

Aggregate Facility Study SPP-2008-AGP1-AFS-9 For Transmission Service Requested by Aggregate Transmission Customers

SPP Engineering, SPP Tariff Studies

SPP AGGREGATE FACILITY STUDY (SPP-2008-AGP1-AFS-9)

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1. Executive Summary

Pursuant to Attachment Z1 of the Southwest Power Pool Open Access Transmission Tariff (OATT), 3336 MW of long-term transmission service requests have been restudied in this Aggregate Facility Study (AFS). The principal objective of the AFS is to identify system problems and potential modifications necessary to facilitate these transfers while maintaining or improving system reliability as well as summarizing the operating limits and determination of the financial characteristics associated with facility upgrades. Facility upgrade costs are allocated on a prorated basis to all requests positively impacting any individual overloaded facility. Further, Attachment Z2 provides for facility upgrade cost recovery by stating that "Transmission Customers paying Directly Assigned Upgrade Costs for Service Upgrades or that are in excess of the Safe Harbor Cost Limit for Network Upgrades associated with new or changed Designated Resources and Project Sponsors paying Directly Assigned Upgrade Costs for Sponsored Upgrades shall receive revenue credits in accordance with Attachment Z2. Generation Interconnection Customers paying for Network Upgrades shall receive credits for new transmission service using the facility as specified in Attachment Z1."

The total assigned facility upgrade Engineering and Construction (E &C) cost determined by the AFS is \$63 Million. Additionally an indeterminate amount of assigned E & C cost for 3rd party facility upgrades are assignable to the customer. The total upgrade levelized revenue requirement for all transmission requests is \$123 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 \$6 Million.

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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 zero.

The Transmission Provider will tender a Letter of Intent on March 31th, 2010. 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 April 15th, 2010, 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. Introduction

On January 21, 2005, the Federal Energy Regulatory Commission accepted Southwest Power Pool's proposed aggregate transmission study procedures in Docket ER05-109 to become effective February 1, 2005. On August 8, 2008, Southwest Power Pool filed with the Federal Energy Regulatory Commission in Docket ER08-1379-000 to pair open seasons closing during

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the period January 1, 2008 through January 31, 2010, with an effective date of August 9, 2008. The 2008-AG1 open season commenced on October 1, 2007 and closed January 31, 2008. The 2008-AG2 open season commenced on February 1, 2007 and closed May 31, 2008. Based on the preceding, all requests for long-term transmission service received prior to February 1, 2008 for 2008 AG-1 and June 1, 2008 for 2008 AG-2 with a signed study agreement have been included in the first paired Aggregate Transmission Service Study (ATSS) of 2008. This report SPP-2008-AGP1-AFS-6 signals the completion of the sixth stage of the AFS.

Approximately 3336 MW of long-term transmission service has been restudied in this Aggregate Facility Study (AFS) with over \$63 Million in transmission upgrades being proposed. The results of the AFS are detailed in Tables 1 through 6. A highly tangible benefit of studying transmission requests aggregately under the SPP OATT Attachment Z1 is the sharing of costs among customers using the same facility. The detailed results show individual upgrade costs by study as well as potential base plan allowances as determined by Attachments J and Z1. The following URL can be used to access the SPP OATT:

(http://www.spp.org/Publications/SPP_Tariff.pdf). In order to understand the extent to which base plan upgrades may be applied to both point-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.

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

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

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

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

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

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

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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

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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 accelerated, 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 accelerated.

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

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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. <u>Third Party Facilities</u>

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 zero. The Transmission Provider will undertake reasonable efforts to assist the Transmission Customer in making arrangements for necessary engineering, permitting, and construction of the third-party facilities. Third-party facility upgrade engineering and construction cost estimates are not utilized to determine the present worth value of levelized revenue requirements for SPP system network upgrades.

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

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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^{rd} party facilities for load that sinks outside the SPP footprint with the applicable Transmission Providers.

3. Study Methodology

A. Description

The facility study 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 performed to ensure current SPP Criteria and NERC Reliability Standards requirements are fulfilled. The Southwest Power Pool conforms to the NERC Reliability Standards, which provide the strictest requirements, related to voltage violations and thermal overloads during normal conditions and during a contingency. It requires that all facilities be within normal operating ratings for normal system conditions and within emergency ratings after a contingency. Normal operating ratings and emergency operating ratings monitored are Rate A and B in the SPP MDWG models, respectively. The upper bound and lower bound of the normal voltage range monitored is 105% and 95%. The upper bound and lower bound of the emergency voltage range monitored is 105% and 90%. Transmission Owner voltage monitoring criteria is used if more restrictive. The SPS Tuco 230 kV bus voltage is monitored at 92.5% due to predetermined system stability limitations. The WERE Wolf Creek 345 kV bus voltage is monitored at 103.5% and 98.5% due to transmission operating procedure.

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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 WAPA. 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 seven seasonal models to study the aggregate transfers of 3336 MW over a variety of requested service periods. The SPP STEP 2009 Build 3 Cases 2010 Summer Peak (10SP), 2010/11 Winter Peak (11WP), 2011 Summer Peak (11SP), 2011/12 Winter Peak (11WP), 2014 Summer Peak (14SP), 2014/15 Winter Peak (14WP), and 2019 Summer Peak (19SP) 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 current modeling information. Five groups of requests were developed from the aggregate of 3336 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 seven seasonal models, five system scenarios were developed. Scenario 1 includes SWPP OASIS

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transmission requests not already included in the SPP 2009 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 2009 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 2009 Series Cases flowing in a South to North direction with ERCOTN HVDC tie South to North, ERCOTE HVDC tie East to West, SPS exporting to the Lamar HVDC Tie. Scenario 3 includes transmission requests not already included in the SPP 2009 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 2009 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 2009 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. 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. 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.

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D. Transfer Analysis

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

E. Curtailment and Redispatch Evaluation

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

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

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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. 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. <u>Study Results</u>

A. Study Analysis Results

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

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Table 3 provides additional details for each request including all assigned facility upgrades required, allocated E & C costs, allocated revenue requirements for upgrades, upgrades not assigned to customer but required for service to be confirmed, credits to be paid for previously assigned AFS or GI network upgrades, and any third party upgrades required. Table 4 lists all upgrade requirements with associated solutions needed to provide transmission service for the AFS, Minimum ATC per upgrade with season of impact, Earliest Date Upgrade is required (DUN), Estimated Date the upgrade will be completed and in service (EOC), and Estimated E & C cost. Table 5 lists identified Third-Party constrained facilities. Table 6 identifies potential redispatch pairs available to relieve the aggregate impacts on identified constraints to prevent deferral of start of service. Table 7 (if applicable) identifies deferred expansion plan projects that were replaced with requested upgrades at earlier dates.

The potential base plan funding allowable is contingent upon meeting each of the conditions for classifying upgrades associated with designated resources as base plan upgrades as defined in Section III.B of Attachment J. If the additional capacity of the new or changed designated resource exceeds the 125% resource to load forecast for the year of start of service, the requested resource is not eligible for base plan funding of required network upgrades and the full cost of the upgrades is assignable to the customer. Additionally, if the request is for wind generation, the total requested capacity of wind generation plus existing wind generation capacity shall not exceed 20% of the Customer's projected system peak responsibility in the first year the Designated Resource is planned to be used by the Customer. If the 5 year term and 125% resource to load criteria are met, (as well as the 20% wind resource to load criteria for wind generation requests) the requested capacity is multiplied by \$180,000 to determine the potential base plan funding allowable 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

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Funding Allowable. Network upgrades required for wind generation requests located in a zone other than the customer POD shall be allocated as 67% Base Plan Region wide charge and 33% directly assigned to the customer.

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

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

Example A:

E & C allocated for upgrades is 74 million with revenue requirements of 140 million and PTP base rate of 101 million. Potential base plan funding is 47 million with the difference of 27 million E & C assignable to the customer. If the revenue requirements for the assignable portion is 54 million and the PTP base rate is 101 million, the customer will pay the higher "OR" pricing of 101 million base rate of which 54 million revenue requirements will be paid back to the Transmission Owners for the upgrades and the remaining revenue requirements of (140-54) or 86 million will be paid by base plan funding.

Example B:

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

Example C:

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

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

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

B. Study Definitions

The Date Upgrade Needed Date (DUN) is the earliest date the upgrade is required to alleviate a constraint considering all requests. End of Construction (EOC) is the estimated date the upgrade will be completed and in service. The Total Engineering and Construction Cost (E & C) is the upgrade solution cost as determined by the transmission owner. The Transmission Customer Allocation Cost is the estimated engineering and construction cost based upon the allocation of

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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 March 31th, 2010. 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 April 15th, 2010, 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 fully base plan funded. The amount of the letter of credit will be adjusted down on an annual basis to reflect cost recovery based on revenue allocation. Letter of Credit is required for upgrades assigned to PTP requests. The Letter Of Credit Amount listed is based on meeting OATT Attachment J requirements for base plan funding. The Transmission Provider will issue notifications to construct network upgrades to the constructing Transmission Owner after filing of necessary service agreements at FERC.

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Appendix A

PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

BASE CASES:

