Aggregate Facility Study SPP-2013-AG2-AFS-3

1/20/2014

SPP Engineering, SPP Transmission Service Studies

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Executive Summary

Pursuant to Attachment Z1 of the Southwest Power Pool, Inc. (SPP) Open Access Transmission Tariff (OATT), 14,757 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 $181.8 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 $568.6 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 January 20, 2014. 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 February 4, 2014, an executed Letter of Intent. The Letter of Intent will list options the Customer must choose to clarify their commitment to remain in the ATSS. The only action required on OASIS is to withdraw the request or leave the request in study mode.

At the conclusion of the ATSS, Service Agreements for each request for service will be tendered identifying the terms and conditions of the confirmed service.

If Customers withdraw from the ATSS after posting of this AFS, the AFS will be re-performed to determine final cost allocation and Available Transmission Capability (ATC) in consideration of the remaining ATSS participants. All allocated revenue requirements for facility upgrades are assigned to the Customer in the AFS data tables. Potential base plan funding allowable is contingent upon validation of designated resources meeting Attachment J, Section III B criteria.

Introduction

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

- In 2005, the Federal Energy Regulatory Commission (FERC) accepted SPP's proposed Aggregate Transmission Study procedures in Docket ER05-109.
- In 2008, in Docket ER08-1379-000 SPP filed with FERC to pair open seasons closing during January 2010 with an effective date of August 9, 2008.
- In January 2010, in Docket ER10-659-000 SPP filed with FERC to extend its current practice of pairing open seasons through January 31, 2011, with an effective date of January 28, 2010.
- In March 2010, in Docket ER10-659-000 FERC issued a letter order accepting SPP's proposal to continue to pair open seasons through January 31, 2011, effective January 28, 2010.
- All requests for long-term transmission service with a signed study agreement received before June 1, 2013 for 2013-AG2 have been included in this second Aggregate Transmission Service Study (ATSS) of 2013.

Approximately 14,757 MW of long-term Transmission Service was studied in this Aggregate Facility Study (AFS), and over $181.8 million in transmission upgrades are proposed. The results of the AFS are detailed in Tables 1 through 6. Detailed results depict individual upgrade costs by study and potential base plan allowances determined by Attachments J and Z1. The OATT may be accessed at SPP's website by going to SPP.org>Org Groups>Governing Documents.

To understand the extent to which Base Plan Upgrades may be applied to both Point-to-Point (PTP) and Network Transmission Services, it is necessary to highlight the definition of Designated Resource. Per Section 1.9a of the SPP OATT, a Designated Resource is:

> "[a]ny designated generation resource owned, purchased or leased by a Transmission Customer to serve load in the SPP Region. Designated Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Transmission Customer's load on a non-interruptible basis."

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

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

1. Transmission Customer's commitment to the requested new or changed Designated Resource must have a duration of at least five years.

2. During the first year the Designated Resource is planned to be used by the Transmission Customer, the accredited capacity of the Transmission Customer's existing Designated Resources plus the lesser of:

    a. The planned maximum net dependable capacity applicable to the Transmission Customer or

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

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

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

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

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

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

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

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

Financial Analysis

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

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

In the event that the engineering and construction of a previously assigned Network Upgrade may be accelerated, with no additional upgrades, to accommodate a new request for Transmission Service, the levelized present worth of only the incremental expenses though the reservation period of the new request, excluding depreciation, shall be assigned to the new request. These incremental expenses, excluding depreciation, include:

1. The levelized difference in present worth of the engineering and construction expenses given the change in date to complete construction to account for additional interest expense and reduced engineering and construction expense due to inflation,

2. The levelized present worth of all expediting fees, and

3. The levelized present worth of the incremental annual carrying charges, excluding depreciation and interest, during the new reservation period taking into account both:

    a. The reservation in which the project was originally assigned, and

b. A reservation, if any, in which the project was previously accelerated.

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

A 40-year service life assumption is utilized for Base Plan funded projects, unless another assumption is provided by the Transmission Owner. A present worth analysis of revenue requirements on a common year basis between the Base Plan and Requested Upgrades was performed to determine avoided Base Plan revenue requirements due to the displacement or deferral of the Base Plan Upgrade by the Requested Upgrade. The difference in present worth between the Base Plan and Requested Upgrades is assigned to the transmission requests impacting this upgrade based on the displacement or deferral.

Third-Party Facilities

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

All modeled facilities within the Transmission Provider system were monitored during the development of this study, as well as certain facilities in first-tier neighboring systems. Third-party facilities must be upgraded when it is determined that they are overloaded while accommodating the requested Transmission Service. An agreement between the Customer and third party owner detailing the mitigation of the third party impact must be provided to the Transmission Provider prior to tendering of a Transmission Service Agreement. These facilities also include those owned by members of the Transmission Provider who have not placed their facilities under the Transmission Provider's OATT. Upgrades on the Southwest Power Administration network requires prepayment of the upgrade cost prior to construction of the upgrade.

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

Study Methodology

Description

The facility study analysis was conducted to determine the steady-state impact of the requested service on the SPP and first tier non-SPP control area systems. The steady-state analysis was performed to ensure current SPP Criteria and NERC Reliability Standards requirements are fulfilled. SPP conforms to NERC Reliability Standards, which provide strict requirements related to voltage violations and thermal overloads during normal conditions and during a contingency. NERC Standards require all facilities to be within normal operating ratings for normal system conditions and within emergency ratings after a contingency.

