	\$ -	\$ 981.4	93 \$ 83.204

				Earliest Service	Redispatch	Alloca	ted E & C		Total Revenue	
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requirements	
1286446	CLARENCE - MONTGOMERY 230KV CKT 1 CELE	6/1/2009	6/1/2011		No	\$	926,163	\$ 2,200,000	\$ .	-1
	DIANA - LONE STAR SOUTH 138KV CKT 1	12/1/2009	6/1/2010	4/1/2010	Yes	\$	55,330	\$ 150,000	\$ 83,204	F
					Total	\$	981,493	\$ 2,350,000	\$ 83,204	į.

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
1286446	GLASSES - RUSSETT 138KV CKT 1	6/1/2010	6/1/2011		
	MOORELAND - MOREWOOD SW 138KV CKT 1	9/1/2008	6/1/2010		Yes
	SOUTHWEST SHREVEPORT - SOUTHWEST SHREVEPORT TAP 138KV CKT 1	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
1286446	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2011		Yes
	BROKEN BOW - CRAIG JUNCTION 138KV CKT 1	9/1/2008	6/1/2009		
	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2009	6/1/2010		Yes
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2009	6/1/2010		Yes
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2009	6/1/2010		Yes
	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1	6/1/2009	6/1/2011		Yes
	SOUTHWEST SHREVEPORT (SW SHV 1) 345/138/13.8KV TRANSFORMER CKT 1	9/1/2008	6/1/2009		Yes
	SOUTHWEST SHREVEPORT (SW SHV 1) 345/138/13.8KV TRANSFORMER CKT 2	9/1/2008	6/1/2009		Yes

				Earliest Service		Allocated E &	
		COD	EOC	Start Date	Available	C Cost	Total E & C Cost
1286446	3ALPINE# 115.00 - 3AMITY * 115.00 115KV CKT 1	4/1/2008	4/1/2008			\$ -	\$ -
	3ALPINE# 115.00 - 3BISMRK 115KV CKT 1	4/1/2008	4/1/2008			\$ -	\$ -
	3BISMRK - 3HSEHVW 115KV CKT 1	4/1/2008	4/1/2008			\$ -	\$ -
	4KSPRGS 138.00 - CHAMPAGNE 138KV CKT 1	6/1/2009	6/1/2009			\$ -	\$ -
	4KSPRGS 138.00 - LINE 642 TAP 138KV CKT 1	6/1/2009	6/1/2009			\$ -	\$ -
	4TAMINA 138.00 - TAMINA 138KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	CHINA - SABINE 230KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	CLARENCE - MONTGOMERY 230KV CKT 1 ENTR	6/1/2009	6/1/2009			\$ -	\$ -
	HARTBURG - INLAND-ORANGE 230KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	LINE 642 TAP - LIVONIA BULK 138KV CKT 1	6/1/2009	6/1/2009			\$ -	\$ -
	LIVONIA BULK - WILBERT 138KV CKT 1	6/1/2009	6/1/2009			\$ -	\$ -
	OAK RIDGE - TAMINA 138KV 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	Reservation	POR		Requested Amount		Requested	Date Without	Date Without			Allocated E & C	Total Revenue Requirements
CWEP	1283676	EES	SPA	12	6/1/2010	6/1/2040	6/1/2013	6/1/2043	\$ -	\$ 3,888,000	\$ 100,000	\$ -
									\$ -	\$ 3.888.000	\$ 100,000	\$ -

				Earliest Service	Redispatch	Alloca	ated E & C		Total Revenue	
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requirements	
1283676	5CALCR - NORFORK 161KV CKT 1 SWPA	6/1/2010				\$	100,000	\$ 100,000	\$	Ξ
					Total	\$	100 000	\$ 100,000	\$	╗

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
1283676	ARKOMA - FT SMITHW 161KV CKT 1	6/1/2010	6/1/2011		
	BULL SHOALS - BULL SHOALS 161KV CKT 1	6/1/2010	6/1/2010		
	CLARKSVILLE - DARDANELLE 161KV CKT 1	6/1/2010	6/1/2011		
	DARDANELLE - DARDANELLE 161KV CKT 1	6/1/2010	6/1/2010		
	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	6/1/2010	6/1/2011		
	JONES - JONESBORO 161KV CKT 1 SWPA	6/1/2013	6/1/2013		
	JOPLIN 59 - SUB 439 - STATELINE 161KV CKT 1	6/1/2012	6/1/2013		
	JOPLIN 59 - SUB 59 - JOPLIN 26TH ST. 161/69kV TRANSFORMER CKT 1	6/1/2012	6/1/2013		
	SUB 438 - RIVERSIDE 161KV	6/1/2013	6/1/2013		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name		EOC	Date	Available
1283676	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1283676	BATTLEFIELD - SOUTHWEST DISPOSAL 161KV CKT 1	6/1/2014	6/1/2009		
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 OKGE	6/1/2010	6/1/2010		
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 # 2	6/1/2010	6/1/2010		
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 AEPW	6/1/2010	6/1/2010		
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 OKGE	6/1/2010	6/1/2010		
	SOUTHWEST - SOUTHWEST DISPOSAL 161KV CKT 1	6/1/2014	6/1/2009		_

Reservation	Upgrade Name	COD		Earliest Service Start Date		Allocated E & C Cost	Total E & C Cost
1283676	5BEE BR - QUITMAN 161KV CKT 1	6/1/2009	6/1/2009			\$ -	\$ -
	5CLINTN - CLINTON WEST (AECC) 161KV CKT 1	6/1/2010	6/1/2010			\$ -	\$ -
	5ST_JOE	6/1/2008	6/1/2008			\$ -	\$ -
	EVERTON - HARRISON-EAST 161KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 ENTR	6/1/2010	6/1/2010	6/1/2010		\$ -	\$ -
	SUB 184 - NEOSHO SOUTH JCT. (NEOSHO) 161/69/13.2KV TRANSFORMER CKT 1	6/1/2013	6/1/2013			\$ -	\$ -
					Total	\$ -	\$ -

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

Customer Study Number KCPS AG2-2007-109

Customer	Reservation	POR	POD			Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
KCPS	1286498	KCPL	EES	82	1/1/2009	6/1/2010			\$ -	\$ 1,254,600	\$ 163,236	\$ 191,239
										\$ 1,254,600	\$ 163,236	\$ 191,239

				Earliest Service	Redispatch	Alloca	ted E & C		Total Reve	enue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requireme	ents
1286498	GRANDVIEW EAST - SAMPSON 161KV CKT 1 # 1	6/1/2010	6/1/2010			\$	163,236	\$ 180,000	\$ 1	91,239
-					Total	\$	163,236	\$ 180,000	\$ 1	91,239

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
1286498	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		

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

Customer Study Number KEPC AG2-2007-028

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

				Earliest Service	Redispatch	Allocated E & C		Total Revenue	٦
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements	
1281648	None					\$ -	\$ -	\$	-
-					Total	\$ -	\$ -	\$	П.

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		COD	EOC	Date	Available
1281648	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	AFTON (AFTAUTO1) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2010		
	BISMARK JUNCTION SWITCHING STATION - FARMERS CONSUMER CO-OP 115KV CKT	6/1/2015	6/1/2015		
	BISMARK JUNCTION SWITCHING STATION - MIDLAND JUNCTION 115KV CKT 1	6/1/2015	6/1/2015		
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011			
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008			
	HARPER 138KV Capacitor	9/1/2008			
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	JOPLIN 59 - SUB 439 - STATELINE 161KV CKT 1	6/1/2012	6/1/2013		
	JOPLIN 59 - SUB 59 - JOPLIN 26TH ST. 161/69kV TRANSFORMER CKT 1	6/1/2012	6/1/2013		
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013			
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008			
	PRATT 115KV Capacitor	9/1/2008		10/1/2008	
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008			
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1				
	ST_JOHN 115KV Capacitor #1	6/1/2010			
	ST_JOHN 115KV Capacitor #2	6/1/2017	6/1/2017		
	SUB 438 - RIVERSIDE 161KV	6/1/2013			
	Summit - NE Saline 115 kV	9/1/2008			
	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1281648	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

