



# Aggregate Facility Study SPP-2013-AG2-AFS-2

10/09/2013

SPP Engineering, SPP Transmission Service Studies



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# Table of Contents

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<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.....	8
Transmission Request Modeling.....	8
Transfer Analysis .....	8
Curtailment 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

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Pursuant to Attachment Z1 of the Southwest Power Pool, Inc. (SPP) Open Access Transmission Tariff (OATT), 14,855 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 \$23.8 million. Additionally, an indeterminate amount 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 \$38.8 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 9, 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 October 24, 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.

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## Introduction

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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, 2013 for 2013-AG2 have been included in this third Aggregate Transmission Service Study (ATSS) of 2013.

Approximately 14,855 MW of long-term Transmission Service was studied in this Aggregate Facility Study (AFS), and over \$38.8 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](http://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.

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## Financial Analysis

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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.

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## **Third-Party Facilities**

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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.

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## Study Methodology

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### **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 six seasonal models to study the aggregate transfers of 14,855 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:

- 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 14,855 MW to model the requested service. From the six 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. Curtailment of existing confirmed service is evaluated to provide only interim service. Curtailment of existing confirmed service is only evaluated at the request of the transmission Customer.

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

Generation shift factors were calculated for the potential incremental and decremental units using Managing and Utilizing System Transmission (MUST). Relief pairs from the generation shift factors for the incremental and decremental units with a greater than 3% TDF on the limiting constraint were determined from the incremental units with the lowest generation shift factors and decremental units with highest generation shift factors. If the aggregate redispatch amount for the potential relief pair was determined to be three times greater than the lower of the increment or decrement, then the pair was determined not to be feasible and is not included. Transmission Customers can request SPP to provide additional relief pairs beyond those determined. The potential relief pairs were not evaluated to determine impacts on limiting facilities in the SPP and first tier systems. The SPP Reliability Coordinator would call upon the redispatch requirements before implementing NERC TLR Level 5a.

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.

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## Study Results

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### **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.

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## Conclusion

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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 9, 2013. This will open a 15-day window for Customer response. To remain in the Aggregate Transmission Service Study (ATSS), the Transmission Provider must receive from the Transmission Customer) by October 24, 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.

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.

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## Appendix A

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### 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
AEC	AG2-2013-001	78296916	SPA	CSWS	100	7/1/2015	7/1/2020	10/1/2019	10/1/2024	6/1/2017	6/1/2022	0	23SP
AEC	AG2-2013-002	78296940	SPA	OKGE	100	7/1/2015	7/1/2020	7/1/2015	7/1/2020	7/1/2015	7/1/2020	0	23SP
AEP	AG2-2013-003	78297201	CSWS	CSWS	200	6/1/2016	6/1/2021	10/1/2019	10/1/2024	Note 4	Note 4	0	23SP
GRDX	AG2-2013-004	78295225	OKGE	GRDA	53	12/1/2013	6/1/2030	10/1/2019	4/1/2036	3/1/2014	9/1/2030	0	14SP
GSECGS	AG2-2013-005	78291873	SPS	SPS	202	1/1/2017	1/1/2043	1/1/2020	1/1/2046	1/1/2020	1/1/2046	0	23SP
HZN	AG2-2013-006	78297146	WR	EES	85	1/1/2016	1/1/2021	10/1/2019	10/1/2024	Note 4	Note 4	0	23SP
HZN	AG2-2013-010	78297226	OKGE	EES	43	1/1/2016	1/1/2021	6/1/2019	6/1/2024	Note 4	Note 4	0	23SP
HZN	AG2-2013-011	78297228	OKGE	EES	43	1/1/2016	1/1/2021	6/1/2019	6/1/2024	Note 4	Note 4	0	23SP
HZN	AG2-2013-012	78297229	OKGE	EES	43	1/1/2016	1/1/2021	10/1/2019	10/1/2024	Note 4	Note 4	0	23SP
KCPS	AG2-2013-013	78297422	KCPL	KCPL	5974	6/1/2014	6/1/2029	6/1/2014	6/1/2029	6/1/2014	6/1/2029	0	14SP
KCPS	AG2-2013-014	78297429	KCPL	KCPL	5914	6/1/2014	6/1/2029	6/1/2019	6/1/2034	6/1/2014	6/1/2029	0	14SP
KCPS	AG2-2013-015	78297445	WR	KCPL	743	6/1/2014	6/1/2029	6/1/2019	6/1/2034	6/1/2019	6/1/2034	0	14SP
KCPS	AG2-2013-016	78297452	WPEK	KCPL	101	6/1/2014	6/1/2020	10/1/2019	10/1/2025	6/1/2014	6/1/2020	0	14SP
KCPS	AG2-2013-017	78297459	WPEK	KCPL	60	6/1/2014	10/1/2018	6/1/2019	10/1/2023	6/1/2014	10/1/2018	0	14SP
KCPS	AG2-2013-018	78297542	NPPD	KCPL	62	6/1/2014	1/1/2024	6/1/2014	1/1/2024	6/1/2014	1/1/2024	0	14SP
KCPS	AG2-2013-019	78297546	SECI	KCPL	32	6/1/2014	4/1/2032	6/1/2015	4/1/2033	6/1/2014	4/1/2032	0	14SP
KCPS	AG2-2013-020	78297553	WPEK	KCPL	100	6/1/2014	4/1/2032	6/1/2019	4/1/2037	6/1/2019	4/1/2037	0	14SP
KCPS	AG2-2013-021	78297555	WPEK	KCPL	50	6/1/2014	4/1/2032	6/1/2017	4/1/2035	6/1/2014	4/1/2032	0	14SP
KCPS	AG2-2013-022	78297582	NPPD	KCPL	50	6/1/2014	6/1/2019	6/1/2019	6/1/2024	6/1/2014	6/1/2019	0	14SP
KCPS	AG2-2013-023	78315409	EES	KCPL	300	6/1/2014	6/1/2031	6/1/2019	6/1/2036	6/1/2014	6/1/2031	0	14SP
MIDW	AG2-2013-028	78053092	WR	WR	1	1/1/2014	1/1/2019	3/1/2014	3/1/2019	3/1/2014	3/1/2019	0	14SP
OGE	AG2-2013-029	78332271	OKGE	OKGE	74	12/1/2013	6/1/2030	10/1/2019	4/1/2036	3/1/2014	9/1/2030	0	14SP
OMPA	AG2-2013-030	78294577	OKGE	OKGE	29	12/1/2013	6/1/2030	6/1/2015	12/1/2031	3/1/2014	9/1/2030	0	14SP
SPSM	AG2-2013-031	78297403	OKGE	SPS	199	12/31/2014	12/31/2034	1/1/2020	1/1/2040	1/1/2020	1/1/2040	0	18SP
SPSM	AG2-2013-032	78297431	OKGE	SPS	249	12/15/2014	12/15/2034	1/1/2020	1/1/2040	1/1/2020	1/1/2040	0	18SP
WFEC	AG2-2013-034	77916886	WFEC	WFEC	48	3/1/2017	3/1/2042	10/1/2019	10/1/2044	6/1/2019	6/1/2044	0	23SP

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

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

**Note 3:** Request is unable to be deferred due to fixed stop dates.

**Note 4:** Transmission customer did not select "remain in the study using interim redispatch" option.

**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
AECC	AG2-2013-001	78296916	\$ -	\$ -	\$ -	-	Indeterminate	\$ -	\$ -	Schedule 9 & 11 Charges
AECC	AG2-2013-002	78296940	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
AEPM	AG2-2013-003	78297201	\$ 2,278,069	\$ 2,278,069	\$ -	-	Indeterminate	\$ 6,607,496	\$ -	\$ 6,607,496
GRDX	AG2-2013-004	78295225	\$ 179,261	\$ -	\$ 179,261	-	Indeterminate	\$ -	\$ -	Schedule 9 & 11 Charges
GSECGS	AG2-2013-005	78291873	\$ 1,488,969	\$ -	\$ 1,488,969	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
HZN	AG2-2013-006	78297146	\$ -	\$ -	\$ -	-	Indeterminate	\$ -	\$ 6,528,000	\$ 6,528,000
HZN	AG2-2013-010	78297226	\$ 2,273,168	\$ 2,273,168	\$ -	6,7	Indeterminate	\$ 7,400,304	\$ 3,302,400	\$ 7,400,304
HZN	AG2-2013-011	78297228	\$ 2,274,204	\$ 2,274,204	\$ -	6,7	Indeterminate	\$ 7,402,662	\$ 3,302,400	\$ 7,402,662
HZN	AG2-2013-012	78297229	\$ 2,270,300	\$ 2,270,300	\$ -	6,7	Indeterminate	\$ 7,598,247	\$ 3,302,400	\$ 7,598,247
KCPS	AG2-2013-013	78297422	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-014	78297429	\$ -	\$ -	\$ -	-	Indeterminate	\$ -	\$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-015	78297445	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-016	78297452	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-017	78297459	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-018	78297542	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-019	78297546	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-020	78297553	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-021	78297555	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-022	78297582	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-023	78315409	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
MIDW	AG2-2013-028	78053092	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
OGE	AG2-2013-029	78332271	\$ 3,069,411	\$ 729,411	\$ 2,340,000	-	\$ -	\$ 1,913,735	\$ -	\$ 1,913,735
OMPA	AG2-2013-030	78294577	\$ 334,672	\$ -	\$ 334,672	-	\$ -	\$ -	\$ -	Schedule 9 & 11 Charges
SPSM	AG2-2013-031	78297403	\$ 802,962	\$ 802,962	\$ -	-	\$ -	\$ 3,563,309	\$ -	\$ 3,563,309
SPSM	AG2-2013-032	78297431	\$ 974,618	\$ 974,618	\$ -	-	\$ -	\$ 4,325,067	\$ -	\$ 4,325,067
WFEC	AG2-2013-034	77916886	\$ 7,855,609	\$ -	\$ 7,855,609	-	Indeterminate	\$ -	\$ -	Schedule 9 & 11 Charges
<b>Grand Total</b>			<b>\$ 23,801,243</b>		<b>\$ 12,198,511</b>			<b>\$ 38,810,820</b>		

**Note 1:** Letter of Credit required for financial security for transmission owner for network upgrades is determined by allocated engineering and construction costs less engineering and construction costs for upgrades when network customer is the transmission owner less the E & C allocation of expedited projects. Letter of Credit is required for upgrades assigned to PTP requests. The amount of the letter of credit will be adjusted down on an annual basis to reflect cost recovery based on revenue allocation. This letter of credit is not required for those facilities that are fully base plan funded. The Letter Of Credit Amount listed is based on meeting OATT Attachment J requirements for base plan funding.

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

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

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

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

**Note 6:** Mutually exclusive requests: 78297226, 78297228, and 78297229. System impacts were identified by only modeling mutually exclusive request 78297226.

