



# Aggregate Facility Study SPP-2012-AG2-AFS-6

10/23/2013

SPP Engineering, SPP Transmission Service Studies



---

# Table of Contents

---

<b>Table of Contents .....</b>	<b>1</b>
<b>Executive Summary .....</b>	<b>2</b>
<b>Introduction.....</b>	<b>3</b>
<b>Financial Analysis .....</b>	<b>5</b>
<b>Third-Party Facilities .....</b>	<b>6</b>
<b>Study Methodology .....</b>	<b>7</b>
Description .....	7
Model Development.....	7
Transmission Request Modeling.....	8
Transfer Analysis .....	8
Curtailement and Redispatch Evaluation.....	8
<b>Study Results .....</b>	<b>9</b>
Study Analysis Results .....	9
Example A:.....	11
Example B:.....	11
Example C:.....	11
Study Definitions .....	11
<b>Conclusion .....</b>	<b>13</b>
<b>Appendix A .....</b>	<b>14</b>
BASE CASE SETTINGS: .....	14
ACCC CASE SETTINGS:.....	14

## Executive Summary

---

Pursuant to Attachment Z1 of the Southwest Power Pool, Inc. (SPP) Open Access Transmission Tariff (OATT), 4035 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 \$31.4 million. Additionally, \$225 thousand of assigned E&C cost for third party facility upgrades are assignable to the customer.
- Total upgrade levelized revenue requirements for all transmission requests after consideration of potential base plan funding is \$42.9 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 23, 2013. 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 November 7, 2013, 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.
- All requests for long-term transmission service with a signed study agreement received before June 1, 2012 for 2012-AG2 have been included in this second Aggregate Transmission Service Study (ATSS) of 2012.

Approximately 4035 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.

By taking the transmission service subject to interim redispatch, the Transmission Customer agrees to provide interim redispatch. Once the Transmission Provider identifies the possible redispatch pairs, the Transmission Customer can enter into bilateral agreements to provide redispatch. Should the need to implement redispatch arise in order to maintain Network reliability, it is up to the Transmission Customer to contact parties with whom they have entered into redispatch agreements to implement that service. Such redispatch shall occur in advance of curtailment of other firm reservations impacting these constraints. In the absence of implementation of interim redispatch as requested by the Transmission Provider for Transmission Customer transactions resulting in overloads on limiting facilities, the Transmission Provider shall curtail the Transmission Customers schedule.

---

## 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 AECl, 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 4035 MW over a variety of requested service periods. The following SPP Transmission Expansion Plan 2012 Build 1 Cases were used to study the impact of the requested service on the transmission system:

- 2013/14 Winter Peak (13WP)
- 2014 Summer Peak (14SP)

2014/15 Winter Peak (14WP)  
2018 Summer Peak (18SP)  
2018/19 Winter Peak (18WP)  
2023 Summer Peak (23SP)  
2023/24 Winter Peak (23WP)

The Summer Peak models apply to June through September 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 4035 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 2012 Series Cases. Scenario 5 includes transmission service not already included in the SPP 2012 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.

### **Curtailement 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.

Curtailement of existing confirmed service is evaluated to provide only interim service. Curtailement 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.

The Aggregate Study analyzes the most probable contingencies and does not account for every situation that may be encountered in real-time operation. Because of this, it is possible that the customer may be curtailed under certain system conditions to allow system operators to maintain the reliability of the transmission network.

---

## 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. MW amounts listed for redispatch are maximum values observed in a long term study and may only be available in a reduced amount or unavailable at any given time.

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 23, 2012. 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 November 7, 2012, 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 from 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 redispatch	Deferred Stop Date without interim redispatch	Start Date with interim redispatch	Stop Date with interim redispatch	Minimum Allocated ATC (MW) within reservation period	Season of Minimum Allocated ATC within reservation period
AEPM	AG2-2012-037	76971840	CSWS	CSWS	10	6/1/2016	6/1/2021	6/1/2016	6/1/2021	Note 4	Note 4	0	23SP
AEPM	AG2-2012-038	76971841	CSWS	CSWS	10	6/1/2016	6/1/2021	6/1/2016	6/1/2021	Note 4	Note 4	0	23SP
AEPM	AG2-2012-039	76971857	MPS	CSWS	260	6/1/2016	6/1/2021	6/1/2017	6/1/2022	Note 4	Note 4	0	23SP
AEPM	AG2-2012-040	76971862	EES	CSWS	225	6/1/2016	6/1/2021	6/1/2016	6/1/2021	Note 4	Note 4	0	23SP
CRGL	AG2-2012-001	76591148	ERCOTN	ERCOTN	207	2/1/2014	2/1/2019	3/1/2014 (Note 5)	3/1/2019 (Note 5)	3/1/2014 (Note 5)	3/1/2019 (Note 5)	0	14SP
CRGL	AG2-2012-003	76874343	WR	ERCOTN	207	1/1/2013	1/1/2014	6/1/2018 (Note 5)	6/1/2019 (Note 5)	3/1/2014 (Note 5)	3/1/2015 (Note 5)	0	13SP
CRGL	AG2-2012-006	76874347	WR	ERCOTN	207	1/1/2014	1/1/2015	6/1/2018 (Note 5)	6/1/2019 (Note 5)	3/1/2014 (Note 5)	3/1/2015 (Note 5)	0	14SP
CRGL	AG2-2012-007	76874349	CSWS	ERCOTN	207	1/1/2014	1/1/2015	6/1/2016 (Note 5)	6/1/2017 (Note 5)	3/1/2014 (Note 5)	3/1/2015 (Note 5)	0	14SP
CRGL	AG2-2012-008	76874351	ERCOTN	ERCOTN	207	1/1/2014	1/1/2015	3/1/2014 (Note 5)	3/1/2015 (Note 5)	3/1/2014 (Note 5)	3/1/2015 (Note 5)	0	14SP
CRGL	AG2-2012-009	76874355	WR	ERCOTN	207	1/1/2015	1/1/2016	6/1/2019 (Note 5)	6/1/2020 (Note 5)	3/1/2015 (Note 5)	3/1/2016 (Note 5)	0	18SP
CRGL	AG2-2012-010	76874356	CSWS	ERCOTN	207	1/1/2015	1/1/2016	6/1/2017 (Note 5)	6/1/2018 (Note 5)	3/1/2015 (Note 5)	3/1/2016 (Note 5)	0	18SP
CRGL	AG2-2012-011	76874357	ERCOTN	ERCOTN	207	1/1/2015	1/1/2016	3/1/2015 (Note 5)	3/1/2016 (Note 5)	3/1/2015 (Note 5)	3/1/2016 (Note 5)	0	18SP
CRGL	AG2-2012-012	76874362	WR	ERCOTN	207	1/1/2016	1/1/2017	6/1/2020 (Note 5)	6/1/2021 (Note 5)	3/1/2016 (Note 5)	3/1/2017 (Note 5)	0	23SP
CRGL	AG2-2012-013	76874364	CSWS	ERCOTN	207	1/1/2016	1/1/2017	6/1/2018 (Note 5)	6/1/2019 (Note 5)	3/1/2016 (Note 5)	3/1/2017 (Note 5)	0	23SP
CRGL	AG2-2012-014	76874366	ERCOTN	ERCOTN	207	1/1/2016	1/1/2017	3/1/2016 (Note 5)	3/1/2017 (Note 5)	3/1/2016 (Note 5)	3/1/2017 (Note 5)	0	23SP
CRGL	AG2-2012-024	76970366	OKGE	EES	100	12/1/2013	12/1/2018	6/1/2018	6/1/2023	3/1/2014	3/1/2019	0	14SP
CRGL	AG2-2012-025	76970369	OKGE	EES	100	12/1/2013	12/1/2018	6/1/2016	6/1/2021	3/1/2014	3/1/2019	0	14SP
CRGL	AG2-2012-026	76970371	OKGE	EES	35	12/1/2013	12/1/2018	6/1/2016	6/1/2021	3/1/2014	3/1/2019	0	14SP
CRGL	AG2-2012-027	76970372	OKGE	EES	15	12/1/2013	12/1/2018	3/1/2014	3/1/2019	3/1/2014	3/1/2019	0	14SP
CRGL	AG2-2012-028	76970376	WPEK	EES	200	1/1/2015	1/1/2025	6/1/2018	6/1/2028	1/1/2015	1/1/2025	0	18SP
CRGL	AG2-2012-029	76970381	WPEK	EES	200	1/1/2015	1/1/2025	6/1/2018	6/1/2028	1/1/2015	1/1/2025	0	18SP
CRGL	AG2-2012-030	76970390	WPEK	EES	100	1/1/2015	1/1/2025	6/1/2018	6/1/2028	1/1/2015	1/1/2025	0	18SP
GRDX	AG2-2012-002	76771987	OKGE	GRDA	48	12/1/2012	2/1/2033	6/1/2019	8/1/2039	3/1/2014	5/1/2034	0	13SP
GSEC	AG2-2012-020	76945034	SPS	SPS	15	1/1/2015	12/31/2039	6/1/2019	5/1/2044	1/1/2015	12/1/2039	0	18SP
GSEC	AG2-2012-021	76945060	SPS	SPS	15	1/1/2015	12/31/2039	6/1/2019	5/1/2044	1/1/2015	12/1/2039	0	18SP
HZN	AG2-2012-018	76941507	WR	EES	85	1/1/2015	1/1/2020	6/1/2015	6/1/2020	Note 4	Note 4	0	18SP
KCPS	AG2-2012-033	76971296	KCPL	MPS	170	6/1/2014	6/1/2015	6/1/2018	6/1/2019	6/1/2014	6/1/2015	0	14SP
KEPC	AG2-2012-031	76970941	NPPD	WR	12	12/1/2012	10/1/2024	6/1/2018	4/1/2030	3/1/2014	1/1/2026	0	13SP
KEPC	AG2-2012-032	76970993	NPPD	SECI	2	12/1/2012	10/1/2024	6/1/2017	4/1/2029	3/1/2014	1/1/2026	0	13SP
PSCM	AG2-2012-022	76955870	SPS	LAM345	101	3/1/2013	3/1/2018	3/1/2014	3/1/2019	3/1/2014	3/1/2019	0	13SP
SECI	AG2-2012-015	76902942	SECI	SECI	55	1/1/2014	1/1/2044	1/1/2018	1/1/2048	3/1/2014	3/1/2044	0	14SP
					4035								