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

Var limits - Apply immediately

Solution options - \underline{X} Phase shift adjustment

- _ Flat start
- _Lock DC taps
- _Lock switched shunts

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Customer	Study Number	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date without interim redispatch	Deferred Stop Date without interim redispatch	Start Date with interim redispatch	Stop Date with interim redispatch	Minimum Allocated ATC (MW) within reservation period	Season of Minimum Allocated ATC within reservation period
AEPM	AG2-2008-073	1458766	SPS	CSWS	65	6/1/2009	6/1/2029	6/1/2013	6/1/2033	6/1/2010	6/1/2030	0	09SP
AEPM	AG2-2008-073	1458767	SPS	CSWS	15	6/1/2009	6/1/2029	6/1/2013	6/1/2033	6/1/2010	6/1/2030	0	09SP
CALP	AG1-2008-010	1393818	CSWS	ERCOTE	50	1/1/2009	1/1/2019	6/1/2011	1/1/2019	6/1/2010	1/1/2019	0	09SP
CALP	AG1-2008-010	1393823	CSWS	ERCOTE	50	1/1/2009	1/1/2019	6/1/2011	1/1/2019	6/1/2010	1/1/2019	0	09SP
CALP	AG1-2008-010	1393830	CSWS	ERCOTE	50	1/1/2009	1/1/2019	6/1/2011	1/1/2019	6/1/2010	1/1/2019	0	09SP
CALP	AG1-2008-010	1393837	CSWS	ERCOTE	50	1/1/2009	1/1/2019	6/1/2011	1/1/2019	6/1/2010	1/1/2019	0	09SP
CALP	AG1-2008-010	1393838	CSWS	ERCOTE	50	1/1/2009	1/1/2019	6/1/2011	1/1/2019	6/1/2010	1/1/2019	0	09SP
GRDX	AG1-2008-024	1405543	OKGE	GRDA	157	1/1/2009	1/1/2014	6/1/2013	6/1/2018	6/1/2010	6/1/2015	0	09SP
INDP	AG2-2008-051	1458202	INDN	KCPL	9	1/1/2009	1/1/2011	6/1/2010	1/1/2011	6/1/2010	1/1/2011	0	09SP
INDP	AG2-2008-052	1458207	WR	INDN	15	1/1/2009	1/1/2029	6/1/2010	6/1/2030	6/1/2010	6/1/2030	0	09SP
INDP	AG2-2008-053	1458487	OPPD	INDN	2	6/1/2009	6/1/2049	6/1/2010	6/1/2050	6/1/2010	6/1/2050	0	09SP
KCPS	AG1-2008-029	1405741	WR	KCPL	20	5/1/2011	5/1/2025	5/1/2011	5/1/2025	5/1/2011	5/1/2025	0	11SP
KCPS	AG2-2008-070	1458727	WPEK	KCPL	50	9/1/2009	9/1/2013	12/1/2012	9/1/2013	6/1/2010	9/1/2013	0	10SP
KCPS	AG2-2008-070	1458728	WPEK	KCPL	50	9/1/2009	9/1/2013	12/1/2012	9/1/2013	6/1/2010	9/1/2013	0	10SP
KCPS	AG2-2008-071	1458732	KCPL	KCPL	101	9/1/2009	9/1/2019	6/1/2013	6/1/2023	6/1/2010	6/1/2020	0	10SP
KEPC	AG1-2008-036	1405798	WR	WR	3	5/1/2011	5/1/2018	5/1/2011	5/1/2018	5/1/2011	5/1/2018	0	11SP
KMEA	AG1-2008-039	1405809	GRDA	SECI	2	5/1/2010	5/1/2026	6/1/2010	6/1/2026	6/1/2010	6/1/2026	0	10SP
KMEA	AG2-2008-040	1457913	GRDA	SECI	13	5/1/2009	5/1/2027	6/1/2010	6/1/2028	6/1/2010	6/1/2028	0	09SP
KPP	AG1-2008-015	1403996	WR	WR	6	6/1/2008	6/1/2017	6/1/2010	6/1/2019	6/1/2010	6/1/2019	0	09SP
KPP	AG1-2008-017	1404448	WR	WR	4	6/1/2008	6/1/2018	6/1/2012	6/1/2022	6/1/2010	6/1/2020	0	09SP
KPP	AG2-2008-037	1457536	GRDA	WR	4	1/1/2009	1/1/2026	6/1/2010	6/1/2027	6/1/2010	6/1/2027	0	09SP
KPP	AG2-2008-038	1457802	WPEK	WPEK	3	11/1/2008	11/1/2013	6/1/2010	6/1/2015	6/1/2010	6/1/2015	0	09SP
KPP	AG2-2008-054	1458533	WR	WR	11	10/1/2008	10/1/2018	6/1/2010	6/1/2020	6/1/2010	6/1/2020		09SP
OGE	AG1-2008-018	1404463	OKGE	OKGE	120	8/31/2009	8/31/2034	6/1/2013	6/1/2038	6/1/2010	6/1/2035	0	10SP
OGE	AG1-2008-027	1405664	OKGE	OKGE	648	6/1/2008	6/1/2028	6/1/2013	6/1/2033	6/1/2010	6/1/2030		09SP
OGE	AG2-2008-017	1454686	OKGE	WFEC	28	10/1/2008	10/1/2028	6/1/2011	6/1/2031	6/1/2010	6/1/2030	0	09SP
OMPA	AG1-2008-021	1404908	OKGE	OKGE	155	10/1/2008	10/1/2028	6/1/2013	6/1/2033	6/1/2010	6/1/2030	0	09SP
SEPC	AG1-2008-037	1405823	SECI	SECI	1175	6/1/2008	6/1/2028	11/1/2010	11/1/2030	11/1/2010	11/1/2030		09SP
WRGS	AG1-2008-028	1405690	WR	WR	20	5/1/2011	5/1/2018	5/1/2011	5/1/2018	5/1/2011	5/1/2018	0	11SP
WRGS	AG2-2008-006	1431605	EES	SPA	8	3/1/2010	3/1/2040	6/1/2010	6/1/2040	6/1/2010	6/1/2040	0	10SP
WRGS	AG2-2008-034	1457037	WR	WR	174	1/4/2019	1/4/2029	1/4/2019	1/4/2029	1/4/2019	1/4/2029	0	19SP
WRGS	AG2-2008-035	1457044	WR	WR	61	1/1/2014	1/1/2024	1/1/2014	1/1/2024	1/1/2014	1/1/2024		19SP
WRGS	AG2-2008-036	1457049	WR	WR	167	6/1/2010	6/1/2020	6/1/2012	6/1/2022	6/1/2010	6/1/2020	0	10SP

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

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

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

Customer	Study Number	Reservation	Engineering and Construction Cost of Upgrades Allocated to Customer for Revenue Requirements	Credit Amount Required	² Potential Base Plan Engineering and Construction Funding Allowable	Notes	Cost for 3rd Party Upgrades	Re fo Up R Po Pi	otal Revenue equirements or Assigned grades Over Term of teservation WITHOUT tential Base an Funding Allocation	^{3 5} Total Revenue Requirements for Assigned Upgrades Over Term of Reservation WITH Potential Base Plan Funding Allocation	Point-to-Point Base Rate Over Reservation Period	⁴ Total Cost of Reservation Assignable to Customer Contingent Upon Base Plan Funding
	AG2-2008-073	1458766	\$	\$	\$		\$	\$	-	\$-	- \$ -	Schedule 9 & 11 Charges
	AG2-2008-073	1458767	\$	\$	\$		\$	\$	-	\$-	- \$ -	Schedule 9 & 11 Charges
	AG1-2008-010	1393818	\$ 880,000	*			\$	\$	1,112,405	\$ 1,112,405	\$ 8,323,276	
	AG1-2008-010	1393823	\$ 880,000				\$ -	\$	1,112,405	\$ 1,112,405		
	AG1-2008-010	1393830	\$ 880,000				\$	\$	1,112,405	\$ 1,112,405	\$ 8,323,276	
	AG1-2008-010	1393837	\$ 880,000				\$	\$	1,112,405	\$ 1,112,405		
	AG1-2008-010	1393838	+	*			\$	\$	1,112,405	\$ 1,112,405	\$ 8,323,276	
	AG1-2008-024	1405543	\$ 210,924	\$-	\$ 210,924		\$	- \$	413,896	\$-	- \$ -	Schedule 9 & 11 Charges
	AG2-2008-051	1458202	\$ -	\$-	\$		\$-	\$	-	\$-	\$ 55,440	
	AG2-2008-052	1458207	\$ 13,329	\$ 13,329	\$	-	\$-	\$	54,001	\$ 54,001	\$ 3,636,000	\$ 3,636,000
	AG2-2008-053	1458487	\$ 1,618	\$ 1,618			\$-	\$	11,190	\$ 11,190	\$ 969,600	
	AG1-2008-029	1405741	\$ 27,618		\$ 27,618		\$	- \$	68,631	\$-	- \$ -	Schedule 9 & 11 Charges
	AG2-2008-070	1458727	\$ 1,762,500	\$ 1,762,500		6	\$	\$	1,800,722	\$ 1,800,722		\$ 1,800,722
	AG2-2008-070	1458728	\$ 1,762,500	\$ 1,762,500		- 6	\$-	\$	1,800,722	\$ 1,800,722	\$ 1,716,000	\$ 1,800,722
	AG2-2008-071	1458732	\$ 100,016	\$ 9,018	\$ 90,998	5	\$-	\$	266,797	\$ 19,305	\$-	\$ 19,305
	AG1-2008-036	1405798	\$-	\$-	\$		\$	- \$	-	\$-	· \$ -	Schedule 9 & 11 Charges
	AG1-2008-039	1405809	\$ 2,794	\$	\$ 2,794		\$	\$	7,451	\$-	\$	Schedule 9 & 11 Charges
	AG2-2008-040	1457913		\$-	\$ 864,282		\$-	\$	1,588,815	\$-	\$-	Schedule 9 & 11 Charges
	AG1-2008-015	1403996	\$-	\$-	\$		\$-	- \$	-	\$-	\$-	Schedule 9 & 11 Charges
	AG1-2008-017	1404448	\$-	\$-	\$		\$-	- \$	-	\$-	\$-	Schedule 9 & 11 Charges
	AG2-2008-037	1457536	\$ 6,293	\$-	\$ 6,293	6	\$.	\$	12,247	\$-	\$-	Schedule 9 & 11 Charges
	AG2-2008-038	1457802	\$-	\$-	\$		\$-	\$	-	\$	- \$ -	Schedule 9 & 11 Charges
	AG2-2008-054	1458533	\$ 38,663	\$-	\$ 38,663	5	\$-	\$	53,321	\$-	\$-	Schedule 9 & 11 Charges
	AG1-2008-018	1404463	\$ 52,980		\$ 52,980)	\$-	\$	208,420	\$-	- \$ -	Schedule 9 & 11 Charges
	AG1-2008-027	1405664	\$ 16,553,197	\$-	\$ 16,553,197		\$-	\$	35,805,161	\$-	\$-	Schedule 9 & 11 Charges
	AG2-2008-017	1454686		\$-	\$		\$ -	•\$	-	\$-	- \$ -	Schedule 9 & 11 Charges
	AG1-2008-021	1404908	\$ 4,277,842		\$ 4,277,842		\$-	\$	9,323,581	\$-	- \$ -	Schedule 9 & 11 Charges
	AG1-2008-037	1405823	\$ 1,773,131		\$ 1,773,131		\$-	\$	3,553,550	\$ -	- \$ -	Schedule 9 & 11 Charges
	AG1-2008-028	1405690	\$-	\$-	\$		\$-	\$	-	\$-	\$-	Schedule 9 & 11 Charges
	AG2-2008-006	1431605	\$-	\$-	\$		\$.	\$	-	\$-	\$ 2,736,000	\$ 2,736,000
WRGS	AG2-2008-034	1457037	\$ 13,334,323	\$ -	\$ 13,334,323		\$ -	\$	35,659,054	\$-	\$ -	Schedule 9 & 11 Charges
	AG2-2008-035	1457044	\$ 4,674,687	\$ -	\$ 4,674,687	r	\$ -	\$	8,691,611	\$-	\$-	Schedule 9 & 11 Charges
WRGS	AG2-2008-036	1457049	\$ 12,862,986	\$ -	\$ 12,862,986		\$ -	\$	18,514,549	\$-	\$-	Schedule 9 & 11 Charges
Grand Total			\$ 62,719,683		\$ 54,770,179			\$	123,395,744	\$ 5,647,203		<u> </u>

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 required for upgrades assigned to PTP requests. The amount of the letter of credit will be adjusted down on an annual basis to reflect cost recovery based on revenue allocation. This letter of credit is not required for those facilities that are fully base plan funded. The Letter Of Credit Amount listed is based on meeting OATT Attachment J requirements for base plan funding.

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

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

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

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: Less than 5 year term.