Normal operating ratings and emergency operating ratings monitored are Rate A and B in the SPP Model Development Working Group (MDWG) models, respectively. The upper bound and lower bound of the normal voltage range monitored is 105% and 95%. The upper bound and lower bound of the emergency voltage range monitored is 105% and 90%. Transmission Owner voltage monitoring criteria is used if more restrictive. The SPS Tuco 230 kV bus voltage is monitored at 92.5% due to pre-determined system stability limitations. The WERE Wolf Creek 345 kV bus voltage is monitored at 103.5% and 98.5% due to transmission operating procedure.

The contingency set includes all SPP control area branches and ties 69 kV and above; first tier non-SPP control area branches and ties 115 kV and above; any defined contingencies for these control areas; and generation unit outages for the control areas with SPP reserve share program redispatch. The monitor elements include all SPP control area branches, ties, and buses 69 kV and above, and all first tier non-SPP control area branches and ties 115 kV and above. Voltage monitoring was performed for SPP control area buses 69 kV and above.

A 3 % transfer distribution factor (TDF) cutoff was applied to all SPP control area facilities. For first tier non-SPP control area facilities, a 3 % TDF cutoff was applied to AECI, AMRN (Ameren), and ENTR (Entergy) control areas. A 2 % TDF cutoff was applied to WAPA. For voltage monitoring, a 0.02 per unit change in voltage must occur due to the transfer or modeling upgrades to be considered a valid limit to the transfer.

Model Development

SPP used seven seasonal models to study the aggregate transfers over a variety of requested service periods. The following SPP Transmission Expansion Plan 2012 Build 1 Cases were used to study the impact of the requested service on the transmission system:

2013/2014 Winter Peak (13WP)
2014 Summer Peak (14SP)
2014/15 Winter Peak (14WP)
2018 Summer Peak (18SP)
2018/19 Winter Peak (18WP)
2023 Summer Peak (23SP)
2023/24 Winter Peak (23WP)

The Summer Peak models apply to June through September and the Winter Peak models apply to December through March.

The chosen base case models were modified to reflect the current modeling information. One group of requests was developed from the aggregate to model the requested service. From the 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 1st-Tier) and voltage threshold (0.02 change) were applied to determine the impacted facilities. The PSS/E options chosen to conduct the analysis can be found in Appendix A.

Curtailment 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.

Study Results

Study Analysis Results

Tables 1 through 6 contain the AFS steady-state analysis results. Table 1 identifies the participating long-term Transmission Service requests included in the AFS. This table lists deferred start and stop dates both with and without redispatch (based on Customer selection of redispatch if available) and the minimum annual allocated ATC without upgrades and season of first impact.

Table 2 identifies total E&C cost allocated to each Transmission Customer, letter of credit requirements, third party E&C cost assignments, potential base plan E&C funding (lower of allocated E&C or Attachment J Section III B criteria), point-to-point base rate charge, total revenue requirements for assigned upgrades with consideration of potential base plan funding, and final total cost allocation to the Transmission Customer. In addition, Table 2 identifies SWPA upgrade costs which require prepayment in addition to other allocated costs.

Table 3 provides additional details for each request including all assigned facility upgrades required, allocated E&C costs, allocated revenue requirements for upgrades, upgrades not assigned to the Customer but required for service to be confirmed, credits to be paid for previously assigned AFS or Generation Interconnection Network Upgrades, and any required third party upgrades.

Table 4 lists all upgrade requirements with associated solutions needed to provide Transmission Service for the AFS, minimum ATC per upgrade with season of impact, earliest date upgrade is required (DUN), estimated date the upgrade will be completed, in service (EOC), and estimated E&C cost.

Table 5 lists identified third-party constrained facilities.

Table 6 identifies potential redispatch pairs available to relieve the aggregate impacts on identified constraints to prevent deferral of start of service. MW amounts listed for redispatch are maximum values observed in a long term study and may only be available in a reduced amount or unavailable at any given time.

Table 7 (if applicable) identifies deferred expansion plan projects that were replaced with requested upgrades at earlier dates.

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

If the request is for wind generation, the total requested capacity of wind generation plus existing wind generation capacity shall not exceed 20% of the customer's projected system peak responsibility in the first year the Designated Resource is planned to be used by the customer. If the five-year term and 125% resource to load criteria are met, (as well as the 20% wind resource to load criteria for wind generation requests) the requested capacity is multiplied by $180,000 to determine the potential base plan funding allowable. The maximum potential base plan funding allowable may be less than the potential base plan funding allowable, due to the E&C cost allocated to the customer being lower than the potential amount allowable to the Customer. The Customer is responsible for any assigned upgrade costs in excess of potential base plan E&C funding allowable. Network Upgrades required for wind generation requests located in a zone other than the Customer POD shall be allocated as 67% base plan region-wide charge and 33% directly assigned to the Customer.

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

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

Example A:

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

Example B:

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

Example C:

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

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

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

Study Definitions

- The date upgrade needed date (DUN) is the earliest date the upgrade is required to alleviate a constraint considering all requests.
- End of construction (EOC) is the estimated date the upgrade will be completed and in service.
- Total engineering and construction cost (E&C) is the upgrade solution cost as determined by the Transmission Owner.
- The Transmission Customer's allocation of the E&C cost is based on the request (1) having an impact of at least 3% on the limiting element, and (2) having a positive impact on the upgraded facility.
- Minimum ATC is the portion of the requested capacity that can be accommodated without upgrading facilities.

- Annual ATC allocated to the Transmission Customer is determined by the least amount of allocated seasonal ATC within each year of a reservation period.

Conclusion

The results of the AFS show that limiting constraints exist in many areas of the regional Transmission System. Due to these constraints, Transmission Service cannot be granted unless noted in Table 3.

