

Aggregate Facility Study
SPP-2013-AG1-AFS-6

8/4/2014

SPP Engineering, SPP Transmission Service Studies



Table of Contents

Table of Contents	1
Executive Summary	2
Introduction.....	3
Financial Analysis	5
Third-Party Facilities	6
Make-Whole Payment	6
Study Methodology	7
Description	7
Model Development.....	8
Transmission Request Modeling.....	8
Transfer Analysis	8
Curtailement and Redispatch Evaluation.....	9
Study Results	9
Study Analysis Results	9
Example A:.....	11
Example B:.....	11
Example C:.....	11
Study Definitions	12
Conclusion	12
Appendix A	13
BASE CASE SETTINGS:	13
ACCC CASE SETTINGS:.....	13

Executive Summary

Pursuant to Attachment Z1 of the Southwest Power Pool, Inc. (SPP) Open Access Transmission Tariff (OATT), 1483 MW of long-term transmission service requests have been studied in this Aggregate Facility Study (AFS). The principal objective of the AFS is to identify system problems and potential modifications necessary to facilitate these transfers while maintaining or improving system reliability, as well as summarizing the operating limits and determination of the financial characteristics associated with facility upgrades. A highly tangible benefit of studying transmission requests aggregately under the SPP OATT Attachment Z1 is the sharing of costs among Transmission Customers using the same facility. Facility upgrade costs are allocated on a prorated basis to all requests positively impacting any individual overloaded facility.

Attachment Z2 further provides for facility upgrade cost recovery by stating: “Transmission Customers paying Directly Assigned Upgrade Costs for Service Upgrades or that are in excess of the Safe Harbor Cost Limit for Network Upgrades associated with new or changed Designated Resources and Project Sponsors paying Directly Assigned Upgrade Costs for Sponsored Upgrades shall receive revenue credits in accordance with Attachment Z2. Generation Interconnection Customers paying for Network Upgrades shall receive credits for new transmission service using the facility as specified in Attachment Z1.”

- The AFS determined that the total assigned facility upgrade Engineering and Construction (E&C) cost is \$42 million. Additionally, \$32 million in third party facility upgrades are assignable to the customer.
- Total upgrade levelized revenue requirements for all transmission requests after consideration of potential base plan funding is \$0.

To accommodate the requested SPP Transmission Service, third-party facilities must be upgraded when the third-party transmission provider determines that they are constrained. Third-party facilities include both first-tier neighboring facilities outside SPP and Transmission Owner facilities within SPP that are not under the SPP OATT. In this AFS, third-party facilities were not identified. Total E&C cost estimates for required third-party facility upgrades are applicable.

SPP will tender an Aggregate Completion Agreement on August 4, 2014. This will open a 15-day window for Customer response. To remain in the Aggregate Transmission Service Study (ATSS), SPP must receive from the Customer by August 19, 2014, an executed Aggregate Completion Agreement. The Aggregate Completion Agreement will list options the Customer must choose to clarify their commitment to remain in the ATSS. The only action required on OASIS is to withdraw the request or leave the request in study mode.

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

All allocated revenue requirements for facility upgrades are assigned to the Customer in the AFS data tables. Potential base plan funding allowable is contingent upon validation of designated resources meeting Attachment J, Section III B criteria.

Introduction

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

- All requests for long-term transmission service with a signed study agreement received before February 1, 2013 for 2013-AG1 have been included in this first Aggregate Transmission Service Study (ATSS) of 2013.

The results of the AFS are detailed in Tables 1 through 6. Detailed results depict individual upgrade costs by study and potential base plan allowances determined by Attachments J and Z1. The [OATT](#) may be accessed at SPP's website by going to [SPP.org](#)>Org Groups>Governing Documents.

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

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

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

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

1. Transmission Customer's commitment to the requested new or changed Designated Resource must have duration of at least five years.
2. During the first year the Designated Resource is planned to be used by the Transmission Customer, the accredited capacity of the Transmission Customer's existing Designated Resources plus the lesser of:
 - a. The planned maximum net dependable capacity applicable to the Transmission Customer or

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

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

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

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

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

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

Some constraints identified in the AFS were not assigned to the Customer because SPP, the Transmission Provider, determined that upgrades are not required due to various reasons or the Transmission Owner has construction plans pending for these upgrades. These facilities are listed by reservation in Table 3. This table also includes constrained facilities in the current planning horizon that limit the rollover rights of the Transmission Customer. Table 6 lists possible redispatch pairs to allow start of service prior to completion of assigned Network Upgrades. Table 7 lists costs allocated per request for Service Upgrades assigned in this AFS..

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

Financial Analysis

The AFS utilizes the allocated Customer's E&C cost in a present worth analysis to determine the monthly levelized revenue requirement of each facility upgrade over the term of the reservation. In some cases, Network Upgrades cannot be completed within the requested reservation period, thus deferred reservation periods will be utilized in the present worth analysis. If the Customer chose Option 2, Redispatch, in the Aggregate Completion 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 Transmission Customer shall 1) pay the total E&C costs and other annual operating costs associated with the new facilities, and 2) receive credits associated with the depreciated book value of removed usable facilities; salvage value of removed non-usable facilities; and the carrying charges, excluding depreciation, associated with all removed usable facilities based on their respective book values.

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

1. The levelized difference in present worth of the engineering and construction expenses given the change in date to complete construction to account for additional interest expense and reduced engineering and construction expense due to inflation,
2. The levelized present worth of all expediting fees, and
3. The levelized present worth of the incremental annual carrying charges, excluding depreciation and interest, during the new reservation period taking into account both:
 - a. The reservation in which the project was originally assigned, and
 - b. A reservation, if any, in which the project was previously accelerated.

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

A 40-year service life assumption is utilized for Base Plan funded projects, unless another assumption is provided by the Transmission Owner. A present worth analysis of revenue requirements on a common year basis between the Base Plan and Requested Upgrades was

performed to determine avoided Base Plan revenue requirements due to the displacement or deferral of the Base Plan Upgrade by the Requested Upgrade. The difference in present worth between the Base Plan and Requested Upgrades is assigned to the transmission requests impacting this upgrade based on the displacement or deferral.

Third-Party Facilities

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

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

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

Make-Whole Payment

Make-whole payment (MWP) is a potential cost that may be allocated to a Withdrawn Request inside an Aggregate Facilities Study (AFS). The MWP for the Withdrawn Request(s) is determined as the sum of the increase in Directly Assigned Upgrade Costs (DAUC) for the remaining requests in the AFS. If a MWP is required, the customer(s) with the Withdrawn Request(s) shall be obligated to pay such costs pursuant to the ACA.