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

Customer	Study Number	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date without interim redispatch	Deferred Stop Date without interim redispatch	Start Date with interim redispatch	Stop Date with interim redispatch	Minimum Allocated ATC (MW) within reservation period	Season of Minimum Allocated ATC within reservation period
<p><b>Note 1:</b> Start and Stop Dates with interim redispatch are determined based on customers choosing option to pursue redispatch to start service at Requested Start and Stop Dates or earliest date possible.</p> <p>previous studies.</p> <p><b>Note 3:</b> Request is unable to be deferred due to fixed stop dates.</p> <p><b>Note 4:</b> Transmission customer did not select "remain in the study using interim redispatch" option.</p> <p><b>Note 5:</b> Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.</p>													

**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>3,5</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	AG2-2012-037	76971840	\$ 1,005,259	\$ 1,005,259	\$ -		\$ -	\$ 1,365,768	\$ -	\$ 1,365,768
AEPM	AG2-2012-038	76971841	\$ 4,430,079	\$ 4,430,079	\$ -		\$ -	\$ 6,694,685	\$ -	\$ 6,694,685
AEPM	AG2-2012-039	76971857	\$ 785,587	\$ 785,587	\$ -		\$ 225,000	\$ 1,321,052	\$ -	\$ 1,321,052
AEPM	AG2-2012-040	76971862	\$ 22,530,052	\$ 22,530,050	\$ -		\$ -	\$ 30,609,850	\$ -	\$ 30,609,850
CRGL	AG2-2012-001	76591148	\$ -	\$ -	\$ -	6,10	\$ -	\$ -	\$ 23,556,766	\$ 23,556,770
CRGL	AG2-2012-003	76874343	\$ -	\$ -	\$ -		\$ -	\$ -	\$ 4,711,353	\$ 4,711,353
CRGL	AG2-2012-006	76874347	\$ -	\$ -	\$ -	7,10	\$ -	\$ -	\$ 4,711,353	\$ 4,711,353
CRGL	AG2-2012-007	76874349	\$ -	\$ -	\$ -	7,10	\$ -	\$ -	\$ 4,711,353	\$ 4,711,353
CRGL	AG2-2012-008	76874351	\$ -	\$ -	\$ -	7,10	\$ -	\$ -	\$ 4,711,353	\$ 4,711,353
CRGL	AG2-2012-009	76874355	\$ -	\$ -	\$ -	8,10	\$ -	\$ -	\$ 4,711,353	\$ 4,711,353
CRGL	AG2-2012-010	76874356	\$ -	\$ -	\$ -	8,10	\$ -	\$ -	\$ 4,711,353	\$ 4,711,353
CRGL	AG2-2012-011	76874357	\$ -	\$ -	\$ -	8,10	\$ -	\$ -	\$ 4,711,353	\$ 4,711,353
CRGL	AG2-2012-012	76874362	\$ -	\$ -	\$ -	9,10	\$ -	\$ -	\$ 4,711,353	\$ 4,711,353
CRGL	AG2-2012-013	76874364	\$ -	\$ -	\$ -	9,10	\$ -	\$ -	\$ 4,711,353	\$ 4,711,353
CRGL	AG2-2012-014	76874366	\$ -	\$ -	\$ -	9,10	\$ -	\$ -	\$ 4,711,353	\$ 4,711,353
CRGL	AG2-2012-024	76970366	\$ -	\$ -	\$ -		\$ -	\$ -	\$ 7,680,000	\$ 7,680,000
CRGL	AG2-2012-025	76970369	\$ 133,333	\$ 133,333	\$ -		\$ -	\$ 202,003	\$ 7,680,000	\$ 7,680,000
CRGL	AG2-2012-026	76970371	\$ 46,667	\$ 46,667	\$ -		\$ -	\$ 70,702	\$ 2,688,000	\$ 2,688,000
CRGL	AG2-2012-027	76970372	\$ 20,000	\$ 20,000	\$ -		\$ -	\$ 30,301	\$ 1,152,000	\$ 1,152,000
CRGL	AG2-2012-028	76970376	\$ -	\$ -	\$ -		\$ -	\$ -	\$ 30,720,000	\$ 30,720,000
CRGL	AG2-2012-029	76970381	\$ -	\$ -	\$ -		\$ -	\$ -	\$ 30,720,000	\$ 30,720,000
CRGL	AG2-2012-030	76970390	\$ -	\$ -	\$ -		\$ -	\$ -	\$ 15,360,000	\$ 15,360,000
GRDX	AG2-2012-002	76771987	\$ 2,440,063	\$ 805,221	\$ 1,634,842		\$ -	\$ 2,630,860	\$ -	\$ 2,630,860
GSEC	AG2-2012-020	76945034	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
GSEC	AG2-2012-021	76945060	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
HZN	AG2-2012-018	76941507	\$ 18,740	\$ 18,740	\$ -		\$ -	\$ 27,063	\$ 6,528,000	\$ 6,528,000
KCPS	AG2-2012-033	76971296	\$ 18,519	\$ -	\$ 18,519		\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KEPC	AG2-2012-031	76970941	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KEPC	AG2-2012-032	76970993	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
PSCM	AG2-2012-022	76955870	\$ -	\$ -	\$ -		\$ -	\$ -	\$ 11,235,240	\$ 11,235,240
SECI	AG2-2012-015	76902942	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
<b>Grand Total</b>			<b>\$31,428,299</b>		<b>\$1,653,361</b>			<b>\$42,952,284</b>		

**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>3,5</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
<p><b>Note 1:</b> 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 &amp; 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.</p>										
<p><b>Note 2:</b> 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.</p>										
<p><b>Note 3:</b> 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.</p>										
<p><b>Note 4:</b> 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 &amp; 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.</p>										
<p><b>Note 5:</b> 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.</p>										
<p><b>Note 6:</b> Mutually exclusive requests: 76591148, 76874347, 76874349, 76874351, 76874355, 76874356, 76874357, 76874362, 76874364, and 76874366. System impacts were identified by only modeling mutually exclusive request 76874347, 76874355, and 76874362.</p>										
<p><b>Note 7:</b> Mutually exclusive requests: 76591148, 76874347, 76874349, and 76874351. System impacts were identified by only modeling mutually exclusive request 76874347.</p>										
<p><b>Note 8:</b> Mutually exclusive requests: 76591148, 76874355, 76874356, and 76874357. System impacts were identified by only modeling mutually exclusive request 76874355.</p>										
<p><b>Note 9:</b> Mutually exclusive requests: 76591148, 76874362, 76874364, and 76874366. System impacts were identified by only modeling mutually exclusive request 76874362.</p>										
<p><b>Note 10:</b> ATSS cost allocation includes all customers' mutually exclusive requests in SPP-2012-AG2.</p>										

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

Customer Study Number  
 AEPM AG2-2012-037

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
AEPM	76971840	CSWS	CSWS	10	6/1/2016	6/1/2021			\$ -	\$ -	\$ 1,005,259	\$ 1,365,768
									\$ -	\$ -	\$ 1,005,259	\$ 1,365,768

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76971840	52ND & DELAWARE WEST TAP - RIVERSIDE STATION 138KV CKT 1	6/1/2019	6/1/2019			\$ 1,005,259	\$ 24,992,196	\$ 1,365,768
	Total					\$ 1,005,259	\$ 24,992,196	\$ 1,365,768

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 Start Date	Redispatch Available
76971840	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	6/1/2019	6/1/2019		

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 Start Date	Redispatch Available
76971840	412SUB - KANSAS TAP 161KV CKT 1	6/1/2019	6/1/2019		
	HUGHES SPRINGS - JENKINS REC T 69KV CKT 1	6/1/2019	6/1/2019		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1	6/1/2019	6/1/2019		

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 Start Date	Redispatch Available
76971840	HANCOCK - MUSKOGEE 161KV CKT 1 Accelerate	6/1/2015	6/1/2016		
	MUSKOGEE - MUSKOGEE PORT 161KV CKT 1 Accelerate	6/1/2015	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76971840	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 345KV CKT 1 WFEC	7/1/2012	7/1/2012		

\*Credits may be required for applicable generation interconnection network upgrades.

\*The 52ND & DELAWARE WEST TAP - RIVERSIDE STATION 138KV CKT 1 Service Upgrade is subject to evaluation of proposed alternative with an anticipated E & C cost of \$13.5 million.