The Transmission Provider will tender a Letter of Intent on January 20, 2014. 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 February 4, 2014, an executed Letter of Intent. The Letter of Intent will list options the Customer must choose to clarify their commitment to remain in the ATSS. The only action required on OASIS is to WITHDRAW the request or leave the request in STUDY mode.

The Transmission Provider must receive an unconditional and irrevocable letter of credit in the amount of the total allocated E&C costs assigned to the Customer. This letter of credit is not required for those facilities that are fully base plan funded. The amount of the letter of credit will be adjusted down on an annual basis to reflect cost recovery based on revenue allocation. The Transmission Provider will issue notifications to construct Network Upgrades to the constructing Transmission Owner after filing of necessary service agreements at FERC.

Appendix A

PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

BASE CASE SETTINGS:

• Solutions:	Fixed slope decoupled Newton-Raphson solution (FDNS)
• Tap adjustment:	Stepping
• Area Interchange Control:	Tie lines and loads
• Var limits:	Apply immediately
• Solution Options:	X 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
• Excld 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:	X 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
AECC	AG2-2013-001	78296916	SPA	CSWS	100	7/1/2015	7/1/2020	6/1/2017	6/1/2022	7/1/2015	7/1/2020	0	23SP
AECC	AG2-2013-002	78296940	SPA	OKGE	100	7/1/2015	7/1/2020	6/1/2017	6/1/2022	7/1/2015	7/1/2020	0	23SP
AEPM	AG2-2013-003	78297201	CSWS	CSWS	200	6/1/2016	6/1/2021	6/1/2016	6/1/2021	Note 4	Note 4	0	23SP
GRDX	AG2-2013-004	78295225	OKGE	GRDA	53	12/1/2013	6/1/2030	6/1/2014	12/1/2030	6/1/2014	12/1/2030	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	6/1/2017	6/1/2022	Note 4	Note 4	0	23SP
HZN	AG2-2013-010	78297226	OKGE	EES	43	1/1/2016	1/1/2021	6/1/2017	6/1/2022	Note 4	Note 4	0	23SP
HZN	AG2-2013-011	78297228	OKGE	EES	43	1/1/2016	1/1/2021	6/1/2017	6/1/2022	Note 4	Note 4	0	23SP
HZN	AG2-2013-012	78297229	OKGE	EES	43	1/1/2016	1/1/2021	6/1/2017	6/1/2022	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	6/1/2017	6/1/2032	6/1/2014	6/1/2029	0	14SP
KCPS	AG2-2013-015	78297445	WR	KCPL	743	6/1/2014	6/1/2029	6/1/2017	6/1/2032	6/1/2014	6/1/2029	0	14SP
KCPS	AG2-2013-016	78297452	WPEK	KCPL	101	6/1/2014	6/1/2020	6/1/2017	6/1/2023	6/1/2014	6/1/2020	0	14SP
KCPS	AG2-2013-017	78297459	WPEK	KCPL	60	6/1/2014	10/1/2018	6/1/2015	10/1/2019	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	6/1/2014	4/1/2032	6/1/2014	4/1/2032	0	14SP
KCPS	AG2-2013-020	78297553	WPEK	KCPL	100	6/1/2014	4/1/2032	6/1/2015	4/1/2033	6/1/2014	4/1/2032	0	14SP
KCPS	AG2-2013-021	78297555	WPEK	KCPL	50	6/1/2014	4/1/2032	6/1/2014	4/1/2032	6/1/2014	4/1/2032	0	14SP
KCPS	AG2-2013-023	78315409	EES	KCPL	300	6/1/2014	6/1/2031	6/1/2014	6/1/2031	6/1/2014	6/1/2031	0	14SP
MIDW	AG2-2013-028	78053092	WR	WR	1	1/1/2014	1/1/2019	6/1/2014	6/1/2019	6/1/2014	6/1/2019	0	14SP
OGE	AG2-2013-029	78332271	OKGE	OKGE	74	12/1/2013	6/1/2030	6/1/2015	12/1/2031	6/1/2014	12/1/2030	0	14SP
OMPA	AG2-2013-030	78294577	OKGE	OKGE	29	12/1/2013	6/1/2030	6/1/2015	12/1/2031	6/1/2014	12/1/2030	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