**Note 7:** ATSS cost allocation includes all customers' mutually exclusive requests in SPP-2013-AG2.

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

**Customer Study Number**  
 AECC AG2-2013-001

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
AECC	78296916	SPA	CSWS	100	7/1/2015	7/1/2020	10/1/2019	10/1/2024	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78296916	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
78296916	Arcadia 345 kV Terminal Upgrades	10/1/2015	10/1/2015		
	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	7/1/2015	6/1/2019		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
78296916	412SUB - KANSAS TAP 161KV CKT 1	7/1/2015	6/1/2017		Yes
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	7/1/2015	6/1/2017		Yes
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1 #2	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
78296916	ADABELL - VBI 161KV CKT 1	6/1/2014	6/1/2016		Yes
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		Yes
	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1 AEPW	6/1/2019	6/1/2019		
	FT SMITH (FTSMITH1) 500/345/13.8KV TRANSFORMER CKT 1	6/1/2014	6/1/2018		Yes
	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1 #2	6/1/2015	6/1/2016		Yes
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		Yes
	Muskogee - VBI 345 kV with 345/161 kV bus tie near VBI	6/1/2014	6/1/2019		Yes
	VBI - Arkansas Nuclear One 345kv OKGE	6/1/2014	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
78296916	ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	7/1/2012	7/1/2012		
	ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	7/1/2012	7/1/2012		
	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		
	MANDEVILTP4 - SE TEXARKANA 138KV CKT 1	7/1/2012	7/1/2012		
	MANDEVILTP4 - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	MCNAB REC - TURK 115KV CKT 1	7/1/2012	7/1/2012		
	OKAY - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	SUGAR HILL - TURK 138KV CKT 1	7/1/2012	7/1/2012		

Potential reservation deferral and redispatch requirement on the following upgrades due to positive MW Impact on limitations that require upgrade. No cost assignment due to negative MW impact on defined upgrade.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78296916	Arkansas Nuclear One 500/345 Transformer	6/1/2014	6/1/2019		Yes
	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019		Yes
	VBI - Arkansas Nuclear One 345kv EES	6/1/2014	6/1/2019		Yes

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
78296916	ARKANSAS NUCLEAR ONE - PLEASANT HILL 500KV CKT 1	7/1/2015	7/1/2015			\$ -	\$ -
	BUFORD 5 161.00 - BULL SHOALS 161KV CKT 1	7/1/2015	6/1/2017		No	\$ -	\$ -
	BUFORD 5 161.00 - NORFORK 161KV CKT 1	7/1/2015	6/1/2017		No	\$ -	\$ -
	NORTH WARSAW - TRUMAN 161KV CKT 1 SWPA #1	7/1/2015	7/1/2015			\$ -	\$ -
	FITZHUGH - OZARK 161KV CKT 1	7/1/2015	7/1/2015	6/1/2015		\$ 350,000	\$ 350,000
<b>Total</b>						\$ 350,000	\$ 350,000

\*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**  
 AECC              AG2-2013-002

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
AECC	78296940	SPA	OKGE	100	7/1/2015	7/1/2020			\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78296940	None					\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

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

\*\*Reservation 78296940 studied as relevation 78296916

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

**Customer**      **Study Number**  
 AEPM              AG2-2013-003

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
AEPM	78297201	CSWS	CSWS	200	6/1/2016	6/1/2021	10/1/2019	10/1/2024	\$ -	\$ -	\$ 2,278,069	\$ 6,607,496
									\$ -	\$ -	\$ 2,278,069	\$ 6,607,496

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297201	SOUTH HUDSON - TULSA SOUTHEAST 138KV CKT 1	6/1/2019	6/1/2019			\$ 2,278,069	\$ 2,364,000	\$ 6,607,496
	<b>Total</b>					\$ 2,278,069	\$ 2,364,000	\$ 6,607,496

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
78297201	Arcadia 345 kV Terminal Upgrades	10/1/2015	10/1/2015		

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
78297201	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	6/1/2019	6/1/2019		
	ADABELL - VBI 161KV CKT 1	6/1/2014	6/1/2016		
	BETHEL - BROKEN BOW 138KV CKT 1	6/1/2019	6/1/2019		
	BETHEL - NASHOBA 138KV CKT 1	6/1/2019	6/1/2019		
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		
	CLAYTON - NASHOBA 138KV CKT 1	6/1/2019	6/1/2019		
	CLAYTON - SARDIS 138KV CKT 1	6/1/2019	6/1/2019		
	ENOWILT - LONE OAK 138KV CKT 1	6/1/2019	6/1/2019		
	ENOWILT - SARDIS 138KV CKT 1	6/1/2019	6/1/2019		
	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1 AEPW	6/1/2019	6/1/2019		
	FT SMITH (FTSMITH1) 500/345/13.8KV TRANSFORMER CKT 1	6/1/2014	6/1/2018		
	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1 #2	6/1/2015	6/1/2016		
	HANCOCK - MUSKOGEE 161KV CKT 1	6/1/2014	6/1/2016		
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		
	MUSKOGEE - MUSKOGEE PORT 161KV CKT 1	6/1/2014	6/1/2016		
	Muskogee - VBI 345 kV with 345/161 kV bus tie near VBI	6/1/2014	6/1/2019		
	NORTH NEW BOSTON - NW TEXARKANA-BANN T 138KV CKT 1	6/1/2016	6/1/2017		
	SOUTHWESTERN STATION - WASHITA 138KV CKT 2	12/31/2014	6/1/2017		
	VBI - Arkansas Nuclear One 345kv OKGE	6/1/2014	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
78297201	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		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
78297201	ARKANSAS NUCLEAR ONE - PLEASANT HILL 500KV CKT 1	7/1/2015	7/1/2015			\$ -	\$ -
	Arkansas Nuclear One 500/345 Transformer	6/1/2014	6/1/2019			\$ 5,768,785	\$ 12,000,000
	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019			20.41%	100.00%
	VBI - Arkansas Nuclear One 345kv EES	6/1/2014	6/1/2019			48.07%	100.00%
	<b>Total</b>					\$ 5,768,785	\$ 12,000,000

\*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  
GRDX AG2-2013-004

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
GRDX	78295225	OKGE	GRDA	53	12/1/2013	6/1/2030	10/1/2019	4/1/2036	\$ 179,261	\$ -	\$ 179,261	\$ 537,136
									\$ 179,261	\$ -	\$ 179,261	\$ 537,136

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78295225	SOUTH HUDSON - TULSA SOUTHEAST 138KV CKT 1	6/1/2019	6/1/2019			\$ 85,931	\$ 2,364,000	\$ 236,714
	VINITA - VINITA JUNCTION 69KV CKT 1	6/1/2015	6/1/2017			\$ 47,740	\$ 3,420,000	\$ 148,995
	VINITA JUNCTION (VINITAJC) 138/69/13.8KV TRANSFORMER CKT 1	6/1/2015	6/1/2017			\$ 45,590	\$ 3,266,000	\$ 151,426
	<b>Total</b>					\$ 179,261	\$ 9,050,000	\$ 537,136

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
78295225	Arcadia 345 kV Terminal Upgrades	10/1/2015	10/1/2015		

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
78295225	OKAY - UNARCO 69KV CKT 1	6/1/2015	6/1/2015		
	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
78295225	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	6/1/2019	6/1/2019		
	ADABELL - VBI 161KV CKT 1	6/1/2014	6/1/2016		
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		Yes
	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1 #2	6/1/2015	6/1/2016		
	HANCOCK - MUSKOGEE 161KV CKT 1	6/1/2014	6/1/2016		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2017		Yes
	Iatan - Jeffrey Energy Center 345 kV KACP	6/1/2014	6/1/2019		Yes
	Iatan - Jeffrey Energy Center 345 kV WERE	6/1/2014	6/1/2019		Yes
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		Yes
	MUSKOGEE - MUSKOGEE PORT 161KV CKT 1	6/1/2014	6/1/2016		
	Muskogee - VBI 345 kV with 345/161 kV bus tie near VBI	6/1/2014	6/1/2019		
	VBI - Arkansas Nuclear One 345KV OKGE	6/1/2014	6/1/2019		
	Viola - Rose Hill 345 kV	10/1/2014	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
78295225	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	SUB 110 - ORONOGO JCT. - SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		
	TATONGA - WOODWARD 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
78295225	Arkansas Nuclear One 500/345 Transformer	6/1/2014	6/1/2019			\$ 2,143	\$ 12,000,000
	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019		Yes	0.28%	100.00%
	VBI - Arkansas Nuclear One 345kV EES	6/1/2014	6/1/2019			0.02%	100.00%
	<b>Total</b>					\$ 2,143	\$ 12,000,000

\*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  
GSECGS AG2-2013-005

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
GSECGS	78291873	SPS	SPS	202	1/1/2017	1/1/2043	1/1/2020	1/1/2046	\$ 1,488,969	\$ -	\$ 1,488,969	\$ 7,874,063
									\$ 1,488,969	\$ -	\$ 1,488,969	\$ 7,874,063

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements	
78291873	Carlisle - SP Erskine 115 kV Ckt 1	12/15/2014	6/1/2018		No	\$ 404,110	\$ 886,550	\$ 2,137,041	
	Indiana - SP Erskine 115 kV Ckt 1 Accelerate	12/15/2014	6/1/2018		No	\$ 1,084,859	\$ 2,380,000	\$ 5,737,022	
						Total	\$ 1,488,969	\$ 3,266,550	\$ 7,874,063

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
78291873	Hitchland Interchange 345/230 kV Transformer Ckt 2	6/1/2015	6/1/2017		Yes
	Line - Clark County - Thistle 345 kV dbI Ckt	6/1/2014	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbI Ckt OKGE	6/1/2014	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbI Ckt SPS	6/1/2014	7/1/2014		
	Line - Spearville - Clark County 345 kV dbI Ckt	6/1/2014	1/1/2015		
	Line - Thistle - Wichita 345 kV dbI Ckt PW	6/1/2014	1/1/2015		
	Line - Thistle - Wichita 345 kV dbI Ckt WERE	6/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbI Ckt OKGE	6/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbI Ckt PW	6/1/2014	1/1/2015		
	Line - Tuco - Woodward 345 kV line OKGE	6/1/2014	6/1/2014		
	Line - Tuco - Woodward 345 kV line SPS	6/1/2014	6/1/2014		
	XFR - Thistle 345/138 kV	6/1/2014	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
78291873	ALLEN SUB - LUBBOCK SOUTH INTERCHANGE 115KV CKT 1	1/1/2017	6/1/2019		Yes
	Amoco - Tuco 345 kV Ckt 1	12/15/2014	1/1/2020		No
	Carlisle Interchange - Wolfforth Interchange 230 kV Ckt 1	12/15/2014	6/1/2017		No
	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		No
	Elk City 345/230 kV	10/1/2014	3/1/2018		No
	Elk City to Gracemont 345kV AEPW	10/1/2014	3/1/2018		No
	Elk City to Gracemont 345kV OKGE	10/1/2014	3/1/2018		No
	HITCHLAND INTERCHANGE ( ) 230/115/13.2KV TRANSFORMER CKT 2	12/15/2014	6/1/2017		No
	Indiana - Stanton 115 kV Ckt 1	12/15/2014	6/1/2018		No
	MULTI - Tuco-New Deal 345 kV	12/15/2014	6/1/2018		No
	Optima 345/115 kV	12/15/2014	6/1/2019		No

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
78291873	CARLISLE INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1	6/1/2015	6/1/2016		
	Cimarron - Mathewson 345 kV Ckt 1 Accelerate	10/1/2014	6/1/2015		
	Mathewson - Tatonga 345 kV Ckt 2 Accelerate	10/1/2014	6/1/2015		
	Mathewson 345 kV Accelerate	10/1/2014	6/1/2015		
	Potter to Tolk 345 kV	10/1/2014	6/1/2019		No
	Tatonga - Woodward EHV 345 kV Ckt 2 Accelerate	10/1/2014	6/1/2015		
	Beaver County Substation Expansion	12/15/2014	6/1/2018		No