If multiple requests are withdrawn at the conclusion of this study iteration, then the impact of each Withdrawn Request on the shared upgrades causing an increase in DAUC for the remaining requests in the AFS with shared costs shall be determined. Upgrade costs for facilities allocated solely to the Withdrawn Request(s) will not be included in the MWP calculation. If a MWP is required for a

Withdrawn Request, the customer shall enter into a Sponsored Upgrade Agreement with SPP in accordance with Attachment J and will be eligible for revenue credits in accordance with Attachment Z2. For additional details, refer to the Tariff language.

The MWP has not been calculated in this report posting. However, one can be assessed by the following:

1. Refer to Table 3 of the relevant AFS and identify the Service Upgrades allocated to the request.
2. For Service Upgrades where “Allocated E&C Cost” is less than the “Total E&C Cost,” sum the “Total Revenue Requirements.”
3. The sum calculated in (2) is the maximum potential MWP.

In most cases, the MWP will not include costs of non-shared upgrades. Non-shared upgrade costs may be included in the event that SPP grants service in a subsequent study that required the use of the non-shared upgrade.

Study Methodology

Description

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

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

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

A 3 % transfer distribution factor (TDF) cutoff was applied to all SPP control area facilities. For first tier non-SPP control area facilities, a 3 % TDF cutoff was applied to AECL, AMRN (Ameren), and

ENTR (Entergy) control areas. A 2 % TDF cutoff was applied to WAPA. For voltage monitoring, a 0.02 per unit change in voltage must occur due to the transfer or modeling upgrades to be considered a valid limit to the transfer.

Model Development

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

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

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

The chosen base case models were modified to reflect the current modeling information. One group of requests was developed from the aggregate to model the requested service. From the seasonal models, two system scenarios were developed. Scenario 0 includes projected usage of transmission included in the SPP 2012 Series Cases. Scenario 5 includes transmission service not already included in the SPP 2012 Series Cases.

Transmission Request Modeling

Network Integration Transmission Service requests are modeled as Generation to Load transfers in addition to Generation to Generation transfers. Network Integration Transmission Service requests are modeled as Generation to Load transfers in addition to Generation to Generation because the requested Network Integration Transmission Service is a request to serve network load with the new designated network resource, and the impacts on Transmission System are determined accordingly. Point-To-Point Transmission Service requests are modeled as Generation to Generation transfers. Generation to Generation transfers are accomplished by developing a post-transfer case for comparison by dispatching the request source and redispatching the request sink.

Transfer Analysis

Using the selected cases both with and without the requested transfers modeled, the PSS/E Activity ACCC was run on the cases and compared to determine the facility overloads caused or impacted by the transfer. Transfer distribution factor cutoffs (SPP and 1st-Tier) and voltage threshold (0.02 change) were applied to determine the impacted facilities. The PSS/E options chosen to conduct the analysis can be found in Appendix A.

Curtailement and Redispatch Evaluation

During any period in which SPP determines that a transmission constraint exists on and may impair Transmission System reliability, SPP will take whatever actions are reasonably necessary to maintain reliability. If SPP determines Transmission System reliability can be maintained by redispatching resources, it will evaluate the interim curtailement of existing confirmed service or interim redispatch of units to provide service prior to completion of any assigned Network Upgrades. Any redispatch may not unduly discriminate between the Transmission Owners' use of the Transmission System on behalf of their Native Load Customers and any Transmission Customer's use of the Transmission System to serve its designated load. Redispatch was evaluated to provide only interim service during the time frame prior to completion of any assigned Network Upgrades. Curtailement of existing confirmed service is evaluated to provide only interim service. Curtailement of existing confirmed service is only evaluated at the request of the transmission Customer.

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

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

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

Study Results

Study Analysis Results

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

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

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

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

Table 5 lists identified third-party constrained facilities.

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

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

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

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

Regarding application of base plan funding for PTP requests, if PTP base rate exceeds upgrade revenue requirements without taking into effect the reduction of revenue requirements by potential base plan funding, then the base rate revenue pays back the Transmission Owner for upgrades and

no base plan funding is applicable as the access charge must be paid as it is the higher of “OR” pricing.

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

Example A:

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

Example B:

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

Example C:

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

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

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

Study Definitions

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

Conclusion

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

The Transmission Provider will tender an Aggregate Completion Agreement on August 4, 2014. This will open a 15-day window for Customer response. To remain in the Aggregate Transmission Service Study (ATSS), the Transmission Provider must receive from the Transmission Customer by August 19, 2014, an executed Aggregate Completion Agreement. The Aggregate Completion Agreement will list options the Customer must choose to clarify their commitment to remain in the ATSS. The only action required on OASIS is to WITHDRAW the request or leave the request in STUDY mode.

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

Appendix A

PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

BASE CASE SETTINGS:

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

ACCC CASE SETTINGS:

