



AGGREGATE FACILITIES STUDY

SPP-2016-AG2

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CONTENTS

Revision History..... i

Executive Summary..... 1

Introduction..... 1

Financial Analysis..... 3

Make-whole payment 4

Third-Party Facilities 4

Study Methodology 5

Study Results..... 7

Conclusion 10

Appendix A 11

EXECUTIVE SUMMARY

This study report provides preliminary results for Southwest Power Pool, Inc. (SPP) Aggregate Transmission Service Study (ATSS) SPP-2016-AG2. Pursuant to Attachment Z1 of the SPP Open Access Transmission Tariff (OATT), 963 MW of long-term transmission service requests have been studied in this Aggregate Facilities Study (AFS).

The principal objective of the AFS is to identify system problems and potential modifications necessary to facilitate these transfers while maintaining or improving system reliability, as well as summarizing the operating limits and determination of the financial characteristics associated with facility upgrades. Facility upgrade costs are allocated on a prorated basis to all requests positively impacting any individual overloaded facility.

Transmission Customers (Customer) requesting service in this study specified five parameters under which they agreed to confirm service. The five parameters are:

1. Directly Assigned Upgrade Cost
2. Third-Party Upgrade Cost
3. Latest Deferred Start Date
4. Interim Re-dispatch Acceptance
5. Letter of Credit Amount

This final study report provides details and indicates for each request whether any of the five parameters were exceeded. The specific parameters defined by the Customer are confidential and will not be included in this report.

SPP will accept the requests in which the specified study parameters were met and will tender a Service Agreement for each of these requests identifying the terms and conditions of the confirmed service. SPP has refused all requests in which the parameters were exceeded.

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

All requests for long-term transmission service with a Completed Application received before December 1, 2016 have been included in this ATSS.

The results of the AFS are detailed in Tables 1 through 7. Detailed results depict individual upgrade costs by study and potential base plan allowances determined by Attachments J and Z1 of the SPP OATT.

To understand the extent to which Base Plan Upgrades may be applied to both Point-to-Point (PTP) and Network Integration Transmission Services (NITS), it is necessary to highlight the definition of Designated Resource. Per Section 1 of the SPP OATT, a Designated Resource is:

“Any 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.”

Both NITS and PTP service have 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 Customer must provide SPP information necessary to verify that the new or changed Designated Resource meets the following conditions:

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

According to Attachment Z1 Section V.A, PTP Customers pay the higher of the monthly transmission access charge (base rate) or the monthly revenue requirement associated with the directly assigned portion of the Service Upgrade, if any.

NITS Customers pay the total monthly transmission access charges and the monthly revenue requirement associated with the directly assigned portion of the Service Upgrade, if any.

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. 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. 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 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. Table 6 lists possible generation pairs that could be used to allow start of service prior to completion of assigned Network Upgrades by utilizing interim re-dispatch. Table 7 lists the costs allocated per request for each Service Upgrade assigned in this AFS.

By taking the transmission service subject to interim redispatch, the Customer agrees to any limitations to Auction Revenue Rights that may result. In the absence of implementation of interim redispatch as requested by SPP for Customer transactions resulting in overloads on limiting facilities, SPP may curtail the Customer’s 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 5, Use of Interim Redispatch, in Appendix 1 of the Aggregate Facilities Study Agreement, 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 Customer will pay the total E&C costs and other annual operating costs associated with the new facilities.

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 through 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 deferred or displaced by an earlier in service date for a requested upgrade, the methodology for achievable base plan avoided revenue requirements shall be determined per Attachment J, Section VII.A or Section VII.B, respectively. 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.

MAKE-WHOLE PAYMENT

Make-whole payment (MWP) is a potential cost that may be allocated to a Request in a completed AFS meeting the Study Completion Conditions but with unresolved third party impacts. For a Request with identified third party impact(s) where the Customer has not notified SPP of a successful conclusion to the third-party negotiation by the deadline described in Section III.D.2 of Attachment Z1 in the OATT, SPP will deem the Request to be terminated and withdrawn and the Customer may be subject to a MWP in accordance with Section III.D.4 of Attachment Z1 in the OATT. The calculation of the Customer's MWP shall include any impacts to subsequent completed AFS(s).

The MWP assigned to a withdrawn Request will be any reallocated upgrade costs that are in excess of the sum of (i) the DAUC and (ii) the amounts included in rates, for any remaining confirmed Request(s).

If there is more than one withdrawn Request then the MWP, if any, shall be assigned to the withdrawn Customers based upon the impact of the withdrawal of each withdrawn Customer's request on those upgrades for which the DAUC increased for the confirmed requests, thereby resulting in the MWP. Upgrade costs for facilities only required by the withdrawn Customer's request(s) shall not be included as part of the calculation of the MWP. A Customer required to pay a MWP will enter into a Sponsored Upgrade Agreement with SPP in accordance with Attachment J of the OATT and will be eligible for revenue credits in accordance with Attachment Z2 of the OATT.

THIRD-PARTY FACILITIES

For third-party facilities listed in Table 3 and Table 5, the Customer is responsible for funding the necessary upgrades of these facilities per Section 21.1 of SPP's OATT. Total E&C cost estimates for required third-party facility upgrades are not applicable. SPP will undertake reasonable efforts to assist the 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 SPP 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 SPP prior to tendering of a Transmission Service Agreement. These facilities also include those owned by members of SPP who have not placed their facilities under SPP's OATT. Upgrades on the Southwest Power Administration (SWPA) 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 with the applicable Transmission Providers for study of third party facilities for service that sinks outside the SPP footprint.

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 consistent with current SPP Criteria and NERC Reliability Standards requirements. 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 monitored elements include all SPP control area branches, ties, and buses 69 kV and above, and all first tier non-SPP control area branches and ties 115 kV and above. Voltage monitoring was performed for SPP control area buses 69 kV and above.

A 3% transfer distribution factor (TDF) cutoff was applied to all SPP control area facilities. For first tier non-SPP control area facilities, a 3% TDF cutoff was applied to AECL, AMRN (Ameren), and ENTR (Entergy) control areas. 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 the following 2015 Integrated Transmission Planning (ITP) models, used in the 2016 ITP Near Term, to study the aggregate transfers over a variety of requested service periods and to determine the impact of the requested service on the transmission system:

- 2017 Summer Peak (17SP)
- 2017/18 Winter Peak (17WP)
- 2020 Summer Peak (20SP)
- 2020/21 Winter Peak (20WP)
- 2025 Summer Peak (25SP)
- 2025/26 Winter Peak (25WP)

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 2015 Series Cases. Scenario 5 includes transmission service not already included in the SPP 2015 Series Cases.

TRANSMISSION REQUEST MODELING

NITS requests are modeled as Generation to Load transfers in addition to Generation to Generation transfers. NITS requests are modeled as Generation to Load transfers in addition to Generation to Generation because the requested NITS is a request to serve network load with the new designated network resource, and the impacts on Transmission System are determined accordingly. PTP 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. TDF 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 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 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.