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
1281648	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	BATTLEFIELD - SOUTHWEST DISPOSAL 161KV CKT 1	6/1/2014	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	SOUTHWEST - SOUTHWEST DISPOSAL 161KV CKT 1	6/1/2014	6/1/2009		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	SUB 271 - BAXTER SPRINGS WEST - SUB 404 - HOCKERVILLE 69KV CKT 1 Displacemer	12/1/2008	4/1/2009		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

Reservation	Upgrade Name	COD		Earliest Service Start Date		Allocated E & C Cost	Total E & C Cost
1281648	5ST_JOE 161.00 - EVERTON 161KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	CLINTON - HOLDEN 161KV CKT 1	6/1/2013	6/1/2013			\$ -	\$ -
	EVERTON - HARRISON-EAST 161KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
					Total	\$ -	\$ -

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

Customer	Reservation	POR				Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
KPP	1285893	WR	WR	8	11/1/2007	11/1/2017	6/1/2011	6/1/2021	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

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

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
1285893	BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON SWITCHING STA	9/1/2008	6/1/2011		Yes
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		Yes
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008			Yes
	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1285893	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

·	_			Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1285893	ARKANSAS CITY - PARIS 69KV CKT 1 #1 Displacement	6/1/2013	6/1/2013		
	CRESWELL - OAK 69KV CKT 1 #1 Displacement	6/1/2013	6/1/2013		
	CRESWELL - OAK 69KV CKT 1 #2 Displacement	6/1/2013	6/1/2013		
	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2013	6/1/2009		
	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Displacement	9/1/2008	6/1/2011		
·	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

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

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
MIDW	1268955	WR	WR	5	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 472,500	\$ -	\$ -
				-			-		\$ -	\$ 472,500	\$ -	\$ -

				Earliest Service	Redispatch	Allocated E & C	1	Total Revenue	
Reservation	Upgrade Name	COD	EOC	Date		Cost	Total E & C Cost	Requirements	
1268955	None					\$ -	\$ -	\$	Ξ
					Total	\$ -	\$ -	\$	╗

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
1268955	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PHILLIPSBURG - RHOADES 115 kV	9/1/2008	6/1/2009	10/1/2008	No
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	REDEL - STILWELL 161KV CKT 1	9/1/2008	6/1/2011		
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	Summit - NE Saline 115 kV	9/1/2008	12/1/2009		

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
126895	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1268955	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2011		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

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

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
MIDW	1268959	WR	WR	1	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 94,500	\$ -	\$
									\$ -	\$ 94,500	\$ -	\$

				Earliest Service	Redispatch	Allocated E & C		Total Revenue	٦
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements	
1268959	None					\$ -	\$ -	\$	-
-					Total	\$ -	\$ -	\$	П.

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
1268959	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1268959	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1268959	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

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

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
MIDW	1268965	WR	WR	1	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 94,500	\$ -	\$
									\$ -	\$ 94,500	\$ -	\$

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

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

				Earliest Service	
Reservation	Upgrade Name	COD	EOC	Date	Available
1268965	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1268965	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1268965	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013			
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

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

Customer	Reservation	POR	POD		•	Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
MIDW	1281706	WR	WR	25	3/1/2008	3/1/2027	6/1/2011	6/1/2030	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue	
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements	
1281706	None					\$ -	\$ -	\$	-
-					Total	\$ -	\$ -	\$	Л.

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

				Earliest Service	Redispatch
			EOC	Date	Available
1281706	BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON SWITCHING STA	9/1/2008	6/1/2011		Yes
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #2	6/1/2016	6/1/2016		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	LYONS - WHEATLAND 115KV CKT 1 MIDW	6/1/2013	6/1/2013		
	LYONS - WHEATLAND 115KV CKT 1 WERE	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	ST_JOHN 115KV Capacitor #2	6/1/2017	6/1/2017		
	Summit - NE Saline 115 kV	9/1/2008	12/1/2009		Yes
	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		
	WEST MCPHERSON - WHEATLAND 115KV CKT 1	9/1/2008	12/1/2008		

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
1281706	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1281706	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		

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

Customer	Reservation	POR	POD	Requested Amount		Requested	Date Without	Date Without	_		Allocated E & C	Total Revenue Requirements
MIDW	1285864	WR	WR	4	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 378,000	\$ -	\$ -
MIDW	1285865	WR	WR	3	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 283,500	\$ -	\$ -
MIDW	1285866	WR	WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 189,000	\$ -	\$ -
MIDW	1285867	WR	WR	1	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 94,500	\$ -	\$ -
					•			•	\$ -	\$ 945,000	\$ -	\$ -

				Earliest Service		Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1285864	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$
1285865	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$
1285866	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$
1285867	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$

				Earliest Service	Redispatch
eservation	Upgrade Name	COD	EOC	Date	Available
1285864	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PHILLIPSBURG - RHOADES 115 kV	9/1/2008	6/1/2009	10/1/2008	No
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	REDEL - STILWELL 161KV CKT 1	9/1/2008	6/1/2011		
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	Summit - NE Saline 115 kV	9/1/2008	12/1/2009		
1285865	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PHILLIPSBURG - RHOADES 115 kV	9/1/2008	6/1/2009	10/1/2008	No
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	REDEL - STILWELL 161KV CKT 1	9/1/2008	6/1/2011		
·	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	Summit - NE Saline 115 kV	9/1/2008	12/1/2009		

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

1285866 95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115K	V C 6/1/2011	6/1/2011		
GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
PHILLIPSBURG - RHOADES 115 kV	9/1/2008	6/1/2009	10/1/2008	No
PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
REDEL - STILWELL 161KV CKT 1	9/1/2008	6/1/2011		
SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CK	T 1 6/1/2010	6/1/2011		
ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
Summit - NE Saline 115 kV	9/1/2008	12/1/2009		
1285867 95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115K	V C 6/1/2011	6/1/2011		
GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
PHILLIPSBURG - RHOADES 115 kV	9/1/2008	6/1/2009	10/1/2008	No
PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
REDEL - STILWELL 161KV CKT 1	9/1/2008	6/1/2011		
SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009	·	Yes
SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CK	T 1 6/1/2010	6/1/2011		
ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010	·	
Summit - NE Saline 115 kV	9/1/2008	12/1/2009		

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
1285864	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		
1285865	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		
1285866	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		
1285867	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1285864	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2011		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes
1285865	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2011		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes
1285866	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009	6/1/2011		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes
1285867	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013			
	MARTIN CITY - REDEL 161KV CKT 1	6/1/2009			
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010			
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

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

Customer Study Number MIDW AG2-2007-070

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
MIDW	1285869	WR	WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 189,000	\$ -	\$ -
									\$ -	\$ 189,000	\$ -	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue	
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements	
1285869	None					\$ -	\$ -	\$	-
-					Total	\$ -	\$ -	\$	П.

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
1285869	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1285869	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1285869	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

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

Customer Study Number MIDW AG2-2007-071

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without	_	Point-to-Point	Allocated E & C	Total Revenue Requirements
MIDW	1285872	WR	WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 189,000	\$ -	\$ -
MIDW	1285873	WR	WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 189,000	\$ -	\$ -
									\$ -	\$ 378,000	\$ -	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1285872	None					\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -
1285873	None					\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1285872	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
1285873	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV O	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST JOHN 115KV Capacitor #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

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
1285872	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		
1285873	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes
1285873	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

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

Customer Study Number AG2-2007-078

Customer	Reservation	POR	POD			Requested	Date Without	Date Without	_	Point-to-Point	Allocated E & C	Total Revenue Requirements
MIDW	1285946	WR	WR	3	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 283,500	\$ -	\$ -
MIDW	1285947	WR	WR	2	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 189,000	\$ -	\$ -
MIDW	1285948	WR	WR	1	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 94,500	\$ -	\$ -
									\$ -	\$ 567,000	\$ -	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1285946	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$
1285947	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$
1285948	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$

				Earliest Service	Redispatch
		COD	EOC	Date	Available
1285946	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		
1285947	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	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

1285948 95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV Q	6/1/2011	6/1/2011		
GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1285946	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		
1285947	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		
1285948	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
_	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

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

| Earliest Service | Redispatch |

				Lamest Service	
	Upgrade Name	COD	EOC	Date	Available
1285946	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes
1285947	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes
1285948	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

