

# **Aggregate Facility Study SPP-2009-AGP2-AFS-5**

**For Transmission Service Requested by  
Aggregate Transmission Customers**

PREPARED BY  
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## Executive Summary

Pursuant to Attachment Z1 of the Southwest Power Pool, Inc. (SPP) Open Access Transmission Tariff (OATT), 2877 MW of long-term transmission service requests have been studied 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. A highly tangible benefit of studying transmission requests aggregately under the SPP OATT Attachment Z1 is the sharing of costs among Transmission Customers using the same facility. Facility upgrade costs are allocated on a prorated basis to all requests positively impacting any individual overloaded facility.

Attachment Z2 further provides for facility upgrade cost recovery by stating: "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 AFS determined that the total assigned facility upgrade Engineering and Construction (E&C) cost is \$32 million. Additionally, \$ 11 Million of assigned E&C cost for third party facility upgrades are assignable to the customer.
- The total upgrade levelized revenue requirement for all transmission requests is \$81million. This amount 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 \$4 million.

To accommodate the requested SPP Transmission Service, third-party facilities must be upgraded when the third-party transmission provider determines that they are constrained. Third-party facilities 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 E&C cost estimates for required third-party facility upgrades are applicable.

SPP will tender a Letter of Intent on October 5, 2010. This will open a 15-day window for Customer response. To remain in the Aggregate Transmission Service Study (ATSS), SPP must receive from the Customer by October 20, 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.

## Introduction

Important milestones and dates in SPP's Aggregate Transmission Study process:

- In 2005, the Federal Energy Regulatory Commission (FERC) accepted SPP's proposed Aggregate Transmission Study procedures in Docket ER05-109.
- In 2008, in Docket ER08-1379-000 SPP filed with FERC to pair open seasons closing during January 2010 with an effective date of August 9, 2008.
- In January 2010, in Docket ER10-659-000 SPP filed with FERC to extend its current practice of pairing open seasons through January 31, 2011, with an effective date of January 28, 2010.
- In March 2010, in Docket ER10-659-000 FERC issued a letter order accepting SPP's proposal to continue to pair open seasons through January 31, 2011, effective January 28, 2010.
- The 2009-AG2 open season commenced February 1, 2009 and closed May 31, 2009.
- The 2009-AG3 open season commenced June 1, 2009 and closed September 30, 2009.
- All requests for long-term transmission service with a signed study agreement received before June 1, 2009 for 2009-AG2 and October 1, 2009 for 2009-AG3 have been included in the second paired Aggregate Transmission Service Study (ATSS) of 2009.

Approximately 2877 MW of long-term Transmission Service was studied in this Aggregate Facility Study (AFS), and over \$31 million in transmission upgrades is proposed. The results of the AFS are detailed in Tables 1 through 6. Detailed results depict individual upgrade costs by study and potential base plan allowances determined by Attachments J and Z1. The [OATT](#) may be accessed at SPP's website by going to [SPP.org>Org Groups>Governing Documents](#).

To understand the extent to which Base Plan Upgrades may be applied to both Point-to-Point (PTP) 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."

Network and PTP service has potential for base plan funding if the conditions for classifying upgrades associated with designated resources as Base Plan Upgrades as defined in Section III.B of Attachment J are met.

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

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

According to Attachment Z1 Section VI.A, PTP 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 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 because SPP, 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.

## Financial Analysis

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

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

In the event that the engineering and construction of a previously assigned Network Upgrade may be accelerated, with no additional upgrades, to accommodate a new request for Transmission Service, 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.

In the case of a Base Plan Upgrade being displaced or deferred by an earlier in service date for a requested upgrade, achievable base plan avoided revenue requirements shall be determined per Attachment J, Section VII.B methodology. A deferred Base Plan Upgrade is defined as a different requested Network Upgrade needed at an earlier date that negates the need for the initial Base Plan Upgrade within the planning horizon. A displaced Base Plan Upgrade is defined as the same Network Upgrade being displaced by a requested upgrade needed at an earlier date.

A 40-year service life assumption is utilized for Base Plan funded projects, unless another assumption is provided 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.

## Third-Party Facilities

For third-party facilities listed in Table 3 and Table 5, the Transmission Customer is responsible for funding the necessary upgrades of these facilities per Section 21.1 of the Transmission Provider's OATT. In this AFS, third-party facilities were identified. Total E&C cost estimates for required third-party facility upgrades are applicable. 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 E&C 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 third party owner detailing the mitigation of the third party impact must be provided to the Transmission Provider prior to tendering of a Transmission Service Agreement. These facilities also include those owned by members of the Transmission Provider who have not placed their facilities under the Transmission Provider's OATT. Upgrades on the Southwest Power Administration network requires prepayment of the upgrade cost prior to construction of the upgrade.

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

## Study Methodology

### 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. SPP conforms to NERC Reliability Standards, which provide strict requirements related to voltage violations and thermal overloads during normal conditions and during a contingency. NERC Standards require all facilities to 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 Model Development Working Group (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 pre-determined system stability limitations. The WERE Wolf Creek 345 kV bus voltage is monitored at 103.5% and 98.5% due to transmission operating procedure.

The contingency set includes all SPP control area branches and ties 69 kV 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 (Ameren), and ENTR (Entergy) control areas. 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.

### Model Development

SPP used seven seasonal models to study the aggregate transfers of 2877 MW over a variety of requested service periods. The following SPP Transmission Expansion Plan 2010 Build 2 Cases were used to study the impact of the requested service on the transmission system:

- 2010 Winter Peak (10WP)
- 2011 Summer Peak (11SP)
- 2011/12 Winter Peak (11WP)
- 2011 Summer Peak (12SP)
- 2012/13 Winter Peak (12WP)
- 2016 Summer Peak (16SP)
- 2016/17 Winter Peak (16WP)
- 2021 Summer Peak (21SP)

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. One group of requests was developed from the aggregate of 2877 MW to model the requested service. From the seven seasonal models, two system scenarios were developed. Scenario 0 includes projected usage of transmission included in the SPP 2010 Series Cases. Scenario 5 includes all transmission not already included in the SPP 2010 Series Cases.

## **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.

## **Transfer Analysis**

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

## **Curtailed and Redispatch Evaluation**

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

SPP determined potential relief pairs to relieve the incremental MW impact on limiting facilities as identified in Table 6. Using the selected cases where the limiting facilities were identified, potential incremental and decremental units were identified by determining the generation amount available for increasing and decreasing from the units generation amount, maximum generation amount, and minimum generation amount. If the incremental or decremental amount was greater than 1 MW, the unit was considered as a potential incremental or decremental unit.

Generation shift factors were calculated for the potential incremental and decremental units using Managing and Utilizing System Transmission (MUST). Relief pairs from the generation shift factors for the incremental and decremental units with a greater than 3% TDF on the limiting constraint were determined from the incremental units with the lowest generation shift factors and decremental units with highest generation shift factors. If the aggregate redispatch amount for the potential relief pair was determined to be three times greater than the lower of the increment or decrement, then the pair

was determined not to be feasible and is not included. Transmission Customers can request SPP to provide additional relief pairs beyond those determined. The potential relief pairs were not evaluated to determine impacts on limiting facilities in the SPP and first tier systems. The SPP Reliability Coordinator would call upon the redispatch requirements before implementing NERC TLR Level 5a.

## Study Results

### Study Analysis Results

Tables 1 through 6 contain the AFS steady-state analysis results. 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) and 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.

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 the Customer but required for service to be confirmed, credits to be paid for previously assigned AFS or Generation Interconnection Network Upgrades, and any required third party upgrades.

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, 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 on meeting each of the conditions for classifying upgrades associated with designated resources as Base Plan Upgrades as defined in Section III.B of Attachment J. If the additional capacity of the new or changed Designated Resource exceeds the 125% resource to load forecast for the year of start of service, the requested resource is not eligible for base plan funding of required Network Upgrades and the full cost of the upgrades is assignable to the Customer.

If the 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 five-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. The maximum potential base plan funding allowable may be less than the potential base plan funding allowable, due to the E&C cost allocated to the customer being lower than the potential amount allowable to the Customer. The Customer is responsible for any assigned upgrade costs in excess of potential base plan E&C 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 amount (so-called "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 \$86 million (\$140 million less \$54 million) will be paid by base plan funding.

#### **Example B:**

E&C allocated for upgrades is \$74 million with revenue requirements of \$140 million and PTP base rate of \$101 million. Potential base plan funding is \$10 million with the difference of \$64 million E&C assignable to the Customer. If the revenue requirements for this assignable portion is \$128 million and the PTP base rate is \$101 million, the Customer will pay the higher amount of \$128 million revenue requirements to be paid back to the Transmission Owners, and the remaining revenue requirements of \$12 million (\$140 million less \$128 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 amount 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.

### **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.
- Total engineering and construction cost (E&C) is the upgrade solution cost as determined by the Transmission Owner.
- The Transmission Customer's allocation of the E&C cost is based on the request (1) having an impact of at least 3% on the limiting element, and (2) having a positive impact on the upgraded facility.
- Minimum ATC is the portion of the requested capacity that can be accommodated without 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.

## **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 October 5, 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) by October 15, 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 E&C 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. The Transmission Provider will issue notifications to construct Network Upgrades to the constructing Transmission Owner after filing of necessary service agreements at FERC.

