AGGREGATE FACILITIES STUDY

SPP-2018-AG2-AFS-1

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SPP Engineering, SPP Transmission Services

REVISION HISTORY

DATE OR VERSION NUMBER	AUTHOR	CHANGE DESCRIPTION	COMMENTS
3/22/2019	SPP	Original	
3/27/2019	SPP	Updated Tables 2, 3, and 4 for OASIS Request 88004964	

CONTENTS

EXECUTIVE SUMMARY

This study report provides preliminary results for Southwest Power Pool, Inc. (SPP) Aggregate Transmission Service Study (ATSS) SPP-2018-AG2. Pursuant to Attachment Z1 of the SPP Open Access Transmission Tariff (OATT), 1,600 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 (E&C and Credit Payment Obligation)
2. Third-Party Upgrade Cost
3. Latest Deferred Start Date
4. Interim Re-dispatch Acceptance
5. Letter of Credit Amount

The report indicates for each request whether any of the five parameters were exceeded. The specific parameters defined by the Customer are kept confidential and are not included in this report.

SPP will tender an **AFS – Appendix 1 – Update** form on March 22, 2019 to the Customers with a request(s) that have one or more study parameters that were not met. This will open a 5-Business Day window for Customer response. To remain in the ATSS, SPP must receive from the Customer by March 29, 2019, the AFS – Appendix 1 – Update form with the adjusted parameters that were not met. The AFS Appendix 1 – Update will indicate the parameters that were not met and need to be adjusted by the Customer. If the Customer does not increase the exceeded parameter or does not respond within five Business Days, the request will be removed from study. There is no action required on OASIS by the Customer.

Following the end of the response period, SPP will conclude the study using the revised parameters. Any requests that cannot be provided under the parameters specified will be removed from study and the Customer may re-submit the request during the next open season. SPP will post a final study report within 165 days of the close of the open season which will detail the results for all requests, including those that are removed from study. At the conclusion of the ATSS, Service Agreements for each request for service will be tendered identifying the terms and conditions of the confirmed service.

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, 2018 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 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 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.

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. In this AFS, third-party facilities were identified. Total E&C cost estimates for required third-party facility upgrades are 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 Southwestern 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 Integrated Transmission Planning (ITP) 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) threshold was applied to all SPP control area facilities. For first tier non-SPP control area facilities, SPP used the appropriate TDF threshold defined by AECI, 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 2019 ITP models, used in the 2019 ITP Assessment, 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:

- 2019 Summer and Winter
- 2021 Light Load, Summer, and Winter
- 2024 Light Load, Summer, and Winter
- 2029 Light Load, Summer, and Winter

The Summer Peak models apply to June through September, the Winter Peak models apply to December through March, and the Light Load models apply to April through May.

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. Base Reliability model scenarios were utilized. Base Reliability includes projected usage of transmission included in the SPP 2019 ITP 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. 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, final total cost allocation to the Customer, and directly assigned upgrade cost to the Customer. In addition, Table 2 identifies any SWPA upgrade costs that 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

Reserved

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 tender an "Appendix 1 – Adjustment" form on March 22, 2019. This will open a 5 business day window for Customer response. To remain in the ATSS, SPP must receive from the Customer by March 29, 2019, the updated and signed AFS – Appendix 1 – Update form. The AFS – Appendix 1 – Update will indicate the parameters that were not met and need to be adjusted by the Customer. If the Customer does not increase the exceeded parameter or does not respond within five Business Days, the request will be removed from study. There is no action required on OASIS by the Customer.

APPENDIX A

PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

BASE CASE SETTINGS:

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

ACCC CASE SETTINGS:

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

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

Customer	Study Number	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date without interim redispatch (Parameter)	Deferred Stop Date without interim redispatch	Start Date with interim redispatch	Stop Date with interim redispatch	[5]One or More Study Parameters Exceeded
AECC	AG2-2018-001	88042937	CSWS	CSWS	100	1/1/2020	1/1/2025	1/1/2020	1/1/2025	1/1/2020	1/1/2025	YES
BEPM	AG2-2018-002	88011070	WAUE	WAUE	101	6/1/2019	6/1/2025	6/1/2019	6/1/2025	Note 4	Note 4	NO
BPWN	AG2-2018-003	88044037	WAUE	NPPD	2	6/1/2019	7/1/2024	6/1/2019	7/1/2024	Note 4	Note 4	NO
BPWN	AG2-2018-004	88107260	OKGE	NPPD	43	1/1/2024	1/1/2031	1/1/2024	1/1/2031	Note 4	Note 4	YES
BRPS	AG2-2018-005	88004964	CSWS	NPPD	14	6/1/2021	6/1/2025	6/1/2021	6/1/2025	6/1/2021	6/1/2025	YES
CHAN	AG2-2018-006	88078115	NPPD	WR	1	6/1/2019	10/1/2054	6/1/2019	10/1/2054	6/1/2019	10/1/2054	YES
COSN	AG2-2018-007	87997388	CSWS	NPPD	7	1/1/2023	6/1/2028	1/1/2023	6/1/2028	Note 4	Note 4	YES
MCPI	AG2-2018-008	87026257	CSWS	ERCOTE	50	7/1/2019	9/1/2020	8/1/2021	10/1/2022	8/1/2021	10/1/2022	YES
MCPI	AG2-2018-009	87026258	CSWS	ERCOTE	100	7/1/2019	9/1/2020	8/1/2021	10/1/2022	8/1/2021	10/1/2022	YES
MCPI	AG2-2018-010	87026259	WFEC	ERCOTN	120	7/1/2019	9/1/2020	7/1/2019	9/1/2020	7/1/2019	9/1/2020	NO
MCPI	AG2-2018-011	87026260	CSWS	ERCOTE	50	7/1/2019	9/1/2020	8/1/2021	10/1/2022	8/1/2021	10/1/2022	YES
MCPI	AG2-2018-012	87026261	CSWS	ERCOTE	100	7/1/2019	9/1/2020	8/1/2021	10/1/2022	8/1/2021	10/1/2022	YES
MCPI	AG2-2018-013	87026263	CSWS	ERCOTE	50	7/1/2019	9/1/2020	8/1/2021	10/1/2022	8/1/2021	10/1/2022	YES
MCPI	AG2-2018-014	87026265	CSWS	ERCOTE	50	7/1/2019	9/1/2020	6/1/2023	8/1/2024	6/1/2023	8/1/2024	YES
MCPI	AG2-2018-015	87026267	WFEC	ERCOTN	100	7/1/2019	9/1/2020	7/1/2019	9/1/2020	7/1/2019	9/1/2020	NO
NMCA	AG2-2018-016	88049579	WAUE	WAUE	2	6/1/2019	6/1/2039	6/1/2019	6/1/2039	Note 4	Note 4	YES
PRTT	AG2-2018-017	88019870	SECI	SECI	13	6/1/2019	6/1/2050	6/1/2019	6/1/2050	6/1/2019	6/1/2050	NO
PRTT	AG2-2018-018	88019885	SECI	SECI	7	6/1/2019	6/1/2050	6/1/2019	6/1/2050	6/1/2019	6/1/2050	NO
PRTT	AG2-2018-019	88019897	SECI	SECI	7	6/1/2019	6/1/2050	6/1/2019	6/1/2050	6/1/2019	6/1/2050	NO
PRTT	AG2-2018-020	88043704	GRDA	SECI	6	6/1/2019	5/1/2026	6/1/2019	5/1/2026	6/1/2019	5/1/2026	YES
SECI	AG2-2018-021	88011057	SPA	SECI	1	6/1/2019	6/1/2033	6/1/2019	6/1/2033	6/1/2019	6/1/2033	NO
SECI	AG2-2018-022	88037532	SPA	SECI	1	6/1/2019	6/1/2033	6/1/2019	6/1/2033	6/1/2019	6/1/2033	NO
SECI	AG2-2018-023	88037551	SPA	SECI	1	6/1/2019	6/1/2033	6/1/2019	6/1/2033	6/1/2019	6/1/2033	NO
SECI	AG2-2018-024	88091540	NPPD	WR	1	6/1/2019	10/1/2054	6/1/2019	10/1/2054	6/1/2019	10/1/2054	NO
SPRM	AG2-2018-025	88019329	WR	SPRM	15	6/1/2019	1/1/2039	6/1/2019	1/1/2039	6/1/2019	1/1/2039	YES
SPRM	AG2-2018-026	88037468	OKGE	SPRM	30	6/1/2019	1/1/2039	6/1/2019	1/1/2039	6/1/2019	1/1/2039	YES
SPSM	AG2-2018-027	88037749	SPS	SPS	478	6/1/2019	6/1/2044	6/1/2019	6/1/2044	Note 4	Note 4	YES
TNSK	AG2-2018-028	87026254	CSWS	ERCOTE	50	7/1/2019	9/1/2020	8/1/2021	10/1/2022	8/1/2021	10/1/2022	YES
TNSK	AG2-2018-029	87026271	OKGE	ERCOTN	50	7/1/2019	9/1/2020	6/1/2023	8/1/2024	6/1/2023	8/1/2024	YES
WRGS	AG2-2018-030	87865243	WR	WR	50	6/1/2019	1/1/2030	6/1/2019	1/1/2030	6/1/2019	1/1/2030	YES
					1600							