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

Customer Study Number MIDW AG2-2007-079

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue
MIDW	1285949	WR	WR	Amount 2	6/1/2008	6/1/2013		12/1/2014		\$ 189,000		\$ -
MIDW	1285950	WR	WR	1	6/1/2008	6/1/2013	12/1/2009	12/1/2014	\$ -	\$ 94,500	\$ -	\$ -
									\$ -	\$ 283,500	S -	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1285949	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$
1285950	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$

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
1285949	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		
1285950	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	9/1/2008	6/1/2011		
	CLAY CENTER - GREENLEAF 115KV CKT 1	9/1/2008	6/1/2011		
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	No
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1285949	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		
1285950	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1285949	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes
1285950	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

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

Customer Study Number AG2-2007-080

Customer	Reservation	POR				Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
MIDW	1285951	WR	WR	2	6/1/2008	6/1/2013	6/1/2011	6/1/2016	\$ -	\$ 189,000	\$ -	\$ -
MIDW	1285952	WR	WR	2	6/1/2008	6/1/2013	6/1/2011	6/1/2016	\$ -	\$ 189,000	\$ -	\$ -
MIDW	1285953	WR	WR	1	6/1/2008	6/1/2013	6/1/2011	6/1/2016	\$ -	\$ 94,500	\$ -	\$ -
									\$ -	\$ 472,500	\$ -	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1285951	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$
1285952	None					\$ -	\$ -	\$
					Total	\$ -	\$ -	\$
1285953	None					\$ -	\$ -	\$
					Total	\$ -	S -	\$

				Earliest Service	Redispatch
Reservation	-F3:		EOC	Date	Available
1285951	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	BISMARK JUNCTION SWITCHING STATION - FARMERS CONSUMER CO-OP 115KV CKT	6/1/2015	6/1/2015		
	BISMARK JUNCTION SWITCHING STATION - MIDLAND JUNCTION 115KV CKT 1	6/1/2015	6/1/2015		
	BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON SWITCHING STA	9/1/2008	6/1/2011		Yes
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV C	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	LYONS - WHEATLAND 115KV CKT 1 MIDW	6/1/2013	6/1/2013		
	LYONS - WHEATLAND 115KV CKT 1 WERE	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	Summit - NE Saline 115 kV	9/1/2008	12/1/2009		Yes
	WEST MCPHERSON - WHEATLAND 115KV CKT 1	9/1/2008	12/1/2008		Yes
1285952	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	6/1/2010	6/1/2011		
	BISMARK JUNCTION SWITCHING STATION - FARMERS CONSUMER CO-OP 115KV CKT	6/1/2015	6/1/2015		
	BISMARK JUNCTION SWITCHING STATION - MIDLAND JUNCTION 115KV CKT 1	6/1/2015	6/1/2015		
	BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON SWITCHING STA	9/1/2008	6/1/2011		Yes
	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV O	6/1/2011	6/1/2011		
	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	9/1/2008	6/1/2008		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	HEC-HEC GT-Circle 115KV	9/1/2008	6/1/2009		Yes
	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	6/1/2013	6/1/2013		
	LYONS - WHEATLAND 115KV CKT 1 MIDW	6/1/2013	6/1/2013		
	LYONS - WHEATLAND 115KV CKT 1 WERE	6/1/2013	6/1/2013		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		Yes
	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	6/1/2010	6/1/2011		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	Summit - NE Saline 115 kV	9/1/2008	12/1/2009		Yes
	WEST MCPHERSON - WHEATLAND 115KV CKT 1	9/1/2008	12/1/2008		Yes

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

6/1/2010	6/1/2011		
T 6/1/2015	6/1/2015		
6/1/2015	6/1/2015		
9/1/2008	6/1/2011		Yes
C 6/1/2011	6/1/2011		
9/1/2008	6/1/2008		
9/1/2008	6/1/2009	10/1/2008	
9/1/2008	6/1/2009		Yes
6/1/2013	6/1/2013		
6/1/2013	6/1/2013		
6/1/2013	6/1/2013		
9/1/2008	12/1/2009		Yes
9/1/2008	6/1/2009	10/1/2008	
9/1/2008	12/1/2009		Yes
1 6/1/2010	6/1/2011		
6/1/2010	6/1/2010		
9/1/2008	12/1/2009		Yes
9/1/2008	12/1/2008		Yes
	71 6/1/2015 6/1/2015 A 9/1/2008 C 6/1/2011 9/1/2008 9/1/2008 6/1/2013 6/1/2013 6/1/2013 9/1/2008 9/1/2008 9/1/2008 9/1/2008 9/1/2008 9/1/2008 9/1/2008 9/1/2008	6/1/2015   6/1/2015   6/1/2015   6/1/2015   6/1/2015   6/1/2015   6/1/2015   6/1/2015   6/1/2015   6/1/2016   6/1/2018   6/1/2018   6/1/2018   6/1/2018   6/1/2008   6/1/2008   6/1/2008   6/1/2008   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2013   6/1/2008   6/1/2008   6/1/2008   6/1/2010   6/1/2010   6/1/2010   6/1/2010   6/1/2010   6/1/2010   6/1/2010   6/1/2010   6/1/2008   12/1/2008   12/1/2008   12/1/2008   12/1/2008   12/1/2010   6/1/2010   6/1/2010   6/1/2010   6/1/2010   6/1/2010   6/1/2008   12/1/2008	1

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

				Laillest Service	Redispatori
Reservation	Upgrade Name	COD	EOC	Date	Available
1285951	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		
1285952	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		
1285953	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

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

| Earliest Service | Redispatch |

				Earliest Service	
	Upgrade Name	COD	EOC	Date	Available
1285951	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes
1285952	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes
1285953	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		
	WICHITA - RENO 345KV	9/1/2008	12/1/2008		Yes

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

Customer Study Number SPRM AG2-2007-110

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
SPRM	1286502	WR	SPA	25	12/1/2008	12/1/2028	6/1/2010	6/1/2030	\$ -	\$ -	\$ -	\$
									\$ -	\$ -	\$ -	\$

				Earliest Service	Redispatch	Allocated E & C		Total Revenue	1
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements	
1286502	None					\$ -	\$ -	\$	-
					Total	\$ -	\$ -	S	П.

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

Reservation	Upgrade Name	COD	EOC	Earliest Service Date	Redispatch Available
	412SUB - KANSAS TAP 161KV CKT 1	6/1/2009	6/1/2009		
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	JAMES RIVER - TWIN OAKS 69KV CKT 1	6/1/2015	6/1/2015		
	KICKAPOO - SUNSET 69KV CKT 1	6/1/2015	6/1/2015		
	NEERGARD - NORTON 69KV CKT 1	6/1/2009	6/1/2010		
	NIXA (NXA X1) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2009	6/1/2009		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		
	SPRINGFIELD (SPF X1) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2010		
	SPRINGFIELD (SPF X2) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2010		
	SUB 383 - MONETT - SUB 376 - MONETT CITY SOUTH 161/69/12.5KV TRANSFORMER C	6/1/2017	6/1/2017		
	SUB 438 - RIVERSIDE 161KV	6/1/2013	6/1/2013		
	Summit - NE Saline 115 kV	9/1/2008	12/1/2009		
	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1286502	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		

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
1286502	BATTLEFIELD - SOUTHWEST DISPOSAL 161KV CKT 1	6/1/2014	6/1/2009		
	BROOKLINE - JUNCTION 161KV CKT 1	6/1/2013	6/1/2013		
	SOUTHWEST - SOUTHWEST DISPOSAL 161KV CKT 1	6/1/2014	6/1/2009		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		

				Earliest Service	Redispatch	Allocated E &	
Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost	Total E & C Cost
1286502	5BEE BR - QUITMAN 161KV CKT 1	6/1/2009	6/1/2009			\$ -	\$ -
	5CLINTN - CLINTON WEST (AECC) 161KV CKT 1	6/1/2010	6/1/2010			\$ -	\$ -
	5ST_JOE 161.00 - EVERTON 161KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	CLINTON - HOLDEN 161KV CKT 1	6/1/2013	6/1/2013			\$ -	\$ -
	EVERTON - HARRISON-EAST 161KV CKT 1	6/1/2008	6/1/2008			\$ -	\$ -
	FRANKS - FT WOOD 161KV CKT 1	6/1/2010	6/1/2010			\$ -	\$ -
	PHILLIPS (PHILLIPS) 161/69/7.2KV TRANSFORMER CKT 1	6/1/2010	6/1/2010			\$ -	\$ -
					Total	\$ -	\$ -