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

Customer Study Number  
 AEPM AG2-2012-038

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
AEPM	76971841	CSWS	CSWS	10	6/1/2016	6/1/2021			\$ -	\$ -	\$ 4,430,079	\$ 6,694,685
									\$ -	\$ -	\$ 4,430,079	\$ 6,694,685

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76971841	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	6/1/2019	6/1/2019			\$ 609,194	\$ 3,049,257	\$ 1,439,443
	52ND & DELAWARE WEST TAP - RIVERSIDE STATION 138KV CKT 1	6/1/2019	6/1/2019			\$ 1,456,885	\$ 24,992,196	\$ 1,979,358
	SOUTH HUDSON - TULSA SOUTHEAST 138KV CKT 1	6/1/2019	6/1/2019			\$ 2,364,000	\$ 2,364,000	\$ 3,275,885
	<b>Total</b>					\$ 4,430,079	\$ 30,405,453	\$ 6,694,685

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 Start Date	Redispatch Available
76971841	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	6/1/2019	6/1/2019		

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 Start Date	Redispatch Available
76971841	412SUB - KANSAS TAP 161KV CKT 1	6/1/2019	6/1/2019		
	HUGHES SPRINGS - JENKINS REC T 69KV CKT 1	6/1/2019	6/1/2019		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1	6/1/2019	6/1/2019		

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 Start Date	Redispatch Available
76971841	HANCOCK - MUSKOGEE 161KV CKT 1 Accelerate	6/1/2015	6/1/2016		
	MUSKOGEE - MUSKOGEE PORT 161KV CKT 1 Accelerate	6/1/2015	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76971841	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 345KV CKT 1 WFEC	7/1/2012	7/1/2012		

\*Credits may be required for applicable generation interconnection network upgrades.

\*The 52ND & DELAWARE WEST TAP - RIVERSIDE STATION 138KV CKT 1 Service Upgrade is subject to evaluation of proposed alternative with an anticipated E & C cost of \$13.5 million.

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

Customer Study Number  
 AEPM AG2-2012-039

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
AEPM	76971857	MPS	CSWS	260	6/1/2016	6/1/2021	6/1/2017	6/1/2022	\$ -	\$ -	\$ 785,587	\$ 1,321,052
									\$ -	\$ -	\$ 785,587	\$ 1,321,052

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76971857	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #2 Accelerate	6/1/2015	6/1/2017			\$ 144,929	\$ 150,654	\$ 235,801
	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #2 Accelerate	6/1/2014	6/1/2016			\$ 329,478	\$ 361,012	\$ 578,957
	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2 Accelerate	6/1/2015	6/1/2017			\$ 311,180	\$ 311,180	\$ 506,294
Total						\$ 785,587	\$ 822,846	\$ 1,321,052

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 Start Date	Redispatch Available
76971857	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	6/1/2019	6/1/2019		

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 Start Date	Redispatch Available
76971857	412SUB - KANSAS TAP 161KV CKT 1	6/1/2019	6/1/2019		
	HUGHES SPRINGS - JENKINS REC T 69KV CKT 1	6/1/2019	6/1/2019		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1	6/1/2019	6/1/2019		

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 Start Date	Redispatch Available
76971857	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #1 Accelerate	6/1/2015	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 Start Date	Redispatch Available
76971857	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
76971857	MORGAN - STOCKTON 161KV CKT 1	6/1/2019	6/1/2019			\$ 155,000	\$ 155,000
	NORTH WARSAW - TRUMAN 161KV CKT 1 SWPA #1	6/1/2015	6/1/2015			\$ 70,000	\$ 70,000
Total						\$ 225,000	\$ 225,000

\*Estimated cost allocation as a percentage of total cost is shown for third-party limitations when costs have not yet been established by the third-party.

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
 AEPM AG2-2012-040

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
AEPM	76971862	EES	CSWS	225	6/1/2016	6/1/2021			\$ -	\$ -	\$ 22,530,052	\$ 30,609,848
									\$ -	\$ -	\$ 22,530,052	\$ 30,609,848

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76971862	52ND & DELAWARE WEST TAP - RIVERSIDE STATION 138KV CKT 1	6/1/2019	6/1/2019			\$ 22,530,052	\$ 24,992,196	\$ 30,609,848
	<b>Total</b>					\$ 22,530,052	\$ 24,992,196	\$ 30,609,848

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 Start Date	Redispatch Available
76971862	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	6/1/2019	6/1/2019		

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 Start Date	Redispatch Available
76971862	412SUB - KANSAS TAP 161KV CKT 1	6/1/2019	6/1/2019		
	HUGHES SPRINGS - JENKINS REC T 69KV CKT 1	6/1/2019	6/1/2019		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1	6/1/2019	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76971862	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 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	MCNAB REC - TURK 115KV CKT 1	7/1/2012	7/1/2012		

\*Credits may be required for applicable generation interconnection network upgrades.

\*The 52ND & DELAWARE WEST TAP - RIVERSIDE STATION 138KV CKT 1 Service Upgrade is subject to evaluation of proposed alternative with an anticipated E & C cost of \$13.5 million.

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

Customer Study Number  
 CRGL AG2-2012-001

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
CRGL	76591148	ERCOTN	ERCOTN	207	2/1/2014	2/1/2019	3/1/2014	3/1/2019	\$ -	\$ 23,556,766	\$ -	\$ -
									\$ -	\$ 23,556,766	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76591148	None					\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
CRGL AG2-2012-003

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
CRGL	76874343	WR	ERCOTN	207	1/1/2013	1/1/2014	6/1/2018	6/1/2019	\$ -	\$ 4,711,353	\$ -	\$ -
									\$ -	\$ 4,711,353	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76874343	None					\$ -	\$ -	\$ -
<b>Total</b>						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76874343	IATAN - NASHUA 345KV CKT 1	3/1/2014	6/1/2015		Yes
	Line - Clark County - Thistle 345 kV dbI Ckt	3/1/2014	1/1/2015		Yes
	Line - Hitchland - Woodward 345 kV dbI Ckt OKGE	3/1/2014	7/1/2014		Yes
	Line - Hitchland - Woodward 345 kV dbI Ckt SPS	3/1/2014	7/1/2014		Yes
	Line - Spearville - Clark County 345 kV dbI Ckt	3/1/2014	1/1/2015		Yes
	Line - Thistle - Wichita 345 kV dbI Ckt PW	3/1/2014	1/1/2015		Yes
	Line - Thistle - Wichita 345 kV dbI Ckt WERE	3/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbI Ckt OKGE	3/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbI Ckt PW	3/1/2014	1/1/2015		Yes
	Line - Tuco - Woodward 345 kV line OKGE	3/1/2014	6/1/2014		Yes
	Line - Tuco - Woodward 345 kV line SPS	3/1/2014	6/1/2014		Yes
	XFR - Thistle 345/138 kV	3/1/2014	1/1/2015		Yes

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 Start Date	Redispatch Available
76874343	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	3/1/2014	6/1/2016		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 Start Date	Redispatch Available
76874343	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		Yes

Planned Projects

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76874343	GOODYEAR JUNCTION - MCVICAR3 115kV	6/1/2014	6/1/2014		
	MCVICAR3 - 17TH & FAIRLAWN 115kV	6/1/2014	12/1/2014		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 Start Date	Redispatch Available
76874343	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

\*The North DC Tie is derated to 210mw indefinitely.

\*The NORTH DC tie is scheduled for an outage beginning 12/1/2013 until 3/31/2014 to refurbish the facility.

\*198 MW of available ERCOT North to South capacity without consideration of prior queued STUDY requests in active Aggregate Transmission Service Studies.

\*Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.

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

Customer Study Number  
CRGL AG2-2012-006

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	76874347	WR	ERCOTN	207	1/1/2014	1/1/2015	6/1/2018	6/1/2019	\$ -	\$ 4,711,353	\$ -	\$ -
									\$ -	\$ 4,711,353	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76874347	None					\$ -	\$ -	\$ -
<b>Total</b>						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76874347	IATAN - NASHUA 345KV CKT 1	3/1/2014	6/1/2015		Yes
	Line - Clark County - Thistle 345 kV dbI Ckt	3/1/2014	1/1/2015		Yes
	Line - Hitchland - Woodward 345 kV dbI Ckt OKGE	3/1/2014	7/1/2014		Yes
	Line - Hitchland - Woodward 345 kV dbI Ckt SPS	3/1/2014	7/1/2014		Yes
	Line - Spearville - Clark County 345 kV dbI Ckt	3/1/2014	1/1/2015		Yes
	Line - Thistle - Wichita 345 kV dbI Ckt PW	3/1/2014	1/1/2015		Yes
	Line - Thistle - Wichita 345 kV dbI Ckt WERE	3/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbI Ckt OKGE	3/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbI Ckt PW	3/1/2014	1/1/2015		Yes
	Line - Tuco - Woodward 345 kV line OKGE	3/1/2014	6/1/2014		Yes
	Line - Tuco - Woodward 345 kV line SPS	3/1/2014	6/1/2014		Yes
	XFR - Thistle 345/138 kV	3/1/2014	1/1/2015		Yes

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 Start Date	Redispatch Available
76874347	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	3/1/2014	6/1/2016		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 Start Date	Redispatch Available
76874347	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		Yes

Planned Projects

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76874347	GOODYEAR JUNCTION - MCVICAR3 115kV	6/1/2014	6/1/2014		
	MCVICAR3 - 17TH & FAIRLAWN 115kV	6/1/2014	12/1/2014		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 Start Date	Redispatch Available
76874347	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

\*The North DC Tie is derated to 210mw indefinitely.

\*The NORTH DC tie is scheduled for an outage beginning 12/1/2013 until 3/31/2014 to refurbish the facility.

\*198 MW of available ERCOT North to South capacity without consideration of prior queued STUDY requests in active Aggregate Transmission Service Studies.

\*Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.