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

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 paramaters 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]Total Revenue Requirements for Assigned Service Upgrades Over Term of Reservation NOT COVERED by Base Plan Funding	[3,5]Total Revenue Requirements for Assigned Service Upgrades Over Term of Reservation COVERED by Base Plan Funding	[6,7]Total Gross CPOs for Creditable Upgrades Over Reservation Period NOT COVERED by Base Plan Funding	[5,6,7]Total Gross CPOs for Creditable Upgrades Over Reservation Period COVERED by Base Plan Funding	[4,8]Point-to-Point Base Rate Available to Offset Revenue Requirements Over Reservation Period	[4]Total Cost of Reservation Assignable to Customer Contingent Upon Base Plan Funding	Directly Assigned Upgrade Cost (DAUC) (Parameter)
AECC	AG2-2018-001	88042937	$1,356,088	$1,356,088	$0		$0	$0	$0	$2,540,929	$0	$0	$2,540,929	$1,356,088
BEPM	AG2-2018-002	88011070	$0	$0	$0		$0	$0	$0	$0	$0	$0	Schedule 9 & 11 Charges	$0
BPWN	AG2-2018-003	88044037	$1,461	$0	$1,461		$0	$0	$0	$0	$1,896	$0	Schedule 9 & 11 Charges	$0
BPWN	AG2-2018-004	88107260	$129,625	$129,625	$0		$0	$0	$0	$842,800	$0	$0	$842,800	$129,625
BRPS	AG2-2018-005	88004964	$252,012	$252,012	$0		$0	$0	$0	$403,097	$0	$0	$515,206	$252,012
CHAN	AG2-2018-006	88078115	$3,598	$3,598	$0		$0	$0	$0	$20,182	$0	$0	$20,182	$3,598
COSN	AG2-2018-007	87997388	$114,884	$114,884	$0		$0	$0	$0	$229,625	$0	$0	$229,625	$114,884
MCPI	AG2-2018-008	87026257	$1,333,333	$1,333,333	$0		$1,482,325	$1,653,577	$0	$0	$0	$3,415,215	$3,415,215	$0
MCPI	AG2-2018-009	87026258	$2,666,667	$2,666,667	$0		$2,964,647	$3,307,156	$0	$0	$0	$6,830,431	$6,830,431	$0
MCPI	AG2-2018-010	87026259	$0	$0	$0		$0	$0	$0	$116,504	$0	$8,196,517	$8,196,517	$0
MCPI	AG2-2018-011	87026260	$1,333,333	$1,333,333	$0		$1,482,325	$1,653,577	$0	$0	$0	$3,415,215	$3,415,215	$0
MCPI	AG2-2018-012	87026261	$2,666,667	$2,666,667	$0		$2,964,647	$3,307,156	$0	$0	$0	$6,830,431	$6,830,431	$0
MCPI	AG2-2018-013	87026263	$1,333,333	$1,333,333	$0		$1,482,325	$1,653,577	$0	$0	$0	$3,415,215	$3,415,215	$0
MCPI	AG2-2018-014	87026265	$24,060,606	$24,060,606	$0	9	$1,482,325	$47,108,123	$0	$0	$0	$3,415,215	$47,108,123	$24,060,606
MCPI	AG2-2018-015	87026267	$0	$0	$0		$0	$0	$0	$116,504	$0	$6,830,431	$6,830,431	$0
NMCA	AG2-2018-016	88049579	$1,079	$1,079	$0		$0	$0	$0	$1,666	$0	$0	$1,666	$1,079
PRTT	AG2-2018-017	88019870	$0	$0	$0		$0	$0	$0	$0	$0	$0	Schedule 9 & 11 Charges	$0
PRTT	AG2-2018-018	88019885	$0	$0	$0		$0	$0	$0	$0	$0	$0	Schedule 9 & 11 Charges	$0
PRTT	AG2-2018-019	88019897	$0	$0	$0		$0	$0	$0	$0	$0	$0	Schedule 9 & 11 Charges	$0
PRTT	AG2-2018-020	88043704	$150,746	$150,746	$0		$0	$0	$0	$643,163	$0	$0	$643,163	$150,746
SECI	AG2-2018-021	88011057	$29,650	$0	$29,650		$0	$0	$0	$0	$66,138	$0	Schedule 9 & 11 Charges	$0
SECI	AG2-2018-022	88037532	$29,743	$0	$29,743		$0	$0	$0	$0	$66,726	$0	Schedule 9 & 11 Charges	$0
SECI	AG2-2018-023	88037551	$29,674	$0	$29,674		$0	$0	$0	$0	$66,271	$0	Schedule 9 & 11 Charges	$0
SECI	AG2-2018-024	88091540	$29,110	$0	$29,110		$0	$0	$0	$0	$80,518	$0	Schedule 9 & 11 Charges	$0
SPRM	AG2-2018-025	88019329	$137,098	$43,889	$93,209		$0	$0	$0	$110,337	$230,230	$0	$110,337	$43,889
SPRM	AG2-2018-026	88037468	$916,557	$1,129	$915,428		$0	$0	$0	$6,530	$1,435,665	$0	$6,530	$1,129
SPSM	AG2-2018-027	88037749	$1,675,758	$1,669,332	$6,426		$0	$0	$0	$2,810,082	$10,887	$0	$2,810,082	$1,669,332
TNSK	AG2-2018-028	87026254	$1,333,333	$1,333,333	$0	9	$1,482,325	$1,653,577	$0	$0	$0	$3,415,215	$3,415,215	$0
TNSK	AG2-2018-029	87026271	$30,524,156	$30,524,156	$0		$0	$60,000,000	$0	$524,156	$0	$3,415,215	$60,524,156	$30,524,156
WRGS	AG2-2018-030	87865243	$7,024,492	$6,977,366	$47,127		$0	$0	$0	$9,525,933	$68,557	$0	$9,525,933	$6,977,366
Grand Total			**$77,133,004**		**$1,181,828**			**$120,336,743**	**$0**	**$17,891,508**	**$2,026,888**			**$65,284,511**