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

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

Customer	Study Number	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date without interim redispach (ACA Parameter 3)	Deferred Stop Date without interim redispach	Start Date with interim redispach	Stop Date with interim redispach	Minimum Allocated ATC (MW) within reservation period	Season of Minimum Allocated ATC within reservation period
AECC	AG1-2013-033	77833561	CSWS	CSWS	3	2/1/2014	2/1/2019	12/1/2014	12/1/2019	12/1/2014	12/1/2019	0	14SP
AEPM	AG1-2013-011	77822685	CSWS	CSWS	25	2/1/2014	2/1/2019	12/1/2014	12/1/2019	12/1/2014	12/1/2019	0	14SP
AEPM	AG1-2013-014	77822735	CSWS	CSWS	40	6/1/2016	6/1/2019	6/1/2016	6/1/2019	6/1/2016	6/1/2019	40	23SP
AEPM	AG1-2013-036	77830575	EES	CSWS	50	12/31/2013	12/31/2018	12/1/2014	12/1/2019	12/1/2014	12/1/2019	0	14SP
AEPM	AG1-2013-037	77830722	OKGE	CSWS	100	1/1/2015	1/1/2020	1/1/2015	1/1/2020	1/1/2015	1/1/2020	0	18SP
APM	AG1-2013-004	77754342	AECI	MPS	8	9/1/2014	9/1/2024	12/1/2014	12/1/2024	12/1/2014	12/1/2024	8	18SP
AWE	AG1-2013-038	77830753	OKGE	AECI	150	1/1/2014	1/1/2034	6/1/2018	6/1/2038	Note 4	Note 4	0	14SP
AWE	AG1-2013-039	77830863	OKGE	AECI	150	1/1/2014	1/1/2034	6/1/2018	6/1/2038	Note 4	Note 4	0	14SP
AWE	AG1-2013-040	77830900	OKGE	OKGE	150	6/1/2014	6/1/2034	12/1/2014	12/1/2034	Note 4	Note 4	150	14SP
AWE	AG1-2013-041	77830907	OKGE	OKGE	150	6/1/2014	6/1/2034	12/1/2014	12/1/2034	Note 4	Note 4	150	14SP
EAGL	AG1-2013-042	77829695	WR	EES	150	9/1/2014	9/1/2034	6/1/2018	6/1/2038	Note 4	Note 4	0	18SP
KMEA	AG1-2013-030	77825437	WPEK	WPEK	20	1/1/2014	1/1/2019	6/1/2016	6/1/2021	Note 4	Note 4	0	14SP
LESM	AG1-2013-003	77670009	LES	LES	5	8/1/2013	8/1/2033	12/1/2014	12/1/2034	12/1/2014	12/1/2034	5	14SP
MEAN	AG1-2013-015	77821652	MEC	NPPD	25	8/1/2013	8/1/2018	12/1/2014	12/1/2019	12/1/2014	12/1/2019	18	14SP
MEAN	AG1-2013-016	77821664	NPPD	NPPD	15	1/1/2014	1/1/2019	12/1/2014	12/1/2019	12/1/2014	12/1/2019	15	14SP
MEAN	AG1-2013-017	77822237	MEC	NPPD	15	8/1/2013	8/1/2018	6/1/2017	6/1/2022	12/1/2014	12/1/2019	0	14SP
MEAN	AG1-2013-018	77822257	NPPD	NPPD	5	1/1/2014	1/1/2019	12/1/2014	12/1/2019	12/1/2014	12/1/2019	5	14SP
NELI	AG1-2013-021	77822264	MEC	NPPD	5	8/1/2013	8/1/2018	12/1/2014	12/1/2019	12/1/2014	12/1/2019	5	14SP
OMPA	AG1-2013-005	77780943	OKGE	OKGE	103	4/1/2015	4/1/2045	4/1/2015	4/1/2045	4/1/2015	4/1/2045	103	18SP
OMPA	AG1-2013-044	77895559	CSWS	OKGE	3	8/1/2013	4/1/2032	12/1/2014	8/1/2033	12/1/2014	8/1/2033	0	14SP
OPPM	AG1-2013-009	77805986	NPPD	OPPD	201	11/1/2013	11/1/2018	12/1/2014	12/1/2019	12/1/2014	12/1/2019	0	14SP
SPRM	AG1-2013-045	77830421	SPRM	SPRM	9	8/1/2013	10/1/2050	12/1/2014	2/1/2052	Note 4	Note 4	0	14SP
SPSM	AG1-2013-051	77917222	CSWS	SPS	5	6/1/2019	6/1/2032	6/1/2019	6/1/2032	Note 4	Note 4	5	23SP
SPSM	AG1-2013-052	77917219	CSWS	SPS	96	6/1/2019	6/1/2032	6/1/2019	6/1/2032	Note 4	Note 4	96	23SP

1483

Note 1: Start and Stop Dates with interim redispach are determined based on customers choosing option to pursue redispach to start service at Requested Start and Stop Dates or earliest date possible.
Note 2: Start dates with and without redispach are based on the assumed completion dates of previous Aggregate Transmission Service Studies currently being conducted. Actual start dates may differ from the potential start dates upon completion of the previous studies.
Note 3: Request is unable to be deferred due to fixed stop dates.
Note 4: Transmission customer did not select "remain in the study using interim redispach" option.

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

Customer	Study Number	Reservation	Engineering and Construction Cost of Upgrades Allocated to Customer for Revenue Requirements	¹ Letter of Credit Amount Required (ACA Parameter 5)	² Potential Base Plan Engineering and Construction Funding Allowable	Notes	⁴ Additional Engineering and Construction Cost for 3rd Party Upgrades (ACA Parameter 2)	^{3,5} Total Revenue Requirements for Assigned Upgrades Over Term of Reservation WITH Potential Base Plan Funding Allocation	Point-to-Point Base Rate Over Reservation Period	⁴ Total Cost of Reservation Assignable to Customer Contingent Upon Base Plan Funding	Directly Assigned Upgrade Cost (DAUC) (ACA Parameter 1)
AEC	AG1-2013-033	77833561	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
AEP	AG1-2013-011	77822685	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
AEP	AG1-2013-014	77822735	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
AEP	AG1-2013-036	77830575	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
AEP	AG1-2013-037	77830722	\$3,049,257	\$0	\$3,049,257		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
APM	AG1-2013-004	77754342	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
AWE	AG1-2013-038	77830753	\$0	\$0	\$0		\$13,649,425	\$0	\$32,184,000	\$32,184,000	\$
AWE	AG1-2013-039	77830863	\$0	\$0	\$0		\$13,649,425	\$0	\$32,184,000	\$32,184,000	\$
AWE	AG1-2013-040	77830900	\$0	\$0	\$0		\$0	\$0	\$42,393,600	\$42,393,600	\$
AWE	AG1-2013-041	77830907	\$0	\$0	\$0		\$0	\$0	\$42,393,600	\$42,393,600	\$
EAGL	AG1-2013-042	77829695	\$0	\$0	\$0		\$4,498,380	\$0	\$42,393,600	\$42,393,600	\$
KMEA	AG1-2013-030	77825437	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
LESM	AG1-2013-003	77670009	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
MEAN	AG1-2013-015	77821652	\$3,750,000	\$0	\$3,750,000		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
MEAN	AG1-2013-016	77821664	\$0	\$0	\$0		\$0	\$0	\$1,234,926	\$1,234,926	\$
MEAN	AG1-2013-017	77822237	\$2,250,000	\$0	\$2,250,000		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
MEAN	AG1-2013-018	77822257	\$0	\$0	\$0		\$0	\$0	\$411,642	\$411,642	\$
NELI	AG1-2013-021	77822264	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
OMPA	AG1-2013-005	77780943	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
OMPA	AG1-2013-044	77899559	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
OPPM	AG1-2013-009	77805986	\$32,500,000	\$0	\$32,500,000		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
SPRM	AG1-2013-045	77830421	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
SPSM	AG1-2013-051	77917222	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
SPSM	AG1-2013-052	77917219	\$0	\$0	\$0		\$0	\$0	\$0	Schedule 9 & 11 Charges	\$
Grand Total			\$41,549,257		\$41,549,257		\$31,797,230	\$0			