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

**Customer** Study Number AG2-2007-067

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without	_	Point-to-Point	Allocated E & C	Total Revenue
SPSM	1280570	SPS	SPS	80	1/1/2009	1/1/2029		Redispatch	\$ -	\$ -	Cost -	\$ -
SPSM	1280571	SPS	SPS	70	1/1/2009	1/1/2029			\$ -	\$ -		
									\$ -	\$ -	S -	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1280570	None					\$	\$ -	\$ -
					Total	\$ -	\$ -	\$ -
1280571	None					\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1280570	CARLSBAD INTERCHANGE 115/69KV TRANSFORMER CKT 1	6/1/2012	6/1/2012		
	CARLSBAD INTERCHANGE 115/69KV TRANSFORMER CKT 2	6/1/2012	6/1/2012		
	DALHERT - CHANNING 115KV	6/1/2012	6/1/2012		
	DEAF SMITH COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 3	6/1/2015	6/1/2015		
	NICHOLS STATION - WHITAKER SUB 115KV CKT 1	6/1/2010	6/1/2010		
	OSAGE SWITCHING STATION - SOUTH GEORGIA INTERCHANGE 115KV CKT 1	6/1/2016	6/1/2016		
	TERRY COUNTY INTERCHANGE - WOLFFORTH INTERCHANGE 115KV CKT 1	6/1/2010	6/1/2010		
	TUCO INTERCHANGE 345/115KV TRANSFORMER CKT 1	6/1/2017	6/1/2017		
1280571	CARLSBAD INTERCHANGE 115/69KV TRANSFORMER CKT 1	6/1/2012	6/1/2012		
	CARLSBAD INTERCHANGE 115/69KV TRANSFORMER CKT 2	6/1/2012	6/1/2012		
	DALHERT - CHANNING 115KV	6/1/2012	6/1/2012		
	DEAF SMITH COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 3	6/1/2015	6/1/2015		
	NICHOLS STATION - WHITAKER SUB 115KV CKT 1	6/1/2010	6/1/2010		
	OSAGE SWITCHING STATION - SOUTH GEORGIA INTERCHANGE 115KV CKT 1	6/1/2016	6/1/2016		
	TERRY COUNTY INTERCHANGE - WOLFFORTH INTERCHANGE 115KV CKT 1	6/1/2010	6/1/2010		
	TUCO INTERCHANGE 345/115KV TRANSFORMER CKT 1	6/1/2017	6/1/2017		

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

CustomerStudy NumberWFECAG2-2007-016

Customer	Reservation	POR	POD	Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
WFEC	1278401	WFEC	WFEC	19	12/15/2007	12/15/2032	6/1/2011	6/1/2036	\$ 342,000	\$ -	\$ 2,794,856	\$ 8,151,677
									\$ 342,000	Φ.	\$ 2,794,856	\$ 8.151.677

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1278401	FT SUPPLY - WOODWARD 69KV CKT 1	6/1/2008	6/1/2011			\$ 2,794,856	\$ 4,500,000	\$ 8,151,677
•					Total	\$ 2.794.856	\$ 4,500,000	\$ 8 151 677

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
1278401	ACME - WEST NORMAN 69KV CKT 1	9/1/2008	6/1/2009		
	ANADARKO - CYRIL 69KV CKT 1	9/1/2008	6/1/2009		
	BROWN - EXPLORER TAP 138KV CKT 1	6/1/2013	6/1/2013		
	BROWN TAP - EXPLORER TAP 138KV CKT 1	6/1/2013	6/1/2013		
	GLASSES - RUSSETT 138KV CKT 1	6/1/2010	6/1/2011		
	MOORELAND - MOREWOOD SW 138KV CKT 1	9/1/2008	6/1/2010		
	Norman Area Voltage Conversion	6/1/2010	6/1/2010		
	RUSSETT - RUSSETT 138KV CKT 1 OKGE	6/1/2013	6/1/2013		
	RUSSETT - RUSSETT 138KV CKT 1 WFEC	6/1/2013	6/1/2013		

				Earliest Service	Redispatch	Allocated E &	
Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost	Total E & C Cost
1278401	3ALPINE# 115.00 - 3AMITY * 115.00 115KV CKT 1	4/1/2008	4/1/2008			\$ -	\$ -
	3ALPINE# 115.00 - 3BISMRK 115KV CKT 1	4/1/2008	4/1/2008			\$ -	\$ -
	3BISMRK - 3HSEHVW 115KV CKT 1	4/1/2008	4/1/2008			\$ -	\$ -
					Total	¢ _	2

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

CustomerStudy NumberWRGSAG2-2007-011D

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
WRGS	1268638	KCPL	AMRN	20	6/1/2010	6/1/2015			\$ -	\$ 1,080,000	\$ 196,764	\$ 258,523
									\$ -	\$ 1.080.000	\$ 196,764	\$ 258.523

				Earliest Service	Redispatch	Allocat	ted E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1268638	GRANDVIEW EAST - SAMPSON 161KV CKT 1 # 1	6/1/2010	6/1/2010			\$	16,764	\$ 180,000	\$ 25,667
	LONGVIEW - SAMPSON 161KV CKT 1 # 1	6/1/2012	6/1/2012			\$	180,000	\$ 180,000	\$ 232,856
					Total	\$	196,764	\$ 360,000	\$ 258,523

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1268638	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1 #2	6/1/2012	6/1/2012		

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

CustomerStudy NumberWRGSAG2-2007-017D

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
WRGS	1278809	EES	SPA	20	3/1/2010	3/1/2040			\$ -	\$ 6,480,000	\$ 9,700,000	\$ -
									\$ -	\$ 6,480,000	\$ 9,700,000	\$ -

·				Earliest Service	Redispatch	Allocated E	& C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1278809	5ASHRVL - POPLAR BLUFF 161KV CKT 1	6/1/2010	6/1/2010			\$ 1,800	,000	\$ 1,800,000	\$
	5ASHRVL - IDALIA 161KV CKT 1	6/1/2010	6/1/2010			\$ 3,400	,000	\$ 3,400,000	
	5TRUM-W# - HERGETT 161KV CKT 1	6/1/2013	6/1/2013			\$		\$ -	\$
	POPLAR BLUFF (PBL X1) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2010			\$ 1,500	,000	\$ 1,500,000	\$
	POPLAR BLUFF (PBL X2) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2010			\$ 1,500	,000	\$ 1,500,000	\$
	POPLAR BLUFF (PBL X3) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2010			\$ 1,500	,000	\$ 1,500,000	\$
					Total	\$ 9,700	,000	\$ 9,700,000	\$

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

ĺ					Earliest Service	Redispatch
	Reservation	Upgrade Name	COD	EOC	Date	Available
ſ	1278809	JONES - JONESBORO 161KV CKT 1 SWPA	6/1/2013	6/1/2013		

						ĺ	
				Earliest Service	Redispatch	Allocated E &	
Reservation	Upgrade Name	COD	EOC	Start Date	Available	C Cost	Total E & C Cost
1278809	CAPE GIR 161.00 - JOPPA SR 161.00 161KV CKT 1	6/1/2010	6/1/2010			\$ -	\$ -
					Total	\$ -	\$ -

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

CustomerStudy NumberWRGSAG2-2007-018D

Customer	Reservation	POR	POD	Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue Requirements
WRGS	1278811	EES	SPA	20	3/1/2010	3/1/2040			\$ -	\$ 6,480,000	\$ 1,165,527	\$ -
									\$ -	\$ 6,480,000	\$ 1,165,527	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1278811	5TRUM-W# - HERGETT 161KV CKT 1	6/1/2013	6/1/2013			\$ -	\$ -	\$ -
	KENNETT (KEN X1) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2013	6/1/2013			\$ 1,165,527	\$ 1,500,000	\$ -
					Total	\$ 1,165,527	\$ 1,500,000	\$ -