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Customer Study Number AEPM AG2-2008-073

AEPINI AG2-2008-0

Customer	Reservation	POR				Requested		Date Without	Plan Funding	Point-to-Point		Total Revenue Requirements
AEPM	1458766	SPS	CSWS	65	6/1/2009	6/1/2029	6/1/2013	6/1/2033	\$ -	\$-	\$-	\$-
AEPM	1458767	SPS	CSWS	15	6/1/2009	6/1/2029	6/1/2013	6/1/2033	\$-	\$-	\$-	\$-
									\$-	\$-	\$-	\$-

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1458766	None					\$-	\$-	\$-
					Total	\$-	\$-	\$-
1458767	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	DUN	EOC	Date	Available
1458766	DEAF SMITH - PANDA 115 KV CKT 1	6/1/2011	6/1/2012		Yes
	EAST PLANT INTERCHANGE - MANHATTAN SUB 115KV CKT 1	6/1/2010	6/1/2012		Yes
	FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
	Line - Randall - Amarillo S 230 kV ckt 1	6/1/2010	6/1/2013		Yes
	Multi - Cherry Sub add 230kV source and 115 kV Hastings Conversion	6/1/2010	6/1/2013		Yes
	NEWHART INTERCHANGE PROJECT	6/1/2010	6/1/2012		Yes
	POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		
	RANDALL 230/115 KV TRANSFORMER CKT 2	6/1/2010	6/1/2013		Yes
	DEAF SMITH - PANDA 115 KV CKT 1	6/1/2011	6/1/2012		
	EAST PLANT INTERCHANGE - MANHATTAN SUB 115KV CKT 1	6/1/2010	6/1/2012		Yes
	FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
	Line - Randall - Amarillo S 230 kV ckt 1	6/1/2010	6/1/2013		Yes
	Multi - Cherry Sub add 230kV source and 115 kV Hastings Conversion	6/1/2010	6/1/2013		Yes
	NEWHART INTERCHANGE PROJECT	6/1/2010	6/1/2012		
	POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		
	RANDALL 230/115 KV TRANSFORMER CKT 2	6/1/2010	6/1/2013		Yes

Reliability Projects - 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	DUN	EOC	Date	Available
- [1458766	STILWELL - WEST GARDNER 345KV CKT 1	6/1/2012	6/1/2012		
- [1458767	STILWELL - WEST GARDNER 345KV CKT 1	6/1/2012	6/1/2012		

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1458766	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	4/1/2010	4/1/2010		
1458767	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	4/1/2010	4/1/2010		

Customer CALP Study Number AG1-2008-010

Customer	Reservation	POR				Requested	Date Without		Plan Funding	Point-to-Point Base Rate		Total Revenue Requirements
CALP	1393818	CSWS	ERCOTE	50	1/1/2009	1/1/2019	6/1/2011		\$-	\$ 8,323,276		
CALP	1393823	CSWS	ERCOTE	50	1/1/2009	1/1/2019	6/1/2011	1/1/2019	\$-	\$ 8,323,276	\$ 880,000	\$ 1,112,405
CALP	1393830	CSWS	ERCOTE	50	1/1/2009	1/1/2019	6/1/2011	1/1/2019	\$ -	\$ 8,323,276	\$ 880,000	\$ 1,112,405
CALP	1393837	CSWS	ERCOTE	50	1/1/2009	1/1/2019	6/1/2011	1/1/2019	\$ -	\$ 8,323,276	\$ 880,000	\$ 1,112,405
CALP	1393838	CSWS	ERCOTE	50	1/1/2009	1/1/2019	6/1/2011	1/1/2019	\$-	\$ 8,323,276	\$ 880,000	\$ 1,112,405
									\$ -	\$ 41.616.380	\$ 4,400,000	\$ 5,562,024

				Earliest Service	Redispatch	Alloca	ated E & C		Total	Revenue
	Upgrade Name	DUN	EOC	Date	Available	Cost		Total E & C Cost	Requi	rements
1393818	BROKEN ARROW NORTH - SOUTH TAP - ONETA 138KV CKT 1	6/1/2015	6/1/2015			\$	880,000	\$ 4,400,000	\$	1,112,405
					Total	\$	880,000	\$ 4,400,000	\$	1,112,405
1393823	BROKEN ARROW NORTH - SOUTH TAP - ONETA 138KV CKT 1	6/1/2015	6/1/2015			\$	880,000	\$ 4,400,000	\$	1,112,405
					Total	\$	880,000	\$ 4,400,000	\$	1,112,405
1393830	BROKEN ARROW NORTH - SOUTH TAP - ONETA 138KV CKT 1	6/1/2015	6/1/2015			\$	880,000	\$ 4,400,000	\$	1,112,405
					Total	\$	880,000	\$ 4,400,000	\$	1,112,405
1393837	BROKEN ARROW NORTH - SOUTH TAP - ONETA 138KV CKT 1	6/1/2015	6/1/2015			\$	880,000	\$ 4,400,000	\$	1,112,405
					Total	\$	880,000	\$ 4,400,000	\$	1,112,405
1393838	BROKEN ARROW NORTH - SOUTH TAP - ONETA 138KV CKT 1	6/1/2015	6/1/2015			\$	880,000	\$ 4,400,000	\$	1,112,405
					Total	\$	880,000	\$ 4,400,000	\$	1,112,405

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	DUN	EOC	Date	Available
1393818	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	12/1/2010	6/1/2011		Yes
1393823	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	12/1/2010	6/1/2011		Yes
1393830	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	12/1/2010	6/1/2011		Yes
1393837	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	12/1/2010	6/1/2011		Yes
1393838	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	12/1/2010	6/1/2011		Yes

Credits may be required for the following netwo	

	Here to News	DU NI		Earliest Service	
	Upgrade Name		EOC	Date	Available
	ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	7/1/2012			
	ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	7/1/2012			
	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012			
	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011			
	DEARING 138KV Capacitor	6/1/2012			
	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009			
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012			
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012			
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010			
	OKAY - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		
1393823	ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	7/1/2012	7/1/2012		
	ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	7/1/2012	7/1/2012		
	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
	DEARING 138KV Capacitor	6/1/2012	6/1/2012		
	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009	6/1/2013		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		
	OKAY - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		
1393830	ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	7/1/2012	7/1/2012		
	ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	7/1/2012	7/1/2012		
	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
	DEARING 138KV Capacitor	6/1/2012	6/1/2012		
	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009			
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012		İ	l
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012		İ	l
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006			1
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010			1
	OKAY - TURK 138KV CKT 1	7/1/2012		1	1
	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2012			

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1393837 ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	7/1/2012	7/1/2012	
ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	7/1/2012	7/1/2012	
BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012	
CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013	
DEARING 138KV Capacitor	6/1/2012	6/1/2012	
FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009	6/1/2013	
HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012	
HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012	
HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012	
LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006	
NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010	
OKAY - TURK 138KV CKT 1	7/1/2012	7/1/2012	
SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011	
1393838 ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	7/1/2012	7/1/2012	
ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	7/1/2012	7/1/2012	
BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012	
CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013	
DEARING 138KV Capacitor	6/1/2012	6/1/2012	
FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009	6/1/2013	
HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012	
HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012	
HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012	
LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006	
NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010	
OKAY - TURK 138KV CKT 1	7/1/2012	7/1/2012	
SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011	

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Customer GRDX Study Number AG1-2008-024

Customer	Reservation	POR				Requested	Date Without		Plan Funding			Total Revenue Requirements
GRDX	1405543	OKGE	GRDA	157	1/1/2009	1/1/2014	6/1/2013	6/1/2018	\$ 210,924	\$-	\$ 210,924	\$ 413,896
									\$ 210,924	\$-	\$ 210,924	\$ 413,896

				Earliest Service	Redispatch	Allocat	ted E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1405543	ARCADIA - OMPA-EDMOND GARBER(LAKE) 138KV CKT 1	12/1/2010	6/1/2012			\$	2,505	\$ 30,000	\$-
	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerate	6/1/2010	6/1/2013		Yes	\$	208,419	\$ 1,844,685	\$ 413,896
					Total	\$	210,924	\$ 1,874,685	\$ 413,896

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	DUN	EOC	Date	Available
1405543	BRYANT - JONES TAP 138KV CKT 1	6/1/2015	6/1/2015		
	CLAREMORE (CLRAUTO1) 161/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2010		
	CLAREMORE (CLRAUTO2) 161/69/13.8KV TRANSFORMER CKT 2	6/1/2010	6/1/2010		
	CPP TRANSF #2 - PRYOR FOUNDRY SOUTH 69KV CKT 1	6/1/2015	6/1/2015		
	MAID - PRYOR FOUNDRY SOUTH 69KV CKT 1	6/1/2015	6/1/2015		
	MAID - REDDEN 69KV CKT 1	6/1/2015	6/1/2015		

Third Party Limitations.

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Start Date	Available
1405543	4LUTHER 138.00 138/69KV TRANSFORMER CKT 1	6/1/2010	6/1/2013		Yes

Customer Study Number

INDP	AG2-2008-051

Customer INDP	Reservation 1458202	-		Requested Stop Date	Redispatch	Date Without Redispatch	Plan Funding Allowable	Point-to-Point	C Cost	Total Revenue Requirements \$ -
				•	•		\$ -	\$ 55,440	\$ -	\$-
		DUN	Earliest Service Date	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements]			
1458202	None			\$-	\$-	\$-	J			

Total

\$

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Customer Study Number

INDP AG2-2008-052

Customer	Reservation	POR	POD	Requested Amount		Requested		Date Without	Plan Funding	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
INDP	1458207	WR	INDN	15	5 1/1/2009	1/1/2029	6/1/2010	6/1/2030	\$ -	\$ 3,636,000	\$ 13,329	\$ 54,001
	•								¢	\$ 3.636.000	\$ 13.329	\$ 54.001

			Earliest Service	Redispatch	Allocate	ed E & C		Total Revenue
Reservation Upgrade Name	DUN	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1458207 KCI - Platte City 161kV Ckt 1	6/1/2010	6/1/2011			\$	13,329	\$ 150,000	\$ 54,001
				Total	\$	13,329	\$ 150,000	\$ 54,001

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	DUN	EOC	Date	Available
1458207	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1	6/1/2015	6/1/2015		
	ERICK 138KV CAPICITOR	6/1/2016	6/1/2016		
	FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1	6/1/2015	6/1/2015		
	POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		
	South Harper 161 kV cut-in to Stilwell-Archie JCT 161 kV line	6/1/2010	6/1/2011		

Reliability Projects - 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	DUN	EOC	Date	Available
14582	7 STILWELL - WEST GARDNER 345KV CKT 1	6/1/2012	6/1/2012		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1458207	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2010	6/1/2013	12/1/2012	

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1458207	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

Customer INDP Study Number AG2-2008-053

Customer	Reservation	POR				Requested	Date Without		Plan Funding	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
INDP	1458487	OPPD	INDN	2	6/1/2009	6/1/2049	6/1/2010	6/1/2050	\$-	\$ 969,600	\$ 1,618	\$ 11,190
									\$ -	\$ 969,600	\$ 1,618	\$ 11,190

