



**CAWG MEETING  
February 8, 2006  
Hyatt Regency DFW  
Dallas, TX  
1:30 – 5:30 pm**

**AGENDA**

- |  |             |
|--|-------------|
| 1. Meeting Begins  | 1:30 p.m.   |
| 2. CAWG Strategic Plan for 2006<br>Presentation lead by John Mills   | 1:30 – 2:00 |
| 3. Kansas Electric Transmission Authority<br>Discussion lead by Larry Holloway   | 2:00 – 2:30 |
| 4. Generation Interconnection Task Force Update<br>Lead by Bob Tumilty   | 2:30 – 3:00 |
| 5. 15 minute break   | 3:00 – 3:15 |
| 6. Attachment Z - Requested Upgrade Credits With and Without<br>A Network or PtP Transmission Service Request<br>Discussion lead by Larry Holloway | 3:15 – 5:30 |

## 1 Definitions

1.10a Reserved.

**Deleted: Economic Upgrades:**  
Elective upgrades, identified in the SPP Transmission Expansion Plan, which have potential economic benefit to the SPP Region, but are not required for reliability reasons.

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1.26 **Network Upgrades:** All or a portion of the modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System.

1.36a **Project Sponsor:** One or more entities that voluntarily agree to bear the costs of a Requested Upgrade.

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1.38a **Requested Upgrades:** Transmission facility upgrades, requested by a Transmission Customer or Project Sponsor, which do not meet the definition of Base Plan Upgrades.

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1.41a Service Life: The time between the date electric plant is includible in electric plant in service, or electric plant leased to others, and the date of its retirement. [Definition from the Uniform System of Accounts prescribed for Public Utilities and Licensees Subject to the Provisions of the FPA.]

1.42d **SPP Transmission Expansion Plan:** The SPP RTO shall regularly perform transmission planning studies. These studies shall (i) assess the reliability and economic operation of the SPP Transmission System; (ii) identify Base Plan Upgrades; and (iii) identify elective upgrades, which have potential economic benefit to the SPP Region, but are not required for reliability reasons. Transmission expansion required over the planning period shall be submitted to the SPP Board of Directors.



## New Network Service Credit Example for Upgrade Built In Response to Project Sponsor Request

### Project Sponsor Request

Changing Rating of Upgrade in cell F6 will recalculate spreadsheet.

Circumstance: Project Sponsor (PS) requests an upgrade that has a RR of \$1,000,000 and a rating of the upgrade is **100 MW**. Impacts for the PS are the line rating minus the impacts of the customers.

Customer	Impacts	Allocator	Assigned Cost
PS	100	100.00%	\$1,000,000
	100	100.00%	\$1,000,000

### Aggregate Study 1 (AS1)

Circumstance: Customers A, B and C come along with incremental impacts on the upgraded element, pursuant to AS1.

Customer	Impacts	Allocator	Net Assigned Cost
PS	25	25.00%	\$250,000
A	50	50.00%	\$500,000
B	10	10.00%	\$100,000
C	15	15.00%	\$150,000
	100	100.00%	\$1,000,000

Crediting Calculation

Customer	Impacts	Assigned Cost	Allocator	Customers A, B, C Pay Credit to Previous Supporter	Net Cost of Upgrade to Previous Supporters
PS		\$1,000,000	100.00%	\$750,000	\$250,000
		\$1,000,000	100.00%	\$750,000	\$250,000

### Aggregate Study 2 (AS2)

Circumstance: Customer D comes along with an incremental impact on the upgraded element,

pursuant to AS2, in the amount of 20 MW.