\*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 AG2-2013-006

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
HZN	78297146	WR	EES	85	1/1/2016	1/1/2021	10/1/2019	10/1/2024	\$ -	\$ 6,528,000	\$ -	\$ -
									\$ -	\$ 6,528,000	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297146	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297146	ADABELL - VBI 161KV CKT 1	6/1/2014	6/1/2016		
	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #1 Accelerate	6/1/2014	6/1/2015		
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		
	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1 AEPW	6/1/2019	6/1/2019		
	FT SMITH (FTSMITH1) 500/345/13.8KV TRANSFORMER CKT 1	6/1/2014	6/1/2018		
	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1 #2	6/1/2015	6/1/2016		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2017		
	Iatan - Jeffrey Energy Center 345 kV KACP	6/1/2014	6/1/2019		
	Iatan - Jeffrey Energy Center 345 kV WERE	6/1/2014	6/1/2019		
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		
	Muskogee - VBI 345 kV with 345/161 kV bus tie near VBI	6/1/2014	6/1/2019		
	VBI - Arkansas Nuclear One 345kv OKGE	6/1/2014	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
78297146	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
78297146	ARKANSAS NUCLEAR ONE - PLEASANT HILL 500KV CKT 1	7/1/2015	7/1/2015			\$ -	\$ -
	Arkansas Nuclear One 500/345 Transformer	6/1/2014	6/1/2019			\$ 1,990,490	\$ 12,000,000
	BUFORD 5 161.00 - BULL SHOALS 161KV CKT 1	7/1/2015	6/1/2017			\$ -	\$ -
	BUFORD 5 161.00 - NORFORK 161KV CKT 1	7/1/2015	6/1/2017			\$ -	\$ -
	CLINTON - MONTROSE 161KV CKT 1 AECI	6/1/2014	6/1/2016			\$ 26,184	\$ 180,000
	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019			45.18%	100.00%
	NORTH SLIDELL - SLIDELL 230KV CKT 1	1/1/2016	1/1/2016			65.48%	100.00%
	VBI - Arkansas Nuclear One 345kv EES	6/1/2014	6/1/2019			16.59%	100.00%
Total						\$ 2,016,674	\$ 12,180,000

\*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  
 HZN AG2-2013-010

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
HZN	78297226	OKGE	EES	43	1/1/2016	1/1/2021	6/1/2019	6/1/2024	\$ -	\$ 3,302,400	\$ 2,273,168	\$ 7,400,305
									\$ -	\$ 3,302,400	\$ 2,273,168	\$ 7,400,305

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297226	SUB 124 - AURORA H.T. - SUB 383 - MONETT 161KV CKT 1	6/1/2019	6/1/2019			\$ 75,658	\$ 225,000	\$ 152,638
	VINITA - VINITA JUNCTION 69KV CKT 1	6/1/2015	6/1/2017			\$ 1,124,063	\$ 3,420,000	\$ 3,594,499
	VINITA JUNCTION (VINITAJC) 138/69/13.8KV TRANSFORMER CKT 1	6/1/2015	6/1/2017			\$ 1,073,447	\$ 3,266,000	\$ 3,653,167
	<b>Total</b>					\$ 2,273,168	\$ 6,911,000	\$ 7,400,305

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
78297226	Arcadia 345 kV Terminal Upgrades	10/1/2015	10/1/2015		

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
78297226	412SUB - KANSAS TAP 161KV CKT 1	7/1/2015	6/1/2017		
	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	7/1/2015	6/1/2017		
	Neligh - Hoskins 345 kV Ckt1	6/1/2014	3/1/2019		
	Neligh 345/115 kV Transformer	6/1/2014	3/1/2019		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	TERRA NITROGEN TAP - VERDIGRIS 138KV CKT 1	1/1/2016	6/1/2017		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297226	ADABELL - VBI 161KV CKT 1	6/1/2014	6/1/2016		
	BEAVER - EUREKA SPRINGS 161KV CKT 1 AEPW	1/1/2016	1/1/2016		
	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1 AEPW	6/1/2019	6/1/2019		
	FT SMITH (FTSMITH1) 500/345/13.8KV TRANSFORMER CKT 1	6/1/2014	6/1/2018		
	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1 #2	6/1/2015	6/1/2016		
	HOLT - NELIGH 345KV CKT 1	6/1/2014	6/1/2019		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2017		
	Iatan - Jeffrey Energy Center 345 kV KACP	6/1/2014	6/1/2019		
	Iatan - Jeffrey Energy Center 345 kV WERE	6/1/2014	6/1/2019		
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		
	Muskogee - VBI 345 kV with 345/161 kV bus tie near VBI	6/1/2014	6/1/2019		
	VBI - Arkansas Nuclear One 345kv OKGE	6/1/2014	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
78297226	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		
	SUB 110 - ORONOGO JCT. - SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
78297226	ARKANSAS NUCLEAR ONE - PLEASANT HILL 500KV CKT 1	7/1/2015	7/1/2015			\$ -	\$ -
	Arkansas Nuclear One 500/345 Transformer	6/1/2014	6/1/2019			\$ 1,345,365	\$ 12,000,000
	BEAVER - EUREKA SPRINGS 161KV CKT 1 SWPA	1/1/2016	6/1/2017			\$ -	\$ -
	BUFORD 5 161.00 - BULL SHOALS 161KV CKT 1	7/1/2015	6/1/2017			\$ -	\$ -
	BUFORD 5 161.00 - NORFORK 161KV CKT 1	7/1/2015	6/1/2017			\$ -	\$ -
	CLAY - SPRINGFIELD 161KV CKT 1 SWPA #2	1/1/2016	6/1/2019			\$ -	\$ -
	CLAY - SPRINGFIELD 161KV CKT 1 SWPA #3	1/1/2016	6/1/2019			\$ -	\$ -
	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019			9.84%	100.00%
	NORTH SLIDELL - SLIDELL 230KV CKT 1	1/1/2016	1/1/2016			34.52%	100.00%
	VBI - Arkansas Nuclear One 345kv EES	6/1/2014	6/1/2019			11.21%	100.00%
	<b>Total</b>					\$ 1,345,365	\$ 12,000,000

\*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  
 HZN AG2-2013-011

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
HZN	78297228	OKGE	EES	43	1/1/2016	1/1/2021	6/1/2019	6/1/2024	\$ -	\$ 3,302,400	\$ 2,274,204	\$ 7,402,662
									\$ -	\$ 3,302,400	\$ 2,274,204	\$ 7,402,662

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297228	SUB 124 - AURORA H.T. - SUB 383 - MONETT 161KV CKT 1	6/1/2019	6/1/2019			\$ 76,485	\$ 225,000	\$ 154,307
	VINITA - VINITA JUNCTION 69KV CKT 1	6/1/2015	6/1/2017			\$ 1,124,170	\$ 3,420,000	\$ 3,594,842
	VINITA JUNCTION (VINITAJC) 138/69/13.8KV TRANSFORMER CKT 1	6/1/2015	6/1/2017			\$ 1,073,549	\$ 3,266,000	\$ 3,653,514
	<b>Total</b>					\$ 2,274,204	\$ 6,911,000	\$ 7,402,662

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
78297228	Arcadia 345 kV Terminal Upgrades	10/1/2015	10/1/2015		

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
78297228	412SUB - KANSAS TAP 161KV CKT 1	7/1/2015	6/1/2017		
	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	7/1/2015	6/1/2017		
	Neligh - Hoskins 345 kV Ckt1	6/1/2014	3/1/2019		
	Neligh 345/115 kV Transformer	6/1/2014	3/1/2019		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	TERRA NITROGEN TAP - VERDIGRIS 138KV CKT 1	1/1/2016	6/1/2017		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297228	ADABELL - VBI 161KV CKT 1	6/1/2014	6/1/2016		
	BEAVER - EUREKA SPRINGS 161KV CKT 1 AEPW	1/1/2016	1/1/2016		
	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1 AEPW	6/1/2019	6/1/2019		
	FT SMITH (FTSMITH1) 500/345/13.8KV TRANSFORMER CKT 1	6/1/2014	6/1/2018		
	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1 #2	6/1/2015	6/1/2016		
	HOLT - NELIGH 345KV CKT 1	6/1/2014	6/1/2019		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2017		
	Iatan - Jeffrey Energy Center 345 kV KACP	6/1/2014	6/1/2019		
	Iatan - Jeffrey Energy Center 345 kV WERE	6/1/2014	6/1/2019		
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		
	Muskogee - VBI 345 kV with 345/161 kV bus tie near VBI	6/1/2014	6/1/2019		
	VBI - Arkansas Nuclear One 345kv OKGE	6/1/2014	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
78297228	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		
	SUB 110 - ORONOJO JCT. - SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
78297228	ARKANSAS NUCLEAR ONE - PLEASANT HILL 500KV CKT 1	7/1/2015	7/1/2015			\$ -	\$ -
	Arkansas Nuclear One 500/345 Transformer	6/1/2014	6/1/2019			\$ 1,340,999	\$ 12,000,000
	BEAVER - EUREKA SPRINGS 161KV CKT 1 SWPA	1/1/2016	6/1/2017			\$ -	\$ -
	BUFORD 5 161.00 - BULL SHOALS 161KV CKT 1	7/1/2015	6/1/2017			\$ -	\$ -
	BUFORD 5 161.00 - NORFORK 161KV CKT 1	7/1/2015	6/1/2017			\$ -	\$ -
	CLAY - SPRINGFIELD 161KV CKT 1 SWPA #2	1/1/2016	6/1/2019			\$ -	\$ -
	CLAY - SPRINGFIELD 161KV CKT 1 SWPA #3	1/1/2016	6/1/2019			\$ -	\$ -
	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019			10.31%	100.00%
	VBI - Arkansas Nuclear One 345kv EES	6/1/2014	6/1/2019			11.17%	100.00%
	<b>Total</b>					\$ 1,340,999	\$ 12,000,000

\*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  
 HZN AG2-2013-012

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
HZN	78297229	OKGE	EES	43	1/1/2016	1/1/2021	10/1/2019	10/1/2024	\$ -	\$ 3,302,400	\$ 2,270,300	\$ 7,598,247
									\$ -	\$ 3,302,400	\$ 2,270,300	\$ 7,598,247

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297229	SUB 124 - AURORA H.T. - SUB 383 - MONETT 161KV CKT 1	6/1/2019	6/1/2019			\$ 72,858	\$ 225,000	\$ 151,198
	VINITA - VINITA JUNCTION 69KV CKT 1	6/1/2015	6/1/2017			\$ 1,124,028	\$ 3,420,000	\$ 3,693,383
	VINITA JUNCTION (VINITAJC) 138/69/13.8KV TRANSFORMER CKT 1	6/1/2015	6/1/2017			\$ 1,073,414	\$ 3,266,000	\$ 3,753,666
	<b>Total</b>					\$ 2,270,300	\$ 6,911,000	\$ 7,598,247

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
78297229	Arcadia 345 kV Terminal Upgrades	10/1/2015	10/1/2015		