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

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

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

Note 4: For Point-to-Point requests, total cost is based on the higher of the base rate or assigned upgrade revenue requirements. For Network requests, the total cost is based on the assigned upgrade revenue requirement. Allocation of base plan funding

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

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

Customer **Study Number**
 AECC AG1-2013-033

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
AECC	77833561	CSWS	CSWS	3	2/1/2014	2/1/2019	12/1/2014	12/1/2019	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77833561	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77833561	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	12/1/2014	6/1/2016		
	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77833561	ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	7/1/2012	7/1/2012		
	ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	7/1/2012	7/1/2012		
	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	MANDEVILTP4 - SE TEXARKANA 138KV CKT 1	7/1/2012	7/1/2012		
	MANDEVILTP4 - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	MCNAB REC - TURK 115KV CKT 1	7/1/2012	7/1/2012		
	OKAY - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	SUGAR HILL - TURK 138KV CKT 1	7/1/2012	7/1/2012		

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

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

Customer **Study Number**
 AEPM AG1-2013-011

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
AEPM	77822685	CSWS	CSWS	25	2/1/2014	2/1/2019	12/1/2014	12/1/2019	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77822685	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77822685	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77822685	ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	7/1/2012	7/1/2012		
	ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	7/1/2012	7/1/2012		
	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	MANDEVILTP4 - SE TEXARKANA 138KV CKT 1	7/1/2012	7/1/2012		
	MANDEVILTP4 - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	MCNAB REC - TURK 115KV CKT 1	7/1/2012	7/1/2012		
	OKAY - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	SUGAR HILL - TURK 138KV CKT 1	7/1/2012	7/1/2012		

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

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

Customer **Study Number**
 AEPM AG1-2013-014

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
AEPM	77822735	CSWS	CSWS	40	6/1/2016	6/1/2019			\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77822735	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
77822735	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		

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

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

Customer **Study Number**
 AEPM AG1-2013-036

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
AEPM	77830575	EES	CSWS	50	12/31/2013	12/31/2018	12/1/2014	12/1/2019	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77830575	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77830575	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77830575	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	MCNAB REC - TURK 115KV CKT 1	7/1/2012	7/1/2012		

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

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

Customer **Study Number**
 AEPM AG1-2013-037

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
AEPM	77830722	OKGE	CSWS	100	1/1/2015	1/1/2020			\$ 3,049,257	\$ -	\$ 3,049,257	\$ 3,451,643
									\$ 3,049,257	\$ -	\$ 3,049,257	\$ 3,451,643

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
77830722	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	6/1/2019	6/1/2019			\$ 3,049,257	\$ -	\$ 3,049,257	\$ 3,049,257	\$ 3,451,643
	Total					\$ 3,049,257	\$ -	\$ 3,049,257	\$ 3,049,257	\$ 3,451,643

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77830722	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	6/1/2019	6/1/2019		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77830722	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

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

Customer Study Number
 APM AG1-2013-004

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
APM	77754342	AECI	MPS	8	9/1/2014	9/1/2024	12/1/2014	12/1/2024	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77754342	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
77754342	EASTOWN7 345.00 (EASTOWN 345) 345/161/13.8KV TRANSFORMER CKT 1	5/1/2014	5/1/2014		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

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

Customer **Study Number**
AWE AG1-2013-038

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
AWE	77830753	OKGE	AECI	150	1/1/2014	1/1/2034	6/1/2018	6/1/2038	\$ -	\$ 32,184,000	\$ -	\$ -
									\$ -	\$ 32,184,000	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77830753	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77830753	IATAN - NASHUA 345KV CKT 1	12/1/2014	6/1/2015		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77830753	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
77830753	BULL SHOALS - MIDWAY (YVEPA) 161KV CKT 1	6/1/2015	6/1/2018			\$ 7,018,065	\$ 18,534,510
	NEWPORT - NEWPORT INDUSTRIAL 161KV CKT 1	6/1/2019	6/1/2019			\$ 25,000	\$ 50,000
	TRUMANN - TRUMANN WEST AECC 161KV CKT 1	6/1/2015	6/1/2018			\$ 6,606,360	\$ 13,212,720
Total						\$ 13,649,425	\$ 31,797,230

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

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

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

Customer **Study Number**
 AWE AG1-2013-039

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
AWE	77830863	OKGE	AECI	150	1/1/2014	1/1/2034	6/1/2018	6/1/2038	\$ -	\$ 32,184,000	\$ -	\$ -
									\$ -	\$ 32,184,000	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77830863	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77830863	IATAN - NASHUA 345KV CKT 1	12/1/2014	6/1/2015		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77830863	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
77830863	BULL SHOALS - MIDWAY (YVEPA) 161KV CKT 1	6/1/2015	6/1/2018			\$ 7,018,065	\$ 18,534,510
	NEWPORT - NEWPORT INDUSTRIAL 161KV CKT 1	6/1/2019	6/1/2019			\$ 25,000	\$ 50,000
	TRUMANN - TRUMANN WEST AECC 161KV CKT 1	6/1/2015	6/1/2018			\$ 6,606,360	\$ 13,212,720
Total						\$ 13,649,425	\$ 31,797,230

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

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

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

Customer **Study Number**
 AWE AG1-2013-040

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
AWE	77830900	OKGE	OKGE	150	6/1/2014	6/1/2034	12/1/2014	12/1/2034	\$ -	\$ 42,393,600	\$ -	\$ -
									\$ -	\$ 42,393,600	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77830900	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
77830900	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - IODINE 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

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

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

Customer **Study Number**
 AWE AG1-2013-041

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
AWE	77830907	OKGE	OKGE	150	6/1/2014	6/1/2034	12/1/2014	12/1/2034	\$ -	\$ 42,393,600	\$ -	\$ -
									\$ -	\$ 42,393,600	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77830907	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
77830907	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - IODINE 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

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

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

Customer Study Number
EAGL AG1-2013-042

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
EAGL	77829695	WR	EES	150	9/1/2014	9/1/2034	6/1/2018	6/1/2038	\$ -	\$ 42,393,600	\$ -	\$ -
									\$ -	\$ 42,393,600	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77829695	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
77829695	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	LACYGNE - WEST GARDNER 345KV CKT 1	6/1/2006	6/1/2006		