Customer	Impacts	Allocator	Net Assigned Cost
PS	5	5.00%	\$50,000
A	50	50.00%	\$500,000
B	10	10.00%	\$100,000
C	15	15.00%	\$150,000
D	20	20.00%	\$200,000
	100	100.00%	\$1,000,000

Crediting Calculation

Customer	Impacts	Net Assigned Cost from AS1	Allocator	Customer D Pays Credit to Previous Supporters	Net Cost of Upgrade to Previous Supporters
PS		\$250,000	25.00%	\$50,000	\$200,000
A		\$500,000	50.00%	\$100,000	\$400,000
B		\$100,000	10.00%	\$20,000	\$80,000
C		\$150,000	15.00%	\$30,000	\$120,000
		\$1,000,000	100.00%	\$200,000	\$800,000

**Aggregate Study 3 (AS3)**

Circumstance: Customer E comes along with an incremental impact on the upgraded element pursuant to AS3, in the amount of 5 MW

Customer	Impacts	Allocator	Net Assigned Cost
PS	0	0.00%	\$0
A	50	50.00%	\$500,000
B	10	10.00%	\$100,000
C	15	15.00%	\$150,000
D	20	20.00%	\$200,000
E	5	5.00%	\$50,000
	<b>100</b>	<b>100.00%</b>	<b>\$1,000,000</b>

Crediting Calculation

Customer	Impacts	Net Assigned Cost from AS2	Allocator	Customer E Pays Credit to Previous Supporters	Net Cost of Upgrade to Previous Supporters
PS		\$50,000	5.00%	\$2,500	\$47,500
A		\$500,000	50.00%	\$25,000	\$475,000
B		\$100,000	10.00%	\$5,000	\$95,000
C		\$150,000	15.00%	\$7,500	\$142,500
D		\$200,000	20.00%	\$10,000	\$190,000
		<b>\$1,000,000</b>	<b>100.00%</b>	<b>\$50,000</b>	<b>\$950,000</b>

## **Possible Strategic Planning Subjects for the SPP CAWG**

**January 16, 2006**

Continue Attachment Z and J Revenue crediting process

Continued Reports from Generation Interconnection Task Force

Small Generation Interconnection Procedure and Agreement (Filing due May 1, 2006)

Order 661A Interconnection for Wind Energy

Reports from Base Plan Guideline Task Force (BPGTF)

Reports from Kansas Electric Transmission Authority (KETA)

Attachment Z Roll-In of Requested Upgrades

Attachment J Waiver Process

Discuss mythology for RFP analysis for Transmission

Reactive Power discussions

Imbalance discussions

Transmission usage and market analysis – heavily loaded flow gates, patterns of usage,

EIS market activity

Increased Wind Overhead Conductor Ratings

## Recovery Of Costs Associated With New Facilities

### I. Direct Assignment Facilities

Where a System Impact and/or Facilities Study indicates the need to construct Direct Assignment Facilities to accommodate a request for Transmission Service, the Transmission Customer shall be charged the full cost of such Direct Assignment Facilities. Such costs shall be specified in a Service Agreement.

### II. Network Upgrades

There shall be three types of Network Upgrades: Base Plan Upgrades, Requested Upgrades, and generation interconnection related Network Upgrades as defined in Attachment V to this Tariff. The costs of completed Network Upgrades shall be allocated as specified in Sections III through V of this Attachment. [Note: Further CAWG discussion required concerning (i) Network Upgrades v. transmission facility upgrades; and (ii) types of upgrades for generation interconnection.]

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### III. Base Plan Upgrades

A single Base Plan Upgrade is comprised of any upgrade or group of upgrades required to be made to a single transmission circuit, where a transmission circuit is comprised of all elements load carrying between circuit breakers or the comparable switching devices.

#### A. Allocation of Base Plan Upgrade Costs

1. If the cost of a Base Plan Upgrade is less than or equal to \$100,000, the annual transmission revenue requirement associated with such Base Plan Upgrade shall be allocated to the Base Plan Zonal Annual Transmission Revenue Requirement of the Zone in which the Base Plan Upgrade is located.
2. If the cost of a Base Plan Upgrade is greater than \$100,000, then:



- i. X% of the annual transmission revenue requirement associated with such Base Plan Upgrade shall be allocated to the Base Plan Region-wide Annual Transmission Revenue Requirement and recovered through the Base Plan Region-wide Charge. The initial value of X shall be 33%.
- ii. (100-X)% of the annual transmission revenue requirement associated with such Base Plan Upgrade shall be allocated to the Base Plan Zonal Annual Transmission Revenue Requirement and recovered through the Base Plan Zonal Charge. This portion of the annual transmission revenue requirement for each Base Plan Upgrade shall be allocated to the Base Plan Zonal Annual Transmission Revenue Requirement of specific Zones based on the Zones' share of the incremental MW-mile benefits as computed in Section 4 of Attachment S to this Tariff. Each Zone with a benefit of at least 10 MW-miles from a given Base Plan Upgrade shall be allocated a portion of the Base Plan Zonal Annual Transmission Revenue Requirement for such upgrade based on its incremental MW-mile benefit divided by the sum of the incremental MW-mile benefits for all of those Zones with a benefit of at least 10 MW-miles from the upgrade.

**B. Conditions for Classifying Upgrades Associated with Designated Resources As Base Plan Upgrades**

If the cost of any Network Upgrade or group of Network Upgrades to a single transmission circuit associated with a new or changed Designated Resource is less than or equal to \$100,000: (i) such upgrade(s) shall be classified as a Base Plan Upgrade; and (ii) the annual transmission revenue requirement associated with such upgrade(s) shall be allocated in accordance with Section III.A.1.

Network Upgrades, with a cost that exceed \$100,000, associated with new or changed Designated Resources shall be classified as Base Plan Upgrades if the Designated Resource or the associated upgrades (as applicable) meets each of the following conditions:

1. The Transmission Customer's commitment to the Designated Resource has a duration of at least five years;
2. In 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; and
3. The cost of Network Upgrades associated with the new or changed Designated Resource is less than or equal to \$180,000/MW times the lesser of: (a) the planned maximum net dependable capacity applicable to the Transmission Customer or (b) the requested capacity (the "Safe Harbor Cost Limit").

The Transmission Customer must provide [the Transmission Provider](#), the information that [the Transmission Provider](#) deems necessary to verify that the new or changed Designated Resource meets conditions 1 and 2 above.

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If the Designated Resource or the associated upgrades (as applicable) does not meet the conditions set forth in 1 and 2 above, and the Transmission Customer does not secure a waiver of the relevant condition(s), the costs of the upgrades will be directly assigned to the Transmission Customer. If the costs of upgrades associated with a new or changed Designated Resource exceeds the Safe Harbor Cost Limit, and the Transmission Customer does not secure a waiver of that limit, the costs of the upgrades in excess of the limit will be directly assigned to the Transmission Customer. The Transmission Customer shall receive

transmission revenue credits in accordance with Attachment Z<sup>2</sup> to this Tariff for any such directly assigned costs.

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**C. Waiver of Conditions for Classifying Upgrades Associated with Designated Resources As Base Plan Upgrades**

**1. Waiver Process**

If the Designated Resource or the associated upgrade (as applicable) does not meet one or more of the conditions in Section III.B. of this Attachment, the Transmission Customer may seek a waiver from [the Transmission Provider](#), in order that the costs of the Network Upgrade may be classified in whole or in part as Base Plan Upgrade costs.

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If the Designated Resource does not meet the conditions set forth in Section III.B.1. or III.B.2. of this Attachment, the Transmission Customer must submit its request for a waiver to [the Transmission Provider](#), simultaneous with its designation of a new or changed Designated Resource to be included in the SPP Transmission Expansion Plan.

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Studies performed by [the Transmission Provider](#), as part of the transmission expansion planning process will determine whether the costs for Network Upgrades associated with a new or changed Designated Resource may exceed the Safe Harbor Cost Limit. If [the Transmission Provider](#) determines that the costs for Network Upgrades associated with a new or changed Designated Resource may exceed the Safe Harbor Cost Limit, [the Transmission Provider](#) shall notify the affected Transmission Customer. If the affected Transmission Customer intends to request a waiver regarding the costs in excess of the Safe Harbor Cost Limit, the Transmission Customer must submit to [the Transmission Provider](#), its request for a waiver within 15 days of such notice.