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 directly assigned upgrade revenue requirements **AND** Schedules 1, 1A, 2, 9, 11, & 12 charges. Network cost amounts populated in this column are reduced by offsets (if available) from base plan funding, which is determined using 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 for creditable upgrades may be calculated based on estimated upgrade cost and are subject to change.
Note 8: Point-To-Point Base Rate used to offset Revenue Requirements are calculated using the following available rate(s): Schedule 7, Schedule 11 Base Plan Zonal, Schedule 11 Base Plan Regional. The ancillary rates (Schedules 1, 1A, 2, and 12) are not included in the Point-to-Point Base Rate. These rate(s) are subject to change.
Note 9: RR may increase or decrease due to estimated assumptions and is subject to change.

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

Customer	**Study Number**
AECC	AG2-2018-001

Customer	**Reservation**	**POR**	**POD**	**Requested Amount**	**Requested Start Date**	**Requested Stop Date**	**Deferred Start Date Without Redispatch**	**Deferred Stop Date Without Redispatch**	**Potential Base Plan Funding Allowable**	**Point-to-Point Base Rate**	**Allocated E & C Cost**	**Total Revenue Requirements**
AECC	88042937	CSWS	CSWS	100	1/1/2020	1/1/2025	1/1/2020	1/1/2025	$ -	$ -	$ 1,356,088	$ 2,540,929
									$ -	$ -	$ 1,356,088	$ 2,540,929

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
88042937	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
88042937	HUGO - VALLIANT 345KV CKT 1	7/1/2012	7/1/2012			$ -	$ 88,696	$ 88,696	$ 351,296
	HUGO 345/138KV TRANSFORMER CKT 1	7/1/2012	7/1/2012			$ -	$ 142,312	$ 142,312	$ 559,640
	MCNAB REC - Turk 115KV CKT 1 #2 (AEP)	12/1/2011	12/1/2011			$ -	$ 620,018	$ 620,018	$ 875,918
	SE TEXARKANA - TURK 138KV CKT 2	3/12/2012	3/12/2012			$ -	$ 184,437	$ 184,437	$ 258,459
	SUGAR HILL - TURK 138KV CKT 2	12/16/2010	12/16/2010			$ -	$ 164,560	$ 164,560	$ 239,480
	TURK 138/115KV TRANSFORMER CKT 1	12/1/2011	12/1/2011			$ -	$ 138,868	$ 138,868	$ 196,183
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			$ -	$ 17,198	$ 17,198	$ 59,953
					Total	$ -	$ 1,356,088	$ 1,356,088	$ 2,540,929

*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**
BEPM	AG2-2018-002

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**
BEPM	88011070	WAUE	WAUE	101	6/1/2019	6/1/2025	6/1/2019	6/1/2025	$ -	$ -	$ -	$ -
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88011070	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Customer	**Study Number**
BPWN	AG2-2018-003

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**
BPWN	88044037	WAUE	NPPD	2	6/1/2019	7/1/2024	6/1/2019	7/1/2024	$ 1,461	$ -	$ 1,461	$ 1,896
									$ 1,461	$ -	$ 1,461	$ 1,896

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88044037	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
88044037	Kelly - Madison County 230kV Ckt 1	11/1/2014	11/1/2014			$ 1,461	$ 1,896
					Total	$ 1,461	$ 1,896

*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**
BPWN	AG2-2018-004

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**
BPWN	88107260	OKGE	NPPD	43	1/1/2024	1/1/2031	1/1/2024	1/1/2031	$ -	$ -	$ 129,625	$ 842,800
									$ -	$ -	$ 129,625	$ 842,800

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
88107260	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
88107260	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2011			$ -	$ 39,880	$ 39,880	$ 346,633
	Fort Randall - Madison County 230kV Ckt 1	12/23/2013	12/23/2013			$ -	$ 5,791	$ 5,791	$ 8,982
	GREENLEAF - KNOB HILL 115KV CKT 1 (MKEC)	6/1/2013	6/1/2013			$ -	$ 3,488	$ 3,488	$ 30,319
	HUGO - VALLIANT 345KV CKT 1	7/1/2012	7/1/2012			$ -	$ 559	$ 559	$ 3,370
	Kingfisher Co Tap - Mathewson 345kV CKT 1	3/1/2018	3/1/2018			$ -	$ 26,660	$ 26,660	$ 38,579
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			$ -	$ 6,008	$ 6,008	$ 71,113
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ -	$ 47,128	$ 47,128	$ 343,230
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			$ -	$ 110	$ 110	$ 575
					Total	$ -	$ 129,625	$ 129,625	$ 842,800

*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	AG2-2018-005

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**
BRPS	88004964	CSWS	NPPD	14	6/1/2021	6/1/2025	6/1/2021	6/1/2025	$ -	$ -	$ 252,012	$ 403,097
									$ -	$ -	$ 252,012	$ 403,097

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
88004964	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
88004964	Antelope - County Line - 115kV Rebuild	5/1/2017	5/1/2017			$ -	$ 11,089	$ 11,089	$ 13,796
	Battle Creek - County Line 115kV Rebuild	5/1/2017	5/1/2017			$ -	$ 10,578	$ 10,578	$ 13,160
	~~CLIFTON - GREENLEAF 115KV CKT 1~~	~~6/1/2011~~	~~6/1/2011~~			~~$ -~~	~~$ 17,900~~	~~$ 17,900~~	~~$ 103,019~~
	~~GREENLEAF - KNOB HILL 115KV CKT 1 (MKEC)~~	~~6/1/2013~~	~~6/1/2013~~			~~$ -~~	~~$ 1,580~~	~~$ 1,580~~	~~$ 9,091~~
	HUGO - VALLIANT 345KV CKT 1	7/1/2012	7/1/2012			$ -	$ 7,750	$ 7,750	$ 33,293
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			$ -	$ 2,135	$ 2,135	$ 17,830
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ -	$ 1,490	$ 1,490	$ 7,737
	Sweetwater 230kV Substation Beckham 1	10/5/2012	10/5/2012			$ -	$ 43,828	$ 43,828	$ 62,109
	Sweetwater 230kV Substation Beckham 2	3/31/2010	3/31/2010			$ -	$ 9,060	$ 9,060	$ 13,921
	Tap Elk City - Wheeler 230kV (Sweetwater) POI for Beckham (NU)	6/1/2012	6/1/2012			$ -	$ 163,837	$ 163,837	$ 234,693
	Twin Church - Dixon County 230kV Line Upgrade	11/1/2018	11/1/2018			$ -	$ 731	$ 731	$ 861
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			$ -	$ 1,513	$ 1,513	$ 5,696
					Total	$ -	$ 252,012	$ 252,012	$ 403,097