Third Party Limitations.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	*Allocated E & C Cost	*Total E & C Cost
77829695	BULL SHOALS - MIDWAY (YVEPA) 161KV CKT 1	6/1/2015	6/1/2018			\$ 4,498,380	\$ 18,534,510
Total						\$ 4,498,380	\$ 18,534,510

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

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

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

Customer Study Number
KMEA AG1-2013-030

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
KMEA	77825437	WPEK	WPEK	20	1/1/2014	1/1/2019	6/1/2016	6/1/2021	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

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
77825437	None					\$ -	\$ -	\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77825437	HAYS PLANT - SOUTH HAYS 115KV CKT 1 #2	12/1/2014	6/1/2016		
	HAYS PLANT - VINE STREET 115KV CKT 1 #1	12/1/2014	12/1/2014	10/1/2014	
	Line - Clark County - Thistle 345 kv dbi Ckt	12/1/2014	1/1/2015		
	Line - Spearville - Clark County 345 kv dbi Ckt	12/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kv dbi Ckt OKGE	12/1/2014	1/1/2015		
	Line - Thistle - Woodward 345 kv dbi Ckt PW	12/1/2014	1/1/2015		
	Line - Tuco - Woodward 345 kv line OKGE	12/1/2014	12/1/2014	10/1/2014	
	Line - Tuco - Woodward 345 kv line SPS	12/1/2014	12/1/2014	10/1/2014	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77825437	Lancer - North Judson Large 115KV CKT 1	12/1/2014	6/1/2016		
	Lancer - Spearville 345KV CKT 1	12/1/2014	6/1/2016		
	Lancer 345/115/13.8KV Transformer CKT 1	12/1/2014	6/1/2016		

Credits may be required for the following Network Upgrades in accordance with Attachment 22 of the SPP OATT.

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77825437	ALEXANDER - PRATT 115KV CKT 1	12/1/2009	6/1/2013		
	ALEXANDER - SAWYER 3 115.00 115KV CKT 1	12/1/2009	6/1/2013		
	BARBER - MEDICINE LODGE 115KV CKT 1	12/1/2009	6/1/2013		
	BARBER - SAWYER 115KV CKT 1	12/1/2009	6/1/2013		
	BARBER (BARBER 4) 138/115/2.72KV TRANSFORMER CKT 1	12/1/2009	6/1/2013		
	CIRCLE - RICE_CO 230KV CKT 1	10/1/2012	11/15/2012		
	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	12/1/2009	6/1/2013		
	FLATRDG3 138.00 - HARPER 138KV CKT 1	12/1/2009	6/1/2013		
	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	6/1/2013	6/1/2013		
	LYONS - RICE_CO 115KV CKT 1	10/1/2012	4/1/2013		
	LYONS - WHEATLAND 115KV CKT 1 #1	10/1/2012	7/15/2013		
	LYONS - WHEATLAND 115KV CKT 1 #2	10/1/2012	7/15/2013		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	RICE_CO 230/115KV TRANSFORMER CKT 1	10/1/2012	11/15/2012		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

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

Customer Study Number
 LESM AG1-2013-003

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
LESM	77670009	LES	LES	5	8/1/2013	8/1/2033	12/1/2014	12/1/2034	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77670009	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

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

Customer **Study Number**
 MEAN AG1-2013-015

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
MEAN	77821652	MEC	NPPD	25	8/1/2013	8/1/2018	12/1/2014	12/1/2019	\$ 3,750,000	\$ -	\$ 3,750,000	\$ 5,219,032
									\$ 3,750,000	\$ -	\$ 3,750,000	\$ 5,219,032

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77821652	BEATRICE - HARBINE 115KV CKT 1	6/1/2019	6/1/2019			\$ 3,750,000	\$ 6,000,000	\$ 5,219,032
					Total	\$ 3,750,000	\$ 6,000,000	\$ 5,219,032

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
77821652	ALBION - PETERSBURG 115KV CKT 1	1/1/2013	1/1/2013		
	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	6/1/2013	6/1/2013		
	NELIGH - PETERSBURG 115KV CKT 1	1/1/2013	1/1/2013		

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

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

Customer **Study Number**
 MEAN AG1-2013-016

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
MEAN	77821664	NPPD	NPPD	15	1/1/2014	1/1/2019	12/1/2014	12/1/2019	\$ -	\$ 1,234,926	\$ -	\$ -
									\$ -	\$ 1,234,926	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77821664	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
77821664	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

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

Customer **Study Number**
 MEAN AG1-2013-017

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
MEAN	77822237	MEC	NPPD	15	8/1/2013	8/1/2018	6/1/2017	6/1/2022	\$ 2,250,000	\$ -	\$ 2,250,000	\$ 3,131,419
									\$ 2,250,000	\$ -	\$ 2,250,000	\$ 3,131,419

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77822237	BEATRICE - HARBINE 115KV CKT 1	6/1/2019	6/1/2019			\$ 2,250,000	\$ 6,000,000	\$ 3,131,419
					Total	\$ 2,250,000	\$ 6,000,000	\$ 3,131,419

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77822237	Multi - Stegall 345/115 kV and Stegall - Scottsbluff 115 kV	12/1/2014	6/1/2017		Yes

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77822237	ALBION - PETERSBURG 115KV CKT 1	1/1/2013	1/1/2013		
	CLIFTON - GREENLEAF 115KV CKT 1	6/1/2011	6/1/2013		
	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	6/1/2013	6/1/2013		
	NELIGH - PETERSBURG 115KV CKT 1	1/1/2013	1/1/2013		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

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

Customer **Study Number**
 MEAN AG1-2013-018

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
MEAN	77822257	NPPD	NPPD	5	1/1/2014	1/1/2019	12/1/2014	12/1/2019	\$ -	\$ 411,642	\$ -	\$ -
									\$ -	\$ 411,642	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77822257	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
77822257	ALBION - PETERSBURG 115KV CKT 1	1/1/2013	1/1/2013		
	NELIGH - PETERSBURG 115KV CKT 1	1/1/2013	1/1/2013		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

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

Customer Study Number
NELI AG1-2013-021

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
NELI	77822264	MEC	NPPD	5	8/1/2013	8/1/2018	12/1/2014	12/1/2019	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77822264	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
77822264	ALBION - PETERSBURG 115KV CKT 1	1/1/2013	1/1/2013		
	NELIGH - PETERSBURG 115KV CKT 1	1/1/2013	1/1/2013		

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

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

Customer Study Number
 OMPA AG1-2013-005

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
OMPA	77780943	OKGE	OKGE	103	4/1/2015	4/1/2045			\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77780943	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
77780943	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