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Following receipt of a request for a waiver, [the Transmission Provider](#) will review the request and make a determination on a non-discriminatory basis of whether a waiver should be granted based upon consideration of the factors described in Section III.C.2. of this

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Attachment. The Transmission Customer requesting the waiver shall be responsible for the reasonable costs of any studies that [the Transmission Provider](#) performs in making its determination. [The Transmission Provider](#) will provide a report and recommendation to the Markets and Operations Policy Committee for each requested waiver. The Markets and Operations Policy Committee will consider the waiver request and the [Transmission Provider](#) report and recommendation, and will provide its own recommendation (along with the [Transmission Provider](#) report and recommendation) regarding each requested waiver to the SPP Board of Directors. Barring unusual circumstances, a valid waiver request will be reviewed and submitted to the SPP Board of Directors within 120 days following the receipt of the waiver request.

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## **2. Factors to be Considered in Evaluating Waiver Requests**

Any waiver request submitted by a Transmission Customer pursuant to Section III.C.1. of this Attachment shall be evaluated based upon the following general factors, including but not limited to:

- i. There are insufficient competitive resource alternatives for one or more Transmission Customers.
- ii. In the event that the aggregate costs of a Network Upgrade exceed the Safe Harbor Cost Limit, (i) those costs up to the level of the Safe Harbor Cost Limit shall be classified as Base Plan Upgrade costs, and (ii) those costs that exceed the Safe Harbor Cost Limit may be classified in whole or in part as Base Plan Upgrade costs taking into account the extent to which the duration of the Transmission Customer's commitment to the new or changed Designated Resource exceeds the five-year commitment period set forth in paragraph III.B.1 above.
- iii. The five-year commitment period for the new or changed Designated Resource may be waived if: (i) the associated Network Upgrade costs are significantly less than the Safe

Harbor Cost Limit; or (ii) the associated Network Upgrades provide benefits to other Transmission Customers that would offset in less than five years any costs allocated to them as a result of the upgrade being classified as a Base Plan Upgrade.

- iv. If a request for a waiver is received by [the Transmission Provider](#), based upon other circumstances, such waiver request shall also be considered pursuant to the waiver process described in Section III.C.1. of this Attachment.

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If the costs of the Network Upgrade(s) required for a new or changed Designated Resource are not eligible for classification as Based Plan Upgrade costs, the Transmission Customer may nevertheless request the construction of such upgrades. In such event, the costs of such upgrades shall be allocated in accordance with Section IV of this Attachment.

**D. Review of Base Plan Allocation Methodology**

1. [The Transmission Provider](#) shall review the reasonableness of the regional allocation factor (X%) and the zonal allocation methodology at least once every five years. The [Transmission Provider](#) and/or the Regional State Committee may initiate a review of the regional allocation factor and/or the zonal allocation methodology if either body determines that circumstances warrant. Any change in the regional allocation factor and/or the zonal allocation methodology shall be filed with the Commission.
2. For each SPP Transmission Expansion Plan, [the Transmission Provider](#) shall calculate the cost allocation impacts of the Base Plan Upgrades to each Transmission Customer within the SPP Region. The results will be reviewed for unintended consequences by the Regional Tariff Working Group and reported to the Markets and Operations Policy Committee and Regional State Committee.

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Deleted: IV. Economic Upgrades

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#### **IV. Requested Upgrades**

The Project Sponsor shall pay the revenue requirement associated with the Requested Upgrade over the depreciable life of such upgrade, unless otherwise provided for in the Tariff or in other agreements, as applicable. The Transmission Customer requesting transmission service that requires the construction of a Requested Upgrade shall pay for such upgrade in accordance with Attachment Z1. The Transmission Customer or Project Sponsor shall receive transmission revenue credits in accordance with Attachment Z2. [Note regarding other provisions in the Tariff: A) Under the Tariff, Direct Assignment Facilities are specified in the Service Agreements that govern service to the Transmission Customer(s) and Generation Interconnection Customer(s). Such agreements are subject to Commission approval. For Transmission Customers, Schedules 7 and 9 specify that if the Tariff studies indicate the need to construct Direct Assignment Facilities to accommodate a request for Transmission Service, the Transmission Customer will be charged the full cost of such Direct Assignment Facilities in addition to the charges specified in the applicable Schedule. The annual costs of the facility will be calculated by multiplying the levelized fixed charge rate of the Transmission Owner by the nondepreciated cost of the facility. Each month the Transmission Customer will pay a charge based on such annual costs divided by twelve. Any such charge will be filed with the Commission. B) In Attachment L, the Lacygne – Stilwell agreement.] [Note: Further CAWG discussion required regarding provision to allow Project Sponsor to pay upfront for the Requested Upgrade.] [Note: Revenue credits from new Network Service are the “product of the annual revenue requirement associated with the Network Upgrade and the ratio of the incremental impact placed on the Network Upgrade...” (Section III.2. of Attachment Z2). If the payment for a Requested Upgrade is not based on “revenue requirement” (such as the “cost” is paid upfront), then we need to consider how to perform the revenue credit from new Network Service in this instance.]