*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**
CHAN	AG2-2018-006

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**
CHAN	88078115	NPPD	WR	1	6/1/2019	10/1/2054	6/1/2019	10/1/2054	$ -	$ -	$ 3,598	$ 20,182
									$ -	$ -	$ 3,598	$ 20,182

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88078115	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
88078115	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	6/1/2011	6/1/2011			$ 2	$ 17
	DEARING 138KV	6/30/2013	6/30/2013			$ 3	$ 25
	COFFEYVILLE TAP - DEARING 138KV CKT 1 (WR) #2	6/9/2010	6/9/2010			$ 2	$ 17
	Neligh - Petersburg North 115kV Ckt 1	11/9/2012	11/9/2012			$ 1,833	$ 3,824
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ 1,313	$ 15,434
	Woodward EHV 138kV Phase Shifting Transformer circuit #1	8/2/2017	8/2/2017			$ 446	$ 865
					Total	$ 3,598	$ 20,182

*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 COSN

Study Number AG2-2018-007

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
COSN	87997388	CSWS	NPPD	7	1/1/2023	6/1/2028	1/1/2023	6/1/2028	$ -	$ -	$ 114,884	$ 229,625
									$ -	$ -	$ 114,884	$ 229,625

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
87997388	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
87997388	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2011			$ -	$ 5,015	$ 5,015	$ 36,458
	Fort Randall - Madison County 230kV Ckt 1	12/23/2013	12/23/2013			$ -	$ 1,999	$ 1,999	$ 2,928
	GREENLEAF - KNOB HILL 115KV CKT 1 (MKEC)	6/1/2013	6/1/2013			$ -	$ 439	$ 439	$ 3,189
	HUGO - VALLIANT 345KV CKT 1	7/1/2012	7/1/2012			$ -	$ 2,771	$ 2,771	$ 14,429
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			$ -	$ 862	$ 862	$ 8,769
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ -	$ 431	$ 431	$ 2,712
	Sweetwater 230kV Substation Beckham 1	10/5/2012	10/5/2012			$ -	$ 20,807	$ 20,807	$ 31,738
	Sweetwater 230kV Substation Beckham 2	3/31/2010	3/31/2010			$ -	$ 4,281	$ 4,281	$ 7,081
	Tap Elk City - Wheeler 230kV (Sweetwater) POI for Beckham (NU)	6/1/2012	6/1/2012			$ -	$ 77,735	$ 77,735	$ 119,857
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			$ -	$ 545	$ 545	$ 2,464
					Total	$ -	$ 114,884	$ 114,884	$ 229,625

*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**
MCPI	AG2-2018-008

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**
MCPI	87026257	CSWS	ERCOTE	50	7/1/2019	9/1/2020	8/1/2021	10/1/2022	$ -	$ 3,415,215	$ 1,333,333	$ 1,653,577
									$ -	$ 3,415,215	$ 1,333,333	$ 1,653,577

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
87026257	KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		Yes	$ 1,333,333	$ 12,000,000	$ 1,653,577
					Total	$ 1,333,333	$ 12,000,000	$ 1,653,577

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
87026257	EASTMAN 138/13.8KV TRANSFORMER #1	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #2	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #3	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 66,306	$ 596,751
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 66,306	$ 596,751
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 151,556	$ 1,364,002
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 161,028	$ 1,449,252
					Total	$ 1,482,325	$ 13,340,912

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

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

Customer	**Study Number**
MCPI	AG2-2018-009

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**
MCPI	87026258	CSWS	ERCOTE	100	7/1/2019	9/1/2020	8/1/2021	10/1/2022	$ -	$ 6,830,431	$ 2,666,667	$ 3,307,156
									$ -	$ 6,830,431	$ 2,666,667	$ 3,307,156

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
87026258	KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		Yes	$ 2,666,667	$ 12,000,000	$ 3,307,156
					Total	$ 2,666,667	$ 12,000,000	$ 3,307,156

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
87026258	EASTMAN 138/13.8KV TRANSFORMER #1	7/1/2019	8/1/2021		No	$ 691,419	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #2	7/1/2019	8/1/2021		No	$ 691,419	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #3	7/1/2019	8/1/2021		No	$ 691,419	$ 3,111,386
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 132,611	$ 596,751
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 132,611	$ 596,751
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 303,112	$ 1,364,002
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 322,056	$ 1,449,252
					Total	$ 2,964,647	$ 13,340,912

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

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

Customer	**Study Number**
MCPI	AG2-2018-010

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**
MCPI	87026259	WFEC	ERCOTN	120	7/1/2019	9/1/2020	7/1/2019	9/1/2020	$ -	$ 8,196,517	$ 116,504	$ 116,504
									$ -	$ 8,196,517	$ 116,504	$ 116,504

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
87026259	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
87026259	POWER SYSTEM STABILIZERS IN SPS	11/30/2014	11/30/2014			$ 116,504	$ 116,504
					Total	$ 116,504	$ 116,504

*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**
MCPI	AG2-2018-011

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**
MCPI	87026260	CSWS	ERCOTE	50	7/1/2019	9/1/2020	8/1/2021	10/1/2022	$ -	$ 3,415,215	$ 1,333,333	$ 1,653,577
									$ -	$ 3,415,215	$ 1,333,333	$ 1,653,577

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
87026260	KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		Yes	$ 1,333,333	$ 12,000,000	$ 1,653,577
					Total	$ 1,333,333	$ 12,000,000	$ 1,653,577

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
87026260	EASTMAN 138/13.8KV TRANSFORMER #1	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #2	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #3	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 66,306	$ 596,751
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 66,306	$ 596,751
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 151,556	$ 1,364,002
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 161,028	$ 1,449,252
					Total	$ 1,482,325	$ 13,340,912

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

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

Customer	**Study Number**
MCPI	AG2-2018-012

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**
MCPI	87026261	CSWS	ERCOTE	100	7/1/2019	9/1/2020	8/1/2021	10/1/2022	$ -	$ 6,830,431	$ 2,666,667	$ 3,307,156
									$ -	$ 6,830,431	$ 2,666,667	$ 3,307,156

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
87026261	KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		Yes	$ 2,666,667	$ 12,000,000	$ 3,307,156
					Total	$ 2,666,667	$ 12,000,000	$ 3,307,156

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
87026261	EASTMAN 138/13.8KV TRANSFORMER #1	7/1/2019	8/1/2021		No	$ 691,419	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #2	7/1/2019	8/1/2021		No	$ 691,419	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #3	7/1/2019	8/1/2021		No	$ 691,419	$ 3,111,386
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 132,611	$ 596,751
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 132,611	$ 596,751
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 303,112	$ 1,364,002
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 322,056	$ 1,449,252
					Total	$ 2,964,647	$ 13,340,912

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

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

Customer	**Study Number**
MCPI	AG2-2018-013

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**
MCPI	87026263	CSWS	ERCOTE	50	7/1/2019	9/1/2020	8/1/2021	10/1/2022	$ -	$ 3,415,215	$ 1,333,333	$ 1,653,577
									$ -	$ 3,415,215	$ 1,333,333	$ 1,653,577

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
87026263	KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		Yes	$ 1,333,333	$ 12,000,000	$ 1,653,577
					Total	$ 1,333,333	$ 12,000,000	$ 1,653,577