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

Customer Study Number
 OMPA AG1-2013-044

Customer	Reservation	POR	POD	Requested Amount	Requested Start Date	Requested Stop Date	Deferred Start Date Without Redispatch	Deferred Stop Date Without Redispatch	Potential Base Plan Funding Allowable	Point-to-Point Base Rate	Allocated E & C Cost	Total Revenue Requirements
OMPA	77899559	CSWS	OKGE	3	8/1/2013	4/1/2032	12/1/2014	8/1/2033	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77899559	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77899559	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 3 Accelerated	12/1/2014	6/1/2015		

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77899559	ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	7/1/2012	7/1/2012		
	ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	7/1/2012	7/1/2012		
	BANN - RED SPRINGS REC 138KV CKT 1	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	7/1/2012	7/1/2012		
	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	7/1/2012	7/1/2012		
	MANDEVILTP4 - SE TEXARKANA 138KV CKT 1	7/1/2012	7/1/2012		
	MANDEVILTP4 - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	MCNAB REC - TURK 115KV CKT 1	7/1/2012	7/1/2012		
	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	OKAY - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	SUGAR HILL - TURK 138KV CKT 1	7/1/2012	7/1/2012		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		

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

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

Customer **Study Number**
 OPPM AG1-2013-009

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
OPPM	77805986	NPPD	OPPD	201	11/1/2013	11/1/2018	12/1/2014	12/1/2019	\$ 32,500,000	\$ -	\$ 32,500,000	\$ 33,147,617
									\$ 32,500,000	\$ -	\$ 32,500,000	\$ 33,147,617

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
77805986	SUB 3452/1252 345/161kV Auto Transformer^	6/1/2019	6/1/2019			\$ 32,500,000	\$ -	\$ 32,500,000	\$ 32,500,000	\$ 33,147,617
					Total	\$ 32,500,000	\$ -	\$ 32,500,000	\$ 32,500,000	\$ 33,147,617

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77805986	FT RANDAL - MADISONCO 230.00 230KV CKT 1	12/1/2014	12/1/2014	10/1/2014	
	KELLY - MADISONCO 230.00 230KV CKT 1	12/1/2014	12/1/2014	10/1/2014	

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77805986	FT RANDAL - MADISONCO 230.00 230KV CKT 1	6/1/2014	10/1/2014		
	KELLY - MADISONCO 230.00 230KV CKT 1	6/1/2014	10/1/2014		

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

^Further analysis is required to determine whether the project is needed given OPPD's publicly posted resource plan.

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

Customer **Study Number**
 SPRM AG1-2013-045

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	77830421	SPRM	SPRM	9	8/1/2013	10/1/2050	12/1/2014	2/1/2052	\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available	Allocated E & C Cost	Total E & C Cost	Total Revenue Requirements
77830421	None					\$ -	\$ -	\$ -
Total						\$ -	\$ -	\$ -

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

Reservation	Upgrade Name	DUN	EOC	Earliest Start Date	Redispatch Available
77830421	Solution(s) for ITPNT-2015-RON0039, ITPNT-2015-RON0040, ITPNT-2015-RON0041, ITPNT-2015-RON0155, ITPNT-2015-RON0156, ITPNT-2015-RON0157, ITPNT-2015-RON0158, ITPNT-2015-RON0159, ITPNT-2015-RON0160, ITPNT-2015-RON0161, ITPNT-2015-RON0162, ITPNT-2015-RON0163, ITPNT-2015-RON0164, ITPNT-2015-RON0165, ITPNT-2015-RON0166, ITPNT-2015-RON0167, ITPNT-2015-RON0168, ITPNT-2015-RON0169, and ITPNT-2015-RON0170.		6/1/2015	TBD	

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

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

Customer **Study Number**
 SPSM AG1-2013-051

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	77917222	CSWS	SPS	5	6/1/2019	6/1/2032			\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

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
77917222	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
77917222	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

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

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

Customer Study Number
SPSM AG1-2013-052

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	77917219	CSWS	SPS	96	6/1/2019	6/1/2032			\$ -	\$ -	\$ -	\$ -
									\$ -	\$ -	\$ -	\$ -

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
77917219	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
77917219	NORTHWEST - TATONGA 345KV CKT 1	1/1/2010	1/1/2010		
	TATONGA - WOODWARD 345KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 1	1/1/2010	1/1/2010		
	WOODWARD - WOODWARD EHV 138KV CKT 2	1/1/2010	1/1/2010		
	WOODWARD 345/138KV TRANSFORMER CKT 1	1/1/2010	1/1/2010		

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

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
AEPW	36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	Rebuild 1 mile of 138 kv with 2-795 ACSR. Replace 36th & Lewis wavetrap & reset CTS.	6/1/2019	6/1/2019	\$3,049,257.33
NPPD	BEATRICE - HARBINE 115KV CKT 1	Reconductor and upgrade terminal equipment to effect higher rating by 2019. 240 MVA Normal Continuous Rating, 240 MVA 4-Hour Emergency Rating.	6/1/2019	6/1/2019	\$6,000,000.00
OPPD	SUB 3452/1252 345/161KV Auto Transformer	Build new 345kv Substation 3452, expand Substation 1252 and install 345/161kv autotransformer. Terminate nearby 345kv and 161kv lines into S3452/S1252. Further analysis is required to determine whether the project is needed given OPPD's publicly posted resource plan.	6/1/2019	6/1/2019	\$32,500,000.00

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
MKEC	Lancer - North Judson Large 115KV CKT 1	Build approximately 20 mile 115 kv line	12/1/2014	6/1/2016
MKEC	Lancer - Spearville 345KV CKT 1	Build approximately 0.5 mile 345 kv line	12/1/2014	6/1/2016
MKEC	Lancer 345/115/13.8KV Transformer CKT 1	Build new Lancer Substation with 345/115 kv transformer	12/1/2014	6/1/2016
NPPD	FT RANDAL - MADISONCO 230.00 230KV CKT 1	Raise structures and line clearances as necessary to re-rate the transmission line to 320MVA	12/1/2014	12/1/2014
NPPD	KELLY - MADISONCO 230.00 230KV CKT 1	Raise structures and line clearances as necessary to re-rate the transmission line to 320MVA	12/1/2014	12/1/2014
OKGE	NORTHWEST 345/138/13.8KV TRANSFORMER CKT 3 Accelerated	Install third 345/138 kv Bus Tie in Northwest Sub	12/1/2014	6/1/2015