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
1278811	JONES - JONESBORO 161KV CKT 1 SWPA	6/1/2013	6/1/2013		

				Earliest Service	Pedienatch	Allocated E &		
Reservation	Upgrade Name		EOC	Start Date	Available	C Cost	Total E & C Cost	
1278811	CAPE GIR 161.00 - JOPPA SR 161.00 161KV CKT 1	6/1/2010	6/1/2010			\$ -	\$ -	
					Total	\$ -	\$ -	

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

CustomerStudy NumberWRGSAG2-2007-019D

Customer	Reservation	POR				Requested	Date Without	Date Without	_	Point-to-Point		Total Revenue Requirements
WRGS	1278813	EES	SPA	7	3/1/2010	3/1/2040			\$ -	\$ 2,268,000	\$ 334,473	\$ -
									\$ -	\$ 2.268,000	\$ 334.473	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1278813	5TRUM-W# - HERGETT 161KV CKT 1	6/1/2013	6/1/2013			\$ -	\$ -	\$ -
	KENNETT (KEN X1) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2013	6/1/2013			\$ 334,473	\$ 1,500,000	\$ -
					Total	\$ 334,473	\$ 1,500,000	\$ -

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
1278813	JONES - JONESBORO 161KV CKT 1 SWPA	6/1/2013	6/1/2013		

				Earliest Service	Padienatch	Allocated E &		
Reservation	Upgrade Name						Total E & C Cost	
1278813	CAPE GIR 161.00 - JOPPA SR 161.00 161KV CKT 1	6/1/2010	6/1/2010			\$ -	\$ -	
					Total	\$ -	\$ -	

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

Customer Study Number WRGS AG2-2007-092D

Customer	Reservation	POR		Requested Amount		Requested	Date Without	Date Without		Point-to-Point	Allocated E & C	Total Revenue
WRGS	1286201	SECI	WR	99	3/1/2009	3/1/2019		6/1/2021			\$ 8,500,000	\$ 16,742,686
		•	•	•	•	•	•	•	\$ 1.782.000	\$ -	\$ 8,500,000	\$ 16,742,686

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	COD	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1286201	IATAN - STRANGER CREEK 345KV CKT 2	6/1/2012	6/1/2012			\$ 8,500,000	\$ 8,500,000	\$ 16,742,686
•					Total	\$ 8,500,000	\$ 8,500,000	\$ 16.742.686

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
1286201	BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON SWITCHING STA	9/1/2008	6/1/2011		
	COWSKIN - WESTLINK 69KV	6/1/2010	6/1/2010		
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #2	6/1/2016	6/1/2016		
	GILL ENERGY CENTER EAST - INTERSTATE 138KV CKT 1	6/1/2013	6/1/2013		
	HARPER 138KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	HOLCOMB - PLYMELL 115KV CKT 1	6/1/2009	12/1/2009	10/1/2009	
	HOOVER SOUTH - TYLER 69KV	6/1/2010	6/1/2010		
	NORTHVIEW - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		
	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	6/1/2010	6/1/2010		
	PIONEER TAP - PLYMELL 115KV CKT 1	6/1/2009	12/1/2009	10/1/2009	
	PRATT 115KV Capacitor	9/1/2008	6/1/2009	10/1/2008	
	SOUTHGATE - SUMMIT 115KV CKT 1	9/1/2008	12/1/2009		
	ST_JOHN 115KV Capacitor #1	6/1/2010	6/1/2010		
	ST_JOHN 115KV Capacitor #2	6/1/2017	6/1/2017		
	Summit - NE Saline 115 kV	9/1/2008	12/1/2009		
·	TYLER - WESTLINK 69KV	6/1/2010	6/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1286201	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	RENO 345/115KV CKT 1	12/1/2008	12/1/2008		
	RENO 345/115KV CKT 2	12/1/2009	12/1/2009		
	SUMMIT - RENO 345KV	12/1/2009	12/1/2009		
	WICHITA - RENO 345KV	12/1/2008	12/1/2008		

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

I I Farliest Service | Redispate

				Earliest Service	Redispatch
Reservation	Upgrade Name	COD	EOC	Date	Available
1286201	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2009	6/1/2009		
	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	6/1/2009	6/1/2010		
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	6/1/2009	6/1/2010		
	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	6/1/2009	6/1/2010		
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	6/1/2013	6/1/2013		
	East Manhattan - SW Manhattan 115kV Displacement	6/1/2013	6/1/2013		
	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	6/1/2013	6/1/2013		
	East Manhattan to Mcdowell 230 Kv	6/1/2013	6/1/2013		
	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	6/1/2010	6/1/2010		
	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	6/1/2009	6/1/2009		

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

Transmission			Earliest Data Upgrade Required	Estimated Date of Upgrade Completion	Estimated Engineering Construction	
Owner	Upgrade	Solution	(COD)	(EOC)	Cost	JII
AEPW	DIANA - LONE STAR SOUTH 138KV CKT 1	Replace switches and reset CT	12/1/2009			50.00
CELE	CLARENCE - MONTGOMERY 230KV CKT 1 CELE	Bundle Clarence to Montgomery 230 kV	6/1/2009			200,00
KACP	IATAN - STRANGER CREEK 345KV CKT 2	Convert latan-Stranger Creek 161kV line to 345kV	6/1/2012	6/1/2012	\$ 8,50	500,00
MIPU	GRANDVIEW EAST - SAMPSON 161KV CKT 1 # 1	Replace wavetraps	6/1/2012	6/1/2012	\$ 18	80,00
MIPU	LONGVIEW - SAMPSON 161KV CKT 1 # 1	replace wavetraps	6/1/2012	6/1/2012	\$ 18	80,00
SWPA	5ASHRVL - POPLAR BLUFF 161KV CKT 1	Reconductor line with ACCC conductor	6/1/2010	6/1/2010	\$ 1,80	300,00
214/24	TOUR OF HODEON AND AND AND A	Replace buswork within bay and change metering CT ratio, replace	0/4/004	0/4/0040		
SWPA SWPA	5CALCR - NORFORK 161KV CKT 1 SWPA	wavetraps. Entergy must also reconductor their line to increase the rating.	6/1/2010			00,00
	5ASHRVL - IDALIA 161KV CKT 1	Reconductor line with ACCC conductor	6/1/2011			100,00
SWPA	5TRUM-W# - HERGETT 161KV CKT 1	Indeterminate	6/1/2013			
SWPA	KENNETT (KEN X1) 161/69/13.8KV TRANSFORMER CKT 1	Replace transformer	6/1/2013			500,00
SWPA	POPLAR BLUFF (PBL X1) 161/69/13.8KV TRANSFORMER CKT 1	Replace Poplar Bluff Xfmr 2	6/1/2010	6/1/2010	\$ 1,50	500,00
SWPA	POPLAR BLUFF (PBL X2) 161/69/13.8KV TRANSFORMER CKT 1	Replace Poplar Bluff Xfmr 2	6/1/2010	6/1/2010	\$ 1,50	00,00
SWPA	POPLAR BLUFF (PBL X3) 161/69/13.8KV TRANSFORMER CKT 1	Replace Poplar Bluff Xfmr 2	6/1/2010	6/1/2010	\$ 1,50	500,00
WFEC	FT SUPPLY - WOODWARD 69KV CKT 1	Reconductor 18.0 miles from 336 to 795 ACSR	6/1/2008	6/1/2011	\$ 4.50	500.00