## Appendix A

### PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

**BASE CASE SETTINGS:**

- Solutions: Fixed slope decoupled Newton-Raphson solution (FDNS)
- Tap adjustment: Stepping
- Area interchange control: Tie lines and loads
- Var limits: Apply immediately
- Solution options:
  - Phase shift adjustment
  - Flat start
  - Lock DC taps
  - Lock switched shunts

**ACCC CASE SETTINGS:**

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

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

Customer	Study Number	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date without interim redispach	Deferred Stop Date without interim redispach	Start Date with interim redispach	Stop Date with interim redispach	Minimum Allocated ATC (MW) withing reservation period	Season of Minimum Allocated ATC within reservation period
AEPM	AG3-2009-042	73453875	CSWS	CSWS	49	1/1/2011	1/1/2031	3/1/2011	3/1/2031	3/1/2011	3/1/2031	0	11SP
AEPM	AG3-2009-043	73453863	CSWS	CSWS	50	1/1/2011	1/1/2031	3/1/2011	3/1/2031	3/1/2011	3/1/2031	0	11SP
CRGL	AG3-2009-032	73194190	WR	AECI	201	1/1/2011	1/1/2016	4/1/2012	4/1/2017	3/1/2011	3/1/2016	0	11SP
GRDX	AG3-2009-033	73453318	GRDA	SPA	20	6/30/2010	6/30/2038	6/1/2016	6/30/2038	3/1/2011	6/30/2038	0	11SP
KMEA	AG3-2009-037	73453392	NPPD	WR	1	9/30/2010	9/30/2015	3/1/2011	3/1/2016	3/1/2011	3/1/2016	0	11SP
KMEA	AG3-2009-038	73453272	NPPD	SECI	1	4/30/2010	4/30/2015	3/1/2011	3/1/2016	3/1/2011	3/1/2016	0	10SP
KMEA	AG3-2009-039	73453537	NPPD	WR	1	4/30/2011	4/30/2016	4/30/2011	4/30/2016	4/30/2011	4/30/2016	0	11SP
KMEA	AG3-2009-040	73453187	NPPD	WR	1	4/30/2011	4/30/2016	4/30/2011	4/30/2016	4/30/2011	4/30/2016	0	11SP
KPP	AG2-2009-003	1607046	WR	WR	6	3/1/2010	3/1/2015	1/1/2015	1/1/2020	3/1/2011	3/1/2016	0	10SP
KPP	AG3-2009-024	73447072	WPEK	WR	13	6/1/2010	6/1/2020	10/1/2012	10/1/2022	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-024	73450023	WPEK	WR	13	6/1/2010	6/1/2020	10/1/2012	10/1/2022	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-024	73450028	WPEK	WPEK	13	6/1/2010	6/1/2020	10/1/2012	10/1/2022	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-025	73447046	NPPD	WR	1	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-025	73450014	NPPD	WR	1	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-025	73450018	NPPD	WPEK	1	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-026	73446841	WR	WR	396	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-026	73446862	WR	WR	13	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-026	73446928	WR	WR	396	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-026	73449987	WR	WPEK	20	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-026	73450005	WPEK	WR	12	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-027	73446884	WR	WR	13	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-027	73447001	WPEK	WR	396	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-0281	73446872	WR	WPEK	20	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-0281	73449996	WPEK	WPEK	20	6/1/2010	6/1/2020	3/1/2011	3/1/2021	3/1/2011	3/1/2021	0	10SP
KPP	AG3-2009-030	74236802	KCPL	WR	45	4/1/2010	4/1/2015	4/1/2015	4/1/2020	3/1/2011	1/1/2016	0	10SP
KPP	AG3-2009-030	74236811	KCPL	WR	45	4/1/2010	4/1/2015	4/1/2015	4/1/2020	3/1/2011	1/1/2016	0	10SP
KPP	AG3-2009-030	74236821	KCPL	WPEK	45	4/1/2010	4/1/2015	4/1/2015	4/1/2020	3/1/2011	1/1/2016	0	10SP

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

MIDW	AG3-2009-016	73440251	WR	WR	5	5/31/2011	5/31/2016	5/31/2011	5/31/2016	5/31/2011	5/31/2016	0	11SP
MIDW	AG3-2009-017	73440203	WR	WR	10	5/31/2011	5/31/2016	6/1/2012	6/1/2017	5/31/2011	5/31/2016	0	11SP
MOWR	AG2-2009-002	1607977	OPPD	MPS	10	12/1/2009	12/1/2014	3/1/2011	3/1/2016	3/1/2011	3/1/2016	0	10SP
OKGE	AG3-2009-014	73439915	OKGE	OKGE	152	12/31/2010	12/31/2030	1/1/2015	1/1/2035	3/1/2011	3/1/2031	0	11SP
OKGE	AG3-2009-015	73439927	OKGE	OKGE	130	9/29/2010	9/29/2030	1/1/2015	1/1/2035	3/1/2011	3/1/2031	0	11SP
OMPA	AG2-2009-001	1607006	OKGE	OKGE	3	4/30/2010	4/30/2025	3/1/2011	3/1/2026	3/1/2011	3/1/2026	0	10SP
OMPA	AG3-2009-019	73441050	GRDA	CSWS	15	6/1/2011	6/1/2040	2/1/2014	2/1/2043	6/1/2011	6/1/2040	0	11SP
OMPA	AG3-2009-019	73441055	GRDA	OKGE	15	6/1/2011	6/1/2040	6/1/2011	6/1/2040	6/1/2011	6/1/2040	0	11SP
OMPA	AG3-2009-019	73441061	GRDA	CSWS	10	6/1/2014	6/1/2040	6/1/2014	6/1/2040	6/1/2014	6/1/2040	0	21SP
OMPA	AG3-2009-019	73441065	GRDA	OKGE	10	6/1/2014	6/1/2040	6/1/2014	6/1/2040	6/1/2014	6/1/2040	0	21SP
OMPA	AG3-2009-019	73441073	GRDA	WFEC	10	6/1/2014	6/1/2040	6/1/2014	6/1/2040	6/1/2014	6/1/2040	0	21SP
OMPA	AG3-2009-019	73441080	GRDA	WFEC	15	6/1/2011	6/1/2040	6/1/2011	6/1/2040	6/1/2011	6/1/2040	0	11SP
OPPM	AG3-2009-021	73450809	OPPD	OPPD	60	6/29/2010	1/1/2032	3/1/2011	11/1/2032	3/1/2011	11/1/2032	0	11SP
OPPM	AG3-2009-023	73449634	NPPD	OPPD	41	8/31/2011	9/30/2031	6/1/2015	7/1/2035	8/31/2011	9/30/2031	0	12SP
PPMI	AG3-2009-035	73448030	SPS	AMRN	100	1/1/2013	1/1/2018	1/1/2013	1/1/2018	1/1/2013	1/1/2018	0	16SP
SPSM	AG3-2009-013	73437686	CSWS	SPS	200	1/1/2012	1/1/2019	10/1/2015	10/1/2022	1/1/2012	1/1/2019	0	12SP
WFEC	AG3-2009-003	1614798	WFEC	WFEC	123	3/31/2010	3/31/2029	1/1/2015	1/1/2034	1/1/2015	1/1/2034	0	10SP
WFEC	AG3-2009-004	1614799	WFEC	WFEC	75	3/31/2010	3/31/2024	3/1/2011	3/1/2025	3/1/2011	3/1/2025	0	10SP
WFEC	AG3-2009-031	73436312	WFEC	SPS	100	5/31/2012	5/31/2042	10/1/2015	10/1/2045	10/1/2015	10/1/2045	0	12SP

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

**Note 2:** Start dates with and without redispach 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	<sup>1</sup> Letter of Credit Amount Required	<sup>2</sup> Potential Base Plan Engineering and Construction Funding Allowable	Notes	<sup>4</sup> Additional Engineering and Construction Cost for 3rd Party Upgrades	<sup>3</sup> Total Revenue Requirements for Assigned Upgrades Over Term of Reservation WITHOUT Potential Base Plan Funding Allocation	<sup>3,5</sup> Total Revenue Requirements for Assigned Upgrades Over Term of Reservation WITH Potential Base Plan Funding Allocation	Point-to-Point Base Rate Over Reservation Period	<sup>4</sup> Total Cost of Reservation Assignable to Customer Contingent Upon Base Plan Funding
AEPM	AG3-2009-042	73453875	\$ 2,722,167	\$ -	\$ 2,722,167		\$ -	\$ 7,755,077	\$ -	\$ -	Schedule 9 & 11 Charges
AEPM	AG3-2009-043	73453863	\$ 2,777,833	\$ -	\$ 2,777,833		\$ -	\$ 7,913,662	\$ -	\$ -	Schedule 9 & 11 Charges
CRGL	AG3-2009-032	73194190	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ 11,891,160	\$ 11,891,160
GRDX	AG3-2009-033	73453318	\$ -	\$ -	\$ -		\$ 4,600,000	\$ -	\$ -	\$ 7,649,940	\$ 7,649,940
KMEA	AG3-2009-037	73453392	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ 175,860	\$ 175,860
KMEA	AG3-2009-038	73453272	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ 266,102	\$ 266,102
KMEA	AG3-2009-039	73453537	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ 175,860	\$ 175,860
KMEA	AG3-2009-040	73453187	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ 175,860	\$ 175,860
KPP	AG2-2009-003	1607046	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-024	73447072	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-024	73450023	\$ 783,423	\$ -	\$ 783,423		\$ -	\$ 1,278,421	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-024	73450028	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-025	73447046	\$ -	\$ -	\$ -	7	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-025	73450014	\$ 165,834	\$ -	\$ 165,834	8	\$ -	\$ 263,386	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-025	73450018	\$ -	\$ -	\$ -	7	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-026	73446841	\$ 3,976,887	\$ -	\$ 3,976,887	9,14	\$ 6,414,600	\$ 8,092,663	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-026	73446862	\$ -	\$ -	\$ -	10	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-026	73446928	\$ -	\$ -	\$ -	9,14	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-026	73449987	\$ -	\$ -	\$ -	10	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-026	73450005	\$ -	\$ -	\$ -	10	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-027	73446884	\$ -	\$ -	\$ -	10	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-027	73447001	\$ -	\$ -	\$ -	10	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-0281	73446872	\$ -	\$ -	\$ -	10	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-0281	73449996	\$ -	\$ -	\$ -	10	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-030	74236802	\$ 1,122,095	\$ -	\$ 1,122,095		\$ -	\$ 1,850,645	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-030	74236811	\$ -	\$ -	\$ -	11	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KPP	AG3-2009-030	74236821	\$ -	\$ -	\$ -	11	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
MIDW	AG3-2009-016	73440251	\$ 11,667	\$ -	\$ 11,667		\$ -	\$ 15,995	\$ -	\$ -	Schedule 9 & 11 Charges
MIDW	AG3-2009-017	73440203	\$ 23,333	\$ -	\$ 23,333		\$ -	\$ 31,989	\$ -	\$ -	Schedule 9 & 11 Charges
MOWR	AG2-2009-002	1607977	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ 1,023,600	\$ 1,023,600
OKGE	AG3-2009-014	73439915	\$ 9,355,133	\$ 304,778	\$ 9,050,355		\$ -	\$ 25,122,938	\$ 678,384	\$ -	\$ 678,384
OKGE	AG3-2009-015	73439927	\$ 9,516,035	\$ 1,321,889	\$ 8,194,146		\$ -	\$ 23,986,074	\$ 2,934,791	\$ -	\$ 2,934,791
OMPA	AG2-2009-001	1607006	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
OMPA	AG3-2009-019	73441050	\$ 665,303	\$ -	\$ 665,303		\$ -	\$ 2,364,404	\$ -	\$ -	Schedule 9 & 11 Charges
OMPA	AG3-2009-019	73441055	\$ -	\$ -	\$ -	12	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
OMPA	AG3-2009-019	73441061	\$ 443,529	\$ -	\$ 443,529		\$ -	\$ 1,892,620	\$ -	\$ -	Schedule 9 & 11 Charges
OMPA	AG3-2009-019	73441065	\$ -	\$ -	\$ -	13	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
OMPA	AG3-2009-019	73441073	\$ -	\$ -	\$ -	12	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
OMPA	AG3-2009-019	73441080	\$ -	\$ -	\$ -	13	\$ -	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges