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

Customer Study Number  
CRGL AG2-2012-007

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	76874349	CSWS	ERCOTN	207	1/1/2014	1/1/2015	6/1/2016	6/1/2017	\$ -	\$ 4,711,353	\$ -	\$ -
									\$ -	\$ 4,711,353	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76874349	None					\$ -	\$ -	\$ -
<b>Total</b>						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76874349	Line - Clark County - Thistle 345 kV dbI Ckt	3/1/2014	1/1/2015		Yes
	Line - Hitchland - Woodward 345 kV dbI Ckt OKGE	3/1/2014	7/1/2014		Yes
	Line - Hitchland - Woodward 345 kV dbI Ckt SPS	3/1/2014	7/1/2014		Yes
	Line - Spearville - Clark County 345 kV dbI Ckt	3/1/2014	1/1/2015		Yes
	Line - Thistle - Wichita 345 kV dbI Ckt PW	3/1/2014	1/1/2015		Yes
	Line - Thistle - Wichita 345 kV dbI Ckt WERE	3/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbI Ckt OKGE	3/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbI Ckt PW	3/1/2014	1/1/2015		Yes
	Line - Tuco - Woodward 345 kV line OKGE	3/1/2014	6/1/2014		Yes
	Line - Tuco - Woodward 345 kV line SPS	3/1/2014	6/1/2014		Yes
	XFR - Thistle 345/138 kV	3/1/2014	1/1/2015		Yes

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 Start Date	Redispatch Available
76874349	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	3/1/2014	6/1/2016		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 Start Date	Redispatch Available
76874349	GRACMNT4 138.00 - WASHITA 138KV CKT 2 OKGE	1/1/2012	1/1/2012		
	GRACMNT4 138.00 - WASHITA 138KV CKT 2 WFEC	1/1/2012	1/1/2012		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

\*The North DC Tie is derated to 210mw indefinitely.

\*The NORTH DC tie is scheduled for an outage beginning 12/1/2013 until 3/31/2014 to refurbish the facility.

\*198 MW of available ERCOT North to South capacity without consideration of prior queued STUDY requests in active Aggregate Transmission Service Studies.

\*Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.

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

**Customer**      **Study Number**  
 CRGL              AG2-2012-008

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	76874351	ERCOTN	ERCOTN	207	1/1/2014	1/1/2015	3/1/2014	3/1/2015	\$ -	\$ 4,711,353	\$ -	\$ -
									\$ -	\$ 4,711,353	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76874351	None					\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

- \*Credits may be required for applicable generation interconnection network upgrades.
- \*The North DC Tie is derated to 210mw indefinitely.
- \*The NORTH DC tie is scheduled for an outage beginning 12/1/2013 until 3/31/2014 to refurbish the facility.
- \*198 MW of available ERCOT North to South capacity without consideration of prior queued STUDY requests in active Aggregate Transmission Service Studies.
- \*Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.

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

Customer Study Number  
CRGL AG2-2012-009

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	76874355	WR	ERCOTN	207	1/1/2015	1/1/2016	6/1/2019	6/1/2020	\$ -	\$ 4,711,353	\$ -	\$ -
									\$ -	\$ 4,711,353	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76874355	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 Start Date	Redispatch Available
76874355	IATAN - NASHUA 345KV CKT 1	3/1/2014	6/1/2015		Yes

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 Start Date	Redispatch Available
76874355	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	3/1/2014	6/1/2016		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 Start Date	Redispatch Available
76874355	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		Yes

Planned Projects

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76874355	GOODYEAR JUNCTION - MCVICAR3 115kV	6/1/2014	6/1/2014		
	MCVICAR3 - 17TH & FAIRLAWN 115kV	6/1/2014	12/1/2014		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76874355	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

\*The North DC Tie is derated to 210mw indefinitely.

\*The NORTH DC tie is scheduled for an outage beginning 12/1/2013 until 3/31/2014 to refurbish the facility.

\*198 MW of available ERCOT North to South capacity without consideration of prior queued STUDY requests in active Aggregate Transmission Service Studies.

\*Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.

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

Customer Study Number  
CRGL AG2-2012-010

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	76874356	CSWS	ERCOTN	207	1/1/2015	1/1/2016	6/1/2017	6/1/2018	\$ -	\$ 4,711,353	\$ -	\$ -
									\$ -	\$ 4,711,353	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76874356	None					\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76874356	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	3/1/2014	6/1/2016		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 Start Date	Redispatch Available
76874356	GRACMNT4 138.00 - WASHITA 138KV CKT 2 OKGE	1/1/2012	1/1/2012		
	GRACMNT4 138.00 - WASHITA 138KV CKT 2 WFEC	1/1/2012	1/1/2012		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

\*The North DC Tie is derated to 210mw indefinitely.

\*The NORTH DC tie is scheduled for an outage beginning 12/1/2013 until 3/31/2014 to refurbish the facility.

\*198 MW of available ERCOT North to South capacity without consideration of prior queued STUDY requests in active Aggregate Transmission Service Studies.

\*Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.

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

Customer Study Number  
 CRGL AG2-2012-011

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	76874357	ERCOTN	ERCOTN	207	1/1/2015	1/1/2016	3/1/2015	3/1/2016	\$ -	\$ 4,711,353	\$ -	\$ -
									\$ -	\$ 4,711,353	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76874357	None					\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

- \*Credits may be required for applicable generation interconnection network upgrades.
- \*The North DC Tie is derated to 210mw indefinitely.
- \*The NORTH DC tie is scheduled for an outage beginning 12/1/2013 until 3/31/2014 to refurbish the facility.
- \*198 MW of available ERCOT North to South capacity without consideration of prior queued STUDY requests in active Aggregate Transmission Service Studies.
- \*Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.

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

Customer Study Number  
CRGL AG2-2012-012

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	76874362	WR	ERCOTN	207	1/1/2016	1/1/2017	6/1/2020	6/1/2021	\$ -	\$ 4,711,353	\$ -	\$ -
									\$ -	\$ 4,711,353	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76874362	None					\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76874362	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	3/1/2014	6/1/2016		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 Start Date	Redispatch Available
76874362	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76874362	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

\*The North DC Tie is derated to 210mw indefinitely.

\*The NORTH DC tie is scheduled for an outage beginning 12/1/2013 until 3/31/2014 to refurbish the facility.

\*198 MW of available ERCOT North to South capacity without consideration of prior queued STUDY requests in active Aggregate Transmission Service Studies.

\*Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.

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

Customer Study Number  
CRGL AG2-2012-013

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
CRGL	76874364	CSWS	ERCOTN	207	1/1/2016	1/1/2017	6/1/2018	6/1/2019	\$ -	\$ 4,711,353	\$ -	\$ -
									\$ -	\$ 4,711,353	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76874364	None					\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76874364	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	3/1/2014	6/1/2016		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 Start Date	Redispatch Available
76874364	GRACMNT4 138.00 - WASHITA 138KV CKT 2 OKGE	1/1/2012	1/1/2012		
	GRACMNT4 138.00 - WASHITA 138KV CKT 2 WFEC	1/1/2012	1/1/2012		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

\*The North DC Tie is derated to 210mw indefinitely.

\*The NORTH DC tie is scheduled for an outage beginning 12/1/2013 until 3/31/2014 to refurbish the facility.

\*198 MW of available ERCOT North to South capacity without consideration of prior queued STUDY requests in active Aggregate Transmission Service Studies.

\*Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.

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

Customer Study Number  
 CRGL AG2-2012-014

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
CRGL	76874366	ERCOTN	ERCOTN	207	1/1/2016	1/1/2017	3/1/2016	3/1/2017	\$ -	\$ 4,711,353	\$ -	\$ -
									\$ -	\$ 4,711,353	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76874366	None					\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

- \*Credits may be required for applicable generation interconnection network upgrades.
- \*The North DC Tie is derated to 210mw indefinitely.
- \*The NORTH DC tie is scheduled for an outage beginning 12/1/2013 until 3/31/2014 to refurbish the facility.
- \*198 MW of available ERCOT North to South capacity without consideration of prior queued STUDY requests in active Aggregate Transmission Service Studies.
- \*Available capacity will be allocated on a first come first served basis in accordance with Attachment Z1 III.b. of SPP OATT.

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

Customer Study Number  
CRGL AG2-2012-024

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
CRGL	76970366	OKGE	EES	100	12/1/2013	12/1/2018	6/1/2018	6/1/2023	\$ -	\$ 7,680,000	\$ -	\$ -
									\$ -	\$ 7,680,000	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76970366	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 Start Date	Redispatch Available
76970366	IATAN - NASHUA 345KV CKT 1	3/1/2014	6/1/2015		Yes

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 Start Date	Redispatch Available
76970366	Cherry Co - Gentleman 345 kV Ckt1	3/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	3/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	3/1/2014	1/1/2018		
	Multi - Centerton - Osage Creek 345 kV	6/1/2014	6/1/2016		Yes
	Multi - Flint Creek - Centerton 345 kV and Centerton- East Centerton 161 kV	6/1/2014	6/1/2014		

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 Start Date	Redispatch Available
76970366	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		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 Start Date	Redispatch Available
76970366	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
76970366	BUFORD 5 161.00 - BULL SHOALS 161KV CKT 1	6/1/2019	6/1/2019			\$ -	\$ -
						\$ -	\$ -
						\$ -	\$ -

\*Estimated cost allocation as a percentage of total cost is shown for third-party limitations when costs have not yet been established by the third-party.