Transmission Owner	ding Projects - The requested service is contingent upon completion of the following upgrade  Upgrade	So. Cost is not assignable to the transmission customer.  Solution	Earliest Data Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)
AFDM	DADTI FOUND F CONTURACT ANODITI DADTI FOUND F 40010/ OVT 4	Date: 1140.07 11 (705.400D 11 4500.400D 0 11 11 0 DDF	0/4/0000	0/4/0044
AEPW AEPW	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1 BROKEN BOW - CRAIG JUNCTION 138KV CKT 1	Rebuild 8.37 miles of 795 ACSR with 1590 ACSR & reset relays @ BSE Rebuild 7.66 miles of 3/0 CW CU with 795 ACSR	6/1/2009 9/1/2008	
AEPW	COFFEYVILLE TAP - DEARING 138KV CKT 1 AEPW	Tie Line, Reconductor 1.09 miles of 795 ACSR with 1590 ACSR.	6/1/2008	
AEPW	COFFEYVILLE TAP - DEAKING 135KV CKT 1 AEFW	Rebuild 13.11 miles of 795 ACSR with 1590 ACSR.	6/1/2009	
AEPW	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 # 2	Replace Jumpers @ N. Magazine		6/1/2010
AEPW	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 AEPW	Rebuild 7.43 miles of 250 CWC with 795 ACSR		
AEPW	SOUTHWEST SHREVEPORT (SW SHV 1) 345/138/13.8KV TRANSFORMER CKT 1	Using IEEE Guide for Loading of Mineral-Oil Immersed Power Transformers (C57.91-2000) Re-rate the autos. Replace .two 138 kV breakers and five 138 kV switches. Reset relays and CTs	6/1/2010 9/1/2008	
		Replace Auto, two 138 kV breakers and five 138 kV switches. Reset relays		
AEPW	SOUTHWEST SHREVEPORT (SW SHV 1) 345/138/13.8KV TRANSFORMER CKT 2	and CTs	9/1/2008	6/1/2009
EMDE	SUB 271 - BAXTER SPRINGS WEST - SUB 404 - HOCKERVILLE 69KV CKT 1 Displacement	Change CT setting on Breaker #6973 at Baxter #271	12/1/2008	
KACP	MARTIN CITY - REDEL 161KV CKT 1	reconductor 1192 acss upgrade terminal equip 2000 amp	6/1/2009	
OKGE	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 OKGE	Replace Jumpers @ N. Magazine	6/1/2010	
OKGE SPRM	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 OKGE  BATTLEFIELD - SOUTHWEST DISPOSAL 161KV CKT 1	Replace Jumpers @ N. Magazine BATTLEFIELD - SOUTHWEST DISPOSAL 161KV CKT 1: Reconductor 161kV Line 1192 MCM AAC to 954 kcmil ACSS/TW 2.71 miles and Upgrade Teminal Equipment	6/1/2010	
SPRM	BROOKLINE - JUNCTION 161KV CKT 1	Brookline: Replace 1,200 amp switches with 2,000 amp units and replace metering CTs. Junction: Replace 1,200 amp switches with 2,000 amp units.	6/1/2013	
SPRM	SOUTHWEST - SOUTHWEST DISPOSAL 161KV CKT 1	SOUTHWEST - SOUTHWEST DISPOSAL 161KV CKT 1: Reconductor 161kV Line 1192 MCM AAC to 954 kcmil ACSS/TW 0.67 miles and Upgrade Teminal Equipment Replace Disconnect Switches and Bus Jumpers at Paris and Ark City 69 kV	6/1/2014	6/1/2009
WERE	ARKANSAS CITY - PARIS 69KV CKT 1 #1 Displacement	substations	6/1/2013	6/1/2013
WERE	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	Add second Auburn 230-115 kV transformer.	6/1/2009	
WERE	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE	Tie Line, Rebuild 3.93 miles of 795 ACSR with 1590 ACSR.	6/1/2009	
WERE	COFFEYVILLE TAP - DEARING 138KV CKT 1 WERE #2	Replace Terminal Equipment.	6/1/2009	
WERE	CRESWELL - OAK 69KV CKT 1 #1 Displacement	Replace jumpers and bus, and reset CTs and relaying. Rebuild substations.	6/1/2013	6/1/2013
WERE	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1 Displacement	Rebuild 27 miles 345kV construction operated as 230kV	6/1/2013	6/1/2013
WERE	East Manhattan - SW Manhattan 115kV Displacement	Build new 115kV line from East Manhattan to new SW Manhattan substation	6/1/2013	6/1/2013
WERE	EAST MANHATTAN (EMANHT3X) 230/115/18.0KV TRANSFORMER CKT 2 Displacement	Add second parallel 230-115kV transformer at E Manhattan	6/1/2013	6/1/2013
WERE	East Manhattan to Mcdowell 230 Kv	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 convert this line.	6/1/2013	
WERE	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #1 Displacement	Upgrade disconnect switches, wavetrap, breaker, jumpers to upgrade B rating to 414MVA	6/1/2010	6/1/2010
WERE	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	Replace bus and Jumpers at NE Parsons 138 kV substation	6/1/2013	
WERE	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Displacement	Add third 345-138 kV transformer at Rose Hill Rebuild 11.62-mile Jarbalo-NW Leavenworth 115 kV line and tap in & out of	9/1/2008	
WERE	STRANGER CREEK - NW LEAVENWORTH 115KV	Stranger 115 kV	6/1/2009	6/1/2009
WERE	TECUMSEH ENERGY CENTER - MIDLAND 115KV CKT 1	Convert 161 kV Line to 115 kV Operation	6/1/2009	
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	9/1/2008	