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	[1] Letter of Credit Amount Required	[2] Potential Base Plan Engineering and Construction Funding Allowable	Notes	[4] Additional Engineering and Construction Cost for 3rd Party Upgrades	[3 5] Total Revenue Requirements for Assigned Upgrades Over Term of Reservation WITH Potential Base Plan Funding Allocation	Point-to-Point Base Rate Over Reservation Period	[4] Total Cost of Reservation Assignable to Customer Contingent Upon Base Plan Funding
AECC	AG2-2013-001	78296916	$ -	$ -	$ -		Indeterminate	$ -	$ -	Schedule 9 & 11 Charges
AECC	AG2-2013-002	78296940	$ -	$ -	$ -		$ -	$ -	$ -	Schedule 9 & 11 Charges
AEPM	AG2-2013-003	78297201	$ 5,207,617	$ 5,207,617	$ -		$ -	$ 10,687,310	$ -	$ 10,687,310
GRDX	AG2-2013-004	78295225	$ 205,640	$ -	$ 205,640		$ -	$ -	$ -	Schedule 9 & 11 Charges
GSECGS	AG2-2013-005	78291873	$ 25,878,855	$ -	$ 25,878,855		$ -	$ -	$ -	Schedule 9 & 11 Charges
HZN	AG2-2013-006	78297146	$ -	$ -	$ -		Indeterminate	$ -	$ 6,528,000	$ 6,528,000
HZN	AG2-2013-010	78297226	$ -	$ -	$ -	6,7	Indeterminate	$ -	$ 3,302,400	$ 3,302,400
HZN	AG2-2013-011	78297228	$ -	$ -	$ -	6,7	Indeterminate	$ -	$ 3,302,400	$ 3,302,400
HZN	AG2-2013-012	78297229	$ -	$ -	$ -	6,7	Indeterminate	$ -	$ 3,302,400	$ 3,302,400
KCPS	AG2-2013-013	78297422	$ -	$ -	$ -		$ -	$ -	$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-014	78297429	$ 1,373,289	$ -	$ 1,373,289		$ -	$ -	$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-015	78297445	$ 712,884	$ -	$ 712,884		$ -	$ -	$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-016	78297452	$ 261,416	$ -	$ 261,416		$ -	$ -	$ -	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	$ 82,825	$ -	$ 82,825		$ -	$ -	$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-020	78297553	$ -	$ -	$ -		$ -	$ -	$ -	Schedule 9 & 11 Charges
KCPS	AG2-2013-021	78297555	$ 129,414	$ -	$ 129,414		$ -	$ -	$ -	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	$ 321,403	$ -	$ 321,403		$ -	$ -	$ -	Schedule 9 & 11 Charges
OMPA	AG2-2013-030	78294577	$ -	$ -	$ -		$ -	$ -	$ -	Schedule 9 & 11 Charges
SPSM	AG2-2013-031	78297403	$ 60,492,637	$ 60,492,640	$ -		$ -	$ 228,607,000	$ -	$ 228,607,000
SPSM	AG2-2013-032	78297431	$ 87,179,840	$ 87,179,840	$ -		$ -	$ 329,398,400	$ -	$ 329,398,400
Grand Total			**$ 181,845,820**		**$ 28,965,726**			**$ 568,692,710**		

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	6/1/2017	6/1/2022	$ -	$ -	$ -	$ -
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78296916	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78296916	412SUB - KANSAS TAP 161KV CKT 1	7/1/2015	6/1/2017		Yes
	412SUB - KERR 161KV CKT 1	7/1/2015	6/1/2017		Yes
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
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		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
78296916	BULL SHOALS - MIDWAY (YVEPA) 161KV CKT 1	7/1/2015	7/1/2015			37.75%	100.00%
	NORTH WARSAW - TRUMAN 161KV CKT 1 SWPA #1	7/1/2015	6/1/2016		Yes	$ -	$ -
	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1 AECC	6/1/2019	6/1/2019			$ 26,061	$ 26,061
					Total	$ 26,061	$ 26,061

*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 resevation 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			$ -	$ -	$ 5,207,617	$ 10,687,312
									$ -	$ -	$ 5,207,617	$ 10,687,312

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297201	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	6/1/2019	6/1/2019			$ 2,929,435	$ 3,049,257	$ 6,070,978
	SOUTH HUDSON - TULSA SOUTHEAST 138KV CKT 1	6/1/2019	6/1/2019			$ 2,278,182	$ 2,364,000	$ 4,616,335
					Total	$ 5,207,617	$ 5,413,257	$ 10,687,312

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		

*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	6/1/2014	12/1/2030	$ 205,640	$ -	$ 205,640	$ 533,986
									$ 205,640	$ -	$ 205,640	$ 533,986

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78295225	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	6/1/2019	6/1/2019			$ 119,822	$ 3,049,257	$ 314,056
	SOUTH HUDSON - TULSA SOUTHEAST 138KV CKT 1	6/1/2019	6/1/2019			$ 85,818	$ 2,364,000	$ 219,929
					Total	$ 205,640	$ 5,413,257	$ 533,986

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		

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		

*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	$ 25,878,855	$ -	$ 25,878,855	$ 118,450,266
									$ 25,878,855	$ -	$ 25,878,855	$ 118,450,266

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78291873	ALLEN SUB - LUBBOCK SOUTH INTERCHANGE 115KV CKT 1 Accelerate	1/1/2017	6/1/2017		Yes	$ 1,183,148	$ 1,183,148	$ 5,815,968
	CARLISLE INTERCHANGE - MURPHY SUB 115KV CKT 1	1/1/2017	6/1/2017			$ 1,330,420	$ 1,330,420	$ 7,416,670
	PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1	6/1/2019	6/1/2019			$ 293,133	$ 1,945,000	$ 1,470,081
	Potter to Tolk 345 kV	12/15/2014	6/1/2019		No	$ 23,072,154	$ 168,852,765	$ 103,747,548
					Total	$ 25,878,855	$ 173,311,333	$ 118,450,266