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
CRGL AG2-2012-025

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
CRGL	76970369	OKGE	EES	100	12/1/2013	12/1/2018	6/1/2016	6/1/2021	\$ -	\$ 7,680,000	\$ 133,333	\$ 202,003
									\$ -	\$ 7,680,000	\$ 133,333	\$ 202,003

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76970369	RATLIFF - WILDHORSE 69KV CKT 1	6/1/2014	6/1/2016		Yes	\$ 133,333	\$ 200,000	\$ 202,003
					Total	\$ 133,333	\$ 200,000	\$ 202,003

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 Start Date	Redispatch Available
76970369	Cherry Co - Gentleman 345 kV Ckt1	3/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	3/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	3/1/2014	1/1/2018		
	Multi - Centerton - Osage Creek 345 kV	6/1/2014	6/1/2016		Yes
	Multi - Flint Creek - Centerton 345 kV and Centerton - East Centerton 161 kV	6/1/2014	6/1/2014		

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 Start Date	Redispatch Available
76970369	HANCOCK - MUSKOGEE 161KV CKT 1 Accelerate	6/1/2015	6/1/2016		Yes
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76970369	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
CRGL AG2-2012-026

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
CRGL	76970371	OKGE	EES	35	12/1/2013	12/1/2018	6/1/2016	6/1/2021	\$ -	\$ 2,688,000	\$ 46,667	\$ 70,702
									\$ -	\$ 2,688,000	\$ 46,667	\$ 70,702

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76970371	RATLIFF - WILDHORSE 69KV CKT 1	6/1/2014	6/1/2016		Yes	\$ 46,667	\$ 200,000	\$ 70,702
					Total	\$ 46,667	\$ 200,000	\$ 70,702

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 Start Date	Redispatch Available
76970371	Cherry Co - Gentleman 345 kV Ckt1	3/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	3/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	3/1/2014	1/1/2018		
	Multi - Centerton - Osage Creek 345 kV	6/1/2014	6/1/2016		
	Multi - Flint Creek - Centerton 345 kV and Centerton- East Centerton 161 kV	6/1/2014	6/1/2014		

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 Start Date	Redispatch Available
76970371	HANCOCK - MUSKOGEE 161KV CKT 1 Accelerate	6/1/2015	6/1/2016		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76970371	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
CRGL AG2-2012-027

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
CRGL	76970372	OKGE	EES	15	12/1/2013	12/1/2018	3/1/2014	3/1/2019	\$ -	\$ 1,152,000	\$ 20,000	\$ 30,301
									\$ -	\$ 1,152,000	\$ 20,000	\$ 30,301

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76970372	RATLIFF - WILDHORSE 69KV CKT 1	6/1/2014	6/1/2016			\$ 20,000	\$ 200,000	\$ 30,301
	Total					\$ 20,000	\$ 200,000	\$ 30,301

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 Start Date	Redispatch Available
76970372	Cherry Co - Gentleman 345 kV Ckt1	3/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	3/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	3/1/2014	1/1/2018		
	Multi - Centerton - Osage Creek 345 kV	6/1/2014	6/1/2016		
	Multi - Flint Creek - Centerton 345 kV and Centerton - East Centerton 161 kV	6/1/2014	6/1/2014		

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 Start Date	Redispatch Available
76970372	HANCOCK - MUSKOGEE 161KV CKT 1 Accelerate	6/1/2015	6/1/2016		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76970372	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
CRGL AG2-2012-028

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	76970376	WPEK	EES	200	1/1/2015	1/1/2025	6/1/2018	6/1/2028	\$ -	\$ 30,720,000	\$ -	\$ -
									\$ -	\$ 30,720,000	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76970376	None					\$ -	\$ -	\$ -
<b>Total</b>						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76970376	IATAN - NASHUA 345KV CKT 1	3/1/2014	6/1/2015		Yes

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 Start Date	Redispatch Available
76970376	Cherry Co - Gentleman 345 kV Ckt1	3/1/2014	1/1/2018		Yes
	Cherry Co - Holt Co 345 kV Ckt1	3/1/2014	1/1/2018		Yes
	Cherry Co 345 kV Terminal Upgrades	3/1/2014	1/1/2018		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 Start Date	Redispatch Available
76970376	Evans Energy Center North - Maize 138kV ckt 1 #1	6/1/2019	6/1/2019		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		Yes

Planned Projects

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76970376	GOODYEAR JUNCTION - MCVICAR3 115kV	6/1/2014	6/1/2014		
	MCVICAR3 - 17TH & FAIRLAWN 115kV	6/1/2014	12/1/2014		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76970376	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
CRGL AG2-2012-029

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	76970381	WPEK	EES	200	1/1/2015	1/1/2025	6/1/2018	6/1/2028	\$ -	\$ 30,720,000	\$ -	\$ -
									\$ -	\$ 30,720,000	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76970381	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 Start Date	Redispatch Available
76970381	IATAN - NASHUA 345KV CKT 1	3/1/2014	6/1/2015		Yes

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 Start Date	Redispatch Available
76970381	Cherry Co - Gentleman 345 kV Ckt1	3/1/2014	1/1/2018		Yes
	Cherry Co - Holt Co 345 kV Ckt1	3/1/2014	1/1/2018		Yes
	Cherry Co 345 kV Terminal Upgrades	3/1/2014	1/1/2018		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 Start Date	Redispatch Available
76970381	Evans Energy Center North - Maize 138kV ckt 1 #1	6/1/2019	6/1/2019		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		Yes

Planned Projects

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76970381	GOODYEAR JUNCTION - MCVICAR3 115kV	6/1/2014	6/1/2014		
	MCVICAR3 - 17TH & FAIRLAWN 115kV	6/1/2014	12/1/2014		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76970381	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
CRGL AG2-2012-030

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
CRGL	76970390	WPEK	EES	100	1/1/2015	1/1/2025	6/1/2018	6/1/2028	\$ -	\$ 15,360,000	\$ -	\$ -
									\$ -	\$ 15,360,000	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76970390	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 Start Date	Redispatch Available
76970390	IATAN - NASHUA 345KV CKT 1	3/1/2014	6/1/2015		

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 Start Date	Redispatch Available
76970390	Cherry Co - Gentleman 345 kV Ckt1	3/1/2014	1/1/2018		Yes
	Cherry Co - Holt Co 345 kV Ckt1	3/1/2014	1/1/2018		Yes
	Cherry Co 345 kV Terminal Upgrades	3/1/2014	1/1/2018		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 Start Date	Redispatch Available
76970390	Evans Energy Center North - Maize 138kV ckt 1 #1	6/1/2019	6/1/2019		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		Yes

Planned Projects

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76970390	GOODYEAR JUNCTION - MCVICAR3 115kV	6/1/2014	6/1/2014		
	MCVICAR3 - 17TH & FAIRLAWN 115kV	6/1/2014	12/1/2014		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76970390	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
GRDX AG2-2012-002

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
GRDX	76771987	OKGE	GRDA	48	12/1/2012	2/1/2033	6/1/2019	8/1/2039	\$ 1,634,842	-	\$ 2,440,063	\$ 7,972,303
									\$ 1,634,842	\$ -	\$ 2,440,063	\$ 7,972,303

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76771987	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	6/1/2019	6/1/2019			\$ 1,634,842	\$ 805,221	\$ 2,440,063	\$ 3,049,257	\$ 7,972,303
					Total	\$ 1,634,842	\$ 805,221	\$ 2,440,063	\$ 3,049,257	\$ 7,972,303

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 Start Date	Redispatch Available
76771987	HANCOCK - MUSKOGEE 161KV CKT 1 Accelerate	6/1/2015	6/1/2016		Yes
	MUSKOGEE - MUSKOGEE PORT 161KV CKT 1 Accelerate	6/1/2015	6/1/2019		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 Start Date	Redispatch Available
76771987	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
 GSEC AG2-2012-020

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
GSEC	76945034	SPS	SPS	15	1/1/2015	12/31/2039	6/1/2019	5/1/2044	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76945034	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 Start Date	Redispatch Available
76945034	Carlisle Interchange - Wolfforth Interchange 230 kV Ckt 1	6/1/2019	6/1/2019		
	Indiana - Stanton 115 kV Ckt 1	6/1/2019	6/1/2019		
	MULTI - Tuco-New Deal 345 kV	6/1/2019	6/1/2019		
	YOAKUM COUNTY INTERCHANGE () 230/115/13.2KV TRANSFORMER CKT 2	6/1/2015	6/1/2019		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 Start Date	Redispatch Available
76945034	Mustang to Shell CO2 115 kV	6/1/2015	12/31/2016		Yes
	YOAKUM COUNTY INTERCHANGE () 230/115/13.2KV TRANSFORMER CKT 1	6/1/2019	6/1/2019		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
 GSEC AG2-2012-021

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
GSEC	76945060	SPS	SPS	15	1/1/2015	12/31/2039	6/1/2019	5/1/2044	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76945060	None					\$ -	\$ -	\$ -
<b>Total</b>						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76945060	Carlisle Interchange - Wolfforth Interchange 230 kV Ckt 1	6/1/2019	6/1/2019		
	Indiana - Stanton 115 kV Ckt 1	6/1/2019	6/1/2019		
	MULTI - Tuco-New Deal 345 kV	6/1/2019	6/1/2019		
	YOAKUM COUNTY INTERCHANGE () 230/115/13.2KV TRANSFORMER CKT 2	6/1/2015	6/1/2019		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 Start Date	Redispatch Available
76945060	Mustang to Shell CO2 115 kV	6/1/2015	12/31/2016		Yes
	YOAKUM COUNTY INTERCHANGE () 230/115/13.2KV TRANSFORMER CKT 1	6/1/2019	6/1/2019		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
 HZN AG2-2012-018

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
HZN	76941507	WR	EES	85	1/1/2015	1/1/2020	6/1/2015	6/1/2020	\$ -	\$ 6,528,000	\$ 18,740	\$ 27,063
									\$ -	\$ 6,528,000	\$ 18,740	\$ 27,063

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76941507	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #2 Accelerate	6/1/2015	6/1/2017			\$ 5,725	\$ 150,654	\$ 7,830
	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #2 Accelerate	6/1/2014	6/1/2016			\$ 13,015	\$ 361,012	\$ 19,233
Total						\$ 18,740	\$ 511,666	\$ 27,063

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 Start Date	Redispatch Available
76941507	IATAN - NASHUA 345KV CKT 1	3/1/2014	6/1/2015		

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 Start Date	Redispatch Available
76941507	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #1 Accelerate	6/1/2015	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 Start Date	Redispatch Available
76941507	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
76941507	BUFORD 5 161.00 - BULL SHOALS 161KV CKT 1	6/1/2019	6/1/2019			\$ -	\$ -
Total						\$ -	\$ -

\*Estimated cost allocation as a percentage of total cost is shown for third-party limitations when costs have not yet been established by the third-party.