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1458487	KCI - Platte City 161kV Ckt 1	6/1/2010	6/1/2011			\$ 1,618	\$ 150,000	\$ 11,190
					Total	\$ 1.619	\$ 150,000	\$ 11 100

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	DUN	EOC	Date	Available
1458487	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1	6/1/2015	6/1/2015		
	ERICK 138KV CAPICITOR	6/1/2016	6/1/2016		
	FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
	POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		

Reliability Projects - 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	DUN	EOC	Date	Available
- 1	1458487	STILWELL - WEST GARDNER 345KV CKT 1	6/1/2012	6/1/2012		

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Customer Study Number

KCPS AG1-2008-029

Customer	Reservation	POR				Requested	Date Without	 Potential Plan Fund Allowable	ing	Point-to-Point	Allocate C Cost		Total Revenue Requirements
KCPS	1405741	WR	KCPL	20	5/1/2011	5/1/2025		\$ 2	7,618	\$-	\$ 2	27,618	\$ 68,631
								\$ 2	7,618	\$-	\$ 2	27,618	\$ 68,631

				Earliest Service	Redispatch	Allocated E & C			Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1405741	HALSTEAD SOUTH - SEDGWICK COUNTY NO. 12 COLWICH 138KV CKT 1	6/1/2019	6/1/2019			\$	15,888	\$ 700,000	\$ 26,512
	KCI - Platte City 161kV Ckt 1	6/1/2010	6/1/2011			\$	11,730	\$ 150,000	\$ 42,118
					Total	\$	27,618	\$ 850,000	\$ 68,631

Reliability Projects - 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	DUN	EOC	Date	Available
1405741	STILWELL - WEST GARDNER 345KV CKT 1	6/1/2012	6/1/2012		

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

					Earliest Service	Redispatch
	Reservation	Upgrade Name	DUN	EOC	Date	Available
[1405741	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2011	1/1/2013		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1405741	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

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Customer KCPS Study Number

AG2-2008-070

						Requested	Date Without		Plan Funding	Point-to-Point		Total Revenue
Customer	Reservation	POR	POD	Amount	Start Date	Stop Date	Redispatch	Redispatch	Allowable	Base Rate	C Cost	Requirements
KCPS	1458727	WPEK	KCPL	50	9/1/2009	9/1/2013	12/1/2012	9/1/2013	\$ -	\$ 1,716,000	\$ 1,762,500	\$ 1,800,722
KCPS	1458728	WPEK	KCPL	50	9/1/2009	9/1/2013	12/1/2012	9/1/2013	\$-	\$ 1,716,000	\$ 1,762,500	\$ 1,800,722
									\$-	\$ 3,432,000	\$ 3,525,000	\$ 3,601,444

				Earliest Service	Redispatch	Alloc	ated E & C		Tota	al Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost		Total E & C Cos	t Req	uirements
1458727	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	6/1/2013	6/1/2013			\$	1,762,500	\$ 3,525,000	\$	1,800,722
					Total	\$	1,762,500	\$ 3,525,000	\$	1,800,722
1458728	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	6/1/2013	6/1/2013			\$	1,762,500	\$ 3,525,000	\$	1,800,722
					Total	\$	1,762,500	\$ 3,525,000	\$	1,800,722

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	DUN	EOC	Date	Available
1458727	Hitchland Interchange - Moore County Interchange 230 kV	6/1/2010	1/1/2011		
	HOLCOMB - PLYMELL 115KV CKT 1	6/1/2010	11/1/2010		Yes
	PIONEER TAP - PLYMELL 115KV CKT 1	6/1/2010	11/1/2010		Yes
1458728	Hitchland Interchange - Moore County Interchange 230 kV	6/1/2010	1/1/2011		
	HOLCOMB - PLYMELL 115KV CKT 1	6/1/2010	11/1/2010		Yes
	PIONEER TAP - PLYMELL 115KV CKT 1	6/1/2010	11/1/2010		Yes

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1458727	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2010	6/1/2013	12/1/2012	Yes
	MEDICINE LODGE - PRATT 115KV CKT 1	6/1/2013	6/1/2013		
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Accelerated	12/1/2011	6/1/2013		
1458728	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2010	6/1/2013	12/1/2012	Yes
	MEDICINE LODGE - PRATT 115KV CKT 1	6/1/2013	6/1/2013		
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Accelerated	12/1/2011	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	DUN	EOC	Date	Available
1458727	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	MEDICINE LODGE - PRATT 115KV CKT 1	12/1/2009	6/1/2013		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		
1458728	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	MEDICINE LODGE - PRATT 115KV CKT 1	12/1/2009	6/1/2013		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		

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Customer Study Number

KCPS AG2-2008-071

Customer	Reservation	POR				Requested	Date Without		Plan Funding	Point-to-Point		Total Revenue Requirements
KCPS	1458732	KCPL	KCPL	101	9/1/2009	9/1/2019	6/1/2013	6/1/2023	\$ 90,998	\$-	\$ 100,016	\$ 266,797
									\$ 90,998	\$-	\$ 100,016	\$ 266,797

						Base F	lan				
				Earliest Service	Redispatch	Fundin	g for	Directly Assigned	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Wind	-	for Wind	Cost	Total E & C Cos	st Requirements
1458732	KCI - Platte City 161kV Ckt 1	6/1/2010	6/1/2011		Yes	\$	72,962	\$-	\$ 72,962	\$ 150,000	\$ 208,88
	SEWARD - ST JOHN 115KV CKT 1	6/1/2010	6/1/2011			\$	18,036	\$ 9,018	\$ 27,054	\$ 60,000	\$ 57,9
					Total	\$	90.998	\$ 9.018	\$ 100,016	\$ 210,000	\$ 266.79

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	DUN	EOC	Date	Available
1458732	ERICK 138KV CAPICITOR	6/1/2016	6/1/2016		
	FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
	Hitchland Interchange - Moore County Interchange 230 kV	6/1/2010	1/1/2011		Yes
	POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		
	South Harper 161 kV cut-in to Stilwell-Archie JCT 161 kV line	6/1/2010	6/1/2011		Yes

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

Teliability 1 Toje	The requested service is containgent upon completion of the following upgrades. Cos	is not assigne			
				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1458732	STILWELL - WEST GARDNER 345KV CKT 1	6/1/2012	6/1/2012		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1458732	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2010	6/1/2013	12/1/2012	Yes
	KNOLL - AXTELL 345KV CKT 1 MIDW	6/1/2010	6/1/2013		Yes
	KNOLL - AXTELL 345KV CKT 1 NPPD	6/1/2010	6/1/2013		Yes
	KNOLL 345/230 KV TRANSFORMER	6/1/2010	6/1/2013		Yes
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Accelerated	12/1/2011	6/1/2013		Yes
	SPEARVILLE - KNOLL 345KV CKT 1 MIDW	6/1/2010	6/1/2013		Yes
	SPEARVILLE - KNOLL 345KV CKT 1 SUNC	6/1/2010	6/1/2013		Yes

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1458732	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		

Customer Study Number

KEPC AG1-2008-036

Customer	Reservation	POR				Requested	Date Without	Plan Funding	Point-to-Point		Total Revenue Requirements
KEPC	1405798	WR	WR	3	5/1/2011	5/1/2018		\$-	\$-	\$-	\$
-								\$ -	\$ -	\$ -	\$

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1405798	None					\$-	\$-	\$-
					Total	\$-	\$-	\$-

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

				Earliest Service	Redispaton
Reservation	Upgrade Name	DUN	EOC	Date	Available
1405798	EAST MANHATTAN - NW MANHATTAN 230/115KV	6/1/2010	12/1/2011		
	East Manhattan to Mcdowell 230 kV	6/1/2010	6/1/2012		

Reliability Projects - 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	DUN	EOC	Date	Available
1405798	STILWELL - WEST GARDNER 345KV CKT 1	6/1/2012	6/1/2012		

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

Reservation Upgrade Name DUN EOC Date Available 1405798 BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1 6/1/2011 1/1/2013					Earliest Service	Redispatch
1405798 BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1 6/1/2011 1/1/2013	Reservation	Upgrade Name	DUN	EOC	Date	Available
	140579	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2011			

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1405798	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

Study Number AG1-2008-039 Customer

KMEA

Customer	Reservation	POR			Requested Start Date	Requested	Date Without	Date Without	Plan Funding	Point-to-Point		Total Revenue Requirements
KMEA	1405809	GRDA	SECI	2	5/1/2010	5/1/2026	6/1/2010	6/1/2026	\$ 2,794	\$	\$ 2,794	\$ 7,451
									\$ 2,794		\$ 2,794	\$ 7.451

				Earliest Service	Redispatch	Allocated E &	с		Total Revenue
Reservation I	Jpgrade Name		EOC	Date	Available	Cost		Total E & C Cost	Requirements
1405809 \$	SEWARD - ST JOHN 115KV CKT 1	6/1/2010	6/1/2011			\$ 2,7	94	\$ 60,000	\$ 7,451
-					Total	¢ 27	04	000.03 ²	¢ 7.451

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	DUN	EOC	Date	Available
1405809	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	6/1/2012	6/1/2012		
	CLEARWATER - MILAN TAP 138KV CKT 1 MKEC	6/1/2017	6/1/2017		
	CLEARWATER - MILAN TAP 138KV CKT 1 WERE	6/1/2017	6/1/2017		
	HARPER - MILAN TAP 138KV CKT 1	6/1/2019	6/1/2019		
	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 MIDW	6/1/2015	6/1/2015		
	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 WERE	6/1/2015	6/1/2015		

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	DUN	EOC	Date	Available
1405809	KNOLL - AXTELL 345KV CKT 1 MIDW	6/1/2010	6/1/2013		
	KNOLL - AXTELL 345KV CKT 1 NPPD	6/1/2010	6/1/2013		
	KNOLL 345/230 KV TRANSFORMER	6/1/2010	6/1/2013		
	MEDICINE LODGE - PRATT 115KV CKT 1	6/1/2013	6/1/2013		
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Accelerated	12/1/2011	6/1/2013		
	SPEARVILLE - KNOLL 345KV CKT 1 MIDW	6/1/2010	6/1/2013		
	SPEARVILLE - KNOLL 345KV CKT 1 SUNC	6/1/2010	6/1/2013		

					Earliest Service	Redispatch
	Reservation	Upgrade Name	DUN	EOC	Date	Available
Г	1405809	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
Г		FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009	6/1/2013		
ſ		MEDICINE LODGE - PRATT 115KV CKT 1	12/1/2009	6/1/2013		

Customer Study Number

KMEA AG2-2008-040

Customer	Reservation	POR				Requested	Date Without		Plan Funding	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
KMEA	1457913	GRDA	SECI	13	5/1/2009	5/1/2027	6/1/2010	6/1/2028	\$ 864,282	\$-	\$ 864,282	\$ 1,588,815
									\$ 864,282	\$-	\$ 864,282	\$ 1,588,815