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

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

Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
AEPW	CHAMBER SPRINGS - FARMINGTON AECC 161KV CKT 1	Rebuild and reconductor 11.1-mile 161 kV line from Chamber Springs to Farmington REC with 2-959.6 ACSR/TW. Upgrade wavetraps, CT ratios, and relay settings at Chamber Springs.	12/1/2014	6/1/2016
GRDA	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1 #2	Replace Terminal Equipment	6/1/2019	6/1/2019
ITCGP	Line - Clark County - Thistle 345 kV dbi Ckt	Build a new 86 mile double circuit 345 kV line with at least 3000 A capacity from the Thistle 345 kV substation to the new Clark County substation. Build a new 345 kV substation at Thistle with a ring bus and necessary terminal equipment.	12/1/2014	1/1/2015
ITCGP	Line - Spearville - Clark County 345 kV dbi Ckt	Build a new 36 mile double circuit 345 kV line with at least 3000 A capacity from the Spearville substation to the new Clark County substation. Build the Clark County 345 kV substation with a ring bus and necessary terminal equipment.	12/1/2014	1/1/2015
KACP	IATAN - NASHUA 345KV CKT 1	Tap Nashua 345kV bus in Hawthorn - St. Joseph 345 kV line. Build new 345 kV line from Iatan to Nashua, Add Nashua 345/161 kV	12/1/2014	6/1/2015
MIDW	HAYS PLANT - SOUTH HAYS 115KV CKT 1 #2	Tear down and rebuild of existing South Hays - Hays Plant 115 kV line. Tentative plans include rebuilding on existing right-of-way with the possibility of re-routing a portion of the line to new right-of-way as necessary.	12/1/2014	6/1/2016
MIDW	HAYS PLANT - VINE STREET 115KV CKT 1 #1	Replace Wavetrap	12/1/2014	12/1/2014
NPPD	Multi - Stegall 345/115 kV and Stegall - Scottsbluff 115 kV	Build new substation Stegall with 400 MVA 345/115 kV transformer and a new 115 kV line from Stegall to Scottsbluff	12/1/2014	6/1/2017
OKGE	Line - Thistle - Woodward 345 kV dbi Ckt OKGE	Build a new 79 mile double circuit 345 kV line with at least 3000 A capacity from the Woodward District EHV substation to the Kansas/Oklahoma state border towards the Thistle substation. Upgrade the Woodward District EHV substation with the necessary brea	12/1/2014	1/1/2015
OKGE	Line - Tuco - Woodward 345 kV line OKGE	Build new 345 kV line from Woodward EHV to Border - Project costs now include Border reactor substation	12/1/2014	12/1/2014
PW	Line - Thistle - Woodward 345 kV dbi Ckt PW	Build a new 30 mile double circuit 345 kV line with at least 3000 A capacity from the Thistle substation to the Kansas/Oklahoma state border towards the Woodward District EHV substation.	12/1/2014	1/1/2015
SPS	Line - Tuco - Woodward 345 kV line SPS	Build new 345 kV line from Tuco to OGE Border station near TX/OK Stateline. Install line reactor outside Border station and line reactors at Tuco.	12/1/2014	12/1/2014