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
78297229	412SUB - KANSAS TAP 161KV CKT 1	7/1/2015	6/1/2017		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	7/1/2015	6/1/2017		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	TERRA NITROGEN TAP - VERDIGRIS 138KV CKT 1	1/1/2016	6/1/2017		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297229	ADABELL - VBI 161KV CKT 1	6/1/2014	6/1/2016		
	BEAVER - EUREKA SPRINGS 161KV CKT 1 AEPW	1/1/2016	1/1/2016		
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		
	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1 AEPW	6/1/2019	6/1/2019		
	FT SMITH (FTSMITH1) 500/345/13.8KV TRANSFORMER CKT 1	6/1/2014	6/1/2018		
	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1 #2	6/1/2015	6/1/2016		
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		
	Muskogee - VBI 345 kV with 345/161 kV bus tie near VBI	6/1/2014	6/1/2019		
	VBI - Arkansas Nuclear One 345kv OKGE	6/1/2014	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
78297229	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		
	SUB 110 - ORONOJO JCT. - SUB 167 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
78297229	6CAJUN1 - ADDIS 230KV CKT 1 EES	1/1/2016	1/1/2016			100.00%	100.00%
	6CAJUN1 - ADDIS 230KV CKT 1 LAGN	1/1/2016	1/1/2016			100.00%	100.00%
	ARKANSAS NUCLEAR ONE - PLEASANT HILL 500KV CKT 1	7/1/2015	7/1/2015			\$ -	\$ -
	Arkansas Nuclear One 500/345 Transformer	6/1/2014	6/1/2019			\$ 1,515,925	\$ 12,000,000
	BEAVER - EUREKA SPRINGS 161KV CKT 1 SWPA	1/1/2016	6/1/2017			\$ -	\$ -
	BUFORD 5 161.00 - BULL SHOALS 161KV CKT 1	7/1/2015	6/1/2017			\$ -	\$ -
	BUFORD 5 161.00 - NORFORK 161KV CKT 1	7/1/2015	6/1/2017			\$ -	\$ -
	CLAY - SPRINGFIELD 161KV CKT 1 SWPA #2	1/1/2016	6/1/2019			\$ -	\$ -
	CLAY - SPRINGFIELD 161KV CKT 1 SWPA #3	1/1/2016	6/1/2019			\$ -	\$ -
	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019			7.82%	100.00%
	VBI - Arkansas Nuclear One 345kv EES	6/1/2014	6/1/2019			12.63%	100.00%
	<b>Total</b>					\$ 1,515,925	\$ 12,000,000

\*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**  
 KCPS              AG2-2013-013

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
KCPS	78297422	KCPL	KCPL	5974	6/1/2014	6/1/2029			\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297422	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  
 KCPS AG2-2013-014

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
KCPS	78297429	KCPL	KCPL	5914	6/1/2014	6/1/2029	6/1/2019	6/1/2034	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297429	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
78297429	IATAN - NASHUA 345KV CKT 1	6/1/2014	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
78297429	LEEDS - WINCHESTER JUNCTION NORTH 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
78297429	ADABELL - VBI 161KV CKT 1	6/1/2014	6/1/2016		Yes
	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #1 Accelerate	6/1/2014	6/1/2015		Yes
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		Yes
	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	6/1/2014	6/1/2017		Yes
	Muskogee - VBI 345 kV with 345/161 kV bus tie near VBI	6/1/2014	6/1/2019		Yes
	VBI - Arkansas Nuclear One 345kv OKGE	6/1/2014	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
78297429	BARBER (BARBER 4) 138/115/2.72KV TRANSFORMER CKT 1	12/1/2009	6/1/2013		
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009	6/1/2013		
	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	6/1/2013	6/1/2013		
	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		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
78297429	Arkansas Nuclear One 500/345 Transformer	6/1/2014	6/1/2019		Yes	\$ 36,294	\$ 12,000,000
	CLINTON - MONTROSE 161KV CKT 1 AECI	6/1/2014	6/1/2016		Yes	\$ 153,816	\$ 180,000
	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019		Yes	3.68%	100.00%
	VBI - Arkansas Nuclear One 345kv EES	6/1/2014	6/1/2019		Yes	0.30%	100.00%
<b>Total</b>						\$ 190,110	\$ 12,180,000

\*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  
 KCPS AG2-2013-015

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
KCPS	78297445	WR	KCPL	743	6/1/2014	6/1/2029	6/1/2019	6/1/2034	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297445	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
78297445	IATAN - NASHUA 345KV CKT 1	6/1/2014	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
78297445	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		No
	LEEDS - WINCHESTER JUNCTION NORTH 161KV CKT 1	6/1/2019	6/1/2019		
	Neligh - Hoskins 345 kV Ckt1	6/1/2014	3/1/2019		No
	Neligh 345/115 kV Transformer	6/1/2014	3/1/2019		No

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
78297445	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #1 Accelerate	6/1/2014	6/1/2015		Yes
	HOLT - NELIGH 345KV CKT 1	6/1/2014	6/1/2019		No
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2017		
	Iatan - Jeffrey Energy Center 345 kV KACP	6/1/2014	6/1/2019		
	Iatan - Jeffrey Energy Center 345 kV WERE	6/1/2014	6/1/2019		
	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	6/1/2014	6/1/2017		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
78297445	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	6/1/2013	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		
	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  
 KCPS AG2-2013-016

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KCPS	78297452	WPEK	KCPL	101	6/1/2014	6/1/2020	10/1/2019	10/1/2025	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297452	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
78297452	IATAN - NASHUA 345KV CKT 1	6/1/2014	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
78297452	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		
	LEEDS - WINCHESTER JUNCTION NORTH 161KV CKT 1	6/1/2019	6/1/2019		
	Neligh - Hoskins 345 kV Ckt1	6/1/2014	3/1/2019		
	Neligh 345/115 kV Transformer	6/1/2014	3/1/2019		

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
78297452	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		
	GRAND ISLAND - SWEETWATER 345KV CKT 2	6/1/2014	6/1/2019		
	HOLT - NELIGH 345KV CKT 1	6/1/2014	6/1/2019		
	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	6/1/2014	6/1/2017		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**  
 KCPS              AG2-2013-017

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KCPS	78297459	WPEK	KCPL	60	6/1/2014	10/1/2018	6/1/2019	10/1/2023	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297459	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
78297459	IATAN - NASHUA 345KV CKT 1	6/1/2014	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
78297459	GOODYEAR JUNCTION - MCVICAR3 115KV	6/1/2015	6/1/2016		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2017		Yes
	Iatan - Jeffrey Energy Center 345 kV KACP	6/1/2014	6/1/2019		Yes
	Iatan - Jeffrey Energy Center 345 kV WERE	6/1/2014	6/1/2019		Yes
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		Yes
	SMOKYHL6 230.00 - SUMMIT 230KV CKT 1 MIDW	6/1/2014	6/1/2018		
	SMOKYHL6 230.00 - SUMMIT 230KV CKT 1 WERE	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
78297459	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

Potential reservation deferral and redispatch requirement on the following upgrades due to positive MW Impact on limitations that require upgrade. No cost assignment due to negative MW impact on defined upgrade.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297459	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019		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**  
 KCPS              AG2-2013-018

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
KCPS	78297542	NPPD	KCPL	62	6/1/2014	1/1/2024			\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297542	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
78297542	IATAN - NASHUA 345KV CKT 1	6/1/2014	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
78297542	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		
	LEEDS - WINCHESTER JUNCTION NORTH 161KV CKT 1	6/1/2019	6/1/2019		
	Neligh - Hoskins 345 kV Ckt1	6/1/2014	3/1/2019		
	Neligh 345/115 kV Transformer	6/1/2014	3/1/2019		

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
78297542	GRAND ISLAND - SWEETWATER 345KV CKT 2	6/1/2014	6/1/2019		
	HOLT - NELIGH 345KV CKT 1	6/1/2014	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  
 KCPS AG2-2013-019

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KCPS	78297546	SECI	KCPL	32	6/1/2014	4/1/2032	6/1/2015	4/1/2033	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297546	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
78297546	IATAN - NASHUA 345KV CKT 1	6/1/2014	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
78297546	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		
	LEEDS - WINCHESTER JUNCTION NORTH 161KV CKT 1	6/1/2019	6/1/2019		
	Neligh - Hoskins 345 kV Ckt1	6/1/2014	3/1/2019		
	Neligh 345/115 kV Transformer	6/1/2014	3/1/2019		

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
78297546	HOLT - NELIGH 345KV CKT 1	6/1/2014	6/1/2019		
	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	6/1/2014	6/1/2017		

\*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              AG2-2013-020

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
KCPS	78297553	WPEK	KCPL	100	6/1/2014	4/1/2032	6/1/2019	4/1/2037	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297553	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
78297553	HAYS PLANT - SOUTH HAYS 115KV CKT 1 #2	6/1/2014	6/1/2015		
	IATAN - NASHUA 345KV CKT 1	6/1/2014	6/1/2015		Yes
	Line - Clark County - Thistle 345 kV dbI Ckt	6/1/2014	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbI Ckt OKGE	6/1/2014	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbI Ckt SPS	6/1/2014	7/1/2014		
	Line - Spearville - Clark County 345 kV dbI Ckt	6/1/2014	1/1/2015		
	Line - Thistle - Wichita 345 kV dbI Ckt PW	6/1/2014	1/1/2015		
	Line - Thistle - Wichita 345 kV dbI Ckt WERE	6/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbI Ckt OKGE	6/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbI Ckt PW	6/1/2014	1/1/2015		
	Line - Tuco - Woodward 345 kV line OKGE	6/1/2014	6/1/2014		
	Line - Tuco - Woodward 345 kV line SPS	6/1/2014	6/1/2014		
	XFR - Thistle 345/138 kV	6/1/2014	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
78297553	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		No
	Elk City 345/230 kV	10/1/2014	3/1/2018		No
	Elk City to Gracemont 345kV AEPW	10/1/2014	3/1/2018		No
	Elk City to Gracemont 345kV OKGE	10/1/2014	3/1/2018		No
	Viola - Clearwater 138kV Ckt1	10/1/2014	6/1/2018		
	Viola - Gill 138kV Ckt1	10/1/2014	6/1/2018		
	Viola 345/138kV Transformer Ckt 1	10/1/2014	6/1/2018		

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
78297553	Cimarron - Mathewson 345 kV Ckt 1 Accelerate	10/1/2014	6/1/2015		No
	GOODYEAR JUNCTION - MCVICAR3 115kV	6/1/2015	6/1/2016		
	HAYS PLANT - VINE STREET 115KV CKT 1 #1	6/1/2014	6/1/2015		
	HAYS PLANT - VINE STREET 115KV CKT 1 #2	6/1/2014	6/1/2016		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2017		Yes
	Iatan - Jeffrey Energy Center 345 kV KACP	6/1/2014	6/1/2019		Yes
	Iatan - Jeffrey Energy Center 345 kV WERE	6/1/2014	6/1/2019		Yes
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		Yes
	Mathewson - Tatonga 345 kV Ckt 2 Accelerate	10/1/2014	6/1/2015		No
	Mathewson 345 kV Accelerate	10/1/2014	6/1/2015		No
	MULLERGREN - SPEARVILLE 230KV CKT 1	6/1/2014	6/1/2019		
	Potter to Tolk 345 kV	10/1/2014	6/1/2019		No
	SMOKYHL6 230.00 - SUMMIT 230KV CKT 1 MIDW	6/1/2014	6/1/2018		
	SMOKYHL6 230.00 - SUMMIT 230KV CKT 1 WERE	6/1/2014	6/1/2018		
	Tatonga - Woodward EHV 345 kV Ckt 2 Accelerate	10/1/2014	6/1/2015		No
	Viola - Rose Hill 345 kV	10/1/2014	6/1/2016		