				Earliest Service	Redispatch	Alloca	ited E & C		Tota	al Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost		Total E & C Cos	t Req	uirements
1457913	ARCADIA - REDBUD 345KV CKT 3	6/1/2019	6/1/2019			\$	21,510	\$ 19,000,000	\$	41,483
	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerate	6/1/2010	6/1/2013			\$	1,048	\$ 1,844,685	\$	3,406
	BRYANT - MEMORIAL 138KV CKT 1	6/1/2019	6/1/2019			\$	889	\$ 250,000	\$	1,714
	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	6/1/2019	6/1/2019			\$	697,688	\$ 32,000,000	\$	1,273,887
	EAST MANHATTAN - NW MANHATTAN 230KV CKT 1	6/1/2019	6/1/2019			\$	51,125	\$ 700,000	\$	93,355
	HALSTEAD SOUTH - SEDGWICK COUNTY NO. 12 COLWICH 138KV CKT 1	6/1/2019	6/1/2019			\$	16,589	\$ 700,000	\$	29,129
	JEWELL - SMITH CENTER 115KV CKT 1	6/1/2018	6/1/2018			\$	60,000	\$ 60,000	\$	101,783
	SEWARD - ST JOHN 115KV CKT 1	6/1/2010	6/1/2011			\$	15,433	\$ 60,000	\$	44,058
					Total	S	864,282	\$ 54.614.685	S	1.588.815

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	DUN	EOC	Date	Available
	BEATRICE - HARBINE 115KV CKT 1	6/1/2019	6/1/2019		
	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	6/1/2012	6/1/2012		
	CLEARWATER - MILAN TAP 138KV CKT 1 MKEC	6/1/2017	6/1/2017		
	CLEARWATER - MILAN TAP 138KV CKT 1 WERE	6/1/2017	6/1/2017		
	ERICK 138KV CAPICITOR	6/1/2016			
	FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
	HARPER - MILAN TAP 138KV CKT 1	6/1/2019	6/1/2019		
	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 MIDW	6/1/2015	6/1/2015		
	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 WERE	6/1/2015	6/1/2015		
	Multi - Stateline - Joplin - Reinmiller conversion	6/1/2018	6/1/2018		
	POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		
	PRYOR JUNCTION (PRY-JCT1) 115/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2012		
	TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1	6/1/2015	6/1/2015		

Reliability Projects - 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	DUN	EOC	Date	Available
1457913	AFTON - FAIRLAND EDE TAP 69KV CKT 1	12/1/2014	12/1/2014		

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

				Earliest Service	Redispatch
		DUN	EOC	Date	Available
1457913	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	12/1/2010	6/1/2011		
	KNOLL - AXTELL 345KV CKT 1 MIDW	6/1/2010	6/1/2013		
	KNOLL - AXTELL 345KV CKT 1 NPPD	6/1/2010	6/1/2013		
	KNOLL 345/230 KV TRANSFORMER	6/1/2010	6/1/2013		
	MEDICINE LODGE - PRATT 115KV CKT 1	6/1/2013	6/1/2013		
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Accelerated	12/1/2011	6/1/2013		
	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Accelerate	6/1/2010	6/1/2012		
	SPEARVILLE - KNOLL 345KV CKT 1 MIDW	6/1/2010	6/1/2013		
	SPEARVILLE - KNOLL 345KV CKT 1 SUNC	6/1/2010	6/1/2013		

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1457913	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009	6/1/2013		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	MEDICINE LODGE - PRATT 115KV CKT 1	12/1/2009	6/1/2013		
	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		

Customer KPP Study Number AG1-2008-015

Customer	Reservation	POR				Requested		Date Without	Plan Funding	Point-to-Point		Total Revenue Requirements
KPP	1403996	WR	WR	6	6/1/2008	6/1/2017	6/1/2010	6/1/2019	\$-	\$-	\$-	\$ -
									\$ -	\$ -	\$-	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1403996	None					\$-	\$-	\$
-					Total	ς	\$.	ς .

Reliability Projects - 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	DUN	EOC	Date	Available
1403996	HEIZER - MULLERGREN 115 KV CKT 1 MIDW	6/1/2011	6/1/2011		
	HEIZER - MULLERGREN 115 KV CKT 1 MKEC	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	DUN	EOC	Date	Available
[1403996	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Accelerated	12/1/2011	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	DUN	EOC	Date	Available
1403996	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		

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Customer KPP Study Number AG1-2008-017

Customer	Reservation	POR				Requested	Date Without		Plan Funding	Point-to-Point		Total Revenue Requirements
KPP	1404448	WR	WR	4	6/1/2008	6/1/2018	6/1/2012	6/1/2022	\$	\$-	\$-	\$-
									\$ -	\$ -	\$-	\$ -

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1404448	None					\$-	\$-	\$
					Total	ς	\$.	ς .

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	DUN	EOC	Date	Available
1404448	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	6/1/2012	6/1/2012		
	ROSE HILL JUNCTION - WEAVER 69KV CKT 1	6/1/2010	12/1/2010		Yes

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1404448	ALLEN - LEHIGH TAP 69KV CKT 1	12/1/2011	6/1/2012		Yes
	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Accelerate	6/1/2010	6/1/2012		Yes

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1404448	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

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Customer Study Number

KPP AG2-2008-037

Customer	Reservation	POR		Requested Amount		Requested		Date Without	Plan Funding	Point-to-Point Base Rate		Total Revenue Requirements
KPP	1457536	GRDA	WR	4	1/1/2009	1/1/2026	6/1/2010	6/1/2027	\$ 6,293	\$-	\$ 6,293	\$ 12,247
									\$ 6,293	\$-	\$ 6,293	\$ 12,247

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cos	Requirements
1457536	ARCADIA - REDBUD 345KV CKT 3	6/1/2019	6/1/2019			\$ 5,645	\$ 19,000,000	\$ 10,524
	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerate	6/1/2010	6/1/2013			\$ 403	\$ 1,844,685	\$ 1,266
	BRYANT - MEMORIAL 138KV CKT 1	6/1/2019	6/1/2019			\$ 245	\$ 250,000	\$ 457
					Total	\$ 6,293	\$ 21,094,685	\$ 12,247

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	DUN	EOC	Date	Available
1457536	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	6/1/2012	6/1/2012		
	Multi - Stateline - Joplin - Reinmiller conversion	6/1/2018	6/1/2018		
	PRYOR JUNCTION (PRY-JCT1) 115/69/13.8KV TRANSFORMER CKT 1	6/1/2010	6/1/2012		
	ROSE HILL JUNCTION - WEAVER 69KV CKT 1	6/1/2010	12/1/2010		

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

1					Earliest Service	Redispatch
	Reservation	Upgrade Name	DUN	EOC	Date	Available
1	1457536	AFTON - FAIRLAND EDE TAP 69KV CKT 1	12/1/2014	12/1/2014		

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	DUN	EOC	Date	Available
1457536	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	12/1/2010	6/1/2011		
	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2011	1/1/2013		
	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Accelerate	6/1/2010	6/1/2012		

					Earliest Service	Redispatch
Reserva	ation	Upgrade Name	DUN	EOC	Date	Available
1.	457536	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		

Customer KPP Study Number AG2-2008-038

Customer	Reservation	POR				Requested		Date Without	Plan Funding	Point-to-Point		Total Revenue Requirements
KPP	1457802	WPEK	WPEK	3	11/1/2008	11/1/2013	6/1/2010	6/1/2015	\$-	\$ -	\$-	\$-

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1457802	None					\$-	\$-	\$-
					Total	\$-	\$-	\$-

Expansion Plan	- The requested service is contingent upon completion of the following upgrades. Cos	t is not assignable	e to the transmission customer.
			Earliest Service Redispatch

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1457802	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	6/1/2012	6/1/2012		
	HOLCOMB - PLYMELL 115KV CKT 1	6/1/2010	11/1/2010		
	PIONEER TAP - PLYMELL 115KV CKT 1	6/1/2010	11/1/2010		
				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1457802	HEIZER - MULLERGREN 115 KV CKT 1 MIDW	6/1/2011	6/1/2011		
	HEIZER - MULLERGREN 115 KV CKT 1 MKEC	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	DUN	EOC	Date	Available
1457802	KNOLL - AXTELL 345KV CKT 1 MIDW	6/1/2010	6/1/2013		
	KNOLL - AXTELL 345KV CKT 1 NPPD	6/1/2010	6/1/2013		
	KNOLL 345/230 KV TRANSFORMER	6/1/2010	6/1/2013		
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Accelerated	12/1/2011	6/1/2013		
	SPEARVILLE - KNOLL 345KV CKT 1 MIDW	6/1/2010	6/1/2013		
	SPEARVILLE - KNOLL 345KV CKT 1 SUNC	6/1/2010	6/1/2013		

Credits may be	required for the	following network	 upgrades direc 	tly assigned t	o transmissio	on customers i	in previous ag	gregate study			

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1457802	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		

Customer Study Number

KPP AG2-2008-054

Customer	Reservation	POR				Requested	Date Without		Plan Funding	Point-to-Point		Total Revenue Requirements
KPP	1458533	WR	WR	11	10/1/2008	10/1/2018	6/1/2010	6/1/2020	\$ 38,663	\$ -	\$ 38,663	\$ 53,321

				Earliest Service	Redispatch	Allocate	ed E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1458533	HALSTEAD SOUTH - SEDGWICK COUNTY NO. 12 COLWICH 138KV CKT 1	6/1/2019	6/1/2019			\$	38,663	\$ 700,000	\$ 53,321
-					Total	¢	38 663	\$ 700.000	© 53 321

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	DUN	EOC	Date	Available
1458533	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	6/1/2012	6/1/2012		
	ERICK 138KV CAPICITOR	6/1/2016	6/1/2016		
	FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
	Hitchland Interchange - Moore County Interchange 230 kV	6/1/2010	1/1/2011		
	POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		

Reliability Projects - 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	DUN	EOC	Date	Available
1458533	HEIZER - MULLERGREN 115 KV CKT 1 MIDW	6/1/2011	6/1/2011		
	HEIZER - MULLERGREN 115 KV CKT 1 MKEC	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	DUN	EOC	Date	Available
14585	33 CLIFTON - GREENLEAF 115KV CKT 1	6/1/2010	6/1/2013	12/1/2012	
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Accelerated	12/1/2011	6/1/2013		
	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Accelerate	6/1/2010	6/1/2012		

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1458533	DEARING 138KV Capacitor	6/1/2012	6/1/2012		
	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		

Study Number AG1-2008-018 Customer

OGE

Customer	Reservation	POR				Requested	Date Without		Plan Funding	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
OGE	1404463	OKGE	OKGE	120	8/31/2009	8/31/2034	6/1/2013	6/1/2038	\$ 52,980	\$-	\$ 52,980	\$ 208,420
									\$ 52,980	¢	\$ 52,980	\$ 208 420