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

OPPM	AG3-2009-021	73450809	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	Schedule 9 & 11 Charges
OPPM	AG3-2009-023	73449634	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	Schedule 9 & 11 Charges
PPMI	AG3-2009-035	73448030	\$	-	\$	-	\$	-	\$	-	\$	-	\$	5,916,000	5,916,000
SPSM	AG3-2009-013	73437686	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	Schedule 9 & 11 Charges
WFEC	AG3-2009-003	1614798	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	Schedule 9 & 11 Charges
WFEC	AG3-2009-004	1614799	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	Schedule 9 & 11 Charges
WFEC	AG3-2009-031	73436312	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	Schedule 9 & 11 Charges
<b>Grand Total</b>				<b>\$31,563,239</b>		<b>\$</b>	<b>29,936,572</b>			<b>\$80,567,874</b>	<b>\$</b>	<b>3,613,175</b>			

**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:** Mutually exclusive with 73450023

**Note 7:** Mutually exclusive with 73450018

**Note 8:** 1.8MW new resource

**Note 9:** New 0.9MW SPA Purchase and 21.4MW of city generation in Westar to KPP Load in WERE, MIDW, and MKEC Zones plus new 14.5MW of city generation in MKEC, 5MW of KPP Westar Purchase, 0.3MW of KPP WAPA Purchase

**Note 10:** Mutually exclusive with 73446841

**Note 11:** Mutually exclusive with 74236802

**Note 12:** Mutually exclusive with 73441050

**Note 13:** Mutually exclusive with 73441061

**Note 14:** Direct Assigned Network Upgrades

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

Customer Study Number  
 AEPM AG3-2009-042

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
AEPM	73453875	CSWS	CSWS	49	1/1/2011	1/1/2031	3/1/2011	3/1/2031	\$ 2,722,167	\$ -	\$ 2,722,167	\$ 7,755,077
									\$ 2,722,167	\$ -	\$ 2,722,167	\$ 7,755,077

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements	
73453875	DIANA (DIANA 3) 345/138/13.8KV TRANSFORMER CKT 3	6/1/2013	6/1/2013			\$ 2,722,167	\$ -	\$ 2,722,167	\$ 5,500,000	\$ 7,755,077	
						Total	\$ 2,722,167	\$ -	\$ 2,722,167	\$ 5,500,000	\$ 7,755,077

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453875	DIANA - PERDUE 138KV CKT 1	6/1/2020	6/1/2020		
	EASTON REC - KNOX LEE 138KV CKT 1	6/1/2012	6/1/2012		
	EASTON REC - PIRKEY 138KV CKT 1	6/1/2012	6/1/2012		
	PIRKEY - WHITNEY 138KV CKT 1	6/1/2013	6/1/2013		

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	Earliest Service Date	Redispatch Available
73453875	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerated	6/1/2011	6/1/2014	2/1/2014	
	TEXAS EASTMAN - WHITNEY 138KV CKT 1	6/1/2013	6/1/2013		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453875	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	1/1/2010	1/1/2010		

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

Customer Study Number  
 AEPM AG3-2009-043

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
AEPM	73453863	CSWS	CSWS	50	1/1/2011	1/1/2031	3/1/2011	3/1/2031	\$ 2,777,833	\$ -	\$ 2,777,833	\$ 7,913,662
									\$ 2,777,833	\$ -	\$ 2,777,833	\$ 7,913,662

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73453863	DIANA (DIANA 3) 345/138/13.8KV TRANSFORMER CKT 3	6/1/2013	6/1/2013			\$ 2,777,833	\$ -	\$ 2,777,833	\$ 5,500,000	\$ 7,913,662
Total						\$ 2,777,833	\$ -	\$ 2,777,833	\$ 5,500,000	\$ 7,913,662

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453863	DIANA - PERDUE 138KV CKT 1	6/1/2020	6/1/2020		
	EASTON REC - KNOX LEE 138KV CKT 1	6/1/2012	6/1/2012		
	EASTON REC - PIRKEY 138KV CKT 1	6/1/2012	6/1/2012		
	PIRKEY - WHITNEY 138KV CKT 1	6/1/2013	6/1/2013		

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	Earliest Service Date	Redispatch Available
73453863	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerated	6/1/2011	6/1/2014	2/1/2014	
	TEXAS EASTMAN - WHITNEY 138KV CKT 1	6/1/2013	6/1/2013		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453863	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	1/1/2010	1/1/2010		

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

Customer Study Number  
CRGL AG3-2009-032

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
CRGL	73194190	WR	AECI	201	1/1/2011	1/1/2016	4/1/2012	4/1/2017	\$ -	\$ 11,891,160	\$ -	\$ -
									\$ -	\$ 11,891,160	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73194190	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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	Earliest Service Date	Redispatch Available
73194190	ROSE HILL (ROSEHLIX) 345/138/13.8KV TRANSFORMER CKT 3	6/1/2011	6/15/2013	4/1/2012	Yes

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73194190	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		
	Elk County 345kv Substation	6/30/2011	6/30/2011		

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

Customer Study Number  
GRDX AG3-2009-033

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
GRDX	73453318	GRDA	SPA	20	6/30/2010	6/30/2038	6/1/2016	6/30/2038	\$ -	\$ 7,649,940	\$ -	\$ -
									\$ -	\$ 7,649,940	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73453318	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453318	GRAY TAP - PENSACOLA 69KV CKT 1	6/1/2013	6/1/2013		
	GRAY TAP - ZENA TAP 69KV CKT 1	6/1/2013	6/1/2013		
	JAY - ZENA TAP 69KV CKT 1	6/1/2013	6/1/2013		
	JONESBORO - JONESBORO 161KV CKT 1 SWPA	6/1/2017	6/1/2017		
	Multi - Centerton - Osage Creek 345 kV	6/1/2012	6/1/2016		Yes
	Multi - Flint Creek - Centerton 345 kV and Centerton - East Centerton 161 kV	6/1/2012	6/1/2014		Yes
	XFR - Paragould 161/69 kV Auto 1 & 2	6/1/2011	11/1/2011		Yes

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453318	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	SUB 110 - ORONOGO JCT. - SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost
73453318	TRUMANN - TRUMANN WEST AECC 161KV CKT 1	6/1/2018	6/1/2018			\$ 4,600,000	\$ 4,600,000
Total						\$ 4,600,000	\$ 4,600,000

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

Customer Study Number  
KMEA AG3-2009-037

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KMEA	73453392	NPPD	WR	1	9/30/2010	9/30/2015	3/1/2011	3/1/2016	\$ -	\$ 175,860	\$ -	\$ -
									\$ -	\$ 175,860	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73453392	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453392	EAST MANHATTAN - NW MANHATTAN 230/115KV	6/1/2011	12/1/2011	10/1/2011	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453392	Line - Comanche County - Medicine Lodge 345 kV dbi ckt	3/1/2011	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbi ckt OKGE	3/1/2011	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbi ckt SPS	3/1/2011	7/1/2014		
	Line - Medicine Lodge - Wichita 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Medicine Lodge - Wichita 345 kV dbi ckt WERE	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbi ckt SUNC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbi ckt OKGE	3/1/2011	1/1/2015		
	XFR - Medicine Lodge 345/138 kV	3/1/2011	1/1/2015		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453392	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

Customer Study Number  
KMEA AG3-2009-038

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KMEA	73453272	NPPD	SECI	1	4/30/2010	4/30/2015	3/1/2011	3/1/2016	\$ -	\$ 266,102	\$ -	\$ -
									\$ -	\$ 266,102	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73453272	None					\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453272	Line - E. Manhattan - JEC 230 kV	6/1/2012	12/1/2012	10/1/2012	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453272	FLETCHER - HOLCOMB 115KV CKT 1	3/1/2011	6/1/2013	10/1/2012	

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453272	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

Customer Study Number  
KMEA AG3-2009-039

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KMEA	73453537	NPPD	WR	1	4/30/2011	4/30/2016			\$ -	\$ 175,860	\$ -	\$ -
									\$ -	\$ 175,860	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73453537	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453537	EAST MANHATTAN - NW MANHATTAN 230/115KV	6/1/2011	12/1/2011	10/1/2011	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453537	Line - Comanche County - Medicine Lodge 345 kV dbi ckt	3/1/2011	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbi ckt OKGE	3/1/2011	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbi ckt SPS	3/1/2011	7/1/2014		
	Line - Medicine Lodge - Wichita 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Medicine Lodge - Wichita 345 kV dbi ckt WERE	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbi ckt SUNC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbi ckt OKGE	3/1/2011	1/1/2015		
	XFR - Medicine Lodge 345/138 kV	3/1/2011	1/1/2015		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453537	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		