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
78297553	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	Mullergren - Reno 345kV Dbl CKT MKEC	10/1/2013	6/1/2019		
	Mullergren - Reno 345kV Dbl CKT WERE	10/1/2013	6/1/2019		
	Spearville - Mullergren 345kV Dbl CKT	10/1/2013	6/1/2019		

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

Potential reservation deferral and redispatch requirement on the following upgrades due to positive MW Impact on limitations that require upgrade. No cost assignment due to negative MW impact on defined upgrade.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297553	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019		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**  
 KCPS              AG2-2013-021

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
KCPS	78297555	WPEK	KCPL	50	6/1/2014	4/1/2032	6/1/2017	4/1/2035	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297555	None							
						Total	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297555	IATAN - NASHUA 345KV CKT 1	6/1/2014	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
78297555	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		
	LEEDS - WINCHESTER JUNCTION NORTH 161KV CKT 1	6/1/2019	6/1/2019		
	Neligh - Hoskins 345 kV Ckt1	6/1/2014	3/1/2019		
	Neligh 345/115 kV Transformer	6/1/2014	3/1/2019		

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
78297555	GRAND ISLAND - SWEETWATER 345KV CKT 2	6/1/2014	6/1/2019		
	HOLT - NELIGH 345KV CKT 1	6/1/2014	6/1/2019		
	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	6/1/2014	6/1/2017		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**  
 KCPS              AG2-2013-022

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
KCPS	78297582	NPPD	KCPL	50	6/1/2014	6/1/2019	6/1/2019	6/1/2024	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297582	None							
						Total	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297582	IATAN - NASHUA 345KV CKT 1	6/1/2014	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
78297582	LEEDS - WINCHESTER JUNCTION NORTH 161KV CKT 1	6/1/2019	6/1/2019		
	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
78297582	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2017		Yes
	Iatan - Jeffrey Energy Center 345 kv KACP	6/1/2014	6/1/2019		Yes
	Iatan - Jeffrey Energy Center 345 kv WERE	6/1/2014	6/1/2019		Yes
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		Yes
	SMOKYHL6 230.00 - SUMMIT 230KV CKT 1 MIDW	6/1/2014	6/1/2018		Yes
	SMOKYHL6 230.00 - SUMMIT 230KV CKT 1 WERE	6/1/2014	6/1/2018		Yes
	Viola - Rose Hill 345 kv	10/1/2014	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
78297582	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

Potential reservation deferral and redispatch requirement on the following upgrades due to positive MW Impact on limitations that require upgrade. No cost assignment due to negative MW impact on defined upgrade.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297582	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019		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  
 KCPS AG2-2013-023

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KCPS	78315409	EES	KCPL	300	6/1/2014	6/1/2031	6/1/2019	6/1/2036	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78315409	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
78315409	IATAN - NASHUA 345KV CKT 1	6/1/2014	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
78315409	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2017		Yes
	Iatan - Jeffrey Energy Center 345 kV KACP	6/1/2014	6/1/2019		Yes
	Iatan - Jeffrey Energy Center 345 kV WERE	6/1/2014	6/1/2019		Yes
	Lacygne - Mariosa 345KV KACP	6/1/2014	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
78315409	BARBER - MEDICINE LODGE 115KV CKT 1	12/1/2009	6/1/2013		
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	6/1/2013	6/1/2013		
	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		
	MCNAB REC - TURK 115KV CKT 1	7/1/2012	7/1/2012		
	Mullergren - Reno 345kv Dbl CKT MKEC	10/1/2013	6/1/2019		
	Mullergren - Reno 345kv Dbl CKT WERE	10/1/2013	6/1/2019		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	Spearville - Mullergren 345kv Dbl CKT	10/1/2013	6/1/2019		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

Potential reservation deferral and redispatch requirement on the following upgrades due to positive MW Impact on limitations that require upgrade. No cost assignment due to negative MW impact on defined upgrade.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78315409	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019		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  
MIDW AG2-2013-028

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
MIDW	78053092	WR	WR	1	1/1/2014	1/1/2019	3/1/2014	3/1/2019	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78053092	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
78053092	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		
	Neligh - Hoskins 345 kV Ckt1	6/1/2014	3/1/2019		
	Neligh 345/115 kV Transformer	6/1/2014	3/1/2019		

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
78053092	GRAND ISLAND - SWEETWATER 345KV CKT 2	6/1/2014	6/1/2019		
	HOLT - NELIGH 345KV CKT 1	6/1/2014	6/1/2019		
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		
	MULLERGREN - SPEARVILLE 230KV CKT 1	6/1/2014	6/1/2019		
	SMOKYHL6 230.00 - SUMMIT 230KV CKT 1 MIDW	6/1/2014	6/1/2018		
	SMOKYHL6 230.00 - SUMMIT 230KV CKT 1 WERE	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
78053092	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		

\*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  
 OGE AG2-2013-029

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
OGE	78332271	OKGE	OKGE	74	12/1/2013	6/1/2030	10/1/2019	4/1/2036	\$ 3,069,411	\$ -	\$ 3,069,411	\$ 8,348,757
									\$ 3,069,411	\$ -	\$ 3,069,411	\$ 8,348,757

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78332271	CIMARRON (CIMARON3) 345/138/13.8KV TRANSFORMER CKT 3	10/1/2019	10/1/2019			\$ 2,309,718	\$ 10,500,000	\$ 6,059,941
	CIMARRON - CZECH HALL 138KV CKT 1	10/1/2019	10/1/2019			\$ 330,000	\$ 330,000	\$ 887,125
	DIVISION AVE - MUSTANG 138KV CKT 1	10/1/2015	6/1/2016		Yes	\$ 330,000	\$ 330,000	\$ 1,120,684
	HEFNER - TULSA 138KV CKT 1 Accelerate	6/1/2015	6/1/2017			\$ 99,693	\$ 99,693	\$ 281,006
Total						\$ 3,069,411	\$ 11,259,693	\$ 8,348,757

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
78332271	Arcadia 345 kV Terminal Upgrades	10/1/2015	10/1/2015		

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
78332271	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		Yes
	DIVISION AVE - LAKESIDE 138KV CKT 1	6/1/2015	6/1/2019		
	FT SMITH (FTSMITH1) 500/345/13.8KV TRANSFORMER CKT 1	6/1/2014	6/1/2018		Yes
	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 3 Accelerated	10/1/2014	6/1/2015		Yes

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78332271	BEELINE - EXPLORER GLENPOOL TAP 138KV CKT 1	6/1/2009	6/1/2009		
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	EXPLORER GLENPOOL TAP - RIVERSIDE STATION 138KV CKT 1 AEPW	6/1/2009	6/1/2009		
	EXPLORER GLENPOOL TAP - RIVERSIDE STATION 138KV CKT 1 OKGE	6/1/2009	6/1/2009		
	WOODWARD - WOODWARD EHV 138KV 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**  
 OMPA            AG2-2013-030

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
OMPA	78294577	OKGE	OKGE	29	12/1/2013	6/1/2030	6/1/2015	12/1/2031	\$334,672	-	\$334,672	\$ 878,069
									\$334,672	-	\$334,672	\$ 878,069

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78294577	CIMARRON (CIMARON3) 345/138/13.8KV TRANSFORMER CKT 3	10/1/2019	10/1/2019			\$ 334,672	\$ 10,500,000	\$ 878,069
	<b>Total</b>					\$ 334,672	\$ 10,500,000	\$ 878,069

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
78294577	Arcadia 345 kV Terminal Upgrades	10/1/2015	10/1/2015		

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
78294577	Viola - Clearwater 138kV Ckt1	10/1/2014	6/1/2018		
	Viola - Gill 138kV Ckt1	10/1/2014	6/1/2018		
	Viola 345/138kV Transformer Ckt 1	10/1/2014	6/1/2018		

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
78294577	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		
	LAKE CREEK - LONEWOLF 69KV CKT 1	6/1/2019	6/1/2019		
	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 3 Accelerated	10/1/2014	6/1/2015		Yes
	OMPA-MARLOW - RUSH SPRINGS TAP 138KV CKT 1	6/1/2019	6/1/2019		
	Viola - Rose Hill 345 kV	10/1/2014	6/1/2016		

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
78294577	ALTUS SW - NAVAJO 69KV CKT 1	6/1/2013	6/1/2013		
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	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.

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

Customer Study Number  
SPSM AG2-2013-031

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
SPSM	78297403	OKGE	SPS	199	12/31/2014	12/31/2034	1/1/2020	1/1/2040	\$ -	\$ -	\$ 802,962	\$ 3,563,309
									\$ -	\$ -	\$ 802,962	\$ 3,563,309

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements	
78297403	Carlisle - SP Erskine 115 kV Ckt 1	12/15/2014	6/1/2018		No	\$ 217,926	\$ 886,550	\$ 967,091	
	Indiana - SP Erskine 115 kV Ckt 1 Accelerate	12/15/2014	6/1/2018		No	\$ 585,036	\$ 2,380,000	\$ 2,596,217	
						Total	\$ 802,962	\$ 3,266,550	\$ 3,563,309

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
78297403	Hitchland Interchange 345/230 kV Transformer Ckt 2	6/1/2015	6/1/2017		Yes
	Line - Clark County - Thistle 345 kV dbl Ckt	6/1/2014	1/1/2015		No
	Line - Hitchland - Woodward 345 kV dbl Ckt OKGE	6/1/2014	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbl Ckt SPS	6/1/2014	7/1/2014		
	Line - Spearville - Clark County 345 kV dbl Ckt	6/1/2014	1/1/2015		No
	Line - Thistle - Wichita 345 kV dbl Ckt PW	6/1/2014	1/1/2015		No
	Line - Thistle - Wichita 345 kV dbl Ckt WERE	6/1/2014	1/1/2015		No
	Line - Thistle - Woodward 345 kV dbl Ckt OKGE	6/1/2014	1/1/2015		No
	Line - Thistle - Woodward 345 kV dbl Ckt PW	6/1/2014	1/1/2015		No
	Line - Tuco - Woodward 345 kV line OKGE	6/1/2014	6/1/2014		
	Line - Tuco - Woodward 345 kV line SPS	6/1/2014	6/1/2014		
	Multi - Potter - Channing - Dallam 230 kV Conversion	6/1/2015	6/1/2015		
	XFR - Thistle 345/138 kV	6/1/2014	1/1/2015		No

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
78297403	Amoco - Tuco 345 kV Ckt 1	12/15/2014	1/1/2020		No
	Carlisle Interchange - Wolfforth Interchange 230 kV Ckt 1	12/15/2014	6/1/2017		No
	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		No
	ELK CITY - RED HILLS WIND 138KV CKT 1	6/1/2015	6/1/2016		Yes
	Elk City 345/230 kV	10/1/2014	3/1/2018		No
	Elk City to Gracemont 345kV AEPW	10/1/2014	3/1/2018		No
	Elk City to Gracemont 345kV OKGE	10/1/2014	3/1/2018		No
	HITCHLAND INTERCHANGE () 230/115/13.2KV TRANSFORMER CKT 2	12/15/2014	6/1/2017		No
	Indiana - Stanton 115 kV Ckt 1	12/15/2014	6/1/2018		No
	MULTI - Tuco-New Deal 345 kV	12/15/2014	6/1/2018		No
	Optima 345/115 kV	12/15/2014	6/1/2019		No

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
78297403	CARLISLE INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1	6/1/2015	6/1/2016		Yes
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		Yes
	Cimarron - Mathewson 345 kV Ckt 1 Accelerate	10/1/2014	6/1/2015		No
	DENVER CITY INTERCHANGE N. - MUSTANG STATION N. 115KV CKT 1	6/1/2019	6/1/2019		
	Mathewson - Tatonga 345 kV Ckt 2 Accelerate	10/1/2014	6/1/2015		No
	Mathewson 345 kV Accelerate	10/1/2014	6/1/2015		No
	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 3 Accelerated	10/1/2014	6/1/2015		Yes
	OKLAUNION 345KV SVC	12/15/2014	6/1/2019		No
	Potter to Tolk 345 kV	10/1/2014	6/1/2019		No
	SOUTHWESTERN STATION - WASHITA 138KV CKT 2	12/31/2014	6/1/2017		Yes
	Tatonga - Woodward EHV 345 kV Ckt 2 Accelerate	10/1/2014	6/1/2015		No
	Beaver County Substation Expansion	12/15/2014	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
78297403	CHERRY6 230.00 - Harrington Station East Bus 230KV CKT 1	6/1/2015	6/1/2015		
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	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.