						Base F	lan				
				Earliest Service	Redispatch	Fundin	g for	Directly Assigned	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Wind	-	for Wind	Cost	Total E & C Cos	t Requirements
1404463	ARCADIA - OMPA-EDMOND GARBER(LAKE) 138KV CKT 1	12/1/2010	6/1/2012			\$	1,616	\$-	\$ 1,616	\$ 30,000	\$-
	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerate	6/1/2010	6/1/2013		Yes	\$	51,364	\$-	\$ 51,364	\$ 1,844,685	\$ 208,420
					Total	S	52,980	\$ -	\$ 52,980	\$ 1.874.685	\$ 208.420

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	DUN	EOC	Date	Available
1404463	BLUEBELL - PRATTVILLE 138KV CKT 1	6/1/2019	6/1/2019		
	COLONY - FT SMITH 161KV CKT 1	6/1/2012	6/1/2012		
	ERICK 138KV CAPICITOR	6/1/2016	6/1/2016		
	FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
	POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		
	TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1	6/1/2015	6/1/2015		

Reliability Projects - 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	DUN	EOC	Date	Available
1	1404463	TURKEY CREEK & OKARCHE CAP BANK	6/1/2019	6/1/2019		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1404463	KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2006	6/1/2008		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD - IODINE 138KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	4/1/2010	4/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	4/1/2010	4/1/2010		

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Customer OGE Study Number AG1-2008-027

Customer	Reservation	POR				Requested	Date Without	Deferred Stop Date Without Redispatch	Plan Funding	Point-to-Point		Total Revenue Requirements
OGE	1405664	OKGE	OKGE	648	6/1/2008	6/1/2028	6/1/2013	6/1/2033	\$ 16,553,197	\$-	\$ 16,553,197	\$ 35,805,161
									\$ 16,553,197	\$-	\$ 16,553,197	\$ 35,805,161

				Earliest Service	Redispatch	Alloo	ated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	t	Total E & C Cost	Requirements
1405664	ARCADIA - OMPA-EDMOND GARBER(LAKE) 138KV CKT 1	12/1/2010	6/1/2012		Yes	\$	21,071	\$ 30,000	\$-
	ARCADIA - REDBUD 345KV CKT 3	6/1/2019	6/1/2019			\$	15,144,991	\$ 19,000,000	\$ 31,222,765
	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerate	6/1/2010	6/1/2013		Yes	\$	1,219,385	\$ 1,844,685	\$ 4,236,564
	BRYANT - MEMORIAL 138KV CKT 1	6/1/2019	6/1/2019			\$	167,750	\$ 250,000	\$ 345,832
					Total	\$	16,553,197	\$ 21,124,685	\$ 35,805,161

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	DUN	EOC	Date	Available
1405664	BLUEBELL - PRATTVILLE 138KV CKT 1	6/1/2019	6/1/2019		
	BRYANT - JONES TAP 138KV CKT 1	6/1/2015	6/1/2015		
	COLONY - FT SMITH 161KV CKT 1	6/1/2012	6/1/2012		

Study Number AG2-2008-017 Customer

OGE

Customer	Reservation	POR			Requested Start Date	Requested	Date Without	Date Without		Point-to-Point		Total Revenue Requirements
OGE	1454686	OKGE	WFEC	28	10/1/2008	10/1/2028	6/1/2011	6/1/2031	\$-	\$-	\$ -	\$-

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1454686	None					\$-	\$-	ş -
						¢ .	¢	¢

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	DUN	EOC	Date	Available
	1454686	ERICK 138KV CAPICITOR	6/1/2016	6/1/2016		
		FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
ſ		POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		
		TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1	6/1/2015	6/1/2015		

Reliability Projects - 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	DUN	EOC	Date	Available
1454686	TURKEY CREEK & OKARCHE CAP BANK	6/1/2019	6/1/2019		

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					Earliest Service	Redispatch
	Reservation	Upgrade Name	DUN	EOC	Date	Available
- [1454686	Multi - Johnson County Project	6/1/2010	6/1/2011		Yes

				Earliest Service	Redispatch
		DUN	EOC	Date	Available
1454686	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		
	KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2006	6/1/2008		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD - IODINE 138KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	4/1/2010			
	WOODWARD 345/138KV TRANSFORMER CKT 1	4/1/2010	4/1/2010		

Customer Study Number

OMPA AG1-2008-021

Customer	Reservation	POR				Requested	Date Without		Plan Funding	Point-to-Point		Total Revenue Requirements
OMPA	1404908	OKGE	OKGE	155	10/1/2008	10/1/2028	6/1/2013	6/1/2033	\$ 4,277,842	\$-	\$ 4,277,842	\$ 9,323,581
									\$ 4,277,842	\$ -	\$ 4,277,842	\$ 9,323,581

				Earliest Service	Redispatch	Alloca	ited E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost		Total E & C Cost	Requirements
1404908	ARCADIA - OMPA-EDMOND GARBER(LAKE) 138KV CKT 1	12/1/2010	6/1/2012		Yes	\$	4,808	\$ 30,000	\$-
	ARCADIA - REDBUD 345KV CKT 3	6/1/2019	6/1/2019			\$	3,827,853	\$ 19,000,000	\$ 7,891,464
	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerate	6/1/2010	6/1/2013		Yes	\$	364,066	\$ 1,844,685	\$ 1,264,891
	BRYANT - MEMORIAL 138KV CKT 1	6/1/2019	6/1/2019			\$	81,115	\$ 250,000	\$ 167,226
					Total	\$ ·	4,277,842	\$ 21,124,685	\$ 9,323,581

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	DUN	EOC	Date	Available
1404908	BRYANT - JONES TAP 138KV CKT 1	6/1/2015	6/1/2015		
	FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
	POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		
	ROSE HILL JUNCTION - WEAVER 69KV CKT 1	6/1/2010	12/1/2010		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1404908	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Accelerate	6/1/2010	6/1/2012		Yes

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1404908	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	4/1/2010	4/1/2010		

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Customer SEPC Study Number

AG1-2008-037

Customer	Reservation	POR				Requested	Date Without		Plan Funding	Point-to-Point		Total Revenue Requirements
SEPC	1405823	SECI	SECI	1175	6/1/2008	6/1/2028	11/1/2010	11/1/2030	\$ 1,773,131	\$ -	\$ 1,773,131	\$ 3,553,550
									\$ 1773131		\$ 1.773.131	\$ 3 553 550

				Earliest Service	Redispatch	Alloca	ated E & C		Total	Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost		Total E & C Cos	Requi	irements
1405823	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	6/1/2019	6/1/2019			\$	1,637,449	\$ 32,000,000	\$	3,281,609
	EAST MANHATTAN - NW MANHATTAN 230KV CKT 1	6/1/2019	6/1/2019			\$	135,682	\$ 700,000	\$	271,941
					Total	\$	1,773,131	\$ 32,700,000	\$	3,553,550

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	DUN	EOC	Date	Available
1405823	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	6/1/2012	6/1/2012		
	CLEARWATER - MILAN TAP 138KV CKT 1 MKEC	6/1/2017	6/1/2017		
	CLEARWATER - MILAN TAP 138KV CKT 1 WERE	6/1/2017	6/1/2017		
	ERICK 138KV CAPICITOR	6/1/2016	6/1/2016		
	FLETCHER - HOLCOMB 115KV CKT 1	6/1/2015	6/1/2015		
	FRIO-DRAW - POTTER 345 KV	6/1/2017	6/1/2017		
	HARPER - MILAN TAP 138KV CKT 1	6/1/2019	6/1/2019		
	HOLCOMB - PLYMELL 115KV CKT 1	6/1/2010	11/1/2010		
	PIONEER TAP - PLYMELL 115KV CKT 1	6/1/2010	11/1/2010		
	POTTER - ANADARKO 345 KV	6/1/2017	6/1/2017		

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	DUN	EOC	Date	Available
1405823	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Accelerated	12/1/2011	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	DUN	EOC	Date	Available
1405823	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009	6/1/2013		
	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		
	KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2006	6/1/2008		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	MEDICINE LODGE - PRATT 115KV CKT 1	12/1/2009	6/1/2013		
	NORTHWEST - WOODWARD 345KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD - IODINE 138KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	4/1/2010	4/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	4/1/2010	4/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	4/1/2010	4/1/2010		

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Customer Study Number

WRGS AG1-2008-028

Customer	Reservation	POR				Requested	Date Without	Plan Funding	Point-to-Point		Total Revenue Requirements
WRGS	1405690	WR	WR	20	5/1/2011	5/1/2018		\$-	\$	\$-	\$-
								^	^	^	٨

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1405690	None					\$-	\$-	\$
-					Total	ς	\$.	ς

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	DUN	EOC	Date	Available
1405690	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2015	6/1/2015		
	EAST MANHATTAN - NW MANHATTAN 230/115KV	6/1/2010	12/1/2011		
	East Manhattan to Mcdowell 230 kV	6/1/2010	6/1/2012		

Reliability Projects - 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	DUN	EOC	Date	Available
1405690	GILL ENERGY CENTER EAST - INTERSTATE 138KV CKT 1	6/1/2011	6/1/2012		
	STILWELL - WEST GARDNER 345KV CKT 1	6/1/2012	6/1/2012		

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

					Earliest Service	Redispatch
Reser	rvation	Upgrade Name	DUN	EOC	Date	Available
	1405690	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	6/1/2011	1/1/2013		

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1405690	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

Customer WRGS Study Number AG2-2008-006

Customer	Reservation	POR				Requested		Date Without	Plan Funding	Point-to-Point	Allocated E & C Cost	Total Revenue Requirements
WRGS	1431605	EES	SPA	8	3/1/2010	3/1/2040	6/1/2010	6/1/2040	\$-	\$ 2,736,000	\$-	\$-
									\$-	\$ 2,736,000	\$-	\$-

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cost	Requirements
1431605	None					\$-	\$-	\$-
-					Total	\$.	\$.	ς

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

				Earliest Service	Redispatch
Reservatio	Upgrade Name	DUN	EOC	Date	Available
143	605 COLONY - FT SMITH 161KV CKT 1	6/1/2012	6/1/2012		

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

					Earliest Service	Redispatch
Re	eservation	Upgrade Name	DUN	EOC	Start Date	Available
	1431605	CALICO ROCK - NORFORK 161KV CKT 1 SWPA	12/1/2010	12/1/2010		
		DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	6/1/2010	6/1/2011		
		HERGETT - JONESBORO 161KV CKT 1 SWPA	6/1/2010	6/1/2010		

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Study Number AG2-2008-034 Customer

WRGS

Customer	Reservation	POR				Requested	Date Without	 Plan Funding	Point-to-Point		Total Revenue Requirements
WRGS	1457037	WR	WR	174	1/4/2019	1/4/2029		\$ 13,334,323	\$-	\$ 13,334,323	\$ 35,659,054
								\$ 13,334,323	\$-	\$ 13,334,323	\$ 35,659,054