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 the Siemens power flow analysis tool, Managing and Utilizing System Transmission (MUST). Relief pairs from the generation shift factors for the incremental and decremental units with a TDF greater than 3% 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. 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 AFS 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 7 contain the AFS steady-state analysis results.

TABLE 1

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, the season of first impact, and indicates which requests, if any, had parameters that were exceeded.

TABLE 2

Table 2 identifies total E&C cost allocated to each 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), PTP base rate charge, total revenue requirements for assigned upgrades with consideration of potential base plan funding, and final total cost allocation to the Customer. In addition, Table 2 identifies SWPA upgrade costs which require prepayment in addition to other allocated costs.

TABLE 3

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

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

TABLE 5

Table 5 lists identified third-party constrained facilities.

TABLE 6

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

Table 7 lists costs allocated per request for Service Upgrades assigned in this AFS.

BASE PLAN UPGRADES

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's Point of Delivery (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.

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.

SPP will accept the requests in which the specified study parameters were met and will tender a Service Agreement for each of these requests identifying the terms and conditions of the confirmed service. SPP has refused all requests in which the parameters were exceeded.

APPENDIX A

PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

BASE CASE SETTINGS:

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

ACCC CASE SETTINGS:

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

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

Customer	Study Number	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date without interim redispatch (Parameter)	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	⁵ One or More Study Parameters Exceeded
APM	AG2-2016-001	83784194	AECI	CSWS	13	6/1/2017	6/1/2027	6/1/2017	6/1/2027	Note 4	Note 4	13	17SP	NO
BRPS	AG2-2016-002	83796571	WAUE	NPPD	7	1/1/2018	1/1/2048	1/1/2018	1/1/2048	1/1/2018	1/1/2048	0	20SP	NO
ETEC	AG2-2016-003	83835435	CSWS	CSWS	40	1/1/2018	10/1/2040	1/1/2018	10/1/2040	1/1/2018	10/1/2040	0	20SP	NO
KMEA	AG2-2016-005	83795938	SPA	WR	1	6/1/2017	6/1/2027	6/1/2017	6/1/2027	6/1/2017	6/1/2027	0	17SP	NO
KPP	AG2-2016-006	83796255	NPPD	SECI	1	7/1/2017	7/1/2027	7/1/2017	7/1/2027	7/1/2017	7/1/2027	1	20SP	NO
KPP	AG2-2016-007	83796263	SECI	WR	5	7/1/2017	7/1/2027	7/1/2017	7/1/2027	7/1/2017	7/1/2027	0	20SP	NO
KPP	AG2-2016-008	83796275	WR	WR	2	7/1/2017	7/1/2027	7/1/2017	7/1/2027	7/1/2017	7/1/2027	0	20SP	NO
KPP	AG2-2016-009	83796278	WR	WR	4	7/1/2017	7/1/2027	7/1/2017	7/1/2027	7/1/2017	7/1/2027	0	20SP	NO
MEUC	AG2-2016-010	83626579	MPS	AECI	25	6/1/2017	6/1/2022	6/1/2017	6/1/2022	6/1/2017	6/1/2022	0	17SP	NO
MEUC	AG2-2016-011	83835653	MPS	AECI	25	6/1/2018	6/1/2023	6/1/2018	6/1/2023	6/1/2018	6/1/2023	0	20SP	NO
MOWR	AG2-2016-012	83507637	KCPL	MPS	18	6/1/2017	6/1/2022	6/1/2017	6/1/2022	6/1/2017	6/1/2022	0	17SP	NO
OGE	AG2-2016-013	83674448	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	9/1/2017	9/1/2047	57	20SP	NO
OGE	AG2-2016-014	83674456	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	9/1/2017	9/1/2047	57	20SP	NO
OGE	AG2-2016-015	83674479	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	9/1/2017	9/1/2047	57	20SP	NO
OGE	AG2-2016-016	83674483	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	9/1/2017	9/1/2047	57	20SP	NO
OGE	AG2-2016-017	83674491	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	9/1/2017	9/1/2047	57	20SP	NO
OGE	AG2-2016-018	83674495	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	9/1/2017	9/1/2047	57	20SP	NO
OGE	AG2-2016-019	83833583	OKGE	OKGE	49	9/1/2017	9/1/2047	9/1/2017	9/1/2047	9/1/2017	9/1/2047	49	20SP	NO
OGE	AG2-2016-020	83835408	OKGE	OKGE	8	9/1/2017	9/1/2047	9/1/2017	9/1/2047	9/1/2017	9/1/2047	8	20SP	NO
OTPW	AG2-2016-021	83837043	OTP	WAUE	27	6/1/2017	6/1/2022	6/1/2017	6/1/2022	6/1/2017	6/1/2022	27	17SP	NO
OTPW	AG2-2016-022	83837158	OTP	WAUE	16	6/1/2017	6/1/2018	6/1/2017	6/1/2018	6/1/2017	6/1/2018	16	17SP	NO
PEC	AG2-2016-023	83835426	WFEC	WFEC	24	1/1/2018	1/1/2023	1/1/2018	1/1/2023	1/1/2018	1/1/2023	24	20SP	NO
PEC	AG2-2016-024	83835487	WFEC	WFEC	75	6/1/2017	6/1/2022	6/1/2017	6/1/2022	6/1/2017	6/1/2022	0	17SP	NO
PEC	AG2-2016-025	83835507	SPA	SPA	27	6/1/2017	6/1/2027	6/1/2017	6/1/2027	6/1/2017	6/1/2027	27	17SP	NO
PEC	AG2-2016-026	83835540	OKGE	OKGE	11	6/1/2017	6/1/2027	6/1/2017	6/1/2027	6/1/2017	6/1/2027	11	17SP	NO
PEC	AG2-2016-027	83835602	WFEC	WFEC	21	6/1/2017	6/1/2027	6/1/2017	6/1/2027	6/1/2017	6/1/2027	21	17SP	NO
RPGI	AG2-2016-028	83751511	AMRN	WAUE	6	6/1/2017	6/1/2024	6/1/2017	6/1/2024	6/1/2017	6/1/2024	0	17SP	NO
WRGS	AG2-2016-029	83823834	WR	WR	20	6/1/2017	6/1/2022	6/1/2017	6/1/2022	6/1/2017	6/1/2022	15	17SP	NO
WRGS	AG2-2016-031	83823856	WR	WR	70	6/1/2017	6/1/2022	6/1/2017	6/1/2022	6/1/2017	6/1/2022	48	17SP	NO

837

Requests with Study Parameters Exceeded

KCPS	AG2-2016-004	83674359	WPEK	KCPL	50	6/1/2017	11/30/2031	6/1/2020	11/30/2031	Note 4	Note 4	0	17SP	YES
WRGS	AG2-2016-030	83823850	WR	WR	26	6/1/2017	6/1/2022	12/31/2018	12/31/2023	6/1/2017	6/1/2022	0	17SP	YES
WRGS	AG2-2016-032	83823860	WR	WR	50	6/1/2017	6/1/2022	6/1/2020	6/1/2025	6/1/2017	6/1/2022	0	17SP	YES

126

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.

Note 5: Request parameters have been exceeded.