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

Customer Study Number  
KMEA AG3-2009-040

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KMEA	73453187	NPPD	WR	1	4/30/2011	4/30/2016			\$ -	\$ 175,860	\$ -	\$ -
									\$ -	\$ 175,860	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73453187	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453187	EAST MANHATTAN - NW MANHATTAN 230/115KV	6/1/2011	12/1/2011	10/1/2011	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453187	Line - Comanche County - Medicine Lodge 345 kV dbi ckt	3/1/2011	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbi ckt OKGE	3/1/2011	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbi ckt SPS	3/1/2011	7/1/2014		
	Line - Medicine Lodge - Wichita 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Medicine Lodge - Wichita 345 kV dbi ckt WERE	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbi ckt SUNC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbi ckt OKGE	3/1/2011	1/1/2015		
	XFR - Medicine Lodge 345/138 kV	3/1/2011	1/1/2015		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73453187	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

Customer Study Number  
KPP AG2-2009-003

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KPP	1607046	WR	WR	6	3/1/2010	3/1/2015	1/1/2015	1/1/2020	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1607046	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1607046	17TH & FAIRLAWN - INDIAN HILLS 115KV CKT 1	6/1/2017	6/1/2017	10/1/2016	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1607046	Line - Comanche County - Medicine Lodge 345 kv dbl ckt	3/1/2011	1/1/2015		Yes
	Line - Hitchland - Woodward 345 kv dbl ckt OKGE	3/1/2011	7/1/2014		Yes
	Line - Hitchland - Woodward 345 kv dbl ckt SPS	3/1/2011	7/1/2014		Yes
	Line - Medicine Lodge - Wichita 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Medicine Lodge - Wichita 345 kv dbl ckt WERE	3/1/2011	1/1/2015		Yes
	Line - Spearville - Comanche County 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Spearville - Comanche County 345 kv dbl ckt SUNC	3/1/2011	1/1/2015		Yes
	Line - Woodward - Comanche County 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Woodward - Comanche County 345 kv dbl ckt OKGE	3/1/2011	1/1/2015		Yes
	XFR - Medicine Lodge 345/138 kv	3/1/2011	1/1/2015		Yes

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1607046	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		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

Customer Study Number  
KPP AG3-2009-024

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KPP	73447072	WPEK	WR	13	6/1/2010	6/1/2020	10/1/2012	10/1/2022	\$ -	\$ -	\$ -	\$ -
KPP	73450023	WPEK	WR	13	6/1/2010	6/1/2020	10/1/2012	10/1/2022	\$ 783,423	\$ -	\$ 783,423	\$ 1,278,421
KPP	73450028	WPEK	WPEK	13	6/1/2010	6/1/2020	10/1/2012	10/1/2022	\$ -	\$ -	\$ -	\$ -
									\$ 783,423	\$ -	\$ 783,423	\$ 1,278,421

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73450023	CHAPMAN JUNCTION 115KV	1/1/2012	1/1/2012			\$ 74,225	\$ -	\$ 74,225	\$ 2,530,598	\$ 152,750
	CLAY CENTER JUNCTION 115KV	1/1/2012	1/1/2012			\$ 41,581	\$ -	\$ 41,581	\$ 1,417,642	\$ 85,571
	CLAY CENTER JUNCTION 115KV Capacitor	6/1/2017	6/1/2017			\$ 484,091	\$ -	\$ 484,091	\$ 600,000	\$ 690,493
	CRESWELL - OAK 69KV CKT 1	6/1/2011	6/1/2013	10/1/2012	Yes	\$ 183,526	\$ -	\$ 183,526	\$ 1,500,000	\$ 349,607
<b>Total</b>						\$ 783,423	\$ -	\$ 783,423	\$ 6,048,240	\$ 1,278,421

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	Earliest Service Date	Redispatch Available
73450023	ROSE HILL (ROSEHLX) 345/138/13.8KV TRANSFORMER CKT 3	6/1/2011	6/15/2013	4/1/2012	Yes

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73450023	BELL - PECK 69KV CKT 1	6/1/2011	12/1/2012	10/1/2012	Yes
	CITY OF WINFIELD - TIMBER JUNCTION 69KV CKT 1	6/1/2011	6/1/2011		
	RICHLAND - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	Yes
	TIMBER JUNCTION - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73450023	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	MEDICINE LODGE - PRATT 115KV CKT 1	12/1/2009	6/1/2013		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

Reservations 73450023, 73450028, and 73447072 were studied as one request

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

Customer Study Number  
KPP AG3-2009-025

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KPP	73447046	NPPD	WR	1	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ -	\$ -	\$ -	\$ -
KPP	73450014	NPPD	WR	1	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ 165,834	\$ -	\$ 165,834	\$ 263,386
KPP	73450018	NPPD	WPEK	1	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ -	\$ -	\$ -	\$ -
									\$ 165,834	\$ -	\$ 165,834	\$ 263,386

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73450014	CHAPMAN JUNCTION 115KV	1/1/2012	1/1/2012			\$ 12,369	\$ 2,530,598	\$ 25,454
	CLAY CENTER JUNCTION 115KV	1/1/2012	1/1/2012			\$ 6,929	\$ 1,417,642	\$ 14,259
	CLAY CENTER JUNCTION 115KV Capacitor	6/1/2017	6/1/2017			\$ 115,909	\$ 600,000	\$ 165,329
	CRESWELL - OAK 69KV CKT 1	6/1/2011	6/1/2013	10/1/2012		\$ 30,627	\$ 1,500,000	\$ 58,343
Total						\$ 165,834	\$ 6,048,240	\$ 263,386

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73450014	EAST MANHATTAN - NW MANHATTAN 230/115KV	6/1/2011	12/1/2011	10/1/2011	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73450014	OGALLALA 230/115KV TRANSFORMER CKT 1	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.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73450014	ROSE HILL (ROSEHLX) 345/138/13.8KV TRANSFORMER CKT 3	6/1/2011	6/15/2013	4/1/2012	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73450014	Line - Comanche County - Medicine Lodge 345 kV dbi ckt	3/1/2011	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbi ckt OKGE	3/1/2011	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbi ckt SPS	3/1/2011	7/1/2014		
	Line - Medicine Lodge - Wichita 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Medicine Lodge - Wichita 345 kV dbi ckt WERE	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbi ckt SUNC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbi ckt OKGE	3/1/2011	1/1/2015		
	XFR - Medicine Lodge 345/138 kV	3/1/2011	1/1/2015		

Planned Projects

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73450014	BELL - PECK 69KV CKT 1	6/1/2011	12/1/2012	10/1/2012	
	CITY OF WINFIELD - TIMBER JUNCTION 69KV CKT 1	6/1/2011	6/1/2011		
	RICHLAND - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	
	TIMBER JUNCTION - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73450014	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	MEDICINE LODGE - PRATT 115KV CKT 1	12/1/2009	6/1/2013		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

Reservations 73450014, 73450018, and 73447046 were studied as one request

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

Customer Study Number  
KPP AG3-2009-026

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KPP	73446841	WR	WR	396	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ 3,976,887	\$ -	\$ 3,976,887	\$ 8,092,663
KPP	73446928	WR	WR	396	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ -	\$ -	\$ -	\$ -
KPP	73449987	WR	WPEK	20	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ -	\$ -	\$ -	\$ -
KPP	73450005	WPEK	WR	12	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ -	\$ -	\$ -	\$ -
									\$ 3,976,887	\$ -	\$ 3,976,887	\$ 8,092,663

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73446841	CHAPMAN JUNCTION 115KV	1/1/2012	1/1/2012			\$ 2,165,671	\$ 2,530,598	\$ 4,456,794
	CLAY CENTER JUNCTION 115KV	1/1/2012	1/1/2012			\$ 1,213,210	\$ 1,417,642	\$ 2,496,698
	CRESWELL - OAK 69KV CKT 1	6/1/2011	6/1/2013	10/1/2012		\$ 598,006	\$ 1,500,000	\$ 1,139,170
Total						\$ 3,976,887	\$ 5,448,240	\$ 8,092,663

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73450014	BELL - PECK 69KV CKT 1	6/1/2011	12/1/2012	10/1/2012	
	CITY OF WINFIELD - TIMBER JUNCTION 69KV CKT 1	6/1/2011	6/1/2011		
	RICHLAND - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	
	TIMBER JUNCTION - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	

Direct Assigned Network Upgrades - The requested service is contingent upon completion of the following upgrades.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost
73446841	Pratt 115/34.5kV Transformer	8/1/2010	6/1/2014			\$ 2,000,000	\$ 2,000,000
	Cunningham - Pratt 34.5kV CKT 1	8/1/2010	6/1/2014			\$ 4,164,600	\$ 4,164,600
	Cunningham Voltage Regulator	8/1/2010	6/1/2014			\$ 250,000	\$ 250,000
Total						\$ 6,414,600	\$ 6,414,600

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73446841	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		
	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	6/1/2013	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		
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Displacement	12/1/2009	6/1/2013		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	SUB 110 - OROGONO JCT. - SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		

Reservations 73446841, 73446862, 73446884, 73446928, 73447001, 73446872, 73449987, and 73449996 were studied as one request

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

Customer Study Number  
KPP AG3-2009-027

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KPP	73446862	WR	WR	13	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ -	\$ -	\$ -	\$ -
KPP	73446884	WR	WR	13	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ -	\$ -	\$ -	\$ -
KPP	73447001	WPEK	WR	396	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73446862	None					\$ -	\$ -	\$ -
						Total	\$ -	\$ -
73446884	None					\$ -	\$ -	\$ -
						Total	\$ -	\$ -
73447001	None					\$ -	\$ -	\$ -
						Total	\$ -	\$ -