				Earliest Service	Redispatch	Allc	ocated E & C			Tota	al Revenue
Reservation L	Jpgrade Name	DUN	EOC	Date	Available	Cos	st	Tot	al E & C Cost	Req	uirements
1457037 E	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	6/1/2019	6/1/2019			\$	12,839,999	\$	32,000,000	\$	34,363,953
E	EAST MANHATTAN - NW MANHATTAN 230KV CKT 1	6/1/2019	6/1/2019			\$	222,129	\$	700,000	\$	594,534
ŀ	HALSTEAD SOUTH - SEDGWICK COUNTY NO. 12 COLWICH 138KV CKT 1	6/1/2019	6/1/2019			\$	272,195	\$	700,000	\$	700,567
					Total	\$	13,334,323	\$	33,400,000	\$	35,659,054

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	DUN	EOC	Date	Available
1457037	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2015	6/1/2015		
	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	6/1/2012	6/1/2012		

Reliability Projects - 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	DUN	EOC	Start Date	Available
1457037	GILL ENERGY CENTER EAST - INTERSTATE 138KV CKT 1	6/1/2011	6/1/2012		

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Study Number AG2-2008-035 Customer

WRGS

Customer	Reservation	POR			Requested Start Date	Requested	Date Without	Plan Funding			Total Revenue Requirements
WRGS	1457044	WR	WR	61	1/1/2014	1/1/2024		\$ 4,674,687	\$ -	\$ 4,674,687	\$ 8,691,611
								\$ 4,674,687	\$-	\$ 4,674,687	\$ 8,691,611

				Earliest Service	Redispatch	Allo	cated E & C			Total	Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cos	t	Total	E & C Cost	Requi	rements
1457044	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	6/1/2019	6/1/2019			\$	4,501,391	\$ 3	32,000,000	\$	8,375,944
	EAST MANHATTAN - NW MANHATTAN 230KV CKT 1	6/1/2019	6/1/2019			\$	77,873	\$	700,000	\$	144,913
	HALSTEAD SOUTH - SEDGWICK COUNTY NO. 12 COLWICH 138KV CKT 1	6/1/2019	6/1/2019			\$	95,423	\$	700,000	\$	170,754
					Total	\$	4,674,687	\$ 3	33,400,000	\$	8,691,611

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	DUN	EOC	Date	Available
1457044	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2015	6/1/2015		
	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	6/1/2012	6/1/2012		

Reliability Projects - 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	DUN	EOC	Start Date	Available
1457044	GILL ENERGY CENTER EAST - INTERSTATE 138KV CKT 1	6/1/2011	6/1/2012		

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Customer Study Number

WRGS AG2-2008-036

Customer	Reservation	POR			Requested Start Date	Requested	Date Without	Date Without		Point-to-Point		Total Revenue Requirements
WRGS	1457049	WR	WR	167	6/1/2010	6/1/2020	6/1/2012	6/1/2022	\$ 12,862,986	\$-	\$ 12,862,986	\$ 18,514,549
									\$ 12,862,986	\$ -	\$ 12,862,986	\$ 18,514,549

				Earliest Service	Redispatch	Allocated E & C		Total Revenue
Reservation	Upgrade Name	DUN	EOC	Date	Available	Cost	Total E & C Cos	Requirements
1457049	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	6/1/2019	6/1/2019			\$ 12,323,473	\$ 32,000,000	\$ 17,672,819
	EAST MANHATTAN - NW MANHATTAN 230KV CKT 1	6/1/2019	6/1/2019			\$ 213,191	\$ 700,000	\$ 305,756
	HALSTEAD SOUTH - SEDGWICK COUNTY NO. 12 COLWICH 138KV CKT 1	6/1/2019	6/1/2019			\$ 261,241	\$ 700,000	\$ 360,284
	KCI - Platte City 161kV Ckt 1	6/1/2010	6/1/2011			\$ 50,362	\$ 150,000	\$ 144,181
	SEWARD - ST JOHN 115KV CKT 1	6/1/2010	6/1/2011			\$ 14,719	\$ 60,000	\$ 31,509
					Total	\$ 12,862,986	\$ 33,610,000	\$ 18,514,549

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	DUN	EOC	Date	Available
1457049	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	6/1/2015	6/1/2015		
	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	6/1/2012	6/1/2012		
	EAST MANHATTAN - NW MANHATTAN 230/115KV	6/1/2010	12/1/2011		Yes
	East Manhattan to Mcdowell 230 kV	6/1/2010	6/1/2012		Yes

Reliability Projects - 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	DUN	EOC	Start Date	Available
1457049	GILL ENERGY CENTER EAST - INTERSTATE 138KV CKT 1	6/1/2011	6/1/2012		

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

				Earliest Service	Redispatch
Reservation	Upgrade Name	DUN	EOC	Date	Available
1457049	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Accelerate	6/1/2010	6/1/2012		Yes

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Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AEPW	BROKEN ARROW NORTH - SOUTH TAP - ONETA 138KV CKT 1	Rebuild 4.33 of 795 ACSR with 1590 ACSR.	6/1/2015	6/1/2015	\$ 4,400,000
KACP	KCI - Platte City 161kV Ckt 1	Replace 800 amp wavetrap at KCI	6/1/2010	6/1/2011	\$ 150,000
MKEC	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	Rebuild Ownership of 20.9 miles	6/1/2013	6/1/2013	\$ 3,525,000
MKEC	JEWELL - SMITH CENTER 115KV CKT 1	Replace CTs and relays at Jewell substation and Smith Center substation	6/1/2018	6/1/2018	\$ 60,000
	SEWARD - ST JOHN 115KV CKT 1	Replace CTs and relays at Seward substation and St John substation	6/1/2010	6/1/2011	\$ 60,000
OKGE	ARCADIA - REDBUD 345KV CKT 3	Add eight mile 3rd 345 kV line from Redbud to Arcadia	6/1/2019	6/1/2019	\$ 19,000,000
OKGE	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerate	Add 3rd 345/138KV Auto and convert the 345kV and 138kV to a breaker and a half configuration.	6/1/2010	6/1/2013	\$ 1,844,685
OKGE	BRYANT - MEMORIAL 138KV CKT 1	Change out wavetrap to 2000A	6/1/2019	6/1/2019	\$ 250,000
OMPA	ARCADIA - OMPA-EDMOND GARBER(LAKE) 138KV CKT 1	Replace Line Switches	12/1/2010	6/1/2012	\$ 30,000
WERE	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1	Rebuild existing line to 345 kV operated as 230 kV	6/1/2019	6/1/2019	\$ 32,000,000
WERE	EAST MANHATTAN - NW MANHATTAN 230KV CKT 1	Replace Terminal Equipment	6/1/2019	6/1/2019	\$ 700,000
WERE	HALSTEAD SOUTH - SEDGWICK COUNTY NO. 12 COLWICH 138KV CKT 1	Replace disconnect switches, wavetrap and CT	6/1/2019	6/1/2019	\$ 700,000

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
		Rebuild 8.37 miles of 795 ACSR with 1590 ACSR & reset		
AEPW	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1	relays @ BSE	12/1/2010	6/1/2011
MIDW	KNOLL - AXTELL 345KV CKT 1 MIDW	Build a new 345kV line from Knoll - Axtell	6/1/2010	6/1/2013
MIDW	KNOLL 345/230 KV TRANSFORMER	Add new 345/230 KV TRANSFORMER	6/1/2010	6/1/2013
MIDW	SPEARVILLE - KNOLL 345KV CKT 1 MIDW	Build a new 345kV line from Spearville - Knoll	6/1/2010	6/1/2013
MKEC	CLIFTON - GREENLEAF 115KV CKT 1	Rebuild 14.4 miles	6/1/2010	6/1/2013
MKEC	MEDICINE LODGE - PRATT 115KV CKT 1	Rebuild 26 mile line	6/1/2013	6/1/2013
MKEC	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Accelerated	Upgrade transformer	12/1/2011	6/1/2013
NPPD	KNOLL - AXTELL 345KV CKT 1 NPPD	Build a new 345kV line from Knoll - Axtell	6/1/2010	6/1/2013
SUNC	SPEARVILLE - KNOLL 345KV CKT 1 SUNC	Build a new 345kV line from Spearville - Knoll	6/1/2010	6/1/2013
WERE	ALLEN - LEHIGH TAP 69KV CKT 1	Tear down / Rebuild 5.69-mile line; 954 kcmil ACSR	12/1/2011	6/1/2012
		Rebuild 4.1 miles with 954 kcmil ACSR (138kV/69kV		
WERE	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	Operation)	6/1/2011	1/1/2013
WERE	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3 Accelerate	Add third 345-138 kV transformer at Rose Hill	6/1/2010	6/1/2012

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
		Build a new 345 EHV substation in the Sunnyside to		
		Pittsburg line. Install a 400 MVA transformer with 3-345kv		
		breakers in a ring bus and 4-138kv breakers in a ring bus at		
OKGE	Multi - Johnson County Project	new Johnson County sub.	6/1/2010	6/1/2011

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

			Earliest	Estimated
Transmission			Date	Date of
Owner	Upgrade	Solution	Upgrade	Upgrade
Owner			Required	Completion
			(DUN)	(EOC)
AEPW	BLUEBELL - PRATTVILLE 138KV CKT 1	Rebuild 9 miles of 795 ACSR with 1590 ACRS	6/1/2019	6/1/2019
AEPW	PRYOR JUNCTION (PRY-JCT1) 115/69/13.8KV TRANSFORMER CKT 1	Replace (3) 600 A switches with 1200 A switches replace	6/1/2010	6/1/2012
		Tear down the Riverton to Joplin 59 69 kV line, rebuilding		
		the line to 161 kV from Stateline to outside Joplin 59 sub.		
		Tear down and rebuild Joplin 59 to Gateway to Pillsbury to		
		Reinmiller, converting those 69 kV lines to 161 kV. Tap the		
EMDE	Multi - Stateline - Joplin - Reinmiller conversion	161 kV line betwe	6/1/2018	6/1/2018
GRDA	CLAREMORE (CLRAUTO1) 161/69/13.8KV TRANSFORMER CKT 1	Upgrade both existing transformers	6/1/2010	6/1/2010
GRDA	CLAREMORE (CLRAUTO2) 161/69/13.8KV TRANSFORMER CKT 2	Upgrade both existing transformers	6/1/2010	6/1/2010
GRDA	CPP TRANSF #2 - PRYOR FOUNDRY SOUTH 69KV CKT 1	Replace 600A switch with 1200A switch	6/1/2015	6/1/2015
GRDA	MAID - PRYOR FOUNDRY SOUTH 69KV CKT 1	Upgrade conductor size 795 ACSR	6/1/2015	6/1/2015
GRDA	MAID - REDDEN 69KV CKT 1	Upgrade conductor size 795 ACSR	6/1/2015	6/1/2015
		Tear down and rebuild 73.4% Ownership 28.79 mile HEC-		
MIDW	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 MIDW	Huntsville 115 kV line and replace CT, wavetrap and relays.	6/1/2015	6/1/2015
MIPU	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1	Replace the 800 amp wavetrap at Prairie Lee	6/1/2015	6/1/2015
MIPU	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1	Replace wavetraps at Longview and Western Electric	6/1/2015	6/1/2015
		To tap Stilwell-Archie JCT 161 kV line into South Harper		
		161 kV sub and make it two new 161 kV sections: Stilwell-		
MIPU	South Harper 161 kV cut-in to Stilwell-Archie JCT 161 kV line	South Harper and Archie JCT- South Harper .	6/1/2010	6/1/2011
		Rebuild Clearwater-Milan tap 115 kV with bundled 1192.5		
MKEC	CLEARWATER - MILAN TAP 138KV CKT 1 MKEC	kcmil ACSR contuctor (Bunting)	6/1/2017	6/1/2017
MKEC	HARPER - MILAN TAP 138KV CKT 1	Replace Wave Trap at Harper Substation	6/1/2019	6/1/2019
		Reconductor and upgrade terminal equipment to effect		
NPPD	BEATRICE - HARBINE 115KV CKT 1	higher rating	6/1/2019	6/1/2019
OKGE	BRYANT - JONES TAP 138KV CKT 1	Replace switch at Jones Tap	6/1/2015	6/1/2015
		Reconductor 2.2 miles to Drake ACCC/TW and change		
OKGE	COLONY - FT SMITH 161KV CKT 1	terminal equipment at Ft. Smith & Colony to 2000A	6/1/2012	6/1/2012
		Replace trap and increase CTR. Pending verification of		
OKGE	RUSSETT - RUSSETT 138KV CKT 1 OKGE	relays.	6/1/2010	6/1/2010