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

Customer Study Number  
SPSM AG2-2013-032

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
SPSM	78297431	OKGE	SPS	249	12/15/2014	12/15/2034	1/1/2020	1/1/2040	\$ -	\$ -	\$ 974,618	\$ 4,325,067
									\$ -	\$ -	\$ 974,618	\$ 4,325,067

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements	
78297431	Carlisle - SP Erskine 115 kV Ckt 1	12/15/2014	6/1/2018		No	\$ 264,514	\$ 886,550	\$ 1,173,835	
	Indiana - SP Erskine 115 kV Ckt 1 Accelerate	12/15/2014	6/1/2018		No	\$ 710,104	\$ 2,380,000	\$ 3,151,232	
						Total	\$ 974,618	\$ 3,266,550	\$ 4,325,067

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
78297431	Hitchland Interchange 345/230 kV Transformer Ckt 2	6/1/2015	6/1/2017		Yes
	Line - Clark County - Thistle 345 kV dbI Ckt	6/1/2014	1/1/2015		No
	Line - Hitchland - Woodward 345 kV dbI Ckt OKGE	6/1/2014	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbI Ckt SPS	6/1/2014	7/1/2014		
	Line - Spearville - Clark County 345 kV dbI Ckt	6/1/2014	1/1/2015		No
	Line - Thistle - Wichita 345 kV dbI Ckt PW	6/1/2014	1/1/2015		No
	Line - Thistle - Wichita 345 kV dbI Ckt WERE	6/1/2014	1/1/2015		No
	Line - Thistle - Woodward 345 kV dbI Ckt OKGE	6/1/2014	1/1/2015		No
	Line - Thistle - Woodward 345 kV dbI Ckt PW	6/1/2014	1/1/2015		No
	Line - Tuco - Woodward 345 kV line OKGE	6/1/2014	6/1/2014		
	Line - Tuco - Woodward 345 kV line SPS	6/1/2014	6/1/2014		
	Multi - Potter - Channing - Dallam 230 kV Conversion	6/1/2015	6/1/2015		
	XFR - Thistle 345/138 kV	6/1/2014	1/1/2015		No

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
78297431	Amoco - Tuco 345 kV Ckt 1	12/15/2014	1/1/2020		No
	Carlisle Interchange - Wolfforth Interchange 230 kV Ckt 1	12/15/2014	6/1/2017		No
	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		No
	Elk City 345/230 kV	10/1/2014	3/1/2018		No
	Elk City to Gracemont 345kV AEPW	10/1/2014	3/1/2018		No
	Elk City to Gracemont 345kV OKGE	10/1/2014	3/1/2018		No
	HITCHLAND INTERCHANGE ( ) 230/115/13.2KV TRANSFORMER CKT 2	12/15/2014	6/1/2017		No
	Indiana - Stanton 115 kV Ckt 1	12/15/2014	6/1/2018		No
	MULTI - Tuco-New Deal 345 kV	12/15/2014	6/1/2018		No
	Optima 345/115 kV	12/15/2014	6/1/2019		No
	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
78297431	CARLISLE INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1	6/1/2015	6/1/2016		Yes
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		Yes
	Cimarron - Mathewson 345 kV Ckt 1 Accelerate	10/1/2014	6/1/2015		No
	DENVER CITY INTERCHANGE N. - MUSTANG STATION N. 115KV CKT 1	6/1/2019	6/1/2019		
	Mathewson - Tatonga 345 kV Ckt 2 Accelerate	10/1/2014	6/1/2015		No
	Mathewson 345 kV Accelerate	10/1/2014	6/1/2015		No
	OKLAUNION 345KV SVC	12/15/2014	6/1/2019		No
	Potter to Tolc 345 kV	10/1/2014	6/1/2019		No
	Tatonga - Woodward EHV 345 kV Ckt 2 Accelerate	10/1/2014	6/1/2015		No
	Viola - Rose Hill 345 kV	10/1/2014	6/1/2016		Yes
	Beaver County Substation Expansion	12/15/2014	6/1/2018		No

**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
78297431	CHERRY6 230.00 - Harrington Station East Bus 230KV CKT 1	6/1/2015	6/1/2015		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

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

Customer Study Number  
WFEC AG2-2013-034

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
WFEC	77916886	WFEC	WFEC	48	3/1/2017	3/1/2042	10/1/2019	10/1/2044	\$ 7,855,609	\$ -	\$ 7,855,609	\$ 21,906,528
									\$ 7,855,609	\$ -	\$ 7,855,609	\$ 21,906,528

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77916886	CIMARRON (CIMARON3) 345/138/13.8KV TRANSFORMER CKT 3	10/1/2019	10/1/2019			\$ 7,855,609	\$ 10,500,000	\$ 21,906,528
	Total					\$ 7,855,609	\$ 10,500,000	\$ 21,906,528

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
77916886	Hitchland Interchange 345/230 kV Transformer Ckt 2	6/1/2015	6/1/2017		
	Line - Clark County - Thistle 345 kV dbI Ckt	6/1/2014	1/1/2015		
	Line - Hitchland - Woodward 345 kV dbI Ckt OKGE	6/1/2014	7/1/2014		
	Line - Hitchland - Woodward 345 kV dbI Ckt SPS	6/1/2014	7/1/2014		
	Line - Spearville - Clark County 345 kV dbI Ckt	6/1/2014	1/1/2015		
	Line - Thistle - Wichita 345 kV dbI Ckt PW	6/1/2014	1/1/2015		
	Line - Thistle - Wichita 345 kV dbI Ckt WERE	6/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbI Ckt OKGE	6/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbI Ckt PW	6/1/2014	1/1/2015		
	Line - Tuco - Woodward 345 kV line OKGE	6/1/2014	6/1/2014		
	Line - Tuco - Woodward 345 kV line SPS	6/1/2014	6/1/2014		
	XFR - Thistle 345/138 kV	6/1/2014	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
77916886	Amoco - Tuco 345 kV Ckt 1	12/15/2014	1/1/2020		
	Carlisle Interchange - Wolfforth Interchange 230 kV Ckt 1	12/15/2014	6/1/2017		
	Cherry Co - Gentleman 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co - Holt Co 345 kV Ckt1	6/1/2014	1/1/2018		No
	Cherry Co 345 kV Terminal Upgrades	6/1/2014	1/1/2018		No
	ELK CITY - RED HILLS WIND 138KV CKT 1	6/1/2015	6/1/2016		
	Elk City 345/230 kV	10/1/2014	3/1/2018		No
	Elk City to Gracemont 345kV AEPW	10/1/2014	3/1/2018		No
	Elk City to Gracemont 345kV OKGE	10/1/2014	3/1/2018		No
	Indiana - Stanton 115 kV Ckt 1	12/15/2014	6/1/2018		
	MULTI - Tuco-New Deal 345 kV	12/15/2014	6/1/2018		
	Neligh - Hoskins 345 kV Ckt1	6/1/2014	3/1/2019		No
	Neligh 345/115 kV Transformer	6/1/2014	3/1/2019		No
	PAOLI - PAYNE 138.00 138KV CKT 1	3/1/2017	6/1/2019		Yes
	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

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

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
77916886	59th ST - El Paso 138kV Upgrade	3/1/2017	6/1/2017		Yes
	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1	3/1/2017	6/1/2017		Yes
	CHISHOLM - MAIZE 138KV CKT 1 #1	3/1/2017	3/1/2017		
	CHISHOLM - MAIZE 138KV CKT 1 #2	3/1/2017	6/1/2017		Yes
	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2015	10/1/2019		Yes
	Cimarron - Mathewson 345 kV Ckt 1 Accelerate	10/1/2014	6/1/2015		
	EVANS ENERGY CENTER NORTH - MAIZE 138KV CKT 1 #1	3/1/2017	3/1/2017		
	EVANS ENERGY CENTER NORTH - MAIZE 138KV CKT 1 #2	3/1/2017	6/1/2017		Yes
	GLASS MOUNTAIN - MOORELAND 138KV CKT 1	3/1/2017	3/1/2017		
	HOLT - NELIGH 345KV CKT 1	6/1/2014	6/1/2019		No
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2014	6/1/2017		Yes
	Iatan - Jeffrey Energy Center 345 kV KACP	6/1/2014	6/1/2019		Yes
	Iatan - Jeffrey Energy Center 345 kV WERE	6/1/2014	6/1/2019		Yes
	Lacygne - Mariosa 345KV KACP	6/1/2014	6/1/2019		
	Mathewson - Tatonga 345 kV Ckt 2 Accelerate	10/1/2014	6/1/2015		
	Mathewson 345 kV Accelerate	10/1/2014	6/1/2015		
	OKLAUNION 345KV SVC	12/15/2014	6/1/2019		No
	Potter to Tolk 345 kV	10/1/2014	6/1/2019		No
	Tatonga - Woodward EHV 345 kV Ckt 2 Accelerate	10/1/2014	6/1/2015		
	Viola - Rose Hill 345 kV	10/1/2014	6/1/2016		

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
77916886	CIMARRON - DRAPER LAKE 345KV CKT 1	10/1/2014	6/1/2016		
	G03-05T 138.00 - PARADISE 138KV CKT 1	6/1/2010	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		
	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - IODINE 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
77916886	Lacygne - Mariosa 345KV AMRN	6/1/2014	6/1/2019			2.48%	100.00%
					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.