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	Line - Clark County - Thistle 345 kV dbl Ckt	6/1/2014	1/1/2015		
	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		
	Line - Thistle - Wichita 345 kV dbl Ckt PW	6/1/2014	1/1/2015		
	Line - Thistle - Wichita 345 kV dbl Ckt WERE	6/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbl Ckt OKGE	6/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbl 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	Amoco - Hobbs 345 kV Ckt 1**	12/15/2014	1/1/2020		No
	Amoco - Tuco 345 kV Ckt 1**	12/15/2014	1/1/2020		No
	Amoco 345/230 kV Transformer Ckt 1**	12/15/2014	1/1/2020		No
	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	12/15/2014	6/1/2016		
	Carlisle Interchange - Wolfforth Interchange 230 kV Ckt 1	12/15/2014	6/1/2017		Yes
	CARLISLE INTERCHANGE (WH XHS70711) 230/115/13.2KV TRANSFORMER CKT 1	6/1/2019	6/1/2019		
	Grassland - Wolfforth 230 kV Ckt 1	6/1/2019	6/1/2019		
	Indiana - Stanton 115 kV Ckt 1**	12/15/2014	6/1/2019		Yes
	MULTI - Tuco-New Deal 345 kV**	12/15/2014	6/1/2019		Yes
	Optima 345/115 kV	6/1/2015	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 - SP Erskine 115 kV Ckt 1	12/15/2014	6/1/2019		Yes
	CARLISLE INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1	6/1/2015	6/1/2016		
	HITCHLAND INTERCHANGE () 230/115/13.2KV TRANSFORMER CKT 2 Accelerate	6/1/2015	6/1/2017		Yes
	Indiana - SP Erskine 115 kV Ckt 1 Accelerate	12/15/2014	6/1/2019		Yes

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

**These reliability projects may potentially be identified as cost allocated Service Upgrades in subsequent interations subject to their re-evaluation in the High Priority incremental load study (HPILS)

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	6/1/2017	6/1/2022	$ -	$ 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	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #1 Accelerate	6/1/2014	6/1/2015		
	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #2 Accelerate	6/1/2014	6/1/2017		
	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #2 Accelerate	6/1/2014	6/1/2017		

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	BULL SHOALS - MIDWAY (YVEPA) 161KV CKT 1	7/1/2015	7/1/2015			12.19%	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.

*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	6/1/2017	6/1/2022	$ -	$ 3,302,400	$ -	$ -
									$ -	$ 3,302,400	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297226	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297226	412SUB - KANSAS TAP 161KV CKT 1	7/1/2015	6/1/2017		
	412SUB - KERR 161KV CKT 1	7/1/2015	6/1/2017		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
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	BULL SHOALS - MIDWAY (YVEPA) 161KV CKT 1	7/1/2015	7/1/2015			16.85%	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.
*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	6/1/2017	6/1/2022	$ -	$ 3,302,400	$ -	$ -
									$ -	$ 3,302,400	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297228	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297228	412SUB - KANSAS TAP 161KV CKT 1	7/1/2015	6/1/2017		
	412SUB - KERR 161KV CKT 1	7/1/2015	6/1/2017		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
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 - 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
78297228	BULL SHOALS - MIDWAY (YVEPA) 161KV CKT 1	7/1/2015	7/1/2015			17.67%	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.

*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	6/1/2017	6/1/2022	$ -	$ 3,302,400	$ -	$ -
									$ -	$ 3,302,400	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297229	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297229	412SUB - KANSAS TAP 161KV CKT 1	7/1/2015	6/1/2017		
	412SUB - KERR 161KV CKT 1	7/1/2015	6/1/2017		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		
	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
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 - 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
78297229	BULL SHOALS - MIDWAY (YVEPA) 161KV CKT 1	7/1/2015	7/1/2015			15.55%	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.

*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	6/1/2017	6/1/2032	$ 1,373,289	$ -	$ 1,373,289	$ 3,010,347
									$ 1,373,289	$ -	$ 1,373,289	$ 3,010,347

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297429	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	6/1/2014	6/1/2017		Yes	$ 1,373,289	$ 2,559,827	$ 3,010,347
					Total	$ 1,373,289	$ 2,559,827	$ 3,010,347

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

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	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #1 Accelerate	6/1/2014	6/1/2015		Yes
	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #2 Accelerate	6/1/2014	6/1/2017		Yes
	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #2 Accelerate	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
78297429	BARBER - MEDICINE LODGE 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		
	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		
	LYONS - RICE_CO 115KV CKT 1	10/1/2012	4/1/2013		
	LYONS - WHEATLAND 115KV CKT 1 #1	10/1/2012	7/15/2013		
	LYONS - WHEATLAND 115KV CKT 1 #2	10/1/2012	7/15/2013		
	MCNAB REC - TURK 115KV CKT 1	7/1/2012	7/1/2012		

*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	6/1/2017	6/1/2032	$ 712,884	$ -	$ 712,884	$ 1,562,692
									$ 712,884	$ -	$ 712,884	$ 1,562,692

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297445	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	6/1/2014	6/1/2017		Yes	$ 712,884	$ 2,559,827	$ 1,562,692
					Total	$ 712,884	$ 2,559,827	$ 1,562,692

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

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 - BLUE SPRINGS EAST 161KV CKT 1 #1 Accelerate	6/1/2014	6/1/2015		Yes
	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #2 Accelerate	6/1/2014	6/1/2017		Yes
	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #2 Accelerate	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	6/1/2017	6/1/2023	$ 261,416	$ -	$ 261,416	$ 410,298
									$ 261,416	$ -	$ 261,416	$ 410,298

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297452	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	6/1/2014	6/1/2017		Yes	$ 261,416	$ -	$ 261,416	$ 2,559,827	$ 410,298
					Total	$ 261,416	$ -	$ 261,416	$ 2,559,827	$ 410,298

*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	6/1/2015	10/1/2019	$ -	$ -	$ -	$ -
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297459	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
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	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		

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		

*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					$ -	$ -	$ -
					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	AG2-2013-019

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			$ 82,825	$ -	$ 82,825	$ 198,584
									$ 82,825	$ -	$ 82,825	$ 198,584

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297546	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	6/1/2014	6/1/2017			$ 82,825	$ -	$ 82,825	$ 2,559,827	$ 198,584
					Total	$ 82,825	$ -	$ 82,825	$ 2,559,827	$ 198,584