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
87026263	EASTMAN 138/13.8KV TRANSFORMER #1	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #2	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #3	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 66,306	$ 596,751
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 66,306	$ 596,751
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 151,556	$ 1,364,002
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 161,028	$ 1,449,252
					Total	$ 1,482,325	$ 13,340,912

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

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

Customer	**Study Number**
MCPI	AG2-2018-014

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**
MCPI	87026265	CSWS	ERCOTE	50	7/1/2019	9/1/2020	6/1/2023	8/1/2024	$ -	$ 3,415,215	$ 24,060,606	$ 47,108,123
									$ -	$ 3,415,215	$ 24,060,606	$ 47,108,123

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
87026265	KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		Yes	$ 1,333,333	$ 12,000,000	$ 1,653,577
	ERCOT EAST DC Tie Expansion	6/1/2019	6/1/2023		No	$ 22,727,273	$ 22,727,273	$ 45,454,546
					Total	$ 24,060,606	$ 34,727,273	$ 47,108,123

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
87026265	EASTMAN 138/13.8KV TRANSFORMER #1	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #2	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #3	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 66,306	$ 596,751
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 66,306	$ 596,751
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 151,556	$ 1,364,002
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 161,028	$ 1,449,252
					Total	$ 1,482,325	$ 13,340,912

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

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

Customer	**Study Number**
MCPI	AG2-2018-015

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**
MCPI	87026267	WFEC	ERCOTN	100	7/1/2019	9/1/2020	7/1/2019	9/1/2020	$ -	$ 6,830,431	$ 116,504	$ 116,504
									$ -	$ 6,830,431	$ 116,504	$ 116,504

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
87026267	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
87026267	POWER SYSTEM STABILIZERS IN SPS	11/30/2014	11/30/2014			$ 116,504	$ 116,504
					Total	$ 116,504	$ 116,504

*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**
NMCA	AG2-2018-016

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**
NMCA	88049579	WAUE	WAUE	2	6/1/2019	6/1/2039	6/1/2019	6/1/2039	$ -	$ -	$ 1,079	$ 1,666
									$ -	$ -	$ 1,079	$ 1,666

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88049579	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
88049579	Hoskins - Dixon County 230kV Line Upgrade	10/24/2015	10/24/2015			$ 446	$ 636
	Kelly - Madison County 230kV Ckt 1	11/1/2014	11/1/2014			$ 633	$ 1,030
					Total	$ 1,079	$ 1,666

*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**
PRTT	AG2-2018-017

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**
PRTT	88019870	SECI	SECI	13	6/1/2019	6/1/2050	6/1/2019	6/1/2050	$ -	$ -	$ -	$ -
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88019870	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Customer	**Study Number**
PRTT	AG2-2018-018

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**
PRTT	88019885	SECI	SECI	7	6/1/2019	6/1/2050	6/1/2019	6/1/2050	$ -	$ -	$ -	$ -
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88019885	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Customer	**Study Number**
PRTT	AG2-2018-019

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**
PRTT	88019897	SECI	SECI	7	6/1/2019	6/1/2050	6/1/2019	6/1/2050	$ -	$ -	$ -	$ -
									$ -	$ -	$ -	$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88019897	None					$ -	$ -	$ -
					Total	$ -	$ -	$ -

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

Customer	**Study Number**
PRTT	AG2-2018-020

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**
PRTT	88043704	GRDA	SECI	6	6/1/2019	5/1/2026	6/1/2019	5/1/2026	$ -	$ -	$ 150,746	$ 643,163
									$ -	$ -	$ 150,746	$ 643,163

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88043704	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
88043704	FAIRFAX - PAWNEE 138KV CKT 2	10/14/2014	10/14/2014			$ 10,126	$ 13,197
	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	12/1/2009	12/1/2009			$ 22,543	$ 108,828
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			$ 690	$ 5,436
	MEDICINE LODGE - PRATT 115KV CKT 1	12/1/2009	12/1/2009			$ 78,634	$ 366,594
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	12/1/2009	12/1/2009			$ 7,164	$ 38,402
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ 18,582	$ 91,239
	Osage - Shidler 138kV	7/1/2014	7/1/2014			$ 703	$ 924
	Pawnee 138 kV	10/3/2014	10/3/2014			$ 2,949	$ 3,844
	Shidler 138 kV	4/30/2014	4/30/2014			$ 8,452	$ 11,166
	SUB 110 - ORONOGO JCT. - SUB 452 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011			$ 902	$ 3,534
					Total	$ 150,746	$ 643,163

*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**
SECI	AG2-2018-021

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**
SECI	88011057	SPA	SECI	1	6/1/2019	6/1/2033	6/1/2019	6/1/2033	$ 29,650	$ -	$ 29,650	$ 66,138
									$ 29,650	$ -	$ 29,650	$ 66,138

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88011057	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
88011057	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	12/1/2009	12/1/2009			$ 602	$ 3,943
	Ft. Dodge - North Ft. Dodge 115 kV Ckt 2	5/1/2015	5/1/2015			$ 2,992	$ 4,252
	HUGO - VALLIANT 345KV CKT 1	7/1/2012	7/1/2012			$ 421	$ 2,213
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			$ 141	$ 1,446
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	12/1/2009	12/1/2009			$ 192	$ 1,393
	North Ft. Dodge - Spearville 115kV Ckt 2	5/1/2015	5/1/2015			$ 8,200	$ 11,656
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ 3,379	$ 21,475
	Spearville 345/115 kV Transformer CKT 1	5/1/2015	5/1/2015			$ 13,641	$ 19,387
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			$ 81	$ 373
					Total	$ 29,650	$ 66,138

*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**
SECI	AG2-2018-022

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**
SECI	88037532	SPA	SECI	1	6/1/2019	6/1/2033	6/1/2019	6/1/2033	$ 29,743	$ -	$ 29,743	$ 66,726
									$ 29,743	$ -	$ 29,743	$ 66,726

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88037532	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
88037532	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	12/1/2009	12/1/2009			$ 602	$ 3,943
	Ft. Dodge - North Ft. Dodge 115 kV Ckt 2	5/1/2015	5/1/2015			$ 2,992	$ 4,252
	HUGO - VALLIANT 345KV CKT 1	7/1/2012	7/1/2012			$ 421	$ 2,213
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			$ 140	$ 1,433
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	12/1/2009	12/1/2009			$ 192	$ 1,393
	North Ft. Dodge - Spearville 115kV Ckt 2	5/1/2015	5/1/2015			$ 8,200	$ 11,656
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ 3,474	$ 22,077
	Spearville 345/115 kV Transformer CKT 1	5/1/2015	5/1/2015			$ 13,641	$ 19,387
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			$ 81	$ 373
					Total	$ 29,743	$ 66,726

*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
SECI	AG2-2018-023

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
SECI	88037551	SPA	SECI	1	6/1/2019	6/1/2033	6/1/2019	6/1/2033	$ 29,674	$ -	$ 29,674	$ 66,271
									$ 29,674	$ -	$ 29,674	$ 66,271