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 (Parameter)	² Potential Base Plan Engineering and Construction Funding Allowable	Notes	⁴ Additional Engineering and Construction Cost for 3rd Party Upgrades (Parameter)	^{3,5} Total Revenue Requirements for Assigned Upgrades Over Term of Reservation WITH Potential Base Plan Funding Allocation	^{6,7} Total Gross CPOs Over Reservation Period	Point-to-Point Base Rate Over Reservation Period	⁴ Total Cost of Reservation Assignable to Customer Contingent Upon Base Plan Funding	Directly Assigned Upgrade Cost (DAUC) (Parameter)
APM	AG2-2016-001	83784194	\$43,363	\$0	\$43,363		\$0	\$0	\$172,637	\$0	Schedule 9 & 11 Charges	\$0
BRPS	AG2-2016-002	83796571	\$621	\$0	\$621		\$0	\$0	\$976	\$0	Schedule 9 & 11 Charges	\$0
ETEC	AG2-2016-003	83835435	\$109,189	\$0	\$109,189		\$0	\$0	\$492,356	\$0	Schedule 9 & 11 Charges	\$0
KMEA	AG2-2016-005	83795938	\$4,036	\$0	\$4,036		\$0	\$0	\$11,012	\$0	Schedule 9 & 11 Charges	\$0
KPP	AG2-2016-006	83796255	\$0	\$0	\$0		\$0	\$0	\$0	\$0	Schedule 9 & 11 Charges	\$0
KPP	AG2-2016-007	83796263	\$27,382	\$0	\$27,382		\$0	\$0	\$121,704	\$0	Schedule 9 & 11 Charges	\$0
KPP	AG2-2016-008	83796275	\$2,123	\$0	\$2,123		\$0	\$0	\$10,093	\$0	Schedule 9 & 11 Charges	\$0
KPP	AG2-2016-009	83796278	\$7,783	\$0	\$7,783		\$0	\$0	\$36,026	\$0	Schedule 9 & 11 Charges	\$0
MEUC	AG2-2016-010	83626579	\$0	\$0	\$0		\$0	\$0	\$0	\$4,502,978	\$4,502,978	\$0
MEUC	AG2-2016-011	83835653	\$0	\$0	\$0		\$0	\$0	\$0	\$4,502,978	\$4,502,978	\$0
MOWR	AG2-2016-012	83507637	\$0	\$0	\$0		\$0	\$0	\$0	\$0	Schedule 9 & 11 Charges	\$0
OGE	AG2-2016-013	83674448	\$2,345	\$0	\$2,345	8	\$0	\$0	\$20,783	\$0	Schedule 9 & 11 Charges	\$0
OGE	AG2-2016-014	83674456	\$2,014	\$0	\$2,014	8	\$0	\$0	\$17,849	\$0	Schedule 9 & 11 Charges	\$0
OGE	AG2-2016-015	83674479	\$2,014	\$0	\$2,014	8	\$0	\$0	\$17,849	\$0	Schedule 9 & 11 Charges	\$0
OGE	AG2-2016-016	83674483	\$2,014	\$0	\$2,014	8	\$0	\$0	\$17,849	\$0	Schedule 9 & 11 Charges	\$0
OGE	AG2-2016-017	83674491	\$2,014	\$0	\$2,014	8	\$0	\$0	\$17,849	\$0	Schedule 9 & 11 Charges	\$0
OGE	AG2-2016-018	83674495	\$2,014	\$0	\$2,014	8	\$0	\$0	\$17,849	\$0	Schedule 9 & 11 Charges	\$0
OGE	AG2-2016-019	83833583	\$2,014	\$0	\$2,014	8	\$0	\$0	\$17,849	\$0	Schedule 9 & 11 Charges	\$0
OGE	AG2-2016-020	83835408	\$0	\$0	\$0	8	\$0	\$0	\$0	\$0	Schedule 9 & 11 Charges	\$0
OTPW	AG2-2016-021	83837043	\$0	\$0	\$0		\$0	\$0	\$0	\$0	Schedule 9 & 11 Charges	\$0
OTPW	AG2-2016-022	83837158	\$0	\$0	\$0		\$0	\$0	\$0	\$0	Schedule 9 & 11 Charges	\$0
PEC	AG2-2016-023	83835426	\$435,323	\$0	\$435,323		\$0	\$0	\$672,877	\$0	Schedule 9 & 11 Charges	\$0
PEC	AG2-2016-024	83835487	\$374,108	\$0	\$374,108		\$0	\$0	\$1,430,792	\$0	Schedule 9 & 11 Charges	\$0
PEC	AG2-2016-025	83835507	\$0	\$0	\$0		\$0	\$0	\$0	\$0	Schedule 9 & 11 Charges	\$0
PEC	AG2-2016-026	83835540	\$0	\$0	\$0		\$0	\$0	\$0	\$0	Schedule 9 & 11 Charges	\$0
PEC	AG2-2016-027	83835602	\$0	\$0	\$0		\$0	\$0	\$0	\$0	Schedule 9 & 11 Charges	\$0
RPGI	AG2-2016-028	83751511	\$18,795	\$18,795	\$0		\$0	\$0	\$54,621	\$0	Schedule 9 & 11 Charges	\$18,795
WRGS	AG2-2016-029	83823834	\$1,668,038	\$65,328	\$1,602,711		\$0	\$0	\$2,069,039	\$0	Schedule 9 & 11 Charges	\$65,328
WRGS	AG2-2016-031	83823856	\$1,446,531	\$1,381,747	\$64,785		\$0	\$0	\$2,743,819	\$0	Schedule 9 & 11 Charges	\$1,381,747
Grand Total			\$4,151,723		\$2,685,853		\$0	\$0	\$7,943,827			\$1,465,870
Requests with Study Parameters Exceeded												
KCPS	AG2-2016-004	83674359	\$1,992,498	\$1,992,498	\$0		\$0	\$0	\$3,893,900	\$0	Schedule 9 & 11 Charges	\$ 1,992,498
WRGS	AG2-2016-030	83823850	\$2,139,463	\$2,110,486	\$28,977		\$0	\$0	\$2,683,297	\$0	Schedule 9 & 11 Charges	\$ 2,110,486
WRGS	AG2-2016-032	83823860	\$7,744,191	\$7,691,822	\$52,369		\$0	\$0	\$9,214,292	\$0	Schedule 9 & 11 Charges	\$ 7,691,822
Grand Total			\$11,876,151		\$81,345		\$0	\$0				\$ 11,794,806

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

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

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

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

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

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

Note 6: RR for creditable upgrades.

Note 7: CPOs may be calculated based on estimated upgrade cost and are subject to change.

Note 8: CPOs for creditable upgrade(s) may be required based on completion of GI review.