*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	6/1/2015	4/1/2033	$ -	$ -	$ -	$ -
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297553	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
78297553	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
78297553	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		

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		

*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			$ 129,414	$ -	$ 129,414	$ 310,288
									$ 129,414	$ -	$ 129,414	$ 310,288

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297555	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	6/1/2014	6/1/2017			$ 129,414	$ -	$ 129,414	$ 2,559,827	$ 310,288
					Total	$ 129,414	$ -	$ 129,414	$ 2,559,827	$ 310,288

*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			$ -	$ -	$ -	$ -
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78315409	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
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		
	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**
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	6/1/2014	6/1/2019	$ -	$ -	$ -	$ -
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78053092	None					$ -	$ -	$ -
					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
78053092	Line - Clark County - Thistle 345 kV dbl Ckt	6/1/2014	1/1/2015		
	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		
	Line - Thistle - Wichita 345 kV dbl Ckt PW	6/1/2014	1/1/2015		
	Line - Thistle - Wichita 345 kV dbl Ckt WERE	6/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbl Ckt OKGE	6/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kV dbl 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		

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	6/1/2015	12/1/2031	$ 321,403	$ -	$ 321,403	$ 833,514
									$ 321,403	$ -	$ 321,403	$ 833,514

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78332271	DIVISION AVE - LAKESIDE 138KV CKT 1 Accelerate	6/1/2015	6/1/2017			$ 221,403	$ 221,403	$ 603,266
	DIVISION AVE - MUSTANG 138KV CKT 1	10/1/2019	10/1/2019			$ 100,000	$ 100,000	$ 230,248
					Total	$ 321,403	$ 321,403	$ 833,514

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	HEFNER - TULSA 138KV CKT 1	6/1/2019	6/1/2019		
	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 3 Accelerated	6/1/2014	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		
	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**
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	$ -	$ -	$ -	$ -
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78294577	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
78294577	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 3 Accelerated	6/1/2014	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
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	$ -	$ -	$ 60,492,637	$ 228,606,969
									$ -	$ -	$ 60,492,637	$ 228,606,969

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297403	CHAVES COUNTY INTERCHANGE - SAN JUAN MESA TAP 230KV CKT 1	10/1/2019	10/1/2019			$ -	$ 105,071	$ 105,071	$ 240,000	$ 421,322
	PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1	6/1/2019	6/1/2019			$ -	$ 731,274	$ 731,274	$ 1,945,000	$ 3,077,527
	Potter to Tolk 345 kV	12/15/2014	6/1/2019		No	$ -	$ 59,656,292	$ 59,656,292	$ 168,852,765	$ 225,108,121
					Total	$ -	$ 60,492,637	$ 60,492,637	$ 171,037,765	$ 228,606,969

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	Line - Clark County - Thistle 345 kV dbl Ckt	6/1/2014	1/1/2015		Yes
	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		Yes
	Line - Thistle - Wichita 345 kV dbl Ckt PW	6/1/2014	1/1/2015		Yes
	Line - Thistle - Wichita 345 kV dbl Ckt WERE	6/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbl Ckt OKGE	6/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbl Ckt PW	6/1/2014	1/1/2015		Yes
	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		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
78297403	Amoco - Hobbs 345 kV Ckt 1**	12/15/2014	1/1/2020		No
	Amoco - Tuco 345 kV Ckt 1**	12/15/2014	1/1/2020		No
	Amoco 345/230 kV Transformer Ckt 1**	12/15/2014	1/1/2020		No
	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	12/15/2014	6/1/2016		Yes
	Carlisle Interchange - Wolfforth Interchange 230 kV Ckt 1	12/15/2014	6/1/2017		Yes
	Elk City to Gracemont 345kV AEPW	12/15/2014	3/1/2018		Yes
	Elk City to Gracemont 345kV OKGE	12/15/2014	3/1/2018		Yes
	Grassland - Wolfforth 230 kV Ckt 1	6/1/2019	6/1/2019		
	MULTI - Tuco-New Deal 345 kV**	12/15/2014	6/1/2019		Yes
	Optima 345/115 kV	6/1/2015	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 - SP Erskine 115 kV Ckt 1	12/15/2014	6/1/2019		Yes
	CARLISLE INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1	6/1/2015	6/1/2016		Yes
	HITCHLAND INTERCHANGE () 230/115/13.2KV TRANSFORMER CKT 2 Accelerate	6/1/2015	6/1/2017		Yes
	Indiana - Stanton 115 kV Ckt 1**	12/15/2014	6/1/2019		Yes
	Indiana - SP Erskine 115 kV Ckt 1 Accelerate	12/15/2014	6/1/2019		Yes
	Mustang to Shell CO2 115 kV	6/1/2019	6/1/2019		
	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 3 Accelerated	6/1/2014	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
78297403	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.