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88037551	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
88037551	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	12/1/2009	12/1/2009			$ 602	$ 3,943
	Ft. Dodge - North Ft. Dodge 115 kV Ckt 2	5/1/2015	5/1/2015			$ 2,992	$ 4,252
	HUGO - VALLIANT 345KV CKT 1	7/1/2012	7/1/2012			$ 421	$ 2,213
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			$ 135	$ 1,386
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	12/1/2009	12/1/2009			$ 192	$ 1,393
	North Ft. Dodge - Spearville 115kV Ckt 2	5/1/2015	5/1/2015			$ 8,200	$ 11,656
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ 3,410	$ 21,669
	Spearville 345/115 kV Transformer CKT 1	5/1/2015	5/1/2015			$ 13,641	$ 19,387
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			$ 81	$ 373
					Total	$ 29,674	$ 66,271

*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**
SECI	AG2-2018-024

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**
SECI	88091540	NPPD	WR	1	6/1/2019	10/1/2054	6/1/2019	10/1/2054	$ 29,110	$ -	$ 29,110	$ 80,518
									$ 29,110	$ -	$ 29,110	$ 80,518

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88091540	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
88091540	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	12/1/2009	12/1/2009			$ 506	$ 6,589
	Ft. Dodge - North Ft. Dodge 115 kV Ckt 2	5/1/2015	5/1/2015			$ 2,922	$ 5,605
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	12/1/2009	12/1/2009			$ 161	$ 2,328
	Neligh - Petersburg North 115kV Ckt 1	11/9/2012	11/9/2012			$ 1,766	$ 3,685
	North Ft. Dodge - Spearville 115kV Ckt 2	5/1/2015	5/1/2015			$ 8,280	$ 15,883
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ 1,702	$ 20,004
	Spearville 345/115 kV Transformer CKT 1	5/1/2015	5/1/2015			$ 13,773	$ 26,424
					Total	$ 29,110	$ 80,518

*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**
SPRM	AG2-2018-025

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**
SPRM	88019329	WR	SPRM	15	6/1/2019	1/1/2039	6/1/2019	1/1/2039	$ 93,209	$ -	$ 137,098	$ 340,567
									$ 93,209	$ -	$ 137,098	$ 340,567

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
88019329	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
88019329	Kingfisher Co Tap - Mathewson 345kV CKT 1	3/1/2018	3/1/2018			$ 4,102	$ -	$ 4,102	$ 6,213
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ 13,697	$ 6,746	$ 20,443	$ 156,021
	Union Ridge 230kV Dickenson-Marion Co Addition (NU)	9/1/2018	9/1/2018			$ 70,864	$ 34,903	$ 105,767	$ 168,020
	Woodward EHV 138kV Phase Shifting Transformer circuit #1	8/2/2017	8/2/2017			$ 4,547	$ 2,240	$ 6,787	$ 10,312
					Total	$ 93,209	$ 43,889	$ 137,098	$ 340,567

*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**
SPRM	AG2-2018-026

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**
SPRM	88037468	OKGE	SPRM	30	6/1/2019	1/1/2039	6/1/2019	1/1/2039	$ 915,428	$ -	$ 916,557	$ 1,442,195
									$ 915,428	$ -	$ 916,557	$ 1,442,195

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
88037468	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
88037468	Ranch Road 345kV Substation Kay Addition	10/18/2016	10/18/2016			$ 161,379	$ -	$ 161,379	$ 244,698
	Kingfisher Co Tap - Mathewson 345kV CKT 1	3/1/2018	3/1/2018			$ 20,367	$ -	$ 20,367	$ 30,853
	Ranch Road 345kV Substation	11/30/2014	11/30/2014			$ 731,422	$ -	$ 731,422	$ 1,147,054
	SUB 110 - ORONOGO JCT. - SUB 452 - RIVERTON 161KV CKT 1	6/1/2011	6/1/2011			$ 2,259	$ 1,129	$ 3,388	$ 19,590
					Total	$ 915,428	$ 1,129	$ 916,557	$ 1,442,195

*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**
SPSM	AG2-2018-027

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**
SPSM	88037749	SPS	SPS	478	6/1/2019	6/1/2044	6/1/2019	6/1/2044	$ 6,426	$ -	$ 1,675,758	$ 2,820,969
									$ 6,426	$ -	$ 1,675,758	$ 2,820,969

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Base Plan Funding for Wind	Directly Assigned for Wind	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
88037749	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
88037749	HARRINGTON MID - NICHOLS 230 KV CKT 2	12/1/2012	12/1/2012			$ -	$ 120,999	$ 120,999	$ 218,700
	HARRINGTON WEST - NICHOLS 230KV CKT 1	12/1/2012	12/1/2012			$ -	$ 126,101	$ 126,101	$ 227,922
	POWER SYSTEM STABILIZERS IN SPS	11/30/2014	11/30/2014			$ 6,426	$ -	$ 6,426	$ 10,887
	TUCO 230kV Switching Station Abernathy Co Addition	4/30/2017	4/30/2017			$ -	$ 1,422,232	$ 1,422,232	$ 2,363,460
					Total	$ 6,426	$ 1,669,332	$ 1,675,758	$ 2,820,969

*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**
TNSK	AG2-2018-028

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**
TNSK	87026254	CSWS	ERCOTE	50	7/1/2019	9/1/2020	8/1/2021	10/1/2022	$ -	$ 3,415,215	$ 1,333,333	$ 1,653,577
									$ -	$ 3,415,215	$ 1,333,333	$ 1,653,577

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
87026254	KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		Yes	$ 1,333,333	$ 12,000,000	$ 1,653,577
					Total	$ 1,333,333	$ 12,000,000	$ 1,653,577

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
87026254	EASTMAN 138/13.8KV TRANSFORMER #1	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #2	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN 138/13.8KV TRANSFORMER #3	7/1/2019	8/1/2021		No	$ 345,710	$ 3,111,386
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 66,306	$ 596,751
	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 66,306	$ 596,751
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 1	7/1/2019	8/1/2021		No	$ 151,556	$ 1,364,002
	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 2	7/1/2019	8/1/2021		No	$ 161,028	$ 1,449,252
					Total	$ 1,482,325	$ 13,340,912

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

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

Customer	Study Number
TNSK	AG2-2018-029

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
TNSK	87026271	OKGE	ERCOTN	50	7/1/2019	9/1/2020	6/1/2023	8/1/2024	$ -	$ 3,415,215	$ 30,524,156	$ 60,524,156
									$ -	$ 3,415,215	$ 30,524,156	$ 60,524,156

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
87026271	ERCOT NORTH DC Tie Expansion	6/1/2019	6/1/2023		No	$ 30,000,000	$ 30,000,000	$ 60,000,000
					Total	$ 30,000,000	$ 30,000,000	$ 60,000,000

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
87026271	HUGO - VALLIANT 345KV CKT 1	7/1/2012	7/1/2012			$ 127,340	$ 127,340
	NORTHWEST - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010			$ 137,225	$ 137,225
	POWER SYSTEM STABILIZERS IN SPS	11/30/2014	11/30/2014			$ 132,252	$ 132,252
	Valliant 345 kV (AEP)	4/17/2012	4/17/2012			$ 127,340	$ 127,340
					Total	$ 524,156	$ 524,156

*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	AG2-2018-030

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	87865243	WR	WR	50	6/1/2019	1/1/2030	6/1/2019	1/1/2030	$ 47,127	$ -	$ 7,024,492	$ 9,594,491
									$ 47,127	$ -	$ 7,024,492	$ 9,594,491