Transmission Owner	rojects - The requested service is contingent upon completion of the following upgrades. Cost  Upgrade	Solution	Earliest Data Upgrade Required (COD)	Estimated Date of Upgrade Completion (EOC)
OWNER	opgrade	used the IEEE Guide for Loading of Mineral-Oil Immersed Power	(000)	(200)
AEPW	ARSENAL HILL (ARSHILL1) 138/69/12.47KV TRANSFORMER CKT 1	Transformers (C57.91-2000) to re-rate the Arsenal Hill autos above their nameplate value.	6/1/2013	6/1/2013
		used the IEEE Guide for Loading of Mineral-Oil Immersed Power Transformers (C57.91-2000) to re-rate the Arsenal Hill autos above their		
AEPW AEPW	ARSENAL HILL (ARSHILL2) 138/69/14.5KV TRANSFORMER CKT 2 BENTONVILLE SHANE LANE - EAST CENTERTON 161KV CKT 1	nameplate value.  Replace switches and sub conductor	6/1/2013 6/1/2013	6/1/2013 6/1/2013
AEPW	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	Rebuild / reconductor 10.24 miles of line with 2156 ACSR.	6/1/2013	6/1/2013
AEPW	FLINT CREEK - EAST CENTERTON 161KV CKT 1	Reconductor Flint Creek-East Centerton 161 kV with 2156 conductor Using IEEE Guide for Loading of Mineral-Oil Immersed Power Transformers	6/1/2013	6/1/2013
AEPW	LAWTON EASTSIDE (LES 2) 138/69/13.8KV TRANSFORMER CKT 2	(C57.91-2000) Re-rate the autos.	12/1/2012	12/1/2012
AEPW	SOUTHWEST SHREVEPORT - SOUTHWEST SHREVEPORT TAP 138KV CKT 1	Rebuild 2.29 miles of 2-397.5 ACSR with 2-795 ACSR. Double Circuit the line and add terminal @ SW Shreveport to eliminate three terminal line.	6/1/2009	6/1/2009
EMDE	JOPLIN 59 - SUB 439 - STATELINE 161KV CKT 1	Install new line from Sub #439 to new Sub Joplin 59.	6/1/2012	6/1/2013
EMDE	JOPLIN 59 - SUB 59 - JOPLIN 26TH ST. 161/69kV TRANSFORMER CKT 1	Install 3-wind transformer from 161 kV Joplin 59 bus to Sub #59 Joplin 26th St.	6/1/2012	6/1/2013
EMDE	SUB 383 - MONETT - SUB 376 - MONETT CITY SOUTH 161/69/12.5KV TRANSFORMER CKT 1	Install new line from Sub #383 to new Sub MONETT 5. Install 3-wind transformer from 161 kV new bus to Monett city south 69kV	6/1/2017	6/1/2017
EMDE	SUB 438 - RIVERSIDE 161KV	Install 3 - stages of 22 MVAR each for a total of 66 MVAR capacitor bank at Riverside Sub #438 547497	6/1/2013	6/1/2013
GRDA GRDA	412SUB - KANSAS TAP 161KV CKT 1 AFTON (AFTAUTO1) 161/69/13.8KV TRANSFORMER CKT 1	Reconductor 9.7 miles with 1590MCM ACSR. Replace 50 MVA Transformer with 84 MVA unit.	6/1/2009 6/1/2010	6/1/2009 6/1/2010
		Reconductor line with 1192 ACSS and upgrade terminal equipment for 2000		
KACP MIDW	REDEL - STILWELL 161KV CKT 1 LYONS - WHEATLAND 115KV CKT 1 MIDW	amps Rebuild 98.5% ownership of 19.4 miles	9/1/2008 6/1/2013	6/1/2011 6/1/2013
MIDW	ST_JOHN 115KV Capacitor #1 ST_JOHN 115KV Capacitor #2	Install 20 MVAR Capacitor Install 8mvar capacitor	6/1/2010 6/1/2017	6/1/2010 6/1/2017
MIPU	GRANDVIEW EAST - MARTIN CITY 161KV CKT 1 #2	Reconductor to Bundled Drake	6/1/2012	6/1/2012
OKGE	ALVA - KNOBHILL 69KV CKT 1	Replace bus differential relaying and increase CTR to 600A.  Replace 1200A terminal equipment at Arkoma to 2000A and rebuild 4.47	6/1/2010	6/1/2010
OKGE OKGE	ARKOMA - FT SMITHW 161KV CKT 1 BROWN - EXPLORER TAP 138KV CKT 1	miles of line to 1590AS52.  Replace .09 miles of 267AS33 with 795AS33 conductor.	6/1/2010 6/1/2013	6/1/2011 6/1/2013
OKGE	BROWN TAP - EXPLORER TAP 138KV CKT 1	Reconductor .27 miles of line to 795AS33.	6/1/2013	6/1/2013
OKGE	GLASSES - RUSSETT 138KV CKT 1	Rebuild 8.38 miles of 138kV line with 795AS33, replace line relays, increase trap	6/1/2010	6/1/2011
OKGE	RUSSETT - RUSSETT 138KV CKT 1 OKGE	Replace trap and increase CTR. Pending verification of relays.  Reconductor 69kV Line 636 MCM ACSR to 762.8 kcmil ACSS/TW 3.103	6/1/2013	6/1/2013
SPRM	JAMES RIVER - TWIN OAKS 69KV CKT 1	miles. Reconductor 69kV Line 636 MCM ACSR to 762.8 kcmil ACSS/TW 1.35	6/1/2015	6/1/2015
SPRM	KICKAPOO - SUNSET 69KV CKT 1	miles.	6/1/2015	6/1/2015
SPRM SPS	NEERGARD - NORTON 69KV CKT 1 CARLSBAD INTERCHANGE 115/69KV TRANSFORMER CKT 1	Transfer load & Reconductor 336.4 kcmil ACSR with 477 ACSS/TW Upgrade 115/69 kV transformer (84/96 MVA)	6/1/2009 6/1/2012	6/1/2010 6/1/2012
SPS	CARLSBAD INTERCHANGE 115/69KV TRANSFORMER CKT 2	Upgrade 115/69 kV transformer (84/96 MVA)  Build Dalhert-Channing and Convert Channing-Tacosa-Northwest	6/1/2012	6/1/2012
SPS SPS	DALHERT - CHANNING 115KV DEAF SMITH COUNTY INTERCHANGE 230/115KV TRANSFORMER CKT 3	Interchange from 69 to 115 kV with 795 ACSR Add third 230/115 kV auto (150/175.2 MVA)	6/1/2012 6/1/2015	6/1/2012 6/1/2015
		Upgrade jumper at Nichols Sta. on Nichols-Whitaker Sub line. Replace with		
SPS	NICHOLS STATION - WHITAKER SUB 115KV CKT 1	397.5 with 795 ACSR cable  Reconductor 4 miles of line between Georgia-Osage 397.5 with 795 ACSR	6/1/2010	6/1/2010
SPS	OSAGE SWITCHING STATION - SOUTH GEORGIA INTERCHANGE 115KV CKT 1	cable Upgrade jumper at Terry Co. to a higher rating. Replace 4/0 with 397.5 ACSR	6/1/2016	6/1/2016
SPS SPS	TERRY COUNTY INTERCHANGE - WOLFFORTH INTERCHANGE 115KV CKT 1 TUCO INTERCHANGE 345/115KV TRANSFORMER CKT 1	cable Install 345/115 kV Transformer at Tuco	6/1/2010 6/1/2017	6/1/2010 6/1/2017
SUNC	HOLCOMB - PLYMELL 115KV CKT 1	Rebuild Holcomb to Plymell	6/1/2009	12/1/2009
SUNC SWPA	PIONEER TAP - PLYMELL 115KV CKT 1 BULL SHOALS - BULL SHOALS 161KV CKT 1	Rebuild Plymell to Pioneer Tap  Replace buswork in Bull Shoals switchyard.	6/1/2009 6/1/2010	12/1/2009 6/1/2010
SWPA SWPA	CLARKSVILLE - DARDANELLE 161KV CKT 1  DARDANELLE - DARDANELLE 161KV CKT 1	Reconductor Clarksville-Dardanelle line Indeterminate	6/1/2010 6/1/2010	6/1/2011 6/1/2010
SWPA	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	Replace wave trap, disconnect switches, current transformers, and breaker. Replace bus.	6/1/2010	6/1/2011
SWPA	JONES - JONESBORO 161KV CKT 1 SWPA	Indeterminate	6/1/2013	6/1/2013
SWPA SWPA	NIXA (NXA X1) 161/69/13.8KV TRANSFORMER CKT 1 SPRINGFIELD (SPF X1) 161/69/13.8KV TRANSFORMER CKT 1	Replace with 70MVA transformer. Replace Springfield Xfmr 3	6/1/2009 6/1/2010	6/1/2009 6/1/2010
SWPA WEPL	SPRINGFIELD (SPF X2) 161/69/13.8KV TRANSFORMER CKT 1 CLAY CENTER - GREENLEAF 115KV CKT 1	Replace Springfield Xfmr 3  Building a new 115 kV tie with Westar from Greenleaf to Clay Center	6/1/2010 9/1/2008	6/1/2010 6/1/2011
WEPL	HARPER 138KV Capacitor	Install 1 - 20 MVar capacitor bank	9/1/2008	6/1/2009
WEPL WEPL	PHILLIPSBURG - RHOADES 115 kV PRATT 115KV Capacitor	Install 35 miles 115 kV from Phillipsburgsubstion to Rhoades Install 1 - 20 MVar capacitor bank	9/1/2008 9/1/2008	6/1/2009 6/1/2009
WERE	95TH & WAVERLY - CAPTAIN JUNCTION 115KV CKT 1	Rebuild 7.61 miles from 95th & Waverly-Captain Junction 115 kV line.	6/1/2010	6/1/2011
WERE WERE	BISMARK JUNCTION SWITCHING STATION - FARMERS CONSUMER CO-OP 115KV CKT 1 BISMARK JUNCTION SWITCHING STATION - MIDLAND JUNCTION 115KV CKT 1	Rebuild 5.2 miles 115 kV line from BISMARK3 to COOP3  Rebuild 5.2 miles 115 kV line from BISMARK3 to MIDLAND3	6/1/2015	6/1/2015 6/1/2015
	BPU - CITY OF MCPHERSON JOHNS-MANVILLE - EAST MCPHERSON SWITCHING STATION		6/1/2015	
WERE WERE	115KV CKT 1 CHAPMAN - CLAY CENTER JUNCTION 115KV CKT 1	Rebuild Line Reset terminal equipment	9/1/2008 9/1/2008	6/1/2011 6/1/2011
WERE WERE	COWSKIN - WESTLINK 69KV EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1 #2	Rebuild 2.11 miles Reconductor 8.02 miles with Bundled 1192.5 ACSR	6/1/2010 6/1/2016	6/1/2010 6/1/2016
WERE WERE	FARMERS CONSUMER CO-OP - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1 GILL ENERGY CENTER EAST - INTERSTATE 138KV CKT 1	Rebuild 1.53-mile Co-op-Wakarusa 115 kV line. Replace wave trap	6/1/2011 6/1/2013	6/1/2011 6/1/2013
WERE	GILL ENERGY CENTER EAST - OATVILLE 69KV CKT 1	Tear down / Rebuild 3.69-mile Gill-Gill Junction-Oatville 69 kV line using 1192.5 kcmil ACSR	9/1/2008	6/1/2008
WERE WERE	HEC-HEC GT-Circle 115KV HOOVER SOUTH - TYLER 69KV	Rebuild and convert HEC-HEC GT-Circle loop to 115 kV.	9/1/2008 6/1/2010	6/1/2009
WERE	LAWRENCE HILL - MOCKINGBIRD HILL SWITCHING STATION 115KV CKT 1	Rebuild 1.94 miles Rebuild 5.49 miles	6/1/2013	6/1/2013
WERE	LYONS - WHEATLAND 115KV CKT 1 WERE	Rebuild 1.5% ownership of 19.4 miles	6/1/2013	6/1/2013
WERE	NORTHVIEW - SUMMIT 115KV CKT 1	Tear down / Rebuild 7.23-mile Summit-Northview 115 kV, 1192.5 kcmil ACSR Teardown/rebuild 7.21 mile Jarbalo-NW Leavenworth 115 kV line with double	9/1/2008	12/1/2009
WERE	NORTHWEST LEAVENWORTH - STRANGER CREEK - JARBALO 115KV	circuit tap to Stranger Creek.	6/1/2010	6/1/2011
WERE	SOUTHGATE - SUMMIT 115KV CKT 1	Build 6.5-mile Summit-Southgate 115 kV, 1192.5 kcmil ACSR Tear down Northview-South Gate 115 kV	9/1/2008	12/1/2009
WERE	SOUTHWEST LAWRENCE - WAKARUSA JUNCTION SWITCHING STATION 115KV CKT 1	Rebuild 4.09 mile SW Lawrence-Wakarusa 115 kV line	6/1/2010	6/1/2011
		Tear down / Rebuild 7.23-mile Summit-Northview 115 kV, 1192.5 kcmil ACSR		3.3.2311
		Build 6.5-mile Summit-Southgate 115 kV, 1192.5 kcmil ACSR		
WERE WERE	Summit - NE Saline 115 kV TYLER - WESTLINK 69KV	Tear down Northview-South Gate 115 kV  Rebuild 2.66 miles and operate line normally closed	9/1/2008 6/1/2010	12/1/2009 6/1/2010
WERE	WEST MCPHERSON - WHEATLAND 115KV CKT 1	Tear down and rebuild 7.88 mile West McPherson-Wheatland 115 kV line.	9/1/2008	12/1/2008
WFEC	WEST MCPHERSON - WHEATLAND 115KV CKT 1  ACME - WEST NORMAN 69KV CKT 1	Reconductor 4 miles from 4/0 to 795 ACSR	9/1/2008	6/1/2009
WFEC	ANADARKO - CYRIL 69KV CKT 1	UPGRADE TO 795 ACSR FROM ANADARKO SW TO CYRIL , Anadarko- Cyril 12.9	9/1/2008	6/1/2009
WFEC	MOORELAND - MOREWOOD SW 138KV CKT 1	Convert Canadian - OU - Cole - Criner to 138 KV and Canadian-Goldsby-OU-	9/1/2008	6/1/2010
		our dollar. So Sole - Office to 150 KV and Canadian GoldSby-OU-		6/1/2010