**These reliability projects may potentially be identified as cost allocated Service Upgrades in subsequent interations subject to their re-evaluation in the High Priority incremental load study (HPILS)

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	$ -	$ -	$ 87,179,840	$ 329,398,357
									$ -	$ -	$ 87,179,840	$ 329,398,357

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
78297431	CHAVES COUNTY INTERCHANGE - SAN JUAN MESA TAP 230KV CKT 1	10/1/2019	10/1/2019			$ -	$ 134,929	$ 134,929	$ 240,000	$ 541,049
	PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1	6/1/2019	6/1/2019			$ -	$ 920,592	$ 920,592	$ 1,945,000	$ 3,874,261
	Potter to Tolk 345 kV	12/15/2014	6/1/2019		No	$ -	$ 86,124,319	$ 86,124,319	$ 168,852,765	$ 324,983,048
					Total	$ -	$ 87,179,840	$ 87,179,840	$ 171,037,765	$ 329,398,357

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	Line - Clark County - Thistle 345 kV dbl Ckt	6/1/2014	1/1/2015		Yes
	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		Yes
	Line - Thistle - Wichita 345 kV dbl Ckt PW	6/1/2014	1/1/2015		Yes
	Line - Thistle - Wichita 345 kV dbl Ckt WERE	6/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbl Ckt OKGE	6/1/2014	1/1/2015		Yes
	Line - Thistle - Woodward 345 kV dbl Ckt PW	6/1/2014	1/1/2015		Yes
	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		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
78297431	Amoco - Hobbs 345 kV Ckt 1**	12/15/2014	1/1/2020		No
	Amoco - Tuco 345 kV Ckt 1**	12/15/2014	1/1/2020		No
	Amoco 345/230 kV Transformer Ckt 1**	12/15/2014	1/1/2020		No
	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	12/15/2014	6/1/2016		Yes
	Carlisle Interchange - Wolfforth Interchange 230 kV Ckt 1	12/15/2014	6/1/2017		Yes
	Elk City to Gracemont 345kV AEPW	12/15/2014	3/1/2018		Yes
	Elk City to Gracemont 345kV OKGE	12/15/2014	3/1/2018		Yes
	Grassland - Wolfforth 230 kV Ckt 1	6/1/2019	6/1/2019		
	MULTI - Tuco-New Deal 345 kV**	12/15/2014	6/1/2019		Yes
	Optima 345/115 kV	6/1/2015	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
78297431	Carlisle - SP Erskine 115 kV Ckt 1	12/15/2014	6/1/2019		Yes
	CARLISLE INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1	6/1/2015	6/1/2016		Yes
	HITCHLAND INTERCHANGE () 230/115/13.2KV TRANSFORMER CKT 2 Accelerate	6/1/2015	6/1/2017		Yes
	Indiana - Stanton 115 kV Ckt 1**	12/15/2014	6/1/2019		Yes
	Indiana - SP Erskine 115 kV Ckt 1 Accelerate	12/15/2014	6/1/2019		Yes
	Mustang to Shell CO2 115 kV	6/1/2019	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
78297431	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

**These reliability projects may potentially be identified as cost allocated Service Upgrades in subsequent interations subject to their re-evaluation in the High Priority incremental load study (HPILS)

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AEPW	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	Rebuild 1 mile of 138 kV with 2-795 ACSR. Replace 36th & Lewis wavetrap & reset CTs.	6/1/2019	6/1/2019	$3,049,257.33
AEPW	SOUTH HUDSON - TULSA SOUTHEAST 138KV CKT 1	Rebuild 1.97 miles	6/1/2019	6/1/2019	$2,364,000.00
MIPU	LONGVIEW - WESTERN ELECTRIC 161KV CKT 1 #2	Rebuild 3.6 miles	6/1/2014	6/1/2017	$2,559,827.35
OKGE	DIVISION AVE - LAKESIDE 138KV CKT 1 Accelerate	Rebuild 3.58 mile line with 1590AS52 Conductor	6/1/2015	6/1/2017	$221,403.00
OKGE	DIVISION AVE - MUSTANG 138KV CKT 1	Upgrade Mustang Terminal	10/1/2019	10/1/2019	$100,000.00
SPS	ALLEN SUB - LUBBOCK SOUTH INTERCHANGE 115KV CKT 1 Accelerate	Rebuild 6 miles of 115 kV line from Lubbock South Interchange to Allen Substation.	1/1/2017	6/1/2017	$1,183,148.00
SPS	CARLISLE INTERCHANGE - MURPHY SUB 115KV CKT 1	Rebuild 2.236 miles	1/1/2017	6/1/2017	$1,330,420.00
SPS	CHAVES COUNTY INTERCHANGE - SAN JUAN MESA TAP 230KV CKT 1	Replace Terminal Equipment	10/1/2019	10/1/2019	$240,000.00
SPS	PLANT X STATION (WH ALM20171) 230/115/13.2KV TRANSFORMER CKT 1	Replace Terminal Equimnent	6/1/2019	6/1/2019	$1,945,000.00
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	12/15/2014	6/1/2019	$168,852,765.00

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)
KACP	Iatan - Jeffrey Energy Center 345 kV KACP	Build 14.2 miles of new 345 kV	6/1/2014	6/1/2019
MIPU	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #1 Accelerate	Upgrade wave trap.	6/1/2014	6/1/2015
MIPU	BLUE SPRING SOUTH - BLUE SPRINGS EAST 161KV CKT 1 #2 Accelerate	Reconductor 2.5 mile from Blue Springs South - Blue Springs East 161 kV to 795 ACSS. Upgrade substation equipment to 2000 Amps.	6/1/2014	6/1/2017
MIPU	BLUE SPRING SOUTH - PRAIRIE LEE 161KV CKT 1 #2 Accelerate	Reconductor 3.21 miles from Blue Springs South to Prairie Lee 161 kV to 954 ACSS. Upgrade substation equipment to 2000 Amps.	6/1/2014	6/1/2017
OKGE	HEFNER - TULSA 138KV CKT 1	Reconductor 1.25 mile 138 kV Hefner - Tulsa transmission line with 1590AS52 conductor	6/1/2019	6/1/2019
OKGE	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 3 Accelerated	Install third 345/138 kV Bus Tie in Northwest Sub	6/1/2014	6/1/2015
SPS	Carlisle - SP Erskine 115 kV Ckt 1	Reconductor 1.49 miles from Carlisle to SP-Erskine.	12/15/2014	6/1/2019
SPS	CARLISLE INTERCHANGE - TUCO INTERCHANGE 230KV CKT 1	Replace Terminal Equipment	6/1/2015	6/1/2016
SPS	HITCHLAND INTERCHANGE () 230/115/13.2KV TRANSFORMER CKT 2 Accelerate	Build a second 230/115/13.2 kV transformer at Hitchland.	6/1/2015	6/1/2017
SPS	Indiana - SP Erskine 115 kV Ckt 1 Accelerate	Reconductor 4 miles from Indiana to SP-Erskine.	12/15/2014	6/1/2019
SPS	Mustang to Shell CO2 115 kV	Build 6.3 mile 115 kV line from Mustang to Shell CO2 Build a new 6.9 mile 115kV line between the Mustang and Shell CO2 substations.	6/1/2019	6/1/2019
WERE	Iatan - Jeffrey Energy Center 345 kV WERE	Build 56.8 miles of new 345 kV	6/1/2014	6/1/2019