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

Customer Study Number
APM AG2-2016-001

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
APM	83784194	AECI	CSWS	13	6/1/2017	6/1/2027	6/1/2017	6/1/2027	\$ 43,363	\$ -	\$ 43,363	\$ 172,637
									\$ 43,363	\$ -	\$ 43,363	\$ 172,637

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83784194	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	Allocated E & C Cost	Total Revenue Requirements
83784194	HUGO - VALLIANT 345KV CKT 1	6/8/2012	6/8/2012			\$ 13,581	\$ 65,044
	Kingfisher Co Tap - Mathewson 345kv CKT 1	3/1/2018	3/1/2018			\$ 1,004	\$ 1,164
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 18,369	\$ 85,386
	TURK 138/115KV TRANSFORMER CKT 1	12/1/2011	12/1/2011			\$ 1,955	\$ 2,744
	Valliant 345 kv (AEP)	4/17/2012	4/17/2012			\$ 3,743	\$ 12,696
	Woodward EHV 138kV Phase Shifting Transformer circuit #1	6/1/2017	6/1/2017			\$ 4,711	\$ 5,603
Total						\$ 43,363	\$ 172,637

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
BRPS AG2-2016-002

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
BRPS	83796571	WAUE	NPPD	7	1/1/2018	1/1/2048	1/1/2018	1/1/2048	\$ 621	\$ -	\$ 621	\$ 976
									\$ 621	\$ -	\$ 621	\$ 976

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83796571	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
83796571	SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1	6/1/2021	6/1/2021		

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	Allocated E & C Cost	Total Revenue Requirements
83796571	Twin Church - Dixon County 230kV Line Upgrade	11/1/2018	11/1/2018			\$ 621	\$ 976
Total						\$ 621	\$ 976

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
 ETEC AG2-2016-003

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
ETEC	83835435	CSWS	CSWS	40	1/1/2018	10/1/2040	1/1/2018	10/1/2040	\$ 109,189	\$ -	\$ 109,189	\$ 492,356
									\$ 109,189	\$ -	\$ 109,189	\$ 492,356

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83835435	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
83835435	Broken Arrow North - Lynn Lane East 138kV Ckt 1 Rebuild	6/1/2021	6/1/2021	1/1/2020	
	HANCOCK - MUSKOGEE 161KV CKT 1	6/1/2018	6/1/2018		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total Revenue Requirements
83835435	HUGO - VALLIANT 345KV CKT 1	6/8/2012	6/8/2012			\$ 32,379	\$ 246,557
	Kingfisher Co Tap - Mathewson 345kV CKT 1	3/1/2018	3/1/2018			\$ 248	\$ 358
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			\$ 4,548	\$ 54,870
	MCNAB REC - Turk 115KV CKT 1 #2 (AEP)	12/1/2011	12/1/2011			\$ 46,701	\$ 80,674
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 5,908	\$ 44,008
	TURK 138/115KV TRANSFORMER CKT 1	12/1/2011	12/1/2011			\$ 10,460	\$ 18,070
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			\$ 8,944	\$ 47,819
Total						\$ 109,189	\$ 492,356

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
KMEA AG2-2016-005

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
KMEA	83795938	SPA	WR	1	6/1/2017	6/1/2027	6/1/2017	6/1/2027	\$ 4,036	\$ -	\$ 4,036	\$ 11,012
									\$ 4,036	\$ -	\$ 4,036	\$ 11,012

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
83795938	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
83795938	Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill	6/1/2017	12/31/2018		

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
83795938	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2018	6/1/2020		

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	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total Revenue Requirements
83795938	FLATRDG3 - HARPER 138KV CKT 1	6/20/2013	6/20/2013			\$ 407	\$ -	\$ 407	\$ 1,945
	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	1/20/2014	1/20/2014			\$ 99	\$ -	\$ 99	\$ 445
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			\$ 69	\$ -	\$ 69	\$ 511
	MEDICINE LODGE - PRATT 115KV CKT 1	5/16/2014	5/16/2014			\$ 321	\$ -	\$ 321	\$ 1,393
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	2/1/2013	2/1/2013			\$ 31	\$ -	\$ 31	\$ 156
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 652	\$ -	\$ 652	\$ 3,030
	Rice - Lyons 115 kV Ckt 1	4/1/2013	4/1/2013			\$ 1,277	\$ -	\$ 1,277	\$ 1,717
	Rice County 230/115 kV transformer Ckt 1	10/1/2012	10/1/2012			\$ 730	\$ -	\$ 730	\$ 998
	SUB 110 - ORONOJO JCT. - SUB 452 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011			\$ 86	\$ -	\$ 86	\$ 323
	Wheatland 115 kV #2	12/31/2012	12/31/2012			\$ 364	\$ -	\$ 364	\$ 493
					Total	\$ 4,036	\$ -	\$ 4,036	\$ 11,012

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
KPP AG2-2016-006

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
KPP	83796255	NPPD	SECI	1	7/1/2017	7/1/2027	7/1/2017	7/1/2027	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83796255	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Customer Study Number
KPP AG2-2016-007

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KPP	83796263	SECI	WR	5	7/1/2017	7/1/2027	7/1/2017	7/1/2027	\$ 27,382	\$ -	\$ 27,382	\$ 121,704
									\$ 27,382	\$ -	\$ 27,382	\$ 121,704

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83796263	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
83796263	CITY OF WINFIELD - RAINBOW - OAK 69KV CKT 1	6/1/2021	6/1/2021		
	CRESWELL (CRSW TX-1) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2021	6/1/2021		
	CRESWELL (CRSW TX-2) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2021	6/1/2021		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2018	6/1/2020		

Planned Projects

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
83796263	Furley Tap-Towanda-Midian 69 kV	6/1/2021	6/1/2021	1/1/2018	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total Revenue Requirements
83796263	FLATRDG3 - HARPER 138KV CKT 1	6/20/2013	6/20/2013			\$ 7,784	\$ 37,513
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	2/1/2013	2/1/2013			\$ 6,506	\$ 32,754
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 10,268	\$ 48,068
	Woodward EHV 138kV Phase Shifting Transformer circuit #1	6/1/2017	6/1/2017			\$ 2,824	\$ 3,368
Total						\$ 27,382	\$ 121,704

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
KPP AG2-2016-008

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KPP	83796275	WR	WR	2	7/1/2017	7/1/2027	7/1/2017	7/1/2027	\$ 2,123	\$ -	\$ 2,123	\$ 10,093
									\$ 2,123	\$ -	\$ 2,123	\$ 10,093

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83796275	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
83796275	CITY OF WINFIELD - RAINBOW - OAK 69KV CKT 1	6/1/2021	6/1/2021		
	CRESWELL (CRSW TX-1) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2021	6/1/2021		
	CRESWELL (CRSW TX-2) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2021	6/1/2021		

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	Allocated E & C Cost	Total Revenue Requirements
83796275	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	2/1/2013	2/1/2013			\$ 443	\$ 2,232
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 1,679	\$ 7,861
Total						\$ 2,123	\$ 10,093

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
KPP AG2-2016-009

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KPP	83796278	WR	WR	4	7/1/2017	7/1/2027	7/1/2017	7/1/2027	\$ 7,783	\$ -	\$ 7,783	\$ 36,026
									\$ 7,783	\$ -	\$ 7,783	\$ 36,026