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
87865243	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
87865243	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	12/1/2009	12/1/2009			$ -	$ 12,938	$ 12,938	$ 73,515
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006			$ -	$ 8,494	$ 8,494	$ 77,074
	MEDICINE LODGE - PRATT 115KV CKT 1	12/1/2009	12/1/2009			$ -	$ 42,690	$ 42,690	$ 234,253
	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	12/1/2009	12/1/2009			$ -	$ 4,112	$ 4,112	$ 25,941
	Rice - Lyons 115 kV Ckt 1	4/1/2013	4/1/2013			$ -	$ 160,129	$ 160,129	$ 231,836
	Rice County 230/115 kV transformer Ckt 1	10/1/2012	10/1/2012			$ -	$ 93,542	$ 93,542	$ 137,641
	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Addition (NU)	12/31/2016	12/31/2016			$ 1,560	$ -	$ 1,560	$ 2,050
	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Co Addition (NU)	10/16/2016	10/16/2016			$ -	$ 6,655,461	$ 6,655,461	$ 8,745,673
	Wheatland 115 kV #2	12/31/2012	12/31/2012			$ 45,566	$ -	$ 45,566	$ 66,507
					Total	$ 47,127	$ 6,977,366	$ 7,024,492	$ 9,594,491

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

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AEPW	ERCOT EAST DC Tie Expansion	Add 50 MW HVDC Tie	6/1/2019	6/1/2023	$22,727,273
AEPW	ERCOT NORTH DC Tie Expansion	Add 50 MW HVDC Tie	6/1/2019	6/1/2023	$30,000,000
AEPW	KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	Replace 5.5 miles of overhead conductor and needed station work.	7/1/2019	8/1/2021	$12,000,000

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	$ 875,918
CSWS	SE TEXARKANA - TURK 138KV CKT 2	Build new 34 mile Turk - SE Texarkana 138 kV line and add SE Texarkana 138 kV terminal.	3/12/2012	3/12/2012	$ 258,459
CSWS	Shidler 138 kV	Replace existing 138kV CB at Shidler substation with 4 breaker ring. Provide Terminal for KAMO's 138kV line from Remington Station. Replace ground switch and circuit switcher, Move terminal for OG&E Osage 138kV line. Replace relay panels for OGE Osage and AEP Mound Road line terminals. Install 138kV meter transformers and meter at Shidler station. Install relay panel, line trap and RTU at Mound Road station for line to Shidler station.	4/30/2014	4/30/2014	$ 11,166
CSWS	SUGAR HILL - TURK 138KV CKT 2	Build new 24 mile Turk - Sugar Hill 138 kV line and add Sugar Hill 138 kV terminal.	12/16/2010	12/16/2010	$ 239,480
CSWS	Sweetwater 230kV Substation Beckham 1	Add 230kV Ring Bus Line Terminal to include one (1) 230kV Circuit Breaker and Disconnect Switches.	10/5/2012	10/5/2012	$ 93,847
CSWS	Sweetwater 230kV Substation Beckham 2	Add 230kV Ring Bus Line Terminal to include one (1) 230kV Circuit Breaker and Disconnect Switches.	3/31/2010	3/31/2010	$ 21,003
CSWS	Tap Elk City - Wheeler 230kV (Sweetwater) POI for Beckham (NU)	Transmission Owner 230 kV Substation - Construct new 230 kV ring bus substation. Substation to be configured as a three breaker ring bus (expandable to breaker-and-a-half) to include, but not be limited to the following: Three (3) 230 kV circuit breakers, Six (6) 230 kV breaker disconnect switches, Two (2) 230 kV line traps, Two (2) sets of primary and redundant 230 kV line relaying, Two (2) sets of 230 kV transmission line terminal equipment including 230 kV PTs and arresters, Control House; Transmission Line – Transmission Owner to terminate the existing Elk City – Grapevine 230 kV transmission line into the new 230 kV substation. Estimate based on transmission line being located within two spans of the new 230 kV substation; Elk City Substation - Replace line panel and carrier equipment at Elk City 230 kV substation.	6/1/2012	6/1/2012	$ 354,549
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	$ 196,183
CSWS	Valliant 345 kV (AEP)	Install 345 kV terminal equipment at Valliant substation.	4/17/2012	4/17/2012	$ 197,146
EDE	SUB 110 - ORONOGO 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	$ 23,124
GRDA	FAIRFAX - PAWNEE 138KV CKT 2	Build new Fairfax (AECI) - Pawnee 138 kV line and rebuild existing 69 kV line from Fairfax - Pawnee, approximately 19.5 miles with double circuit towers for double circuit 138 kV line. One side will be operated at 69 kV.	10/14/2014	10/14/2014	$ 13,197
GRDA	Pawnee 138 kV	New GRDA 138 kV switching station at Pawnee. New 138 kV three breaker ring bus substation containing 3 138 kV circuit breakers, associated disconnect switches, structures, relaying, grounding, fencing, and all associated and miscellaneous equipment.	10/3/2014	10/3/2014	$ 3,844
ITCM	HUGO - VALLIANT 345KV CKT 1	Install new line from Valliant 345 kV to Hugo Power Plant with 19 miles of bundled 1590 ACSR conductior.	7/1/2012	7/1/2012	$ 536,365
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 conductior. Note that ITC is building the line from Valiant to Hugo.	7/1/2012	7/1/2012	$ 559,640
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	$ 184,487
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	$ 231,836
MIDW	Rice County 230/115 kV transformer Ckt 1	Install 230/115 kV transformer at Rice County.	10/1/2012	10/1/2012	$ 137,641
MIDW	Wheatland 115 kV #2	Install metering equipment at the Wheatland 115 kV substation.	12/31/2012	12/31/2012	$ 66,507
MKEC	CLIFTON - GREENLEAF 115KV CKT 1	Rebuild 14.4 miles	6/1/2011	6/1/2011	$ 383,091
MKEC	FLATRDG3 - MEDICINE LODGE 138KV CKT 1	Rebuild 8.05 mile line	12/1/2009	12/1/2009	$ 200,761
MKEC	Ft. Dodge - North Ft. Dodge 115 kV Ckt 2	Build appoximately 0.5 mile 115 kV line	5/1/2015	5/1/2015	$ 18,362
MKEC	GREENLEAF - KNOB HILL 115KV CKT 1 (MKEC)	Rebuild 43.5% Ownership of 20.9 miles	6/1/2013	6/1/2013	$ 33,508
MKEC	MEDICINE LODGE - PRATT 115KV CKT 1	Rebuild 26 mile line	12/1/2009	12/1/2009	$ 600,846
MKEC	MEDICINE LODGE 138/115KV TRANSFORMER CKT 1	Upgrade transformer	12/1/2009	12/1/2009	$ 70,849
MKEC	North Ft. Dodge - Spearville 115kV Ckt 2	Build appoximately 20 mile 115 kV line	5/1/2015	5/1/2015	$ 50,851
MKEC	Spearville 345/115 kV Transformer CKT 1	Spearville Substation - Add 345/115kV autotransformer and 345kV and 115kV terminal positions for autotransformer.	5/1/2015	5/1/2015	$ 84,585
NPPD	Antelope - County Line - 115kV Rebuild	Rebuild/Upgrade the Antelope – County Line 115kV to rerate line segments to greater than 125 MVA.	5/1/2017	5/1/2017	$ 13,796
NPPD	Battle Creek - County Line 115kV Rebuild	Rebuild/Upgrade the Battle Creek – County Line 115kV to rerate line segments to greater than 125 MVA.	5/1/2017	5/1/2017	$ 13,160
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	$ 11,910
NPPD	Hoskins - Dixon County 230kV Line Upgrade	Increase clearances to accommodate 320MVA facility rating to address loading issues	10/24/2015	10/24/2015	$ 636
NPPD	Kelly - Madison County 230kV Ckt 1	Raise structures and line clearances as necessary to re-rate the transmission line to 320MVA	11/1/2014	11/1/2014	$ 2,925
NPPD	Neligh - Petersburg North 115kV Ckt 1	Replace Breaker 1106, jumpers, & 115kV Switch 1106-D2; Replace Petersburg 115kV Substation main bus; Upgrade and replace transmission structures on 115kV lines TL1168 A & B to facilitate 100 degrees Centigrade line operation	11/9/2012	11/9/2012	$ 7,509
NPPD	Twin Church - Dixon County 230kV Line Upgrade	Increase clearances to accommodate 320MVA facility rating	11/1/2018	11/1/2018	$ 861
OKGE	Kingfisher Co Tap - Mathewson 345kV CKT 1	Replace terminal equipment to achieve conductor limit	3/1/2018	3/1/2018	$ 75,645
OKGE	NORTHWEST - WOODWARD 345KV CKT 1	Build 345 kV line	1/1/2010	1/1/2010	$ 838,824