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

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

WERE

WERE WERE WFEC

SUMMIT - RENO 345KV

WICHITA - RENO 345KV WICHITA - RENO 345KV FT SUPPLY 138/69KV TRANSFORMER CKT 1 HUGO POWER PLANT - VALLIANT 345 KV WFEC

Earliest Data Transmission Upgrade HUGO POWER PLANT - VALLIANT 345 KV AEPW Vallient 345 KV line terminal EMDE SUB 110 - ORONOGO JCT. - SUB 167 - RIVERTON 161KV CKT 1 Reconductor Oronogo 59467 to Riverton 59469 with Bundled 556 ACSR 6/1/2011 6/1/2011 KCPL Sponsored Project to Reconductor Line to be In-Service by 6/1/2006. Replace bus tie with 100MVA transformer. New stepdown transformer at a new substation in Reno County east northeast of Hutchinson Install 2nd stepdown transformer at Reno County substation east northeast of Hutchinson. Install new 50.55-mile 345 kV line from Reno county to Summit; 31 miles of 115 kV line between Circle and 5 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 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) LACYGNE - WEST GARDNER 345KV CKT 1 KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1 6/1/2006 6/1/2006 OKGE 6/1/2006 RENO 345/115KV CKT 1 WERE 12/1/2008 12/1/2008 WERE RENO 345/115KV CKT 2 12/1/2009 12/1/2009

(Wishita to Reno)
Build 345kV from Wishita to Reno Co
Install 2nd 70 MVA auto at Ft Supply
New 345/138 kv Auto, and 19 miles 345 KV

12/1/2009

12/1/2008 12/1/2008 12/1/2006 7/1/2012

12/1/2009

Table 5 - Third Party Facility Constraints

Transmission Owner	UpgradeName	Solution	Earliest Data Upgrade Required (COD)	(EOC)	Estimated Engineering & Construction Cost
AECI	CLINTON - HOLDEN 161KV CKT 1	Indeterminate	06/01/13		Indeterminate
AECI	FRANKS - FT WOOD 161KV CKT 1	Indeterminate	06/01/10		Indeterminate
AECI	PHILLIPS (PHILLIPS) 161/69/7.2KV TRANSFORMER CKT 1	Indeterminate	06/01/10	06/01/10	Indeterminate
	SUB 184 - NEOSHO SOUTH JCT. (NEOSHO) 161/69/13.2KV				
AECI	TRANSFORMER CKT 1	Indeterminate	06/01/13		Indeterminate
AMRN	CAPE GIR 161.00 - JOPPA SR 161.00 161KV CKT 1	Indeterminate	06/01/10		Indeterminate
ENTR	3ALPINE# 115.00 - 3AMITY * 115.00 115KV CKT 1	Indeterminate	04/01/08	04/01/08	Indeterminate
ENTR	3ALPINE# 115.00 - 3BISMRK 115KV CKT 1	Indeterminate	04/01/08		Indeterminate
ENTR	3BISMRK - 3HSEHVW 115KV CKT 1	Indeterminate	04/01/08	04/01/08	Indeterminate
ENTR	4KSPRGS 138.00 - CHAMPAGNE 138KV CKT 1	Indeterminate	06/01/09	06/01/09	Indeterminate
ENTR	4KSPRGS 138.00 - LINE 642 TAP 138KV CKT 1	Indeterminate	06/01/09	06/01/09	Indeterminate
ENTR	4TAMINA 138.00 - TAMINA 138KV CKT 1	Indeterminate	06/01/08	06/01/08	Indeterminate
ENTR	5BEE BR - QUITMAN 161KV CKT 1	Indeterminate	06/01/09	06/01/09	Indeterminate
ENTR	5CLINTN - CLINTON WEST (AECC) 161KV CKT 1	Indeterminate	06/01/10	06/01/10	Indeterminate
ENTR	5ST_JOE 161.00 - EVERTON 161KV CKT 1	Indeterminate	06/01/08	06/01/08	Indeterminate
ENTR	8WELLS 500.00 500/230KV TRANSFORMER CKT 1	Indeterminate	06/01/08	06/01/08	Indeterminate
ENTR	CHINA - SABINE 230KV CKT 1	Indeterminate	06/01/08	06/01/08	Indeterminate
ENTR	CLARENCE - MONTGOMERY 230KV CKT 1 ENTR	Indeterminate	06/01/09	06/01/09	Indeterminate
ENTR	EVERTON - HARRISON-EAST 161KV CKT 1	Indeterminate	06/01/08	06/01/08	Indeterminate
ENTR	HARTBURG - INLAND-ORANGE 230KV CKT 1	Indeterminate	06/01/08	06/01/08	Indeterminate
ENTR	LINE 642 TAP - LIVONIA BULK 138KV CKT 1	Indeterminate	06/01/09	06/01/09	Indeterminate
ENTR	LIVONIA BULK - WILBERT 138KV CKT 1	Indeterminate	06/01/09	06/01/09	Indeterminate
		Rebuild 7.43 miles of 250 CWC with 795			
ENTR	MAGAZINE REC - NORTH MAGAZINE 161KV CKT 1 ENTR	ACSR	06/01/10		Indeterminate
ENTR	OAK RIDGE - TAMINA 138KV CKT 1	Indeterminate	06/01/09	06/01/09	Indeterminate