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

Customer Study Number  
 KPP AG3-2009-0281

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KPP	73446872	WR	WPEK	20	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ -	\$ -	\$ -	\$ -
KPP	73449996	WPEK	WPEK	20	6/1/2010	6/1/2020	3/1/2011	3/1/2021	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73446872	None					\$ -	\$ -	\$ -
						Total	\$ -	\$ -
73449996	None					\$ -	\$ -	\$ -
						Total	\$ -	\$ -

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

Customer Study Number  
KPP AG3-2009-030

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KPP	74236802	KCPL	WR	45	4/1/2010	4/1/2015	6/1/2015	6/1/2020	\$ 1,122,095	\$ -	\$ 1,122,095	\$ 1,850,645
KPP	74236811	KCPL	WR	45	4/1/2010	4/1/2015	6/1/2015	6/1/2020	\$ -	\$ -	\$ -	\$ -
KPP	74236821	KCPL	WPEK	45	4/1/2010	4/1/2015	6/1/2015	6/1/2020	\$ -	\$ -	\$ -	\$ -
									\$ 1,122,095	\$ -	\$ 1,122,095	\$ 1,850,645

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
74236802	CHAPMAN JUNCTION 115KV	1/1/2012	1/1/2012			\$ 278,333	\$ 2,530,598	\$ 480,965
	CLAY CENTER JUNCTION 115KV	1/1/2012	1/1/2012			\$ 155,922	\$ 1,417,642	\$ 269,436
	CRESWELL - OAK 69KV CKT 1	6/1/2011	6/1/2013	10/1/2012	Yes	\$ 687,840	\$ 1,500,000	\$ 1,100,244
Total						\$ 1,122,095	\$ 5,448,240	\$ 1,850,645

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
74236802	Line - E. Manhattan - JEC 230 kv	6/1/2012	12/1/2012	10/1/2012	Yes
	Line - Iatan - Nashua 345 kv	6/1/2012	6/1/2015		Yes

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	Earliest Service Date	Redispatch Available
74236802	ROSE HILL (ROSEHLX) 345/138/13.8KV TRANSFORMER CKT 3	6/1/2011	6/15/2013	4/1/2012	Yes

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
74236802	Line - Comanche County - Medicine Lodge 345 kv dbl ckt	3/1/2011	1/1/2015		Yes
	Line - Hitchland - Woodward 345 kv dbl ckt OKGE	3/1/2011	7/1/2014		Yes
	Line - Hitchland - Woodward 345 kv dbl ckt SPS	3/1/2011	7/1/2014		Yes
	Line - Medicine Lodge - Wichita 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Medicine Lodge - Wichita 345 kv dbl ckt WERE	3/1/2011	1/1/2015		Yes
	Line - Spearville - Comanche County 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Spearville - Comanche County 345 kv dbl ckt SUNC	3/1/2011	1/1/2015		Yes
	Line - Woodward - Comanche County 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Woodward - Comanche County 345 kv dbl ckt OKGE	3/1/2011	1/1/2015		Yes
	XFR - Medicine Lodge 345/138 kv	3/1/2011	1/1/2015		Yes

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
74236802	BELL - PECK 69KV CKT 1	6/1/2011	12/1/2012	10/1/2012	Yes
	CITY OF WINFIELD - TIMBER JUNCTION 69KV CKT 1	6/1/2011	6/1/2011		
	RICHLAND - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	Yes
	TIMBER JUNCTION - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	Yes

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
74236802	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	MEDICINE LODGE - PRATT 115KV CKT 1	12/1/2009	6/1/2013		
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Displacement	12/1/2009	6/1/2013		

Reservations 74236802, 74236811, and 74236821 were studied as one request



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

Customer Study Number  
MIDW AG3-2009-016

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
MIDW	73440251	WR	WR	5	5/31/2011	5/31/2016			\$ 11,667	\$ -	\$ 11,667	\$ 15,995
									\$ 11,667	\$ -	\$ 11,667	\$ 15,995

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73440251	HAYS PLANT - SOUTH HAYS 115KV CKT 1	6/1/2012	6/1/2012			\$ 11,667	\$ 35,000	\$ 15,995
	Total					\$ 11,667	\$ 35,000	\$ 15,995

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73440251	Line - E. Manhattan - JEC 230 kV	6/1/2012	12/1/2012	10/1/2012	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73440251	COLBY 2 69.000 (COLBY T3) 69/34.5/13.8KV TRANSFORMER CKT 3	6/1/2011	1/1/2013		

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	Earliest Service Date	Redispatch Available
73440251	HEIZER - MULLERGREN 115 KV CKT 1 MIDW	6/1/2011	6/1/2011		
	HEIZER - MULLERGREN 115 KV CKT 1 MKEC	6/1/2011	6/1/2012		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73440251	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		
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Displacement	12/1/2009	6/1/2013		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

Customer Study Number  
MIDW AG3-2009-017

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
MIDW	73440203	WR	WR	10	5/31/2011	5/31/2016	6/1/2012	6/1/2017	\$ 23,333	\$ -	\$ 23,333	\$ 31,989
									\$ 23,333	\$ -	\$ 23,333	\$ 31,989

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73440203	HAYS PLANT - SOUTH HAYS 115KV CKT 1	6/1/2012	6/1/2012			\$ 23,333	\$ 35,000	\$ 31,989
	Total					\$ 23,333	\$ 35,000	\$ 31,989

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73440203	Line - E. Manhattan - JEC 230 kV	6/1/2012	12/1/2012	10/1/2012	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73440203	COLBY 2 69.000 (COLBY T3) 69/34.5/13.8KV TRANSFORMER CKT 3	6/1/2011	1/1/2013		

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	Earliest Service Date	Redispatch Available
73440203	HEIZER - MULLERGREN 115 KV CKT 1 MIDW	6/1/2011	6/1/2011		
	HEIZER - MULLERGREN 115 KV CKT 1 MKEC	6/1/2011	6/1/2012		Yes

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73440203	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		
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Displacement	12/1/2009	6/1/2013		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

Customer Study Number  
MOWR AG2-2009-002

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
MOWR	1607977	OPPD	MPS	10	12/1/2009	12/1/2014	3/1/2011	3/1/2016	\$ -	\$ 1,023,600	\$ -	\$ -
									\$ -	\$ 1,023,600	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1607977	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1607977	Line - Iatan - Nashua 345 kV	6/1/2012	6/1/2015		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1607977	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

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

Customer Study Number  
OKGE AG3-2009-014

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
OKGE	73439915	OKGE	OKGE	152	12/31/2010	12/31/2030	1/1/2015	1/1/2035	\$ 9,050,355	\$ -	\$ 9,355,133	\$ 25,122,938
									\$ 9,050,355	\$ -	\$ 9,355,133	\$ 25,122,938

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73439915	CANTON - TALOGA 69KV CKT 1	6/1/2011	6/1/2013	10/1/2012	Yes	\$ 535,726	\$ 267,863	\$ 803,589	\$ 3,880,000	\$ 1,794,022
	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$ 8,440,800	\$ -	\$ 8,440,800	\$ 15,000,000	\$ 23,087,784
	TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1	3/1/2011	6/1/2013	10/1/2012	Yes	\$ 73,829	\$ 36,915	\$ 110,744	\$ 1,000,000	\$ 241,132
	<b>Total</b>					\$ 9,050,355	\$ 304,778	\$ 9,355,133	\$ 19,880,000	\$ 25,122,938

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	Earliest Service Date	Redispatch Available
73439915	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerated	6/1/2011	6/1/2014	2/1/2014	Yes

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73439915	Line - Comanche County - Medicine Lodge 345 kV dbl ckt	3/1/2011	1/1/2015		Yes
	Line - Hitchland - Woodward 345 kV dbl ckt OKGE	3/1/2011	7/1/2014		Yes
	Line - Hitchland - Woodward 345 kV dbl ckt SPS	3/1/2011	7/1/2014		Yes
	Line - Medicine Lodge - Wichita 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Medicine Lodge - Wichita 345 kV dbl ckt WERE	3/1/2011	1/1/2015		Yes
	Line - Spearville - Comanche County 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Spearville - Comanche County 345 kV dbl ckt SUNC	3/1/2011	1/1/2015		Yes
	Line - Woodward - Comanche County 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Woodward - Comanche County 345 kV dbl ckt OKGE	3/1/2011	1/1/2015		Yes
	XFR - Medicine Lodge 345/138 kV	3/1/2011	1/1/2015		Yes

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73439915	KNOBHILL (KNOBHILL4) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2006	6/1/2008		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - IODINE 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		
	Woodward 138kV Substation Terminal	9/1/2010	9/1/2010		

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

Customer Study Number  
OKGE AG3-2009-015

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
OKGE	73439927	OKGE	OKGE	130	9/29/2010	9/29/2030	1/1/2015	1/1/2035	\$ 8,194,146	\$ -	\$ 9,516,035	\$ 23,986,074
									\$ 8,194,146	\$ -	\$ 9,516,035	\$ 23,986,074

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73439927	CANTON - TALOGA 69KV CKT 1	6/1/2011	6/1/2013	10/1/2012	Yes	\$ 2,050,941	\$ 1,025,470	\$ 3,076,411	\$ 3,880,000	\$ 6,868,125
	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$ 5,550,368	\$ -	\$ 5,550,368	\$ 15,000,000	\$ 15,181,700
	TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1	3/1/2011	6/1/2013	10/1/2012	Yes	\$ 592,837	\$ 296,419	\$ 889,256	\$ 1,000,000	\$ 1,936,249
	<b>Total</b>					\$ 8,194,146	\$ 1,321,889	\$ 9,516,035	\$ 19,880,000	\$ 23,986,074

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73439927	CLASSEN - SW STAP 138KV CKT 1	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.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73439927	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerated	6/1/2011	6/1/2014	2/1/2014	Yes