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83796278	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
83796278	CITY OF WINFIELD - RAINBOW - OAK 69KV CKT 1	6/1/2021	6/1/2021		
	CRESWELL (CRSW TX-1) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2021	6/1/2021		
	CRESWELL (CRSW TX-2) 138/69/13.2KV TRANSFORMER CKT 1	6/1/2021	6/1/2021		
	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2018	6/1/2020		

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	Allocated E & C Cost	Total Revenue Requirements
83796278	FLATRDG3 - HARPER 138KV CKT 1	6/20/2013	6/20/2013			\$ 2,478	\$ 11,945
	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	1/20/2014	1/20/2014			\$ 858	\$ 3,890
	MEDICINE LODGE - PRATT 115KV CKT 1	5/16/2014	5/16/2014			\$ 2,381	\$ 10,427
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	2/1/2013	2/1/2013			\$ 271	\$ 1,363
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 1,795	\$ 8,401
Total						\$ 7,783	\$ 36,026

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
MEUC AG2-2016-010

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
MEUC	83626579	MPS	AECI	25	6/1/2017	6/1/2022	6/1/2017	6/1/2022	\$ -	\$ 4,502,978	\$ -	\$ -
									\$ -	\$ 4,502,978	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83626579	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
83626579	SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1	6/1/2021	6/1/2021		

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

Customer Study Number
MEUC AG2-2016-011

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
MEUC	83835653	MPS	AECI	25	6/1/2018	6/1/2023	6/1/2018	6/1/2023	\$ -	\$ 4,502,978	\$ -	\$ -
									\$ -	\$ 4,502,978	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83835653	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
83835653	SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1	6/1/2021	6/1/2021		

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

Customer Study Number
MOWR AG2-2016-012

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
MOWR	83507637	KCPL	MPS	18	6/1/2017	6/1/2022	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
83507637	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
83507637	SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1	6/1/2021	6/1/2021		

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

Customer Study Number
 OGE AG2-2016-013

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
OGE	83674448	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	\$ 2,345	\$ -	\$ 2,345	\$ 20,783
									\$ 2,345	\$ -	\$ 2,345	\$ 20,783

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83674448	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	Allocated E & C Cost	Total Revenue Requirements
83674448	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 2,345	\$ 20,783
Total						\$ 2,345	\$ 20,783

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

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

Customer Study Number
 OGE AG2-2016-014

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
OGE	83674456	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	\$ 2,014	\$ -	\$ 2,014	\$ 17,849
									\$ 2,014	\$ -	\$ 2,014	\$ 17,849

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83674456	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	Allocated E & C Cost	Total Revenue Requirements
83674456	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 2,014	\$ 17,849
Total						\$ 2,014	\$ 17,849

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

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

Customer Study Number
 OGE AG2-2016-015

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
OGE	83674479	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	\$ 2,014	\$ -	\$ 2,014	\$ 17,849
									\$ 2,014	\$ -	\$ 2,014	\$ 17,849

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83674479	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	Allocated E & C Cost	Total Revenue Requirements
83674479	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 2,014	\$ 17,849
Total						\$ 2,014	\$ 17,849

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

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

Customer Study Number
 OGE AG2-2016-016

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
OGE	83674483	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	\$ 2,014	\$ -	\$ 2,014	\$ 17,849
									\$ 2,014	\$ -	\$ 2,014	\$ 17,849

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83674483	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	Allocated E & C Cost	Total Revenue Requirements
83674483	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 2,014	\$ 17,849
Total						\$ 2,014	\$ 17,849

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

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

Customer Study Number
 OGE AG2-2016-017

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
OGE	83674491	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	\$ 2,014	\$ -	\$ 2,014	\$ 17,849
									\$ 2,014	\$ -	\$ 2,014	\$ 17,849

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83674491	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	Allocated E & C Cost	Total Revenue Requirements
83674491	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 2,014	\$ 17,849
Total						\$ 2,014	\$ 17,849

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

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

Customer Study Number
 OGE AG2-2016-018

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
OGE	83674495	OKGE	OKGE	57	9/1/2017	9/1/2047	9/1/2017	9/1/2047	\$ 2,014	\$ -	\$ 2,014	\$ 17,849
									\$ 2,014	\$ -	\$ 2,014	\$ 17,849

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83674495	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	Allocated E & C Cost	Total Revenue Requirements
83674495	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 2,014	\$ 17,849
Total						\$ 2,014	\$ 17,849

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

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

Customer Study Number
 OGE AG2-2016-019

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
OGE	83833583	OKGE	OKGE	49	9/1/2017	9/1/2047	9/1/2017	9/1/2047	\$ 2,014	\$ -	\$ 2,014	\$ 17,849
									\$ 2,014	\$ -	\$ 2,014	\$ 17,849

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83833583	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	Allocated E & C Cost	Total Revenue Requirements
83833583	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 2,014	\$ 17,849
Total						\$ 2,014	\$ 17,849

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

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

Customer Study Number
 OGE AG2-2016-020

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
OGE	83835408	OKGE	OKGE	8	9/1/2017	9/1/2047	9/1/2017	9/1/2047	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83835408	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Customer Study Number
 OTPW AG2-2016-021

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
OTPW	83837043	OTP	WAUE	27	6/1/2017	6/1/2022	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
83837043	None					\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

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

Customer Study Number
 OTPW AG2-2016-022

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
OTPW	83837158	OTP	WAUE	16	6/1/2017	6/1/2018	6/1/2017	6/1/2018	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83837158	None					\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

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

Customer Study Number
 PEC AG2-2016-023

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
PEC	83835426	WFEC	WFEC	24	1/1/2018	1/1/2023	1/1/2018	1/1/2023	\$ 435,323	-	\$ 435,323	\$ 672,877
									\$ 435,323	-	\$ 435,323	\$ 672,877

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
83835426	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	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total Revenue Requirements
83835426	Gracemont 138kV line terminal addition	10/15/2011	10/15/2011			\$ 5,978	\$ -	\$ 5,978	\$ 7,960
	HUGO - VALLIANT 345KV CKT 1	6/8/2012	6/8/2012			\$ 4,330	\$ -	\$ 4,330	\$ 18,056
	HUGO 345/138KV TRANSFORMER CKT 1	6/30/2012	6/30/2012			\$ 1,987	\$ -	\$ 1,987	\$ 8,230
	Lake Creek - Lone Wolf 69kV Ckt 1 Current Transformers	8/8/2015	8/8/2015			\$ 322,584	\$ -	\$ 322,584	\$ 379,353
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 47,348	\$ -	\$ 47,348	\$ 191,153
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			\$ 1,196	\$ -	\$ 1,196	\$ 3,543
	WASHITA - GRACEMONT 138 KV CKT 2	10/12/2012	10/12/2012			\$ 38,455	\$ -	\$ 38,455	\$ 49,565
	Woodward EHV 138kV Phase Shifting Transformer circuit #1	6/1/2017	6/1/2017			\$ 13,445	\$ -	\$ 13,445	\$ 15,016
Total						\$ 435,323	\$ -	\$ 435,323	\$ 672,877