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	SOUTH HUDSON - TULSA SOUTHEAST 138KV CKT 1	Rebuild 1.97 miles	6/1/2019	6/1/2019	\$2,364,000.00
AEPW	VINITA - VINITA JUNCTION 69KV CKT 1	Rebuild 2.85 miles	6/1/2015	6/1/2017	\$3,420,000.00
AEPW	VINITA JUNCTION (VINITAJC) 138/69/13.8KV TRANSFORMER CKT 1	Replace with larger 138/69 kV auto	6/1/2015	6/1/2017	\$3,266,000.00
EMDE	SUB 124 - AURORA H.T. - SUB 383 - MONETT 161KV CKT 1	Replace Terminal Equipment	6/1/2019	6/1/2019	\$225,000.00
OKGE	CIMARRON - CZECH HALL 138KV CKT 1	Upgrade Terminal Equipment	10/1/2019	10/1/2019	\$330,000.00
OKGE	CIMARRON (CIMARON3) 345/138/13.8KV TRANSFORMER CKT 3	Install third 345/138 kV Bus Tie in Cimarron Sub	10/1/2019	10/1/2019	\$10,500,000.00
OKGE	DIVISION AVE - MUSTANG 138KV CKT 1	Upgrade Terminal Equipment	10/1/2015	6/1/2016	\$330,000.00
OKGE	HEFNER - TULSA 138KV CKT 1 Accelerate	Reconductor 1.25 miles of line to 1590AS52	6/1/2015	6/1/2017	\$99,693.00
SPS	Carlisle - SP Erskine 115 kV Ckt 1	Reconductor 1.49 miles from Carlisle to SP-Erskine.	12/15/2014	6/1/2018	\$886,550.00
SPS	Indiana - SP Erskine 115 kV Ckt 1 Accelerate	Reconductor 4 miles from Indiana to SP-Erskine.	12/15/2014	6/1/2018	\$2,380,000.00

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
AEPW	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	Rebuild 1 mile of 138 kV with 2-795 ACSR. Replace 36th & Lewis wavetraps & reset CTs.	6/1/2019	6/1/2019
AEPW	BEAVER - EUREKA SPRINGS 161KV CKT 1 AEPW	Rebuild 1.25 miles of 795 ACSR with 1590 ACSR. Replace wavetraps & jumpers @ Eureka Springs	1/1/2016	1/1/2016
AEPW	BETHEL - BROKEN BOW 138KV CKT 1	Rebuild 9.19 miles of 3/0 Copperweld with 1272 ACSR	6/1/2019	6/1/2019
AEPW	BETHEL - NASHOBA 138KV CKT 1	Rebuild 22.43 miles of 3/0 Copperweld with 1272 ACSR	6/1/2019	6/1/2019
AEPW	CLAYTON - NASHOBA 138KV CKT 1	Rebuild 11.57 miles of 3/0 CWC with 1272 ACSR	6/1/2019	6/1/2019
AEPW	CLAYTON - SARDIS 138KV CKT 1	Rebuild 1.46 miles of 3/0 CWC with 1272 ACSR	6/1/2019	6/1/2019
AEPW	ENOWILT - LONE OAK 138KV CKT 1	Rebuild 0.32 miles of 3/0 CWC with 1272 ACSR. Replace jumpers @ Lone Oak	6/1/2019	6/1/2019
AEPW	ENOWILT - SARDIS 138KV CKT 1	Rebuild 13.8 miles of 3/0 CWC with 1272 ACSR	6/1/2019	6/1/2019
AEPW	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1 AEPW	Replace Terminal Equipment	6/1/2019	6/1/2019
AEPW	NORTH NEW BOSTON - NW TEXARKANA-BANN T 138KV CKT 1	Rebuild 14.19 miles to 1533.6 ACSR/TW 54/19	6/1/2016	6/1/2017
AEPW	OKLAUNION 345KV SVC	Add +100/-50 SVC on 345 kV bus at Oklaunion.	12/15/2014	6/1/2019
AEPW	OMPA-MARLOW - RUSH SPRINGS TAP 138KV CKT 1	Rebuild 8.59	6/1/2019	6/1/2019
GRDA	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1 #2	Replace Terminal Equipment	6/1/2015	6/1/2016
KACP	Iatan - Jeffrey Energy Center 345 kV KACP	Build 14.2 miles of new 345 kV	6/1/2014	6/1/2019
KACP	Lacygne - Mariosa 345KV KACP	Build approximately 181 miles of 345kV from KCPL Lacygne - AMRN Mariosa	6/1/2014	6/1/2019
MIDW	HAYS PLANT - VINE STREET 115KV CKT 1 #1	Replace Wavetraps	6/1/2014	6/1/2015
MIDW	HAYS PLANT - VINE STREET 115KV CKT 1 #2	Rebuild 0.23 miles	6/1/2014	6/1/2016
MIDW	SMOKYHL6 230.00 - SUMMIT 230KV CKT 1 MIDW	Rebuild ownership of 39.5 mile circuit	6/1/2014	6/1/2018
MIPU	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #1 Accelerate	Upgrade Prairie Lee wavetraps to at least 1200 A.	6/1/2014	6/1/2015
MIPU	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	Rebuild 3.6 miles	6/1/2014	6/1/2017
MKEC	MULLERGREN - SPEARVILLE 230KV CKT 1	Rebuild 65 miles	6/1/2014	6/1/2019
NPPD	GRAND ISLAND - SWEETWATER 345KV CKT 2	Build 63.4 mile second circuit	6/1/2014	6/1/2019
NPPD	HOLT - NELIGH 345KV CKT 1	Build new 16 miles 345 kV Holt - Neligh and associated terminal equipment	6/1/2014	6/1/2019
OKGE	ADABELL - VBI 161KV CKT 1	Replace existing 800 amp wave trap with 1200 amp in VBI sub	6/1/2014	6/1/2016
OKGE	Beaver County Substation Expansion	Expand Beaver County Substation to tap the Hitchland to Woodward circuit 2	12/15/2014	6/1/2018
OKGE	CIMARRON - DRAPER LAKE 345KV CKT 1	Increase capacity of Draper Lake CT and Cimarron wave trap	10/1/2015	10/1/2019
OKGE	Cimarron - Mathewson 345 kV Ckt 1 Accelerate	Build new 16 mile 345 kV line from Mathewson to Cimarron.	10/1/2014	6/1/2015
OKGE	DIVISION AVE - LAKESIDE 138KV CKT 1	Rebuild 3.58 mile line with 1590AS52 Conductor	6/1/2015	6/1/2019
OKGE	FT SMITH (FTSMITH1) 500/345/13.8KV TRANSFORMER CKT 1	Install 2nd 500/345 kV bus tie in Ft. Smith Sub	6/1/2014	6/1/2018
OKGE	HANCOCK - MUSKOGEE 161KV CKT 1	Upgrade the Muskogee CT rating from 800 amps to 1200 amps	6/1/2014	6/1/2016
OKGE	Mathewson - Tatonga 345 kV Ckt 2 Accelerate	Build new 61 mile Tatonga - Mathewson 345 kV line.	10/1/2014	6/1/2015
OKGE	Mathewson 345 kV Accelerate	Build new Mathewson 345 kV substation at the intersection of the Woodring-Cimarron and the existing Northwest - Tatonga 345 kV lines.	10/1/2014	6/1/2015
OKGE	MUSKOGEE - MUSKOGEE PORT 161KV CKT 1	Upgrade the Muskogee CT rating from 800 amps to 1200 amps	6/1/2014	6/1/2016
OKGE	Muskogee - VBI 345 kV with 345/161 kV bus tie near VBI	Build 70.95 mile 345 kV line plus two new 345/161 kV bus ties near VBI sub and 10 miles of 161 kV line	6/1/2014	6/1/2019
OKGE	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 3 Accelerated	Install third 345/138 kV Bus Tie in Northwest Sub	10/1/2014	6/1/2015
OKGE	Tatonga - Woodward EHV 345 kV Ckt 2 Accelerate	Build new 49-mile Woodward EHV - Tatonga 345 kV Ckt 2 line.	10/1/2014	6/1/2015
OKGE	VBI - Arkansas Nuclear One 345kV OKGE	Build 73 miles of 345kV line	6/1/2014	6/1/2019
SPS	CARLISLE INTERCHANGE - TUCCO INTERCHANGE 230KV CKT 1	Replace Terminal Equipment	6/1/2015	6/1/2016
SPS	DENVER CITY INTERCHANGE N. - MUSTANG STATION N. 115KV CKT 1	Rebuild 2.82 miles of 954 ACSR with 795 ACSS.	6/1/2019	6/1/2019
SPS	Potter to Tolk 345 kV	Build 111 mile 345 kV line from Potter to Tolk. Further study analysis will be performed with regard to the SPS North-South Stability Limit to determine whether its rating may be increased based on approved SPP Expansion Plan Network Upgrades scheduled t	10/1/2014	6/1/2019
WERE	59th ST - El Paso 138kV Upgrade	Build 5.78 miles of transmission line	3/1/2017	6/1/2017
WERE	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1	Rebuild 5.12 miles	3/1/2017	6/1/2017
WERE	CHISHOLM - MAIZE 138KV CKT 1 #1	Upgrade disconnect switches, wavetraps, breaker, jumpers	3/1/2017	3/1/2017
WERE	CHISHOLM - MAIZE 138KV CKT 1 #2	Rebuild 7.25 miles	3/1/2017	6/1/2017
WERE	EVANS ENERGY CENTER NORTH - MAIZE 138KV CKT 1 #1	Upgrade disconnect switches, wavetraps, breaker, jumpers	3/1/2017	3/1/2017
WERE	EVANS ENERGY CENTER NORTH - MAIZE 138KV CKT 1 #2	Rebuild 4.8 miles	3/1/2017	6/1/2017
WERE	GOODYEAR JUNCTION - MCVICAR3 115kV	Build 3.25 miles of 115kV from Goodyear to MacVicar. 223 MVA Rate A. 245 MVA Rate B.	6/1/2015	6/1/2016
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	6/1/2017
WERE	Iatan - Jeffrey Energy Center 345 kV WERE	Build 56.8 miles of new 345 kV	6/1/2014	6/1/2019
WERE	SMOKYHL6 230.00 - SUMMIT 230KV CKT 1 WERE	Rebuild ownership of 39.5 mile circuit	6/1/2014	6/1/2018
WERE	Viola - Rose Hill 345 kV	Build new 35 mile line from Viola to Rose Hill 345 kV	10/1/2014	6/1/2016
WFEC	GLASS MOUNTAIN - MOORELAND 138KV CKT 1	Reset CT	3/1/2017	3/1/2017
WFEC	LAKE CREEK - LONEWOLF 69KV CKT 1	Replace Terminal Equipment	6/1/2019	6/1/2019
WFEC	SOUTHWESTERN STATION - WASHITA 138KV CKT 2	Add Second 138 kV line	12/31/2014	6/1/2017

**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.	7/1/2015	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.	6/1/2014	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.	6/1/2014	1/1/2015

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

ITCGP	XFR - Thistle 345/138 kV	Install a 400 MVA 345/138 kV transformer at the new 345 kV Thistle substation.	6/1/2014	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	6/1/2014	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.	6/1/2014	6/1/2015
OKGE	Arcadia 345 kV Terminal Upgrades	Upgrade 345 kV 2000 amp breakers and associated switches to 3000 amp at Arcadia Sub.	10/1/2015	10/1/2015
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	6/1/2014	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	6/1/2014	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	6/1/2014	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.	6/1/2014	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.	6/1/2014	1/1/2015
SPS	Hitchland Interchange 345/230 kV Transformer Ckt 2	Install a second 345/230 kV transformer at Hitchland substation.	6/1/2015	6/1/2017
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	6/1/2014	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.	6/1/2014	6/1/2014
SPS	Multi - Potter - Channing - Dallam 230 kV Conversion	Convert approximately 75 miles of 115 kV to 230 kV from Potter to Channing to Dallam. Add 230/115 kV transformer at Dallam.	6/1/2015	6/1/2015
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	6/1/2014	1/1/2015