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73439927	Line - Comanche County - Medicine Lodge 345 kV dbl ckt	3/1/2011	1/1/2015		Yes
	Line - Hitchland - Woodward 345 kV dbl ckt OKGE	3/1/2011	7/1/2014		Yes
	Line - Hitchland - Woodward 345 kV dbl ckt SP5	3/1/2011	7/1/2014		Yes
	Line - Medicine Lodge - Wichita 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Medicine Lodge - Wichita 345 kV dbl ckt WERE	3/1/2011	1/1/2015		Yes
	Line - Spearville - Comanche County 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Spearville - Comanche County 345 kV dbl ckt SUNC	3/1/2011	1/1/2015		Yes
	Line - Woodward - Comanche County 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Woodward - Comanche County 345 kV dbl ckt OKGE	3/1/2011	1/1/2015		Yes
	XFR - Medicine Lodge 345/138 kV	3/1/2011	1/1/2015		Yes

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73439927	KNOBHILL (KNOBHILL4) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2006	6/1/2008		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - IODINE 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		
	Dewey 138KV Substation Terminal	5/1/2010	5/1/2010		

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

Customer Study Number  
 OMPA AG2-2009-001

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
OMPA	1607006	OKGE	OKGE	3	4/30/2010	4/30/2025	3/1/2011	3/1/2026	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1607006	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1607006	OMHUFFYT - OMPA-PONCA CITY 69KV CKT 1	6/1/2017	6/1/2017		
	OMKAWS - OMPECANT 69KV CKT 1	6/1/2017	6/1/2017		
	OMNWESTT - OMPA-PONCA CITY 69KV CKT 1	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.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1607006	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerated	6/1/2011	6/1/2014	2/1/2014	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1607006	Line - Comanche County - Medicine Lodge 345 kV dbl ckt	3/1/2011	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbl ckt OKGE	3/1/2011	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbl ckt SPS	3/1/2011	7/1/2014		
	Line - Medicine Lodge - Wichita 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		
	Line - Medicine Lodge - Wichita 345 kV dbl ckt WERE	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbl ckt SUNC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbl ckt OKGE	3/1/2011	1/1/2015		
	XFR - Medicine Lodge 345/138 kV	3/1/2011	1/1/2015		

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

Customer Study Number  
 OMPA AG3-2009-019

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
OMPA	73441050	GRDA	CSWS	15	6/1/2011	6/1/2040	2/1/2014	2/1/2043	\$ 665,303	\$ -	\$ 665,303	\$ 2,364,404
OMPA	73441055	GRDA	OKGE	15	6/1/2011	6/1/2040	6/1/2011	6/1/2040	\$ -	\$ -	\$ -	\$ -
OMPA	73441061	GRDA	CSWS	10	6/1/2014	6/1/2040	6/1/2014	6/1/2040	\$ 443,529	\$ -	\$ 443,529	\$ 1,892,620
OMPA	73441065	GRDA	OKGE	10	6/1/2014	6/1/2040	6/1/2014	6/1/2040	\$ -	\$ -	\$ -	\$ -
OMPA	73441073	GRDA	WFEC	10	6/1/2014	6/1/2040	6/1/2014	6/1/2040	\$ -	\$ -	\$ -	\$ -
OMPA	73441080	GRDA	WFEC	15	6/1/2011	6/1/2040	6/1/2011	6/1/2040	\$ -	\$ -	\$ -	\$ -
									\$ 443,529	\$ -	\$ 443,529	\$ 1,892,620

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73441050	CARMEN - EAGLE CHIEF 69KV CKT 1	6/1/2017	6/1/2017			\$ 60,004	\$ 100,000	\$ 150,513
	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$ 605,299	\$ 15,000,000	\$ 2,213,891
					Total	\$ 665,303	\$ 15,100,000	\$ 2,364,404
73441061	CARMEN - EAGLE CHIEF 69KV CKT 1	6/1/2017	6/1/2017			\$ 39,996	\$ 100,000	\$ 108,509
	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 1	6/1/2017	6/1/2017			\$ 403,533	\$ 15,000,000	\$ 1,784,111
					Total	\$ 443,529	\$ 15,100,000	\$ 1,892,620

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73441050	East Kingfisher Capacitor 69 kV	6/1/2013	6/1/2013		
	FAIRVIEW Capacitor 69KV	6/1/2017	6/1/2017		
	GRAY TAP - PENSACOLA 69KV CKT 1	6/1/2013	6/1/2013		
	GRAY TAP - ZENA TAP 69KV CKT 1	6/1/2013	6/1/2013		
	JAY - ZENA TAP 69KV CKT 1	6/1/2013	6/1/2013		
73441061	East Kingfisher Capacitor 69 kV	6/1/2013	6/1/2013		
	FAIRVIEW Capacitor 69KV	6/1/2017	6/1/2017		
	GRAY TAP - PENSACOLA 69KV CKT 1	6/1/2011	6/1/2013		
	GRAY TAP - ZENA TAP 69KV CKT 1	6/1/2011	6/1/2013		
	JAY - ZENA TAP 69KV CKT 1	6/1/2011	6/1/2013		

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	Earliest Service Date	Redispatch Available
73441050	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerated	6/1/2011	6/1/2014	2/1/2014	Yes
	ROSE HILL (ROSEHLIX) 345/138/13.8KV TRANSFORMER CKT 3	6/1/2011	6/15/2013	4/1/2012	
73441061	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerated	6/1/2011	6/1/2014	2/1/2014	

Planned Projects

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73441050	BELL - PECK 69KV CKT 1	6/1/2011	12/1/2012	10/1/2012	
	CITY OF WINFIELD - TIMBER JUNCTION 69KV CKT 1	6/1/2011	6/1/2011		
	RICHLAND - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	
	TIMBER JUNCTION - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	
73441061	BELL - PECK 69KV CKT 1	6/1/2011	12/1/2012	10/1/2012	
	CITY OF WINFIELD - TIMBER JUNCTION 69KV CKT 1	6/1/2011	6/1/2011		
	RICHLAND - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	
	TIMBER JUNCTION - UDALL 69KV CKT 1	6/1/2011	12/1/2011	10/1/2011	

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

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73441050	FT SUPPLY 138/69KV TRANSFORMER CKT 1	12/1/2006	6/1/2008		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		
73441061	FT SUPPLY 138/69KV TRANSFORMER CKT 1	12/1/2006	6/1/2008		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345 KV WFEC	7/1/2012	7/1/2012		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		



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

Customer Study Number  
 OPPM AG3-2009-021

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
OPPM	73450809	OPPD	OPPD	60	6/29/2010	1/1/2032	3/1/2011	11/1/2032	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

  

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73450809	None					\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

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

Customer Study Number  
 OPPM AG3-2009-023

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
OPPM	73449634	NPPD	OPPD	41	8/31/2011	9/30/2031	6/1/2015	7/1/2035	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73449634	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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	Earliest Service Date	Redispatch Available
73449634	PETERSBURG - MADISON 115KV CKT 1	12/1/2011	6/1/2015		Yes

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

Customer Study Number  
 PPMI AG3-2009-035

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
PPMI	73448030	SPS	AMRN	100	1/1/2013	1/1/2018			\$ -	\$ 5,916,000	\$ -	\$ -
									\$ -	\$ 5,916,000	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73448030	None					\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73448030	18TH STREET - WREN 115KV CKT 1	6/1/2013	6/1/2013		
	87th Street Interconnection	6/1/2013	6/1/2013		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73448030	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	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

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

Customer Study Number  
SPSM AG3-2009-013

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
SPSM	73437686	CSWS	SPS	200	1/1/2012	1/1/2019	10/1/2015	10/1/2022	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73437686	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73437686	BUSHLAND - NE HEREFORD 115KV CKT 1	6/1/2019	6/1/2019		
	CARLISLE INTERCHANGE 230/115KV TRANSFORMER CKT 1	6/1/2017	6/1/2017		
	LUBBOCK POWER & LIGHT-HOLLY PLANT 230/69KV TRANSFORMER CKT 1	6/1/2012	6/1/2016	10/1/2015	Yes
	LUBBOCK POWER & LIGHT-SOUTHEAST 230/69KV TRANSFORMER CKT 1	6/1/2012	6/1/2016	10/1/2015	Yes
	OSAGE - RANDALL 115KV CKT 1	6/1/2017	6/1/2017		
	SWISHER 230/115KV TRANSFORMER CKT 1	6/1/2017	6/1/2017		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73437686	Line - Comanche County - Medicine Lodge 345 kv dbl ckt	3/1/2011	1/1/2015		Yes
	Line - Hitchland - Woodward 345 kv dbl ckt OKGE	3/1/2011	7/1/2014		Yes
	Line - Hitchland - Woodward 345 kv dbl ckt SPS	3/1/2011	7/1/2014		Yes
	Line - Medicine Lodge - Wichita 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Medicine Lodge - Wichita 345 kv dbl ckt WERE	3/1/2011	1/1/2015		Yes
	Line - Spearville - Comanche County 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Spearville - Comanche County 345 kv dbl ckt SUNC	3/1/2011	1/1/2015		Yes
	Line - Woodward - Comanche County 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		Yes
	Line - Woodward - Comanche County 345 kv dbl ckt OKGE	3/1/2011	1/1/2015		Yes
	XFR - Medicine Lodge 345/138 kv	3/1/2011	1/1/2015		Yes

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73437686	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	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

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

Customer Study Number  
WFEC AG3-2009-003

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
WFEC	1614798	WFEC	WFEC	123	3/31/2010	3/31/2029	1/1/2015	1/1/2034	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1614798	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1614798	Multi - Franklin SW - Acme - Norman - OU SW Conversion 138 kV	6/1/2011	10/1/2012	10/1/2011	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1614798	Line - Comanche County - Medicine Lodge 345 kV dbi ckt	3/1/2011	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbi ckt OKGE	3/1/2011	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbi ckt SPS	3/1/2011	7/1/2014		
	Line - Medicine Lodge - Wichita 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Medicine Lodge - Wichita 345 kV dbi ckt WERE	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbi ckt SUNC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbi ckt MKEC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbi ckt OKGE	3/1/2011	1/1/2015		
	XFR - Medicine Lodge 345/138 kV	3/1/2011	1/1/2015		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1614798	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