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
 PEC AG2-2016-024

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
PEC	83835487	WFEC	WFEC	75	6/1/2017	6/1/2022	6/1/2018	6/1/2023	\$ 374,108	\$ -	\$ 374,108	\$ 1,430,792
									\$ 374,108	\$ -	\$ 374,108	\$ 1,430,792

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83835487	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
83835487	TUCO INTERCHANGE 345/230KV CKT 1 REPLACEMENT	6/1/2017	6/1/2018		Yes
	Woodward EHV 138kV Phase Shifting Transformer circuit #1	6/1/2017	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	Allocated E & C Cost	Total Revenue Requirements
83835487	BROWN - EXPLORER TAP 138KV CKT 1	6/1/2006	6/1/2006			\$ 941	\$ 5,015
	HUGO - VALLIANT 345KV CKT 1	6/8/2012	6/8/2012			\$ 49,118	\$ 195,104
	HUGO 345/138KV TRANSFORMER CKT 1	6/30/2012	6/30/2012			\$ 118,203	\$ 466,270
	Kingfisher Co Tap - Mathewson 345kv CKT 1	3/1/2018	3/1/2018			\$ 4,517	\$ 4,816
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 187,792	\$ 721,351
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			\$ 13,536	\$ 38,236
Total						\$ 374,108	\$ 1,430,792

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
 PEC AG2-2016-025

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
PEC	83835507	SPA	SPA	27	6/1/2017	6/1/2027	6/1/2017	6/1/2027	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83835507	None					\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

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

Customer Study Number
 PEC AG2-2016-026

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
PEC	83835540	OKGE	OKGE	11	6/1/2017	6/1/2027	6/1/2017	6/1/2027	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83835540	None					\$ -	\$ -	\$ -
					Total	\$ -	\$ -	\$ -

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

Customer Study Number
 PEC AG2-2016-027

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
PEC	83835602	WFEC	WFEC	21	6/1/2017	6/1/2027	6/1/2017	6/1/2027	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83835602	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Customer Study Number
RPGI AG2-2016-028

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
RPGI	83751511	AMRN	WAUE	6	6/1/2017	6/1/2024	6/1/2017	6/1/2024	\$ -	\$ -	\$ 18,795	\$ 54,621
									\$ -	\$ -	\$ 18,795	\$ 54,621

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
83751511	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
83751511	SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1	6/1/2021	6/1/2021		

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	Allocated E & C Cost	Total Revenue Requirements
83751511	Fort Randall - Madison County 230kV Ckt 1	12/23/2013	12/23/2013			\$ 8,083	\$ 10,130
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ 10,712	\$ 44,491
					Total	\$ 18,795	\$ 54,621

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
WRGS AG2-2016-029

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
WRGS	83823834	WR	WR	20	6/1/2017	6/1/2022	6/1/2017	6/1/2022	\$ 1,602,711	\$ -	\$ 1,668,038	\$ 2,069,039
									\$ 1,602,711	\$ -	\$ 1,668,038	\$ 2,069,039

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
83823834	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
83823834	Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill	6/1/2017	12/31/2018		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total Revenue Requirements
83823834	FLATRDG3 - HARPER 138KV CKT 1	6/20/2013	6/20/2013			\$ 19,398	\$ 9,554	\$ 28,953	\$ 110,149
	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	1/20/2014	1/20/2014			\$ 5,003	\$ 2,464	\$ 7,467	\$ 26,724
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			\$ 4,861	\$ -	\$ 4,861	\$ 29,747
	MEDICINE LODGE - PRATT 115KV CKT 1	5/16/2014	5/16/2014			\$ 16,400	\$ 8,077	\$ 24,477	\$ 84,605
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	2/1/2013	2/1/2013			\$ 1,580	\$ 778	\$ 2,358	\$ 9,368
	Rice - Lyons 115 kV Ckt 1	4/1/2013	4/1/2013			\$ 56,901	\$ 28,026	\$ 84,926	\$ 105,692
	Rice County 230/115 kV transformer Ckt 1	10/1/2012	10/1/2012			\$ 33,355	\$ 16,428	\$ 49,783	\$ 62,966
	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Addition (NU)	12/31/2016	12/31/2016			\$ 2,699	\$ -	\$ 2,699	\$ 2,996
	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Co Addition (NU)	10/16/2016	10/16/2016			\$ 1,438,296	\$ -	\$ 1,438,296	\$ 1,606,404
	Wheatland 115 kV #2	12/31/2012	12/31/2012			\$ 24,220	\$ -	\$ 24,220	\$ 30,388
Total						\$ 1,602,711	\$ 65,328	\$ 1,668,038	\$ 2,069,039

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Customer Study Number
WRGS AG2-2016-031

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
WRGS	83823856	WR	WR	70	6/1/2017	6/1/2022	6/1/2017	6/1/2022	\$ 64,785	\$ -	\$ 1,446,531	\$ 2,743,819
									\$ 64,785	\$ -	\$ 1,446,531	\$ 2,743,819

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
83823856	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
83823856	Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill	6/1/2017	12/31/2018		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
83823856	Woodward EHV 138kV Phase Shifting Transformer circuit #1	6/1/2017	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	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total Revenue Requirements
83823856	FLATRDG3 - HARPER 138KV CKT 1	6/20/2013	6/20/2013			\$ -	\$ 77,210	\$ 77,210	\$ 293,743
	Ironwood 345 kV Substation Ford Co Addition	12/17/2014	12/17/2014			\$ -	\$ 477,043	\$ 477,043	\$ 560,993
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			\$ -	\$ 21,922	\$ 21,922	\$ 134,159
	MEDICINE LODGE - PRATT 115KV CKT 1	5/16/2014	5/16/2014			\$ -	\$ 74,285	\$ 74,285	\$ 256,765
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	2/1/2013	2/1/2013			\$ -	\$ 7,340	\$ 7,340	\$ 29,169
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ -	\$ 189,126	\$ 189,126	\$ 726,475
	Rice - Lyons 115 kV Ckt 1	4/1/2013	4/1/2013			\$ -	\$ 319,742	\$ 319,742	\$ 397,924
	Rice County 230/115 kV transformer Ckt 1	10/1/2012	10/1/2012			\$ -	\$ 163,875	\$ 163,875	\$ 207,273
	Wheatland 115 kV #2	12/31/2012	12/31/2012			\$ 64,785	\$ -	\$ 64,785	\$ 81,281
	Woodward EHV 138kV Phase Shifting Transformer circuit #1	6/1/2017	6/1/2017			\$ -	\$ 51,203	\$ 51,203	\$ 56,037
					Total	\$ 64,785	\$ 1,381,747	\$ 1,446,531	\$ 2,743,819

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

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

Requests with Study Parameters Exceeded

Customer Study Number
 KCPS AG2-2016-004

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
KCPS	83674359	WPEK	KCPL	50	6/1/2017	11/30/2031	6/1/2020	11/30/2031	\$ -	\$ -	\$ 1,992,498	\$ 3,893,900
									\$ -	\$ -	\$ 1,992,498	\$ 3,893,900

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
83674359	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
83674359	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2017	6/1/2020		