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#### **V. Generation Interconnection Related Network Upgrades**

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The cost of a generation interconnection related Network Upgrade shall be allocated in accordance with Attachment V to this Tariff. The Interconnection Customer shall receive transmission credits in accordance with Attachment V.

**VI. Treatment of Upgrades that Permit Deferral or Avoidance of Base Plan Upgrades**

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**A. Base Plan Avoided Revenue Requirement**

To the extent a Requested Upgrade or a generation interconnection related Network Upgrade defers or displaces the need for a Base Plan Upgrade, the Transmission Provider shall calculate the Base Plan Avoided Revenue Requirements that are achievable due to such upgrade. The Base Plan Avoided Revenue Requirements shall be capped at the original project costs for the approved Base Plan Upgrade which is deferred or displaced. If such upgrade defers or displaces the need for a Base Plan Upgrade associated with a new or changed Designated Resources for which the costs exceed the Safe Harbor Cost Limit, the Base Plan Avoided Revenue Requirements shall be capped at the Safe Harbor Cost Limit. That portion of such an upgrade that defers or displaces the need for a Base Plan Upgrade shall be considered a Base Plan Upgrade for the purposes of cost allocation to the extent of the Base Plan Avoided Revenue Requirements. [Note: At the 11/30 CAWG meeting there was considerable discussion concerning the calculation of the Base Plan Avoided Revenue Requirement and the flow of money for a Deferred Base Plan Upgrade and the Requested Upgrade that defers the Base Plan Upgrade. Mike Proctor is going to create an example for the January 4 CAWG meeting.]

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**B. Deferred Base Plan Upgrade**

In the case of a Base Plan Upgrade that may be deferred as a result of the Requested Upgrade or generation interconnection related Network Upgrade (“Deferred Base Plan Upgrade”), the achievable Base Plan Avoided Revenue Requirement shall be equal to the time value of the affected Transmission Owner’s(s’) revenue requirement(s) for the Deferred Base Plan Upgrade over the period of the deferral, calculated as follows:

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1. A Transmission Owner’s annual revenue requirement for a Deferred Base Plan Upgrade shall be determined using the same method as is used by the Transmission Owner to calculate its revenue requirement for transmission facilities for other purposes, but applying that method to the projected incremental investment in the Deferred Base Plan Upgrade.
2. The time value of the deferral shall be calculated by discounting to present value the avoided annual revenue requirement for each individual year in the deferral period and summing the resulting values. For each individual year in the deferral period, the time value of the deferral will be determined by discounting the annual revenue requirement for that year first from January 1 of that year and then from December 31 of that year, summing the two resulting values, and dividing by two. For any partial year encompassed by the deferral period, the time value of the deferral shall be calculated in the same manner as indicated in the immediately preceding sentence, except that the resulting value will be pro-rated based on the number of months in the partial year divided by 12.