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

Customer Study Number  
WFEC AG3-2009-004

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
WFEC	1614799	WFEC	WFEC	75	3/31/2010	3/31/2024	3/1/2011	3/1/2025	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
1614799	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1614799	Multi - Franklin SW - Acme - Norman - OU SW Conversion 138 kV	6/1/2011	10/1/2012	10/1/2011	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1614799	Line - Comanche County - Medicine Lodge 345 kV dbl ckt	3/1/2011	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbl ckt OKGE	3/1/2011	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbl ckt SPS	3/1/2011	7/1/2014		
	Line - Medicine Lodge - Wichita 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		
	Line - Medicine Lodge - Wichita 345 kV dbl ckt WERE	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kV dbl ckt SUNC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbl ckt MKEC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kV dbl ckt OKGE	3/1/2011	1/1/2015		
	XFR - Medicine Lodge 345/138 kV	3/1/2011	1/1/2015		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
1614799	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

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

Customer Study Number  
WFEC AG3-2009-031

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
WFEC	73436312	WFEC	SPS	100	5/31/2012	5/31/2042	10/1/2015	10/1/2045	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
73436312	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73436312	DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 1	6/1/2012	6/1/2013	10/1/2012	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73436312	BUCKEYE TAP - CUNNINGHAM STATION 115KV CKT 1	6/1/2013	6/1/2013		
	BUSHLAND - NE HEREFORD 115KV CKT 1	6/1/2019	6/1/2019		
	CARLISLE INTERCHANGE 230/115KV TRANSFORMER CKT 1	6/1/2017	6/1/2017		
	CUNNINGHAM - SAN ANRESS 115KV CKT2	6/1/2013	6/1/2013		
	LUBBOCK POWER & LIGHT-HOLLY PLANT 230/69KV TRANSFORMER CKT 1	6/1/2012	6/1/2016	10/1/2015	
	LUBBOCK POWER & LIGHT-SOUTHEAST 230/69KV TRANSFORMER CKT 1	6/1/2012	6/1/2016	10/1/2015	
	OSAGE - RANDALL 115KV CKT 1	6/1/2017	6/1/2017		
	SWISHER 230/115KV TRANSFORMER CKT 1	6/1/2017	6/1/2017		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73436312	Line - Comanche County - Medicine Lodge 345 kv dbl ckt	3/1/2011	1/1/2015		
	Line - Hitchland - Woodward 345 kv dbl ckt OKGE	3/1/2011	7/1/2014		
	Line - Hitchland - Woodward 345 kv dbl ckt SPS	3/1/2011	7/1/2014		
	Line - Medicine Lodge - Wichita 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		
	Line - Medicine Lodge - Wichita 345 kv dbl ckt WERE	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		
	Line - Spearville - Comanche County 345 kv dbl ckt SUNC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kv dbl ckt MKEC	3/1/2011	1/1/2015		
	Line - Woodward - Comanche County 345 kv dbl ckt OKGE	3/1/2011	1/1/2015		
	XFR - Medicine Lodge 345/138 kv	3/1/2011	1/1/2015		

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Service Date	Redispatch Available
73436312	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - IODINE 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AEPW	DIANA (DIANA 3) 345/138/13.8KV TRANSFORMER CKT 3	Replace auto with new 450 MVA.	6/1/2013	6/1/2013	\$ 5,500,000
MIDW	HAYS PLANT - SOUTH HAYS 115KV CKT 1	Replace Wavetrap	6/1/2012	6/1/2012	\$ 35,000
OKGE	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 1	Install third 345/138 kV Bus Tie in Northwest Sub	6/1/2017	6/1/2017	\$ 15,000,000
WERE	CHAPMAN JUNCTION 115KV	Install three position ring bus	1/1/2012	1/1/2012	\$ 2,530,598
WERE	CLAY CENTER JUNCTION 115KV	Install two transmission line deadends circuit switchers and disconnect switches plus land expansion	1/1/2012	1/1/2012	\$ 1,417,642
WERE	CLAY CENTER JUNCTION 115KV Capacitor	Install 10.8 MVAR capacitor at Clay Center Junction 115 kV	6/1/2017	6/1/2017	\$ 600,000
WERE	CRESWELL - OAK 69KV CKT 1	Replace jumpers and bus, and reset CTs and relaying. Rebuild substations.	6/1/2011	6/1/2013	\$ 1,500,000
WFEC	CANTON - TALOGA 69KV CKT 1	UPGRADE CANTON TO TALOGA TO 1113	6/1/2011	6/1/2013	\$ 3,880,000
WFEC	CARMEN - EAGLE CHIEF 69KV CKT 1	Reset CT ratio	6/1/2017	6/1/2017	\$ 100,000
WFEC	TALOGA (TALOGA) 138/69/13.8KV TRANSFORMER CKT 1	Auto XFMR 56 to 112MVA	3/1/2011	6/1/2013	\$ 1,000,000

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
AEPW	TEXAS EASTMAN - WHITNEY 138KV CKT 1	Rebuild 2.49 miles with 1590 ACSR. Replace wavetrap & jumpers @ Whitney. Replace metering CT @ Texas Eastman	6/1/2013	6/1/2013
MIDW	HEIZER - MULLERGREEN 115 KV CKT 1 MIDW	Install 115 kV bay at Heizer and update relaying equipment	6/1/2011	6/1/2011
MKEC	HEIZER - MULLERGREEN 115 KV CKT 1 MKEC	Construct approximately one mile of 115-kV transmission line from the Great Bend (Mullergreen) generation station to Heizer Substation with 795 ACSR conductor	6/1/2011	6/1/2012
NPPD	PETERSBURG - MADISON 115KV CKT 1	Build new 35 mile 115 kV line from Petersburg to Madison	12/1/2011	6/1/2015
OKGE	ARCADIA (ARCADIA2) 345/138/13.8KV TRANSFORMER CKT 1 Accelerated	Add 3rd 345/138KV Auto and convert the 345kV and 138kV to a breaker and a half configuration.	6/1/2011	6/1/2014
WERE	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 3	Add third 345-138 kV transformer at Rose Hill	6/1/2011	6/15/2013

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
MKEC	Line - Comanche County - Medicine Lodge 345 kV dbl ckt	Build a new 55 mile double circuit 345 kV line	3/1/2011	1/1/2015
MKEC	Line - Medicine Lodge - Wichita 345 kV dbl ckt MKEC	Build a new 35 mile double circuit 345 kV line with at least 3000 A capacity from the new Medicine Lodge 345 kV substation to the WFR interception from the Wichita substation.	3/1/2011	1/1/2015
MKEC	Line - Spearville - Comanche County 345 kV dbl ckt MKEC	Build a new 27.5 mile double circuit 345 kV line	3/1/2011	1/1/2015
MKEC	Line - Woodward - Comanche County 345 kV dbl ckt MKEC	Build a new 5 mile double circuit 345 kV line	3/1/2011	1/1/2015
MKEC	XFR - Medicine Lodge 345/138 kV	Install a 400 MVA 345/138 kV transformer at the new 345 kV Medicine Lodge substation.	3/1/2011	1/1/2015
OKGE	Line - Hitchland - Woodward 345 kV dbl ckt OKGE	Build a new 60.5 mile double circuit 345 kV line	3/1/2011	7/1/2014
OKGE	Line - Woodward - Comanche County 345 kV dbl ckt OKGE	Build a new 50 mile double circuit 345 kV	3/1/2011	1/1/2015
SPS	Line - Hitchland - Woodward 345 kV dbl ckt SPS	Build a new 60.5 mile double circuit 345 kV line	3/1/2011	7/1/2014
SUNC	Line - Spearville - Comanche County 345 kV dbl ckt SUNC	Build a new 27.5 mile double circuit 345 kV line with at least 3000 A capacity from the Spearville substation to the MKEC interception point from the new Comanche County substation.	3/1/2011	1/1/2015
WERE	BELL - PECK 69KV CKT 1	Tear down / Rebuild 8.23 mile Bell-Peck 69 kV line with 1192 ACSR and replace CT	6/1/2011	12/1/2012
WERE	CITY OF WINFIELD - TIMBER JUNCTION 69KV CKT 1	Tear down / Rebuild 11.63-mile Timber Tap-Winfield 69 kV line, 954 ACSR	6/1/2011	6/1/2011
WERE	Line - Medicine Lodge - Wichita 345 kV dbl ckt WERE	Build a new 35 mile double circuit 345 kV line	3/1/2011	1/1/2015
WERE	RICHLAND - UDALL 69KV CKT 1	Tear down / Rebuild 8.48-mile Richland-Udall 69 kV line using 954 kcmil ACSR	6/1/2011	12/1/2011
WERE	TIMBER JUNCTION - UDALL 69KV CKT 1	Tear down / Rebuild Udall-Timber Jct 69 kV using 954 kcmil ACSR	6/1/2011	12/1/2011

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
WERE	BELL - PECK 69KV CKT 1	Tear down / Rebuild 8.23 mile Bell-Peck 69 kV line with 1192 ACSR and replace CT	6/1/2012	12/1/2012
WERE	CITY OF WINFIELD - TIMBER JUNCTION 69KV CKT 1	Tear down / Rebuild 11.63-mile Timber Tap-Winfield 69 kV line, 954 ACSR	6/1/2011	6/1/2011
WERE	RICHLAND - UDALL 69KV CKT 1	Tear down / Rebuild 8.48-mile Richland-Udall 69 kV line using 954 kcmil ACSR	6/1/2011	12/1/2011
WERE	TIMBER JUNCTION - UDALL 69KV CKT 1	Tear down / Rebuild Udall-Timber Jct 69 kV using 954 kcmil ACSR	6/1/2011	12/1/2011