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
83674359	Woodward EHV 138kV Phase Shifting Transformer circuit #1	6/1/2017	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	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total Revenue Requirements
83674359	FLATRDG3 - HARPER 138KV CKT 1	6/20/2013	6/20/2013			\$ -	\$ 18,758	\$ 18,758	\$ 147,327
	Ft. Dodge - North Ft. Dodge 115 kV Ckt 2	5/22/2015	5/22/2015			\$ -	\$ 277,225	\$ 277,225	\$ 409,520
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			\$ -	\$ 13,000	\$ 13,000	\$ 147,918
	MEDICINE LODGE - PRATT 115KV CKT 1	5/16/2014	5/16/2014			\$ -	\$ 1,440	\$ 1,440	\$ 10,278
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	2/1/2013	2/1/2013			\$ -	\$ 11,487	\$ 11,487	\$ 94,242
	North Ft. Dodge - Spearville 115kV Ckt 2	5/22/2015	5/22/2015			\$ -	\$ 570,401	\$ 570,401	\$ 842,603
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ -	\$ 111,702	\$ 111,702	\$ 784,135
	Spearville 345/115 kV Transformer CKT 1	5/22/2015	5/22/2015			\$ -	\$ 948,848	\$ 948,848	\$ 1,401,651
	Woodward EHV 138kV Phase Shifting Transformer circuit #1	6/1/2017	6/1/2017			\$ -	\$ 39,637	\$ 39,637	\$ 56,225
Total						\$ -	\$ 1,992,498	\$ 1,992,498	\$ 3,893,900

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

Parameters Exceeded

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

Customer Study Number
WRGS AG2-2016-030

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
WRGS	83823850	WR	WR	26	6/1/2017	6/1/2022	12/31/2018	12/31/2023	\$ 28,977	\$ -	\$ 2,139,463	\$ 2,683,297
									\$ 28,977	\$ -	\$ 2,139,463	\$ 2,683,297

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
83823850	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
83823850	Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill	6/1/2017	12/31/2018		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
83823850	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2017	6/1/2020		

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	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total Revenue Requirements
83823850	FLATRDG3 - HARPER 138KV CKT 1	6/20/2013	6/20/2013			\$ -	\$ 33,582	\$ 33,582	\$ 127,763
	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	1/20/2014	1/20/2014			\$ -	\$ 10,562	\$ 10,562	\$ 37,805
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			\$ -	\$ 6,157	\$ 6,157	\$ 37,679
	MEDICINE LODGE - PRATT 115KV CKT 1	5/16/2014	5/16/2014			\$ -	\$ 30,481	\$ 30,481	\$ 105,358
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	2/1/2013	2/1/2013			\$ -	\$ 3,409	\$ 3,409	\$ 13,549
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ -	\$ 15,831	\$ 15,831	\$ 60,812
	Rice - Lyons 115 kV Ckt 1	4/1/2013	4/1/2013			\$ -	\$ 89,301	\$ 89,301	\$ 111,137
	Rice County 230/115 kV transformer Ckt 1	10/1/2012	10/1/2012			\$ -	\$ 51,646	\$ 51,646	\$ 65,323
	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Co Addition (NU)	10/16/2016	10/16/2016			\$ -	\$ 1,869,515	\$ 1,869,515	\$ 2,088,023
	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Addition (NU)	10/16/2016	10/16/2016			\$ 3,509	\$ -	\$ 3,509	\$ 3,896
	Wheatland 115 kV #2	12/31/2012	12/31/2012			\$ 25,468	\$ -	\$ 25,468	\$ 31,953
					Total	\$ 28,977	\$ 2,110,486	\$ 2,139,463	\$ 2,683,297

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

Parameters Exceeded

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

Customer Study Number
WRGS AG2-2016-032

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
WRGS	83823860	WR	WR	50	6/1/2017	6/1/2022	6/1/2020	6/1/2025	\$ 52,369	\$ -	\$ 7,744,191	\$ 9,214,292
									\$ 52,369	\$ -	\$ 7,744,191	\$ 9,214,292

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
83823860	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
83823860	Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill	6/1/2017	12/31/2018		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
83823860	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	6/1/2017	6/1/2020		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	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total Revenue Requirements
83823860	FLATRDG3 - HARPER 138KV CKT 1	6/20/2013	6/20/2013			\$ -	\$ 64,581	\$ 64,581	\$ 245,695
	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	1/20/2014	1/20/2014			\$ -	\$ 20,312	\$ 20,312	\$ 72,700
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			\$ -	\$ 11,840	\$ 11,840	\$ 72,458
	MEDICINE LODGE - PRATT 115KV CKT 1	5/16/2014	5/16/2014			\$ -	\$ 58,613	\$ 58,613	\$ 202,597
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	2/1/2013	2/1/2013			\$ -	\$ 6,556	\$ 6,556	\$ 26,055
	NORTHWEST - WOODWARD 345KV CKT 1	3/30/2010	3/30/2010			\$ -	\$ 30,446	\$ 30,446	\$ 116,948
	Rice - Lyons 115 kV Ckt 1	4/1/2013	4/1/2013			\$ -	\$ 171,734	\$ 171,734	\$ 213,725
	Rice County 230/115 kV transformer Ckt 1	10/1/2012	10/1/2012			\$ -	\$ 99,316	\$ 99,316	\$ 125,618
	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Co Addition (NU)	10/16/2016	10/16/2016			\$ -	\$ 7,228,424	\$ 7,228,424	\$ 8,073,281
	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Addition (NU)	10/16/2016	10/16/2016			\$ 3,391	\$ -	\$ 3,391	\$ 3,766
	Wheatland 115 kV #2	12/31/2012	12/31/2012			\$ 48,977	\$ -	\$ 48,977	\$ 61,448
					Total	\$ 52,369	\$ 7,691,822	\$ 7,744,191	\$ 9,214,292

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

Parameters Exceeded

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

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)
OKGE	Woodward EHV 138kV Phase Shifting Transformer circuit #1	Install one (1) 138 kV phase shifting transformer along with upgrading relay, protective, and metering equipment, and all associated and miscellaneous materials.	6/1/2017	6/1/2017
SPS	TUCO INTERCHANGE 345/230KV CKT 1 REPLACEMENT	The existing 345/230kV 560/560MVA autotransformer at Tuco Substation will be replaced with a new transformer unit to match the other transformer at this site. The new transformer can be installed at Tuco Substation by removing the existing transformer fro	6/1/2017	6/1/2018

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
WERE	Furley Tap-Towanda-Midian 69 kV	Rebuild of 15.5 miles from Furley Tap- Towanda- Midian 69kV	6/1/2021	6/1/2021

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)
WERE	Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill	Install 345/138 kV transformer at future Viola 345 kV substation. Build 138kV line from Viola to Clearwater substation. Build 138 kV line from Viola to Gill substation	6/1/2017	12/31/2018