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

OKGE	Osage - Shidler 138kV	Replace Shidler 138kV line terminal primary and redundant relaying with SEL uProcessor based relays, install 3-138kV PTs, Install 1-138kV CB, Install metering, Install 2000A line Trap	7/1/2014	7/1/2014	$ 924
OKGE	Ranch Road 345kV Substation	Construct a three breaker 345kV ring bus substation. Work to include line relaying, structural steel, disconnect switches, and associated equipment.	11/30/2014	11/30/2014	$ 1,147,054
OKGE	Ranch Road 345kV Substation Kay Addition	Install one (1) 3000A breaker, line relaying, disconnect switches, and associated equipment.	10/18/2016	10/18/2016	$ 244,698
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.	8/2/2017	8/2/2017	$ 11,177
SPS	HARRINGTON MID - NICHOLS 230 KV CKT 2	Reconductor Harrington Mid - Nichols 230kV. Replace switches and breakers to get circuit to 727/727 MVA rating. New limit should be bus rating.	12/1/2012	12/1/2012	$ 218,700
SPS	HARRINGTON WEST - NICHOLS 230KV CKT 1	Reconductor Harrington West - Nichols 230kV. Replace switches and breakers to get circuit to 727/727 MVA rating. New limit should be bus rating.	12/1/2012	12/1/2012	$ 227,922
SPS	POWER SYSTEM STABILIZERS IN SPS	Install Power System Stabilizers (PSS) at Tolk (Units: 1,2) and Jones (Units: 1,2,3).	11/30/2014	11/30/2014	$ 376,147
SPS	TUCO 230kV Switching Station Abernathy Co Addition	TUCO 230kV Switching Station: Add one (1) new 230kV breaker (breaker and one-half configuration); Replace one (1) 230kV breaker; Replace five (5) 230kV Switches; Includes dead end structure.	4/30/2017	4/30/2017	$ 2,363,460
WR	COFFEYVILLE TAP - DEARING 138KV CKT 1 (WR) #2	Replace Disconnect Switches, Wavetrap, Breaker, Jumpers with a minimum 2000 amp emergency rating equipment	6/9/2010	6/9/2010	$ 17
WR	DEARING 138KV	Dearing 138 kV 20 MVAR Capacitor Addition	6/30/2013	6/30/2013	$ 25
WR	NEOSHO - NORTHEAST PARSONS 138KV CKT 1	Replace bus and Jumpers at NE Parsons 138 kV substation.	6/1/2011	6/1/2011	$ 17
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	$ 2,050
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	$ 8,745,673
WR	Union Ridge 230kV Dickenson/Marion Co Addition (NU)	Construct one (1) 345kV (230kV operating) 3000 continuous ampacity breakers, cut in transmission line and re-terminate, control panels, line relaying, disconnect switches, structures, foundations, conductors, insulators, and all other associated work and materials.	9/1/2018	9/1/2018	$ 168,020

*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
ESTM	EASTMAN 138/13.8kV TRANSFORMER #1	Upgrade Eastman 138/13.8 kV transformer #1	7/1/2019	8/1/2021	$3,111,386
ESTM	EASTMAN 138/13.8kV TRANSFORMER #2	Upgrade Eastman 138/13.8 kV transformer #2	7/1/2019	8/1/2021	$3,111,386
ESTM	EASTMAN 138/13.8kV TRANSFORMER #3	Upgrade Eastman 138/13.8 kV transformer #3	7/1/2019	8/1/2021	$3,111,386
ESTM	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 1	Rebuild 0.7-mile of 138 kV transmission line from Eastman Generation to North Texas Eastman (circuit 1).	7/1/2019	8/1/2021	$596,751
ESTM	EASTMAN GENERATION - NORTH TEXAS EASTMAN 138KV CKT 2	Rebuild 0.7-mile of 138 kV transmission line from Eastman Generation to North Texas Eastman (circuit 2).	7/1/2019	8/1/2021	$596,751
ESTM	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 1	Rebuild 1.6-mile of 138kV transmission line from North Texas Eastman to Texas Eastman.	7/1/2019	8/1/2021	$1,364,002
ESTM	NORTH TEXAS EASTMAN - TEXAS EASTMAN 138KV CKT 2	Rebuild 1.7-mile of 138kV transmission line from North Texas Eastman to Texas Eastman.	7/1/2019	8/1/2021	$1,449,252

Table 6 - Potential Redispatch Relief Pairs to Prevent Deferral of Service

Reserved

Table 7- Service Upgrade Cost Allocation per Request

Upgrade Name	Customer	Study Number	Reservation	Allocation Percentage	Allocated E & C Cost
ERCOT EAST HVDC Tie Expansion	MCPI	AG2-2018-014	87026265	100.00%	$22,727,273
				Total:	$22,727,273

Table 7- Service Upgrade Cost Allocation per Request

Upgrade Name	Customer	Study Number	Reservation	Allocation Percentage	Allocated E & C Cost
ERCOT NORTH HVDC Tie Expansion	TNSK	AG2-2018-029	87026271	100.00%	$30,000,000
				Total:	$30,000,000

Table 7- Service Upgrade Cost Allocation per Request

Upgrade Name	Customer	Study Number	Reservation	Allocation Percentage	Allocated E & C Cost
KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	MCPI	AG2-2018-008	87026257	11.11%	$1,333,333
KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	MCPI	AG2-2018-009	87026258	22.22%	$2,666,667
KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	MCPI	AG2-2018-011	87026260	11.11%	$1,333,333
KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	MCPI	AG2-2018-012	87026261	22.22%	$2,666,667
KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	MCPI	AG2-2018-013	87026263	11.11%	$1,333,333
KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	MCPI	AG2-2018-014	87026265	11.11%	$1,333,333
KNOX LEE - SOUTH TEXAS EASTMAN 138KV CKT 1	TNSK	AG2-2018-028	87026254	11.11%	$1,333,333
				Total:	$12,000,000