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
 KCPS AG2-2012-033

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
KCPS	76971296	KCPL	MPS	170	6/1/2014	6/1/2015	6/1/2018	6/1/2019	\$ 18,519	-	\$ 18,519	\$ 21,299
									\$ 18,519	-	\$ 18,519	\$ 21,299

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76971296	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #2 Accelerate	6/1/2014	6/1/2016			\$ 18,519	\$ 361,012	\$ 21,299
	Total					\$ 18,519	\$ 361,012	\$ 21,299

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 Start Date	Redispatch Available
76971296	IATAN - NASHUA 345KV CKT 1	3/1/2014	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 Start Date	Redispatch Available
76971296	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #1 Accelerate	6/1/2015	6/1/2015		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		Yes

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
KEPC AG2-2012-031

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
KEPC	76970941	NPPD	WR	12	12/1/2012	10/1/2024	6/1/2018	4/1/2030	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76970941	None					\$ -	\$ -	\$ -
<b>Total</b>						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76970941	HARPER - MILAN TAP 138KV CKT 1 #1	3/1/2014	12/1/2014		
	HAYS PLANT - SOUTH HAYS 115KV CKT 1 #2	3/1/2014	6/1/2015		
	Line - Clark County - Thistle 345 kV dbI Ckt	3/1/2014	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbI Ckt OKGE	3/1/2014	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbI Ckt SPS	3/1/2014	7/1/2014		
	Line - Spearville - Clark County 345 kV dbI Ckt	3/1/2014	1/1/2015		
	Line - Thistle - Wichita 345 kV dbI Ckt PW	3/1/2014	1/1/2015		
	Line - Thistle - Wichita 345 kV dbI Ckt WERE	3/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbI Ckt OKGE	3/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbI Ckt PW	3/1/2014	1/1/2015		
	Line - Tuco - Woodward 345 kV line OKGE	3/1/2014	6/1/2014		
	Line - Tuco - Woodward 345 kV line SPS	3/1/2014	6/1/2014		
	MOUNDRIDGE 138/115KV TRANSFORMER CKT 2	3/1/2014	12/1/2014		Yes
	XFR - Thistle 345/138 kV	3/1/2014	1/1/2015		

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 Start Date	Redispatch Available
76970941	Cherry Co - Gentleman 345 kV Ckt1	3/1/2014	1/1/2018		Yes
	Cherry Co - Holt Co 345 kV Ckt1	3/1/2014	1/1/2018		Yes
	Cherry Co 345 kV Terminal Upgrades	3/1/2014	1/1/2018		Yes
	East Manhattan - Jeffrey Energy Center 230 kV Ckt 1	6/1/2019	6/1/2019		
	GOODYEAR JUNCTION - NORTHLAND 115KV CKT 1	6/1/2019	6/1/2019		
	Scottsbluff - Stegall 115 kV Ckt 1	3/1/2014	6/1/2018		
	Stegall 345 kV Terminal Upgrades	3/1/2014	6/1/2018		
	Stegall 345/115 kV Transformer Ckt 1	3/1/2014	6/1/2018		
	Viola - Clearwater 138kV Ckt1	10/1/2014	6/1/2018		Yes
	Viola - Gill 138kV Ckt1	10/1/2014	6/1/2018		Yes
	Viola 345/138kV Transformer Ckt 1	10/1/2014	6/1/2018		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 Start Date	Redispatch Available
76970941	CLEARWATER - MILAN TAP 138KV CKT 1 MKEC Accelerate	3/1/2014	6/1/2017		
	CLEARWATER - MILAN TAP 138KV CKT 1 WERE Accelerate	3/1/2014	6/1/2017		
	HARPER - MILAN TAP 138KV CKT 1 #2 Accelerate	3/1/2014	6/1/2017		
	HAYS PLANT - VINE STREET 115KV CKT 1 #1	3/1/2014	6/1/2015		
	HAYS PLANT - VINE STREET 115KV CKT 1 #2	3/1/2014	6/1/2016		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2018		
	Judson Large - North Judson Large 115KV CKT 2	6/1/2015	6/1/2015		
	MEDICINE LODGE - PRATT 115KV CKT 1	3/1/2014	6/15/2014		
	North Judson Large - Spearville 115KV CKT 2	6/1/2015	6/1/2015		
	Spearville 345/115/13.8kV Transformer CKT 3	6/1/2015	6/1/2015		

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 Start Date	Redispatch Available
76970941	ALEXANDER - PRATT 115KV CKT 1	12/1/2009	6/1/2013		
	BARBER - SAWYER 115KV CKT 1	12/1/2009	6/1/2013		
	BARBER (BARBER 4) 138/115/2.72KV TRANSFORMER CKT 1	12/1/2009	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		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	LYONS - RICE_CO 115KV CKT 1	10/1/2012	4/1/2013		
	LYONS - WHEATLAND 115KV CKT 1 #1	10/1/2012	7/15/2013		
	LYONS - WHEATLAND 115KV CKT 1 #2	10/1/2012	7/15/2013		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	RICE_CO 230/115KV TRANSFORMER CKT 1	10/1/2012	11/15/2012		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
 KEPC AG2-2012-032

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
KEPC	76970993	NPPD	SECI	2	12/1/2012	10/1/2024	6/1/2017	4/1/2029	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76970993	None					\$ -	\$ -	\$ -
<b>Total</b>						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76970993	Cherry Co - Gentleman 345 kV Ckt1	3/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	3/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	3/1/2014	1/1/2018		

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 Start Date	Redispatch Available
76970993	CIMARRON RIVER PLANT - CIMARRON RIVER TAP 115KV CKT 1	6/1/2015	6/1/2017		Yes
	CIMARRON RIVER TAP - KISMET 3 115.00 115KV CKT 1	6/1/2015	6/1/2017		Yes
	CUDAHY - KISMET 3 115.00 115KV CKT 1	6/1/2015	6/1/2017		Yes
	Judson Large - North Judson Large 115KV CKT 2	6/1/2015	6/1/2015		
	North Judson Large - Spearville 115KV CKT 2	6/1/2015	6/1/2015		
	Spearville 345/115/13.8kV Transformer CKT 3	6/1/2015	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 Start Date	Redispatch Available
76970993	BARBER (BARBER 4) 138/115/2.72KV TRANSFORMER CKT 1	12/1/2009	6/1/2013		
	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009	6/1/2013		
	North Judson Large - Spearville 115KV CKT 2	10/1/2013	6/1/2015		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
PSCM AG2-2012-022

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
PSCM	76955870	SPS	LAM345	101	3/1/2013	3/1/2018	3/1/2014	3/1/2019	\$ -	\$ 11,235,240	\$ -	\$ -
									\$ -	\$ 11,235,240	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76955870	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
76955870	CHERRY6 230.00 - Harrington Station East Bus 230KV CKT 1	6/1/2015	6/1/2015		
	HUGO POWER PLANT - VALLIANT 345 KV AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		

\*Credits may be required for applicable generation interconnection network upgrades.

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

Customer Study Number  
SECI AG2-2012-015

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
SECI	76902942	SECI	SECI	55	1/1/2014	1/1/2044	1/1/2018	1/1/2048	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
76902942	None					\$ -	\$ -	\$ -
<b>Total</b>						\$ -	\$ -	\$ -

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 Start Date	Redispatch Available
76902942	HARPER - MILAN TAP 138KV CKT 1 #1	3/1/2014	12/1/2014		Yes
	HAYS PLANT - SOUTH HAYS 115KV CKT 1 #2	3/1/2014	6/1/2015		Yes
	Line - Clark County - Thistle 345 kV dbI Ckt	3/1/2014	1/1/2015		Yes
	Line - Hitchland - Woodward 345 kV dbI Ckt OKGE	3/1/2014	7/1/2014		Yes
	Line - Hitchland - Woodward 345 kV dbI Ckt SPS	3/1/2014	7/1/2014		Yes
	Line - Spearville - Clark County 345 kV dbI Ckt	3/1/2014	1/1/2015		Yes
	Line - Thistle - Wichita 345 kV dbI Ckt PW	3/1/2014	1/1/2015		Yes
	Line - Thistle - Wichita 345 kV dbI Ckt WERE	3/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbI Ckt OKGE	3/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbI Ckt PW	3/1/2014	1/1/2015		Yes
	Line - Tuco - Woodward 345 kV line OKGE	3/1/2014	6/1/2014		Yes
	Line - Tuco - Woodward 345 kV line SPS	3/1/2014	6/1/2014		Yes
	XFR - Thistle 345/138 kV	3/1/2014	1/1/2015		Yes

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 Start Date	Redispatch Available
76902942	Cherry Co - Gentleman 345 kV Ckt1	3/1/2014	1/1/2018		Yes
	Cherry Co - Holt Co 345 kV Ckt1	3/1/2014	1/1/2018		Yes
	Cherry Co 345 kV Terminal Upgrades	3/1/2014	1/1/2018		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 Start Date	Redispatch Available
76902942	CLEARWATER - MILAN TAP 138KV CKT 1 MKEC Accelerate	3/1/2014	6/1/2017		Yes
	CLEARWATER - MILAN TAP 138KV CKT 1 WERE Accelerate	3/1/2014	6/1/2017		Yes
	HARPER - MILAN TAP 138KV CKT 1 #2 Accelerate	3/1/2014	6/1/2017		Yes
	HAYS PLANT - VINE STREET 115KV CKT 1 #1	3/1/2014	6/1/2015		Yes
	HAYS PLANT - VINE STREET 115KV CKT 1 #2	3/1/2014	6/1/2016		Yes
	Judson Large - North Judson Large 115KV CKT 2	6/1/2015	6/1/2015		
	MEDICINE LODGE - PRATT 115KV CKT 1	3/1/2014	6/15/2014		Yes
	North Judson Large - Spearville 115KV CKT 2	6/1/2015	6/1/2015		
	Spearville 345/115/13.8kV Transformer CKT 3	6/1/2015	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 Start Date	Redispatch Available
76902942	BARBER (BARBER 4) 138/115/2.72KV TRANSFORMER CKT 1	12/1/2009	6/1/2013		
	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009	6/1/2013		
	Judson Large - North Judson Large 115KV CKT 2	10/1/2013	6/1/2015		
	North Judson Large - Spearville 115KV CKT 2	10/1/2013	6/1/2015		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	Spearville 345/115/13.8kV Transformer CKT 3	10/1/2013	6/1/2015		