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
AEPW	Elk City 345/230 kV	Expand Elk City substation (or build new station). Install a 345/230 kV 675 MVA transformer at Elk City.	10/1/2014	3/1/2018
AEPW	Elk City to Gracemont 345kV AEPW	Build new 46.5 mile 345 kV line from Elk City to Gracemont (AEP portion).	10/1/2014	3/1/2018
AEPW	TERRA NITROGEN TAP - VERDIGRIS 138KV CKT 1	Rebuild 4.31 miles	1/1/2016	6/1/2017
GRDA	412SUB - KANSAS TAP 161KV CKT 1	Remove limiting Element, Line Switches 1200A increase to 2000A	7/1/2015	6/1/2017
GRDA	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	Replace Terminal Equipment	7/1/2015	6/1/2017
GRDA	OKAY - UNARCO 69KV CKT 1	Remove the line clearance violations to increase the rating to 223MVA for Summer/Winter, Normal/Emergency	6/1/2015	6/1/2015
GRDA	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1 #2	Replace Terminal Equipment	6/1/2019	6/1/2019
KACP	LEEDS - WINCHESTER JUNCTION NORTH 161KV CKT 1	Replace wavetrapp	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).	6/1/2014	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).	6/1/2014	1/1/2018
NPPD	Cherry Co 345 kV Terminal Upgrades	Build new Cherry County 345 kV Substation.	6/1/2014	1/1/2018
NPPD	Neligh - Hoskins 345 kV Ckt1	Build a new 50 mile 345 kV line from Hoskins to Neligh	6/1/2014	3/1/2019
NPPD	Neligh 345/115 kV Transformer	Construct new substation at Neligh. Install a new 345/115 kV transformer at Neligh.	6/1/2014	3/1/2019
OKGE	Elk City to Gracemont 345kV OKGE	Build new 46.5 mile 345 kV line from Elk City to Gracemont (OGE portion).	10/1/2014	3/1/2018
SPS	ALLEN SUB - LUBBOCK SOUTH INTERCHANGE 115KV CKT 1	Rebuild 6 miles of 115 kV line from Lubbock South Interchange to Allen Substation.	1/1/2017	6/1/2019
SPS	Amoco - Tuco 345 kV Ckt 1	Build new 67-mile 345 kV line from Tuco to Amoco.	12/15/2014	1/1/2020
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.	12/15/2014	6/1/2017
SPS	HITCHLAND INTERCHANGE (I) 230/115/13.2KV TRANSFORMER CKT 2	Build a second 230/115/13.2 kV transformer at Hitchland.	12/15/2014	6/1/2017
SPS	Indiana - Stanton 115 kV Ckt 1	Reconductor 1.5 miles line from Indiana to Stanton.	12/15/2014	6/1/2018
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	12/15/2014	6/1/2018
SPS	Optima 345/115 kV	New 345/115kV substation between Texas County to Cole 115kV line and Finney to Hitchland 345 kV line, Rebuild Texas County to Cole 115kV line	12/15/2014	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
WFEC	ELK CITY - RED HILLS WIND 138KV CKT 1	Upgrade Elk City to RHWIND4 TO 1113	6/1/2015	6/1/2016
WFEC	PAOLI - PAYNE 138.00 138KV CKT 1	Reset CT	3/1/2017	6/1/2019

**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	ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	Reconductor and convert line to 138 kV and replace switches at Ashdown REC	7/1/2012	7/1/2012
AEPW	ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	Reconductor Line & Convert Line to 138 kV and convert Patterson station to breaker-and-a-half configuration	7/1/2012	7/1/2012
AEPW	BANN - RED SPRINGS REC 138KV CKT 1	Replace 138 kV breakers 3300 & 3310	7/1/2012	7/1/2012
AEPW	EXPLORER GLENPOOL TAP - RIVERSIDE STATION 138KV CKT 1 AEPW	Reconductor 1.82 miles with ACCC. Replace wave trap jumpers at Riverside.	6/1/2009	6/1/2009
AEPW	HUGO POWER PLANT - VALLIANT 345 KV AEPW	Valliant 345 KV line terminal	7/1/2012	7/1/2012
AEPW	MANDEVILTP4 - SE TEXARKANA 138KV CKT 1	Build new Turk-SE Texarkana 138 kV line and add SE Texarkana 138 kV terminal.	7/1/2012	7/1/2012

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

AEPW	MANDEVILTP4 - TURK 138KV CKT 1	Build new Turk-SE Texarkana 138 kv line and add SE Texarkana 138 kv 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
AEPW	OKAY - TURK 138KV CKT 1	Build two mile, 138 kv, 1590ACSR line section from Turk Sub to existing Okay-Hope 115 kv line and rebuild twelve miles of 115 kv line to Okay Sub to 138 kv, 1590 ACSR , to form a Turk-Okay 138 kv line	7/1/2012	7/1/2012
AEPW	SUGAR HILL - TURK 138KV CKT 1	Build new Turk-Sugar Hill 138 kv line and add Sugar Hill 138 kv terminal.	7/1/2012	7/1/2012
EMDE	SUB 110 - ORONOJO JCT. - SUB 167 - RIVERTON 161KV CKT 1	Reconductor Oronogo 59467 to Riverton 59469 with Bundled 556 ACSR	6/1/2011	6/1/2011
KACP	LACYGNE - WEST GARDNER 345KV CKT 1	KCPL Sponsored Project to Reconductor Line to be In-Service by 6/1/2006	6/1/2006	6/1/2006
MKEC	ALEXANDER - PRATT 115KV CKT 1	Rebuild line	12/1/2009	6/1/2013
MKEC	BARBER - MEDICINE LODGE 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	CLIFTON - GREENLEAF 115KV CKT 1	Rebuild 14.4 miles	6/1/2011	6/1/2013
MKEC	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	Rebuild 8.05 mile line	12/1/2009	6/1/2013
MKEC	FLATRDG3 138.00 - HARPER 138KV CKT 1	Rebuild 24.15 mile line	12/1/2009	6/1/2013
MKEC	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	Rebuild 43.5% Ownership of 20.9 miles	6/1/2013	6/1/2013
MKEC	Mullergren - Reno 345kv Dbl CKT MKEC	Build ownership of approximately 79 miles of double 345kv Mullergren - Reno	10/1/2013	6/1/2019
MKEC	Spearville - Mullergren 345kv Dbl CKT	Build approximately 74 miles of double 345kv Spearville - Mullergren	10/1/2013	6/1/2019
OKGE	BEELINE - EXPLORER GLENPOOL TAP 138KV CKT 1	Reconductor .92miles of line with Drake ACCC/TW.	6/1/2009	6/1/2009
OKGE	CIMARRON - DRAPER LAKE 345KV CKT 1	Increase capacity of Draper Lake CT and Cimarron wave trap	10/1/2014	6/1/2016
OKGE	EXPLORER GLENPOOL TAP - RIVERSIDE STATION 138KV CKT 1 OKGE	Reconductor 1.82 miles line with Drake ACCC/TW.	6/1/2009	6/1/2009
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
OKGE	WOODWARD - IODINE 138KV CKT 1	Tap Iodine to Woodward 138 kv line	1/1/2010	1/1/2010
OKGE	WOODWARD - WOODWARD EHV 138KV CKT 1	Build .5 miles of 138 kv and install terminal equipment	1/1/2010	1/1/2010
OKGE	WOODWARD - WOODWARD EHV 138KV CKT 2	Build .5 miles of 138 kv and install terminal equipment	1/1/2010	1/1/2010
OKGE	WOODWARD 345/138KV TRANSFORMER CKT 1	Install 345/138 kv XF	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	Mullergren - Reno 345kv Dbl CKT WERE	Build ownership of approximately 79 miles of double 345kv Mullergren - Reno	10/1/2013	6/1/2019
WFEC	ALTUS SW - NAVAJO 69KV CKT 1	Upgrade Terminal Equipment at Altus SW, 300-600A, new rating conductor 53/6SMVA	6/1/2013	6/1/2013
WFEC	G03-05T 138.00 - PARADISE 138KV CKT 1	Upgrade Paradise to G03-05T to 1113	6/1/2010	6/1/2013
WFEC	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	New 19 miles 345 KV	7/1/2012	7/1/2012
WFEC	HUGO POWER PLANT 345/138KV TRANSFORMER CKT 1	New 345/138 kv Auto	7/1/2012	7/1/2012

**Table 5 - Third Party Facility Constraints**

Transmission Owner	UpgradeName	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AEC	FITZHUGH - OZARK 161KV CKT 1	Rebuild Fitzhugh-Ozark 161 Ckt 1 river crossing 0.76 miles.	7/1/2015	7/1/2015	\$350,000.00
AECI	CLINTON - MONTROSE 161KV CKT 1 AECI	Upgrade limiting terminal equipment at Clinton	6/1/2014	6/1/2016	\$180,000.00
AMRN	Lacygne - Mariosa 345KV AMRN	Indeterminate	6/1/2014	6/1/2019	Indeterminate
CLEC	NORTH SLIDELL - SLIDELL 230KV CKT 1	Indeterminate	1/1/2016	1/1/2016	Indeterminate
EES	6CAJUN1 - ADDIS 230KV CKT 1 EES	Indeterminate	1/1/2016	1/1/2016	Indeterminate
EES	ARKANSAS NUCLEAR ONE - PLEASANT HILL 500KV CKT 1	Indeterminate	7/1/2015	7/1/2015	Indeterminate
EES	Arkansas Nuclear One 500/345 Transformer	Build 500/345 kV Transformer at ANO	6/1/2014	6/1/2019	\$12,000,000.00
EES	VBI - Arkansas Nuclear One 345kv EES	Indeterminate	6/1/2014	6/1/2019	Indeterminate
LAGN	6CAJUN1 - ADDIS 230KV CKT 1 LAGN	Indeterminate	1/1/2016	1/1/2016	Indeterminate
SWPA	BEAVER - EUREKA SPRINGS 161KV CKT 1 SWPA	Rebuild line using 1590MCM ACSR conductor on tubular steel H-frame structures. Replace breakers and switches at Beaver. Remove wave traps.	1/1/2016	6/1/2017	Note 1
SWPA	BUFORD 5 161.00 - BULL SHOALS 161KV CKT 1	Rebuild line with 1192 ACSR, Grackle	7/1/2015	6/1/2017	Note 1
SWPA	BUFORD 5 161.00 - NORFORK 161KV CKT 1	Rebuild line with 1192 ACSR, Grackle	7/1/2015	6/1/2017	Note 1
SWPA	CLAY - SPRINGFIELD 161KV CKT 1 SWPA #2	Replace four structures	1/1/2016	6/1/2019	Note 1
SWPA	CLAY - SPRINGFIELD 161KV CKT 1 SWPA #3	Rebuild line with 1192 Grackle, replace terminal equipment w/ 1200 amp.	1/1/2016	6/1/2019	Note 1
SWPA	NORTH WARSAW - TRUMAN 161KV CKT 1 SWPA #1	Replace wave trap and CTs at Truman.	7/1/2015	7/1/2015	Note 1

**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.