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)
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
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 Distric 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	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
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 to Gracemont 345kV AEPW	Build new 46.5 mile 345 kV line from Elk City to Gracemont (AEP portion).	12/15/2014	3/1/2018
GRDA	412SUB - KANSAS TAP 161KV CKT 1	Remove limiting Element, Line Switches 1200A increase to 2000A	7/1/2015	6/1/2017
GRDA	412SUB - KERR 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	6/1/2019	6/1/2019
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
OKGE	Elk City to Gracemont 345kV OKGE	Build new 46.5 mile 345 kV line from Elk City to Gracemont (OGE portion).	12/15/2014	3/1/2018
SPS	Amoco - Hobbs 345 kV Ckt 1	Build new 100 mile Amoco - Hobbs 345 kV line. Expand the Hobbs substation.	12/15/2014	1/1/2020
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	Amoco 345/230 kV Transformer Ckt 1	Install new 345/230 kV transformer at Amoco.	12/15/2014	1/1/2020
SPS	BUSHLAND INTERCHANGE - DEAF SMITH COUNTY INTERCHANGE 230KV CKT 1	Upgrade 800A wave trap at both Bushland Interchange and Deaf Smith Interchange to at least 428 MVA Winter Rate B. Deaf Smith - Replace existing wave trap so that the limiting factor of K-11 terminal at Deaf Smith will be no less than 1200 A.	12/15/2014	6/1/2016

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

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	CARLISLE INTERCHANGE (WH XHS70711) 230/115/13.2KV TRANSFORMER CKT 1	Upgrade transformer to 250 MVA.	6/1/2019	6/1/2019
SPS	Grassland - Wolfforth 230 kV Ckt 1	Build new 230 kV line from Wolfforth to Grassland, and install terminal equipment at Grassland and Wolfforth substations.	6/1/2019	6/1/2019
SPS	Indiana - Stanton 115 kV Ckt 1	Reconductor 1.5 miles line from Indiana to Stanton.	12/15/2014	6/1/2019
SPS	MULTI - Tuco-New Deal 345 kV	New 345/155kV transformer between Tuco and Stanton, Build new 345kV line between Tuco and high side of new transformer between Tuco and Stanton, Build new 115kV line between Stanton and low side of new transformer between Tuco and Stanton	12/15/2014	6/1/2019
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	42156	43617

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	Recunductor 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 cofiguration	7/1/2012	7/1/2012
AEPW	BANN - RED SPRINGS REC 138KV CKT 1	Replace 138 kV breakers 3300 & 3310	7/1/2012	7/1/2012
AEPW	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	Vallient 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
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 - ORONOGO JCT. - SUB 167 - RIVERTON 161KV CKT 1	Reconductor Oronogo 59467 to Riverton 59469 with Bundled 556 ACSR	6/1/2011	6/1/2011
KACP	LACYGNE - WEST GARDNER 345KV CKT 1	KCPL Sponsored Project to Reconductor Line to be In-Service by 6/1/2006	6/1/2006	6/1/2006
MIDW	LYONS - RICE_CO 115KV CKT 1	Rebuild 11.7 mile line	10/1/2012	4/1/2013
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
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

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

OKGE	TATONGA - WOODWARD 345KV CKT 1	Build 345 kV line	1/1/2010	1/1/2010
WERE	LYONS - WHEATLAND 115KV CKT 1 #1	Replace CTs	10/1/2012	7/15/2013
WERE	LYONS - WHEATLAND 115KV CKT 1 #2	Rerate circuit to 1000 amps	10/1/2012	7/15/2013
WFEC	ALTUS SW - NAVAJO 69KV CKT 1	Upgrade Terminal Equipment at Altus SW, 300-600A, new rating conductor 53/65MVA	6/1/2013	6/1/2013
WFEC	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	New 19 miles 345 KV	7/1/2012	7/1/2012

Table 5 - Third Party Facility Constraints

Transmission Owner	UpgradeName	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AECC	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1 AECC	Upgrade 1272 AAC bus at Farmington REC.	6/1/2019	6/1/2019	$26,061.00
SWPA	BULL SHOALS - MIDWAY (YVEPA) 161KV CKT 1	Indeterminate	7/1/2015	7/1/2015	Indeterminate
SWPA	NORTH WARSAW - TRUMAN 161KV CKT 1 SWPA #1	Replace wave trap and CTs at Truman.	7/1/2015	6/1/2016	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.