		Add new 115 kV circuit 1.0 miles with 4/0 AS kcmil		
SPS	DEAF SMITH - PANDA 115 KV CKT 1	conductor	6/1/2011	6/1/2012
SPS	EAST PLANT INTERCHANGE - MANHATTAN SUB 115KV CKT 1	Reconductor with 795 ACSR	6/1/2010	6/1/2012
		Build new 345 kV line from Potter to new Frio-Draw		
		substation at Roosevelt. Build 345/230 kV and 230/115 kV		
		transformers at Frio-Draw substation. Build new line		
SPS	FRIO-DRAW - POTTER 345 KV	Roosevelt N - Frio-Draw - Oasis 230 kV.	6/1/2017	6/1/2017
		Install 50 miles of 230 kv from Hitchland to Moore County		
SPS	Hitchland Interchange - Moore County Interchange 230 kV	Interchange	6/1/2010	1/1/2011
SPS	Line - Randall - Amarillo S 230 kV ckt 1	Build new 20 mile Randall Co - Amarillo South 230 kV line.	6/1/2010	6/1/2013
		Convert Hastings Sub to 115 kV. Build Bush - Hastings -		
		East Plant 397 ACSR. Tap Harrington - Potter 230 kV and		
SPS	Multi - Cherry Sub add 230kV source and 115 kV Hastings Conversion	step down to 115 at Cherry Sub.	6/1/2010	6/1/2013
		Add Newhart 230 kV bus tapping Plant X - Potter 230 kV.		
		Build Newhart - Swisher County Interchange 230 kV. Add		
		Newhart 115 kV bus and build new 115 kV line from Castro -		
		Newhart - Kress. Add Newhart 230/115 kV Transformer		
SPS	NEWHART INTERCHANGE PROJECT	(copy of Pecos 150 MVA). Buil	6/1/2010	6/1/2012
		Build new 345 kV line from Potter to Midpoint Bus		
SPS	POTTER - ANADARKO 345 KV	(Stateline) to Anadarko.	6/1/2017	6/1/2017
SPS	RANDALL 230/115 KV TRANSFORMER CKT 2	add new 230/115 kV transformer at Randall	6/1/2010	6/1/2013
000		Add second 345/230 kV Tuco Interchange 515/560 MVA transformer.	0/4/0045	0/1/0015
SPS	TUCO INTERCHANGE (GE M1022338) 345/230/13.2KV TRANSFORMER CKT 1	Rebuild 11.1 miles of the 18.3 mile Fletcher - Holcomb 115	6/1/2015	6/1/2015
SUNC	FLETCHER - HOLCOMB 115KV CKT 1	kV line with 954 ACSR Cardinal	6/1/2015	6/1/2015
SUNC	HOLCOMB - PLYMELL 115KV CKT 1	Rebuild Holcomb to Plymell	6/1/2013	11/1/2010
SUNC	PIONEER TAP - PLYMELL 115KV CKT 1	Rebuild Plymell to Pioneer Tap	6/1/2010	11/1/2010
WERE	AUBURN ROAD (AUBRN77X) 230/115/13.8KV TRANSFORMER CKT 2	Add second Auburn 230-115 kV transformer.	6/1/2015	6/1/2015
WERE	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	Tear down and rebuild 7.88 mile Gill-Clearwater	6/1/2012	6/1/2012
		Rebuild Clearwater-Milan tap 115 kV with bundled 1192.5		
WERE	CLEARWATER - MILAN TAP 138KV CKT 1 WERE	kcmil ACSR contuctor (Bunting)	6/1/2017	6/1/2017
		Tap the Concordia - East Manhattan 230kV line and add a		
		new substation"NW Manhattan"; Add a 230kV/115kV		
		transformer and tap the KSU - Wildcat 115kV line into NW		
WERE	EAST MANHATTAN - NW MANHATTAN 230/115KV	Manhattan	6/1/2010	12/1/2011
		The East Manhattan-McDowell 115 kV is built as a 230 kV		
		line, but is operated at 115 kV. Substation work will have to		
WERE	East Manhattan to Mcdowell 230 kV	be performed in order to convert this line.	6/1/2010	6/1/2012
		Tear down and rebuild 26.6% Ownership 28.79 mile HEC-		
WERE	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1 WERE	Huntsville 115 kV line and replace CT, wavetrap and relays.	6/1/2015	6/1/2015
WERE	ROSE HILL JUNCTION - WEAVER 69KV CKT 1	Rebuild Weaver-Rose Hill 69 kV	6/1/2010	12/1/2010
WFEC	ERICK 138KV CAPICITOR	Install 18 Mvar capacitor at Erick 138 kV bus.	6/1/2016	6/1/2016

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
GRDA	AFTON - FAIRLAND EDE TAP 69KV CKT 1	Replace terminal equipment	12/1/2014	12/1/2014
KACP	STILWELL - WEST GARDNER 345KV CKT 1	Must upgrade Stilwell terminal equipment to 2000 amps	6/1/2012	6/1/2012
MIDW	HEIZER - MULLERGREN 115 KV CKT 1 MIDW	Install 115 kV bay at Heizer and update relaying equipment	6/1/2011	6/1/2011
OKGE	TURKEY CREEK & OKARCHE CAP BANK	Install capacitors at Turkey Creek & Okarche	6/1/2019	6/1/2019
MKEC	HEIZER - MULLERGREN 115 KV CKT 1 MKEC	Install 115 kV bay at Heizer and update relaying equipment	6/1/2011	6/1/2011
SWPA	CALICO ROCK - NORFORK 161KV CKT 1 SWPA	Replace bus, Wave Trap @ Norfork	12/1/2010	12/1/2010
SWPA	DARDANELLE - RUSSELLVILLE SOUTH 161KV CKT 1 SWPA	Replace wave trap, disconnect switches, and breaker. Bus will limit rating to 1560 amps.	6/1/2010	6/1/2011
		Increase the CT ratio to 1200/5. This would involve changing taps on the CT, adjusting the scaling on a panel		
SWPA	HERGETT - JONESBORO 161KV CKT 1 SWPA	meter, and changing relay settings.	6/1/2010	6/1/2010
WERE	GILL ENERGY CENTER EAST - INTERSTATE 138KV CKT 1	Replace wave trap	6/1/2011	6/1/2012

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

Transmission Owner	Owner Upgrade Solution		Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
		Recunductor and convert line to 138 kV and replace		
AEPW	ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	switches at Ashdown REC	7/1/2012	7/1/2012
AEPW	ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	Reconductor Line & Convert Line to 138 kV and convert Patterson station to breaker-and-a half cofiguration	7/1/2012	7/1/2012
AEPW	BANN - RED SPRINGS REC 138KV CKT 1	Replace 138 kV breakers 3300 & 3310	7/1/2012	7/1/2012
AEPW	HUGO POWER PLANT - VALLIANT 345 KV AEPW	Vallient 345 KV line terminal	7/1/2012	7/1/2012
AEPW	OKAY - TURK 138KV CKT 1	Build two mile, 138 kV, 1590ACSR line section from Turk Sub to existing Okay-Hope 115 kV line and rebuild twelve miles of 115 kV line to Okay Sub to 138 kV, 1590 ACSR , to form a Turk-Okay 138 kV line	7/1/2012	7/1/2012
EMDE	SUB 110 - ORONOGO JCT SUB 167 - RIVERTON 161KV CKT 1	Reconductor Oronogo 59467 to Riverton 59469 with Bundled 556 ACSR	6/1/2011	6/1/2011
KACP	LACYGNE - WEST GARDNER 345KV CKT 1	KCPL Sponsored Project to Reconductor Line to be In- Service by 6/1/2006	6/1/2006	6/1/2006
MKEC	CLIFTON - GREENLEAF 115KV CKT 1	Rebuild 14.4 miles	6/1/2011	6/1/2013
MKEC	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	Rebuild 8.05 mile line	12/1/2009	6/1/2013
MKEC	FLATRDG3 138.00 - HARPER 138KV CKT 1	Rebuild 24.15 mile line	12/1/2009	6/1/2013
MKEC	MEDICINE LODGE - PRATT 115KV CKT 1	Rebuild 26 mile line	12/1/2009	6/1/2013
OKGE OKGE	KNOBHILL (KNOBHIL4) 138/69/13.2KV TRANSFORMER CKT 1 NORTHWEST - WOODWARD 345KV CKT 1	Replace bus tie with 100MVA transformer	6/1/2006	6/1/2008
OKGE	WOODWARD - IODINE 138KV CKT 1	Build 120 miles of 345 kV Tap lodine to Woodward 138 kV line	4/1/2010 4/1/2010	4/1/2010 4/1/2010
OKGE	WOODWARD - WOODWARD EHV 138KV CKT 1	Build .5 miles of 138 kV and install terminal equipment	4/1/2010	4/1/2010
OKGE	WOODWARD - WOODWARD EHV 138KV CKT 1	Build .5 miles of 138 kV and install terminal equipment	4/1/2010	4/1/2010
OKGE	WOODWARD - WOODWARD ERV 138KV CKT 2	Install 345/138 kV XF	4/1/2010	4/1/2010
WERE	DEARING 138KV Capacitor	Dearing 138 kV 20 MVAR Capacitor Addition	6/1/2012	6/1/2012
WFEC	HUGO POWER PLANT - VALLIANT 345 KV WFEC	New 19 miles 345 KV	7/1/2012	7/1/2012
WFEC	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	New 345/138 kv Auto	7/1/2012	7/1/2012

Transmission Owner	UpgradeName	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AECI	4LUTHER 138.00 138/69KV TRANSFORMER CKT 1	Interim Redispatch	6/1/2010	6/1/2013	\$ -