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

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
AEPW	Broken Arrow North - Lynn Lane East 138kV Ckt 1 Rebuild	Rebuild Broken Arrow - Lynn Lane East 7.2 mile 138 kV line	6/1/2021	6/1/2021
OKGE	HANCOCK - MUSKOGEE 161KV CKT 1	Replace wavetrap at Muskogee.	6/1/2018	6/1/2018
OPPD	SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1	Replace 345kV disconnect and perform protection system changes at S3456.	6/1/2021	6/1/2021
WERE	CITY OF WINFIELD - RAINBOW - OAK 69KV CKT 1	Reconductor 9.1 miles of 69kV transmission line from City of Winfield to Oak.	6/1/2021	6/1/2021
WERE	CRESWELL (CRSW TX-1) 138/69/13.2KV TRANSFORMER CKT 1	Upgrade Creswell (CRSW TX-1) 13/69/13.2 transformer to 150/165 MVA.	6/1/2021	6/1/2021
WERE	CRESWELL (CRSW TX-2) 138/69/13.2KV TRANSFORMER CKT 1	Upgrade Creswell (CRSW TX-2) 13/69/13.2 transformer to 150/165 MVA.	6/1/2021	6/1/2021
WERE	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	Rebuild 24.3 miles of line.	6/1/2018	6/1/2020

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

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)	Total Gross CPO Allocation
CSWS	MCNAB REC - Turk 115KV CKT 1 #2 (AEP)	Build a new two mile, 138kV, 1590 ACSR line section (operated at 115kV) from Turk Substation to the existing Okay-Hope 115kV line to form a Turk - Hope 115kV line.	12/1/2011	12/1/2011	\$80,674
CSWS	TURK 138/115KV TRANSFORMER CKT 1	Build Turk 138-115 kV station and relocate autotransformer (and spare) from Patterson to this new Turk station	12/1/2011	12/1/2011	\$20,814
CSWS	Valliant 345 kV (AEP)	Install 345 kV terminal equipment at Valliant substation.	4/17/2012	4/17/2012	\$102,293
EDE	SUB 110 - OROGONO JCT. - SUB 452 - RIVERTON 161KV CKT 1	Reconductor 11.9 miles of Oronogo Jct. to Riverton 161kV Ckt. 1 from 556 ACSR to 795 ACSR, change CT settings @ Oronogo, and replace wavetrap.	6/1/2011	6/1/2011	\$323
ITCM	HUGO - VALLIANT 345KV CKT 1	Install new line from Valliant 345 kV to Hugo Power Plant with 19 miles of bundled 1590 ACSR conductor.	1/0/1900	1/0/1900	\$524,762
ITCM	HUGO 345/138KV TRANSFORMER CKT 1	Install new line from Valliant 345 kV to Hugo Power Plant with 19 miles of bundled 1590 ACSR conductor. Note that ITC is building the line from Valiant to Hugo.	1/0/1900	1/0/1900	\$474,500
ITCM	Ironwood 345 kV Substation Ford Co Addition	Add one (1) 345kV line terminal including two (2) 345kV circuit breakers, four (4) 345kV disconnect switches, and associated structural steel, foundations, and associated miscellaneous equipment. Contribution by Interconnection Customer towards construction of Transmission Owner 345kV substation in addition to the cost of a new line terminal including one (1) 345kV circuit breaker, four (4) 345kV disconnect switches, and associated structural steel, foundations, and associated miscellaneous equipment	12/17/2014	12/17/2014	\$560,993
KCPL	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	\$219,288
MIDW	Rice - Lyons 115 kV Ckt 1	Rebuild and extend 115 kV transmission line from existing Rice Co. substation to new Rice Co. substation, including engineering, surveying, and modification of existing easements as required.	4/1/2013	4/1/2013	\$505,334
MIDW	Rice County 230/115 kV transformer Ckt 1	Install 230/115 kV transformer at Rice County.	10/1/2012	10/1/2012	\$271,238
MIDW	Wheatland 115 kV #2	Install metering equipment at the Wheatland 115 kV substation.	12/31/2012	12/31/2012	\$112,162
MKEC	FLATRDG3 - HARPER 138KV CKT 1	Rebuild 24.15 mile line	1/0/1900	1/0/1900	\$455,294
MKEC	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	Rebuild 8.05 mile line	1/0/1900	1/0/1900	\$31,060
MKEC	MEDICINE LODGE - PRATT 115KV CKT 1	Rebuild 26 mile line	1/0/1900	1/0/1900	\$353,190
MKEC	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	Upgrade transformer	1/0/1900	1/0/1900	\$75,043
NPPD	Fort Randall - Madison County 230kV Ckt 1	Raise structures and line clearances as necessary to re-rate the transmission line to 320 MVA	12/23/2013	12/23/2013	\$10,130
NPPD	Twin Church - Dixon County 230kV Line Upgrade	Increase clearances to accommodate 320MVA facility rating	11/1/2018	11/1/2018	\$976
OKGE	BROWN - EXPLORER TAP 138KV CKT 1	UPGRADE CT AT BROWN NEXT LIMIT CONDUCTOR 133/156	1/0/1900	1/0/1900	\$5,015
OKGE	Gracemont 138kV line terminal addition	138kV line terminal at Gracemont substation, including breaker, line relaying, disconnect switches and associated equipment, dead end structures, revenue metering with CT's and PT's.	10/15/2011	10/15/2011	\$7,960
OKGE	Kingfisher Co Tap - Mathewson 345kV CKT 1	Replace terminal equipment to achieve conductor limit	3/1/2018	3/1/2018	\$6,338
OKGE	NORTHWEST - WOODWARD 345KV CKT 1	Build 345 kV line	1/0/1900	1/0/1900	\$2,008,100
OKGE	Woodward EHV 138kV Phase Shifting Transformer circuit #1	Install one (1) 138 kV phase shifting transformer along with upgrading relay, protective, and metering equipment, and all associated and miscellaneous materials.	1/0/1900	1/0/1900	\$80,024
WFEC	Lake Creek - Lone Wolf 69kV Ckt 1 Current Transformers	Replace current transformers at Lake Creek and Lone Wolf substation	8/8/2015	8/8/2015	\$379,353
WFEC	WASHITA - GRACEMONT 138 KV CKT 2	BUILD WASHITA - GRACEMONT 138KV CKT 2 (APPROXIMATELY 7 MILES). ADD LINE TERMINAL AT WASHITA AND PROCURE RIGHT OF WAY.	10/12/2012	10/12/2012	\$49,565
WR	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Addition (NU)	Relaying settings changes at the new 345kV switching station.	12/31/2016	12/31/2016	\$2,996
WR	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Co Addition (NU)	345 kV Breaker and Half Substation (No metering or customer equipment); Eight (8) 345 kV Breakers; Twenty (20) 345 kV switches; Two (2) 345 kV reactor switches; Fourteen (14) VTs; Two (2) 345 kV 50 Mvar line reactors; New redundant primary relaying, relay	10/16/2016	10/16/2016	\$1,606,404

*Note: CPOs may be calculated based on upgrade(s) currently in study and/or estimated upgrade cost(s), which may be subject to change.

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
None					

Table 7- Service Upgrade Cost Allocation per Request

Upgrade Name	Customer	Study Number	Reservation	Allocation Percentage	Allocated E & C Cost
None	None	None	0	0.00%	\$0
				Total:	\$0