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
KCPL	Line - Iatan - Nashua 345 kV	Tap Nashua 345kV bus in Hawthorn-St. Joseph 345kV line, add Iatan-Nashua 345kV line and Nashua 345/161kv transformer	6/1/2012	6/1/2015
SPS	DEAF SMITH COUNTY INTERCHANGE (GE M101353) 230/115/13.2KV TRANSFORMER CKT 1	Upgrade transformer-230/115 Kv	6/1/2012	6/1/2013
WERE	18TH STREET - WREN 115KV CKT 1	Close line that is normally open	6/1/2013	6/1/2013
WERE	87th Street Interconnection	Add new substation by tapping Stranger-Craig 345kV, add 560MVA three winding transformer, new substation tapping 95th & Waverly-Monticello 115kV, tear down and rebuild existing line as new double circuit.	6/1/2013	6/1/2013
WERE	EAST MANHATTAN - NW MANHATTAN 230/115KV	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 Manhattan	6/1/2011	12/1/2011
WERE	Line - E. Manhattan - JEC 230 kV	Uprate JEC- E. Manhattan 230 kV line to 100 deg C operation by raising structures.	6/1/2012	12/1/2012
WFEC	Multi - Franklin SW - Acme - Norman - OU SW Conversion 138 kV	Convert 5 mile Acme - Franklin from 69 kV to 138 kV.	6/1/2011	10/1/2012



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

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
AEP	Multi - Centerton - Osage Creek 345 kV	Install 9 miles of 345 kV line from Shipe Road to East Rogers, Install 32 miles of 345 kV line from East Rogers to Osage Creek, and install new 345/161 kV transformer at Osage Creek	6/1/2012	6/1/2016
AEP	Multi - Flint Creek - Centerton 345 kV and Centerton- East Centerton 161 kV	Install 345/161 kV transformer at Centerton. Install 22 miles of new 345 kV, 2-954 ACSR line. Install 2 miles of 161 kV from new Centerton Substation to East Centerton Substation.	6/1/2012	6/1/2014
AEPW	DIANA - PERDUE 138KV CKT 1	Rebuild 21.85 miles of 2-397 ACSR with 1590 ACSR. Replace Breakers 9310 & 10080, wavetrap, & five switches @ Perdue. Replace switch 12798 and wavetrap @ Diana.	6/1/2020	6/1/2020
AEPW	EASTON REC - KNOX LEE 138KV CKT 1	Replace 3 2000 A switches at Knox Lee	6/1/2012	6/1/2012
AEPW	EASTON REC - PIRKEY 138KV CKT 1	Replace Switch at Easton, and Breaker and Switch at Pirkey	6/1/2012	6/1/2012
AEPW	PIRKEY - WHITNEY 138KV CKT 1	Reset CT, Replace Breaker and Switch	6/1/2013	6/1/2013
GRDA	GRAY TAP - PENSACOLA 69KV CKT 1	Rebuild line to 795 ACSR	6/1/2013	6/1/2013
GRDA	GRAY TAP - ZENA TAP 69KV CKT 1	Rebuild Line	6/1/2013	6/1/2013
GRDA	JAY - ZENA TAP 69KV CKT 1	Rebuild Line	6/1/2013	6/1/2013
LPL	LUBBOCK POWER & LIGHT-HOLLY PLANT 230/69KV TRANSFORMER CKT 1	interim redispach	6/1/2012	6/1/2016
LPL	LUBBOCK POWER & LIGHT-SOUTHEAST 230/69KV TRANSFORMER CKT 1	interim redispach	6/1/2012	6/1/2016
MIDW	COLBY 2 69,000 (COLBY T3) 69/34.5/13.8KV TRANSFORMER CKT 3	Replace the Colby 69/34.5 kV transformer with a larger unit	6/1/2011	1/1/2013
NPPD	OGALLALA 230/115KV TRANSFORMER CKT 1	Replace 187MVA Ogallala transformer with 336MVA Ogallala transformer	6/1/2017	6/1/2017
OKGE	CLASSEN - SW 5TAP 138KV CKT 1	Replace 800A trap and CT at Classen	6/1/2017	6/1/2017
OMPA	OMHUFFYT - OMPA-PONCA CITY 69KV CKT 1	Breaker CT	6/1/2017	6/1/2017
OMPA	OMKAWS - OMPECANT 69KV CKT 1	Breaker CT	6/1/2017	6/1/2017
OMPA	OMNWESTT - OMPA-PONCA CITY 69KV CKT 1	Breaker CT	6/1/2017	6/1/2017
SPS	BUCKEYE TAP - CUNNINGHAM STATION 115KV CKT 1	Reconductor Buckeye tap to Cunningham 115 kV 8.55 miles with 795 ACSR and replace Line Trap, CT, Jupers and Switch at Cunningham	6/1/2013	6/1/2013
SPS	BUSHLAND - NE HEREFORD 115KV CKT 1	Build 35 miles of 115 kV line from Bushland to NE Hereford 524266-524567 rated 246/270 MVA summer normal/emergency rating	6/1/2019	6/1/2019
SPS	CARLISLE INTERCHANGE 230/115KV TRANSFORMER CKT 1	Upgrade the Carlisle Transformer to 252 MVA	6/1/2017	6/1/2017
SPS	CUNNINGHAM - SAN ANRESS 115KV CKT2	Build redundant 115 kV line from Cunningham to LE-San Andress. IDEV: 16S_Build_Redundant_Line_to_LE-San Andress.idv	6/1/2013	6/1/2013
SPS	OSAGE - RANDALL 115KV CKT 1	Osage station & line reterminations with a new 2 mile 115 kV line from Randall Co	6/1/2017	6/1/2017
SPS	SWISHER 230/115KV TRANSFORMER CKT 1	Upgrade existing Swisher 230/115 kV transformer to 252 MVA	6/1/2017	6/1/2017
SUNC	FLETCHER - HOLCOMB 115KV CKT 1	Rebuild 11.1 miles of the 18.3 mile Fletcher - Holcomb 115 kV line with 954 ACSR Cardinal	3/1/2011	6/1/2013
SWPA	JONESBORO - JONESBORO 161KV CKT 1 SWPA	Replace Jumpers and 1200 Amp Terminal Equipment	6/1/2017	6/1/2017
SWPA	XFR - Paragould 161/69 kV Auto 1 & 2	Replace Paragould auto transformers 1 and 2 with 70 MVA units.	6/1/2011	11/1/2011
WERE	17TH & FAIRLAWN - INDIAN HILLS 115KV CKT 1	Bundled 1192.5 kcmil ACSR Bunting. The line will be limited by terminal equipment. 240 MVA limit.	6/1/2017	6/1/2017
WFEC	East Kingfisher Capacitor 69 kV	Install 18 Mvar capacitor at East Kingfisher bus.	6/1/2013	6/1/2013
WFEC	FAIRVIEW Capacitor 69KV	Install 18 Mvar capacitor at Fairview 69KV bus.	6/1/2017	6/1/2017

**Direct Assigned Network Upgrades - The requested service is contingent upon completion of the following upgrades.**

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
LPL	LUBBOCK POWER & LIGHT-HOLLY PLANT 230/69KV TRANSFORMER CKT 1	Upgrade trasformer	1/1/2012	6/1/2012	\$ 3,000,000
LPL	LUBBOCK POWER & LIGHT-SOUTHEAST 230/69KV TRANSFORMER CKT 1	Upgrade trasformer	1/1/2012	6/1/2012	\$ 3,000,000
SUNC	Cunningham Voltage Regulator	Replace existing voltage regulator with a 18 MVA rated voltage regulator	8/1/2010	6/1/2014	\$ 250,000
SUNC	Pratt 115/34.5kV Transformer	Install new 115/34.5 kV TXF rated at 25/30/37.5 MVA at Pratt 115 kV Substation to address 34.5kV distribution limitations to address 34.5kV distribution limitations	8/1/2010	6/1/2014	\$ 2,000,000
SUNC	Cunningham - Pratt 34.5KV CKT 1	Rebuild and reconductor 15 miles of 34.5-kV Line with T2 Raven (T2 4/0 ACSR) from Pratt to the Cunningham metering station to address 34.5kV distribution limitations	8/1/2010	6/1/2014	\$ 4,164,600

**Network Upgrades requiring credits per Attachment Z2 of the SPP OATT**

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
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	Valliant 345 kV line terminal	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	KCP L 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 - HARPER 138KV CKT 1	Rebuild 24.15 mile line	12/1/2009	6/1/2013
MKEC	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	Rebuild 8.05 mile line	12/1/2009	6/1/2013
MKEC	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	Rebuild 11.8 of 20.9 miles	8/1/2013	6/1/2013
MKEC	MEDICINE LODGE - PRATT 115KV CKT 1	Rebuild 26 mile line	12/1/2009	6/1/2013
MKEC	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 Displacement	Upgrade transformer	12/1/2009	6/1/2013
OKGE	Dewey 138kV Substation Terminal	New Ring Position	5/1/2010	5/1/2010
OKGE	KNOBHILL (KNOBHL4) 138/69/13.2KV TRANSFORMER CKT 1	Replace bus tie with 100MVA transformer	6/1/2006	6/1/2008
OKGE	NORTHWEST - WOODWARD 345KV CKT 1	Build 120 miles of 345 kV	1/1/2010	1/1/2010
OKGE	WOODWARD - IODINE 138KV CKT 1	Tap Iodine to Woodward 138 kV line	1/1/2010	1/1/2010
OKGE	WOODWARD - WOODWARD EHV 138KV CKT 1	Build .5 miles of 138 kV and install terminal equipment	1/1/2010	1/1/2010
OKGE	WOODWARD - WOODWARD EHV 138KV CKT 2	Build .5 miles of 138 kV and install terminal equipment	1/1/2010	1/1/2010
OKGE	Woodward 138kV Substation Terminal	New Ring Position	9/1/2010	9/1/2010
OKGE	WOODWARD 345/138KV TRANSFORMER CKT 1	Install 345/138 kV XF	1/1/2010	1/1/2010
WERE	Elk County 345kV Substation	New Ring Bus	6/30/2011	6/30/2011
WFEC	FT SUPPLY 138/69KV TRANSFORMER CKT 1	Install 2nd 70 MVA auto at Ft Supply	12/1/2006	6/1/2008
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

**Table 5 - Third Party Facility Constraints**

Transmission Owner	UpgradeName	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
EES	TRUMANN - TRUMANN WEST AECC 161KV CKT 1	Upgrade from a capacity of 147MVA to at least 155MVA	6/1/2018	6/1/2018	\$ 4,600,000