**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	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	Rebuild 1 mile of 138 kV with 2-795 ACSR. Replace 36th & Lewis wavetrap & reset CTs.	6/1/2019	6/1/2019	\$ 3,049,257
AEPW	52ND & DELAWARE WEST TAP - RIVERSIDE STATION 138KV CKT 1	Rebuild 5.4-mile 138 kV line from 52nd & Delaware West Tap to Riverside Station with 2-795 ACSR conductor. Upgrade relay settings at Riverside Station. The Service Upgrade is subject to evaluation of proposed alternative with an anticipated E & C cost of \$13.5 Million.	6/1/2019	6/1/2019	\$ 24,992,196
AEPW	SOUTH HUDSON - TULSA SOUTHEAST 138KV CKT 1	Rebuild 1.97 miles	6/1/2019	6/1/2019	\$ 2,364,000
MIPU	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #2 Accelerate	Reconductor 2.5 mile from Blue Springs South - Blue Springs East 161 kV to 795 ACSR. Upgrade substation equipment to 2000 Amps.	6/1/2015	6/1/2017	\$ 150,654
MIPU	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #2 Accelerate	Reconductor 3.21 miles from Blue Springs South to Prairie Lee 161 kV to 954 ACSR.	6/1/2014	6/1/2016	\$ 361,012
MIPU	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2 Accelerate	Rebuild 3.6 miles	6/1/2015	6/1/2017	\$ 311,180
OKGE	RATLIFF - WILDHORSE 69KV CKT 1	Replace 400amp wave trap at Ratliff substation	6/1/2014	6/1/2016	\$ 200,000

**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)
MIDW	HAYS PLANT - VINE STREET 115KV CKT 1 #1	Replace Wavetrap	3/1/2014	6/1/2015
MIDW	HAYS PLANT - VINE STREET 115KV CKT 1 #2	Rebuild 0.23 miles	3/1/2014	6/1/2016
MIPU	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #1 Accelerate	Upgrade wave trap.	6/1/2015	6/1/2015
MKEC	CIMARRON RIVER PLANT - CIMARRON RIVER TAP 115KV CKT 1	Rebuild 4 miles and Substation work	6/1/2015	6/1/2017
MKEC	CIMARRON RIVER TAP - KISMET 3 115.00 115KV CKT 1	Rebuild 3.37 miles and Substation work	6/1/2015	6/1/2017
MKEC	CLEARWATER - MILAN TAP 138KV CKT 1 MKEC Accelerate	Rebuild MKEC portion of the 5.6 mile Clearwater-Milan Tap 115 kV with bundled 1192.5 kmil ACSR conductor (Bunting)	3/1/2014	6/1/2017
MKEC	CUDAHY - KISMET 3 115.00 115KV CKT 1	Rebuild 32 miles and Substation work	6/1/2015	6/1/2017
MKEC	HARPER - MILAN TAP 138KV CKT 1 #2 Accelerate	Reconductor 22.1 mile Harper to Milan Tap 138 kV line.	3/1/2014	6/1/2017
MKEC	Judson Large - North Judson Large 115KV CKT 2	Construct approximately 1 mile of new 115kV for 2nd circuit	6/1/2015	6/1/2015
MKEC	MEDICINE LODGE - PRATT 115KV CKT 1	Rebuild 26 mile line	3/1/2014	6/15/2014
MKEC	North Judson Large - Spearville 115KV CKT 2	Construct approximately 15 miles of new 115kV for 2nd circuit	6/1/2015	6/1/2015
MKEC	Spearville 345/115/13.8kV Transformer CKT 3	Install 345/115/13.8kV Transformer CKT 3 at Spearville	6/1/2015	6/1/2015
OKGE	HANCOCK - MUSKOGEE 161KV CKT 1 Accelerate	Upgrade the Muskogee CT rating from 800 amps to 1200 amps	6/1/2015	6/1/2016
OKGE	MUSKOGEE - MUSKOGEE PORT 161KV CKT 1 Accelerate	Upgrade the Muskogee CT rating from 800 amps to 1200 amps	6/1/2015	6/1/2019
SPS	Mustang to Shell CO2 115 kV	Build 6.3 mile 115 kV line from Mustang to Shell CO2 Build a new 6.9 mile 115kV line between the Mustang and Shell CO2 substations.	6/1/2015	12/31/2016
SPS	YOAKUM COUNTY INTERCHANGE (I) 230/115/13.2KV TRANSFORMER CKT 1	Upgrade transformer to 250 MVA.	6/1/2019	6/1/2019
WERE	CLEARWATER - MILAN TAP 138KV CKT 1 WERE Accelerate	Rebuild Westar portion of the Clearwater-Milan tap 115 kV with bundled 1192.5 kmil ACSR conductor (Bunting)	3/1/2014	6/1/2017
WERE	Evans Energy Center North - Maize 138kv ckt 1 #1	Upgrade disconnect switches, wavetrap, breaker, and jumper to at least 413 MVA Summer Rate B.	6/1/2019	6/1/2019
WERE	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	Rebuild the JEC - Hoyt 345kV line as a single circuit with new conductor, poles, and shield wire and substation work	6/1/2014	6/1/2018

**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	GOODYEAR JUNCTION - MCVICAR3 115KV	Build 3.25 miles of 115kV from Goodyear to MacVicar. 223 MVA Rate A. 245 MVA Rate B.	6/1/2014	6/1/2014
WERE	MCVICAR3 - 17TH & FAIRLAWN 115KV	Build 3.6 miles of 115kV from MacVicar to 17th & Fairlawn. 223 MVA Rate A. 245 MVA Rate B.	6/1/2014	12/1/2014

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

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)
AEPW	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	Rebuild and reconductor 11.1-mile 161 kV line from Chamber Springs to Farmington REC with 2-959.6 ACSR/TW. Upgrade wavetraps, CT ratios, and relay settings at Chamber Springs.	6/1/2019	6/1/2019
ITCGP	Line - Clark County - Thistle 345 kV dbl Ckt	Build a new 86 mile double circuit 345 kV line with at least 3000 A capacity from the Thistle 345 kV substation to the new Clark County substation. Build a new 345 kV substation at Thistle with a ring bus and necessary terminal equipment.	3/1/2014	1/1/2015
ITCGP	Line - Spearville - Clark County 345 kV dbl Ckt	Build a new 36 mile double circuit 345 kV line with at least 3000 A capacity from the Spearville substation to the new Clark County substation. Build the Clark County 345 kV substation with a ring bus and necessary terminal equipment.	3/1/2014	1/1/2015
ITCGP	XFR - Thistle 345/138 kV	Install a 400 MVA 345/138 kV transformer at the new 345 kV Thistle substation.	3/1/2014	1/1/2015
KACP	IATAN - NASHUA 345KV CKT 1	Tap Nashua 345kV bus in Hawthorn - St. Joseph 345 kV line. Build new 345 kV line from Iatan to Nashua, Add Nashua 345/161 kV	3/1/2014	6/1/2015
MIDW	HAYS PLANT - SOUTH HAYS 115KV CKT 1 #2	Tear down and rebuild of existing South Hays - Hays Plant 115 kV line. Tentative plans include rebuilding on existing right-of-way with the possibility of re-routing a portion of the line to new right-of-way as necessary.	3/1/2014	6/1/2015
MKEC	HARPER - MILAN TAP 138KV CKT 1 #1	Replace Wave Trap at Harper Substation	3/1/2014	12/1/2014
OKGE	Line - Hitchland - Woodward 345 kV dbl Ckt OKGE	Build a new 92 mile double circuit 345 kV line with at least 3000 A capacity from the Woodward District EHV substation to the SPS interception from the Hitchland substation. Upgrade the Woodward District EHV substation with the necessary breakers and term	3/1/2014	7/1/2014
OKGE	Line - Thistle - Woodward 345 kV dbl Ckt OKGE	Build a new 79 mile double circuit 345 kV line with at least 3000 A capacity from the Woodward District EHV substation to the Kansas/Oklahoma state border towards the Thistle substation. Upgrade the Woodward District EHV substation with the necessary brea	3/1/2014	1/1/2015
OKGE	Line - Tuco - Woodward 345 kV line OKGE	Build new 345 kV line from Woodward EHV to Border - Project costs now include Border reactor substation	3/1/2014	6/1/2014
PW	Line - Thistle - Wichita 345 kV dbl Ckt PW	Build a new 78 mile double circuit 345 kV line with at least 3000 A capacity from the Wichita substation to the new Thistle 345 kV substation.	3/1/2014	1/1/2015
PW	Line - Thistle - Woodward 345 kV dbl Ckt PW	Build a new 30 mile double circuit 345 kV line with at least 3000 A capacity from the Thistle substation to the Kansas/Oklahoma state border towards the Woodward District EHV substation.	3/1/2014	1/1/2015
SPS	Line - Hitchland - Woodward 345 kV dbl Ckt SPS	Build 30 mile double circuit 345 kV line with at least 3000 A capacity from the Hitchland substation to the OGE interception point from the Woodward District EHV substation. Upgrade the Hitchland substation with the necessary breakers and terminal equipme	3/1/2014	7/1/2014
SPS	Line - Tuco - Woodward 345 kV line SPS	Build new 345 kV line from Tuco to OGE Border station near TX/OK Stateline. Install line reactor outside Border station and line reactors at Tuco.	3/1/2014	6/1/2014
WERE	Line - Thistle - Wichita 345 kV dbl Ckt WERE	Upgrade the Wichita substation with the necessary breakers and terminal equipment to accommodate two new 345 kV circuits from the new Thistle 345 kV substation	3/1/2014	1/1/2015
WERE	MOUNDRIDGE 138/115KV TRANSFORMER CKT 2	Install second 138/115 kV transformer at Moundridge. Operate both 138/115 kV transformers normally closed.	3/1/2014	12/1/2014