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

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.				
Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
TBD	Solution(s) for ITPNT-2015-RON0039, ITPNT-2015-RON0040, ITPNT-2015-RON0041, ITPNT-2015-RON0155, ITPNT-2015-RON0156, ITPNT-2015-RON0157, ITPNT-2015-RON0158, ITPNT-2015-RON0159, ITPNT-2015-RON0160, ITPNT-2015-RON0161, ITPNT-2015-RON0162, ITPNT-2015-RON0163, ITPNT-2015-RON0164, ITPNT-2015-RON0165, ITPNT-2015-RON0166, ITPNT-2015-RON0167, ITPNT-2015-RON0168, ITPNT-2015-RON0169, and ITPNT-2015-RON0170.	Solution(s) for ITPNT-2015-RON0039, ITPNT-2015-RON0040, ITPNT-2015-RON0041, ITPNT-2015-RON0155, ITPNT-2015-RON0156, ITPNT-2015-RON0157, ITPNT-2015-RON0158, ITPNT-2015-RON0159, ITPNT-2015-RON0160, ITPNT-2015-RON0161, ITPNT-2015-RON0162, ITPNT-2015-RON0163, ITPNT-2015-RON0164, ITPNT-2015-RON0165, ITPNT-2015-RON0166, ITPNT-2015-RON0167, ITPNT-2015-RON0168, ITPNT-2015-RON0169, and ITPNT-2015-RON0170.	6/1/2015	TBD
Network Upgrades requiring credits per Attachment 22 of the SPP OATT.				
Transmission Owner	Upgrade	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)
AEPW	ASHDOWN REC (MILLWOOD) - OKAY 138KV CKT 1	Reconductor and convert line to 138 kv and replace switches at Ashdown REC	7/1/2012	7/1/2012
AEPW	ASHDOWN REC (MILLWOOD) - PATTERSON 138KV CKT 1	Reconductor Line & Convert Line to 138 kv and convert Patterson station to breaker-and-a-half configuration	7/1/2012	7/1/2012
AEPW	BANN - RED SPRINGS REC 138KV CKT 1	Replace 138 kv breakers 3300 & 3310	7/1/2012	7/1/2012
AEPW	HUGO POWER PLANT - VALLIANT 345KV CKT 1 AEPW	Valliant 345 kv line terminal	7/1/2012	7/1/2012
AEPW	MANDEVILTP4 - SE TEXARKANA 138KV CKT 1	Build new Turk-SE Texarkana 138 kv line and add SE Texarkana 138 kv terminal.	7/1/2012	7/1/2012
AEPW	MANDEVILTP4 - TURK 138KV CKT 1	Build new Turk-SE Texarkana 138 kv line and add SE Texarkana 138 kv terminal.	7/1/2012	7/1/2012
AEPW	MCNAB REC - TURK 115KV CKT 1	Build a new two mile, 138 kv, 1590 ACSR line section (operated at 115 kv) from Turk Substation to the existing Okay- Hope 115 kv line to form a Turk- Hope 115 kv line.	7/1/2012	7/1/2012
AEPW	OKAY - TURK 138KV CKT 1	Build two mile, 138 kv, 1590ACSR line section from Turk Sub to existing Okay-Hope 115 kv line and rebuild twelve miles of 115 kv line to Okay Sub to 138 kv, 1590 ACSR, to form a Turk-Okay 138 kv line	7/1/2012	7/1/2012
AEPW	SUGAR HILL - TURK 138KV CKT 1	Build new Turk-Sugar Hill 138 kv line and add Sugar Hill 138 kv terminal.	7/1/2012	7/1/2012
KACP	EASTOWN7 345.00 (EASTOWN 345) 345/161/13.8KV TRANSFORMER CKT 1	Replace 715 MVA transformer.	5/1/2014	5/1/2014
KACP	LACYGNE - WEST GARDNER 345KV CKT 1	KCPPL Sponsored Project to Reconductor Line to be In-Service by 6/1/2006	6/1/2006	6/1/2006
MIDW	CIRCLE - RICE_CO 230KV CKT 1	Convert from 115KV to 230KV operation	10/1/2012	11/15/2012
MIDW	LYONS - RICE_CO 115KV CKT 1	Rebuild 11.7 mile line	10/1/2012	4/1/2013
MIDW	RICE_CO 230/115KV TRANSFORMER CKT 1	Add 230/115KV Transformer	10/1/2012	11/15/2012
MKEC	ALEXANDER - PRATT 115KV CKT 1	Rebuild line	12/1/2009	6/1/2013
MKEC	ALEXANDER - SAWYER 3 115.00 115KV CKT 1	Rebuild line	12/1/2009	6/1/2013
MKEC	BARBER - MEDICINE LODGE 115KV CKT 1	Rebuild line	12/1/2009	6/1/2013
MKEC	BARBER - SAWYER 115KV CKT 1	Rebuild line	12/1/2009	6/1/2013
MKEC	BARBER (BARBER 4) 138/115/2.72KV TRANSFORMER CKT 1	Upgrade transformer	12/1/2009	6/1/2013
MKEC	CLIFTON - GREENLEAF 115KV CKT 1	Rebuild 14.4 miles	6/1/2011	6/1/2013
MKEC	FLATRDG3 138.00 - MEDICINE LODGE 138KV CKT 1	Rebuild 8.05 mile line	12/1/2009	6/1/2013
MKEC	FLATRDG3 138.00 - HARPER 138KV CKT 1	Rebuild 24.15 mile line	12/1/2009	6/1/2013
MKEC	GREENLEAF - KNOB HILL 115KV CKT 1 MKEC	Rebuild 43.5% Ownership of 20.9 miles	6/1/2013	6/1/2013
NPPD	ALBION - PETERSBURG 115KV CKT 1	Replace Breaker Switch 1106-D and jumpers at Albion. Replace main bus at Petersburg. Upgrade and replace transmission structures on 115 kv lineto facilitate 100 degrees Centigrade line operation.	1/1/2013	1/1/2013
NPPD	FT RANDAL - MADISONCO 230.00 230KV CKT 1	Raise structures and line clearances as necessary to re-rate the transmission line to 320MVA	6/1/2014	10/1/2014
NPPD	KELLY - MADISONCO 230.00 230KV CKT 1	Raise structures and line clearances as necessary to re-rate the transmission line to 320MVA	6/1/2014	10/1/2014
NPPD	NELIGH - PETERSBURG 115KV CKT 1	Replace Breaker 1106, jumpers, and 115 kv Switch 1106-D2 at Neligh. Replace main bus at Petersburg. Upgrade and replace transmission structures on 115 kv lineto facilitate 100 degrees Centigrade line operation.	1/1/2013	1/1/2013
OKGE	NORTHWEST - TATONGA 345KV CKT 1	Build 345 kv line	1/1/2010	1/1/2010
OKGE	TATONGA - WOODWARD 345KV CKT 1	Build 345 kv line	1/1/2010	1/1/2010
OKGE	WOODWARD - IODINE 138KV CKT 1	Tap iodine to Woodward 138 kv line	1/1/2010	1/1/2010
OKGE	WOODWARD - WOODWARD EHV 138KV CKT 1	Build .5 miles of 138 kv and install terminal equipment	1/1/2010	1/1/2010
OKGE	WOODWARD - WOODWARD EHV 138KV CKT 2	Build .5 miles of 138 kv and install terminal equipment	1/1/2010	1/1/2010
OKGE	WOODWARD 345/138KV TRANSFORMER CKT 1	Install 345/138 kv XF	1/1/2010	1/1/2010
WERE	LYONS - WHEATLAND 115KV CKT 1 #1	Replace Cts	10/1/2012	7/15/2013
WERE	LYONS - WHEATLAND 115KV CKT 1 #2	Rerate circuit to 1000 amps	10/1/2012	7/15/2013
WFEC	HUGO POWER PLANT - VALLIANT 345KV CKT 1 WFEC	New 19 miles 345 kv	7/1/2012	7/1/2012

Table 5 - Third Party Facility Constraints

Transmission Owner	UpgradeName	Solution	Earliest Date Upgrade Required (DUN)	Estimated Date of Upgrade Completion (EOC)	Estimated Engineering & Construction Cost
EES	BULL SHOALS - MIDWAY (VVEPA) 161KV CKT 1	Reconductor the transmission line and upgrade the CT @ Bull Shoals substation	6/1/2015	6/1/2018	\$18,534,510.00
EES	NEWPORT - NEWPORT INDUSTRIAL 161KV CKT 1	Replace Terminal Equipment	6/1/2019	6/1/2019	\$50,000.00
EES	TRUMANN - TRUMANN WEST AECC 161KV CKT 1	Reconductor 6.48 miles of transmission line	6/1/2015	6/1/2018	\$13,212,720.00

Table 7- Service Upgrade Cost Allocation per Request

Upgrade Name	Customer	Study Number	Reservation	Allocation Percentage	Allocated E & C Cost
36TH & LEWIS - 52ND & DELAWARE TAP 138KV CKT 1	AEPM	AG1-2013-037	77830722	100.00%	\$3,049,257
				Total:	\$3,049,257

Upgrade Name	Customer	Study Number	Reservation	Allocation Percentage	Allocated E & C Cost
BEATRICE - HARBINE 115KV CKT 1	MEAN	AG1-2013-015	77821652	62.50%	\$3,750,000
BEATRICE - HARBINE 115KV CKT 1	MEAN	AG1-2013-017	77822237	37.50%	\$2,250,000
				Total:	\$6,000,000

Upgrade Name	Customer	Study Number	Reservation	Allocation Percentage	Allocated E & C Cost
SUB 3452/1252 345/161kV Auto Transformer	OPPM	AG1-2013-009	77805986	100.00%	\$32,500,000
				Total:	\$32,500,000