**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)
AEPW	HUGHES SPRINGS - JENKINS REC T 69KV CKT 1	Rebuild 4.76 Miles	6/1/2019	6/1/2019
AEPW	Multi - Centerton - Osage Creek 345 kV	Install new 345/161 kV transformer at Kings River (Previous name Osage Creek); Install 9 miles of 345 kV line from Shipe Road to East Rogers; Install 32 miles of 345 kV line from East Rogers to Kings River (previous Osage Creek).	6/1/2014	6/1/2016
AEPW	Multi - Flint Creek - Centerton 345 kV and Centerton- East Centerton 161 kV	Install 9 miles of 161 kV from new Shipe Road Substation to East Centerton Substation; Install 345/161 kV transformer at Shipe Road; Install 18 miles of new 345 kV, 2-954 ACSR line.	6/1/2014	6/1/2014
GRDA	412SUB - KANSAS TAP 161KV CKT 1	Remove limiting Element, Line Switches 1200A increase to 2000A	6/1/2019	6/1/2019
GRDA	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	Replace Terminal Equipment	6/1/2019	6/1/2019
GRDA	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1	Reconductor line to 1590 ACSR, A = 347, B = 403. \$255K/mile @ 4.2 mi.	6/1/2019	6/1/2019
NPPD	Cherry Co - Gentleman 345 kV Ckt1	Build new 345 kV Transmission Line from GGS 345 kV Substation to a new Cherry County 345 kV Substation (76 miles).	3/1/2014	1/1/2018
NPPD	Cherry Co - Holt Co 345 kV Ckt1	Build new 345 kV Transmission Line from new Cherry County 345 kV Substation to new 345 kV Holt County Substation. (Estimated 146 miles).	3/1/2014	1/1/2018
NPPD	Cherry Co 345 kV Terminal Upgrades	Build new Cherry County 345 kV Substation.	3/1/2014	1/1/2018
NPPD	Scottsbluff - Stegall 115 kV Ckt 1	Install new 22-mile 115 kV line from Stegall - Scottsbluff and install necessary terminal equipment. This upgrade is contingent upon Basin Electric's approval noted in Upgrade ID 50608.	3/1/2014	6/1/2018
NPPD	Stegall 345 kV Terminal Upgrades	Install necessary terminal equipment at the 345 kV bus in Stegall substation. This upgrade is contingent upon Basin Electric's approval noted in Upgrade ID 50608.	3/1/2014	6/1/2018
NPPD	Stegall 345/115 kV Transformer Ckt 1	Install new 345/115 kV 400 MVA transformer at Stegall substation and necessary terminal equipment at the 115 kV bus. This upgrade is contingent upon approval from Basin Electric to connect to the Stegall 345 kV substation that they operate.	3/1/2014	6/1/2018
SPS	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	Upgrade 800A wave trap at both Bushland Interchange and Deaf Smith Interchange to at least 428 MVA Winter Rate B. Deaf Smith - Replace existing wave trap so that the limiting factor of K-11 terminal at Deaf Smith will be no less than 1200 A.	3/1/2014	6/1/2016
SPS	Carlisle Interchange - Wolfforth Interchange 230 kV Ckt 1	Build 15 miles of new 230 kV line from Carlisle to Wolfforth South and install necessary terminal equipment.	6/1/2019	6/1/2019
SPS	Indiana - Stanton 115 kV Ckt 1	Reconductor 1.5 miles line from Indiana to Stanton.	6/1/2019	6/1/2019
SPS	MULTI - Tuco-New Deal 345 kV	New 345/155kV transformer between Tuco and Stanton, Build new 345kV line between Tuco and high side of new transformer between Tuco and Stanton, Build new 115kV line between Stanton and low side of new transformer between Tuco and Stanton	6/1/2019	6/1/2019
SPS	YOAKUM COUNTY INTERCHANGE () 230/115/13.2KV TRANSFORMER CKT 2	Upgrade transformer to 250 MVA.	6/1/2015	6/1/2019
WERE	East Manhattan - Jeffrey Energy Center 230 kV Ckt 1	Rebuild 27-mile 230 kV line from East Manhattan to Jeffrey Energy Center to 345 kV construction but operate as 230 kV using bundled 1590 ACSR conductor. Upgrade terminal equipment at East Manhattan and Jeffrey Energy Center to a minimum emergency rating o	6/1/2019	6/1/2019
WERE	GOODYEAR JUNCTION - NORTHLAND 115KV CKT 1	Rebuild 3.44 miles and replace buses and jumper to at least 187 MVA Summer Rate B	6/1/2019	6/1/2019
WERE	Viola - Clearwater 138kV Ckt1	Build new 138kV line between new Viola substation 345/138 kV transformer and existing Clearwater 138 kV substation.	10/1/2014	6/1/2018
WERE	Viola - Gill 138kV Ckt1	Build new 138kV line between new Viola substation 345/138 kV transformer and existing Gill 138 kV substation.	10/1/2014	6/1/2018
WERE	Viola 345/138kV Transformer Ckt 1	Install new 345/138 kV transformer at Viola substation	10/1/2014	6/1/2018

**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
AEPW	MCNAB REC - TURK 115KV CKT 1	Build a new two mile, 138 kV, 1590 ACSR line section (operated at 115 kV) from Turk Substation to the existing Okay- Hope 115 kV line to form a Turk - Hope 115 kV line.	7/1/2012	7/1/2012
KACP	LACYGNE - WEST GARDNER 345KV CKT 1	KCPL Sponsored Project to Reconductor Line to be In-Service by 6/1/2006	6/1/2006	6/1/2006
MIDW	LYONS - RICE CO 115KV CKT 1	Rebuild 11.7 mile line	10/1/2012	4/1/2013
MIDW	RICE CO 230/115KV TRANSFORMER CKT 1	Add 230/115kV Transformer	10/1/2012	11/15/2012
MKEC	ALEXANDER - PRATT 115KV CKT 1	Rebuild line	12/1/2009	6/1/2013
MKEC	BARBER - SAWYER 115KV CKT 1	Rebuild line	12/1/2009	6/1/2013
MKEC	BARBER (BARBER 4) 138/115/2.72KV TRANSFORMER CKT 1	Upgrade transformer	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	FLATRDG3 138.00 - HARPER 138KV CKT 1	Rebuild 24.15 mile line	12/1/2009	6/1/2013
MKEC	Judson Large - North Judson Large 115KV CKT 2	Construct approximately 1 mile of new 115kV for 2nd circuit	10/1/2013	6/1/2015
MKEC	North Judson Large - Spearville 115KV CKT 2	Construct approximately 15 miles of new 115kV for 2nd circuit	10/1/2013	6/1/2015
MKEC	Spearville 345/115/13.8kV Transformer CKT 3	Install 345/115/13.8kV Transformer CKT 3 at Spearville	10/1/2013	6/1/2015
OKGE	CIMARRON - DRAPER LAKE 345KV CKT 1	Increase capacity of Draper Lake CT and Cimarron wave trap	10/1/2014	6/1/2016
OKGE	GRACMNT4 138.00 - WASHITA 138KV CKT 2 OKGE	Build 138kV Terminal.	1/1/2012	1/1/2012
OKGE	NORTHWEST - TATONGA 345KV CKT 1	Build 345 kV line	1/1/2010	1/1/2010
OKGE	TATONGA - WOODWARD 345KV CKT 1	Build 345 kV line	1/1/2010	1/1/2010
SPS	CHERRY6 230.00 - Harrington Station East Bus 230KV CKT 1	Replace wavetrap at Harrington East	6/1/2015	6/1/2015
WERE	LYONS - WHEATLAND 115KV CKT 1 #1	Replace CTs	10/1/2012	7/15/2013
WERE	LYONS - WHEATLAND 115KV CKT 1 #2	Rerate circuit to 1000 amps	10/1/2012	7/15/2013
WFEC	GRACMNT4 138.00 - WASHITA 138KV CKT 2 WFEC	Build approximately 6 miles of 138kV.	1/1/2012	1/1/2012
WFEC	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	New 19 miles 345 KV	7/1/2012	7/1/2012

**Table 5 - Third Party Facility Constraints**

<b>Transmission Owner</b>	<b>UpgradeName</b>	<b>Solution</b>	<b>Earliest Date Upgrade Required (DUN)</b>	<b>Estimated Date of Upgrade Completion (EOC)</b>	<b>Estimated Engineering &amp; Construction Cost</b>
SWPA	BUFORD 5 161.00 - BULL SHOALS 161KV CKT 1 Upgrade #1	Replace one structure and make two structures floating deadends	6/1/2019	6/1/2019	Note 1
SWPA	MORGAN - STOCKTON 161KV CKT 1	Replace Jumpers on the Stockton substation	6/1/2019	6/1/2019	\$ 155,000
SWPA	NORTH WARSAW - TRUMAN 161KV CKT 1 SWPA #1	Replace wave trap and CTs at Truman.	6/1/2015	6/1/2015	\$ 70,000

**Note 1:** SWPA Network Upgrades - Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.