**C. Displaced Base Plan Upgrade**

In the case of a Base Plan Upgrade that may be displaced as a result of the Requested Upgrade or generation interconnection related Network Upgrade (“Displaced Base Plan Upgrade”), the achievable Base Plan Avoided Revenue Requirement shall be equal to the time value of the affected Transmission Owner’s(s’) revenue requirement(s) for the Displaced Base Plan Upgrade over the depreciable life of the facility that is displaced [Alternative: over the payment period for the facility that is displacing the Base Plan Upgrade]. The methodology for calculating the Base Plan Avoided Revenue Requirement shall be the same as set forth in Section VI.B. of this Attachment, except that the depreciable life [Alternative: payment period] of the facility shall be substituted for the deferral period in all instances. [Note: It may make sense to synchronize

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the BP Avoided Revenue Requirement with the payment period for the facility that is displacing the BPU. However, there are issues with either approach. A) If we use depreciable life and the depreciable life of the displaced BPU is a lot longer than payment period for the facility that is displacing the BPU, do we need to pay interest to the Transmission Customer or Project Sponsor paying for the facility that is displacing the BPU?. B) If we use the payment period and the payment period is “upfront”, do we need to collect all the BP Avoided Revenue Requirement from Resident Load “upfront”, in the first year?]

**D. Allocation of Base Plan Avoided Revenue Requirements**

The Base Plan Avoided Revenue Requirements shall be allocated as follows:

1. X% of the Base Plan Avoided Revenue Requirements shall be allocated to the Base Plan Region-wide Transmission Revenue Requirement and recovered through the Base Plan Region-wide Charge. The initial value of X shall be 33%.
2. (100-X)% of the Base Plan Avoided Revenue Requirements shall be allocated to the Base Plan Zonal Annual Transmission Revenue Requirement and recovered through the Base Plan Zonal Charge. The portion of the Base Plan Avoided Revenue Requirements which shall be allocated to the Base Plan Zonal Annual Transmission Revenue Requirement shall be allocated to the specific Zones that would have benefited from the Base Plan Upgrade project(s) that will be deferred or displaced. The zonal allocation of the Base Plan Avoided Revenue Requirements shall be determined in accordance with Section III.A. of this Attachment and Section 4 of Attachment S to this Tariff.
3. The Project Sponsor, or the Transmission Customer for a Requested Upgrade or the Interconnection Customer for a generation interconnection related Network Upgrade shall be responsible for the net of the present value of the total costs for its upgrade less the present value of the Base Plan Avoided Revenue

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Requirements. The method for determining the Base Plan Avoided Revenue Requirement shall be filed with the Commission prior to the imposition of any charges or credits hereunder.

## **VII. Uncompleted Network Upgrades**

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The costs of Network Upgrades that are not completed through no fault of the Transmission Owner charged with construction of the upgrades shall be handled as follows:

If a proposed Network Upgrade was included in the SPP Transmission Expansion Plan, a Transmission Provider-approved Transmission Plan, or otherwise accepted or approved by the Transmission Provider, the Transmission Provider shall develop a mechanism to recover such costs and distribute such revenue on a case by case basis. Such recovery and distribution mechanism shall be filed with the Commission. The Transmission Owner(s) that incurred the costs shall be reimbursed for those costs by the Transmission Provider. These costs shall include, but are not limited to: the costs associated with attempting to obtain all necessary approvals for the project and studies and any construction costs.

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**AGGREGATE TRANSMISSION SERVICE STUDY PROCEDURES AND COST ALLOCATION AND RECOVERY FOR REQUESTED UPGRADES ASSOCIATED WITH TRANSMISSION SERVICE REQUESTS AND FOR DIRECTLY ASSIGNED COSTS THAT ARE IN EXCESS OF THE SAFE HARBOR LIMIT FOR NETWORK UPGRADES ASSOCIATED WITH NEW OR CHANGED DESIGNATED RESOURCES**

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**I. Introduction**

This attachment describes the process used to evaluate long-term transmission service requests using an Aggregate Transmission Service Study process. The Transmission Provider will combine all long-term point-to-point and long-term designated network resource requests received during a specified period of time into a single aggregate transmission service study. Using this aggregate study process, the Transmission Provider will combine all requests received during an open season to conclude an optimal expansion of the transmission system that provides the necessary ATC to accommodate all such requests at the minimum total cost. For the purposes of this Attachment Z1, all Transmission Owners that are not taking Network Integration Transmission Service will be treated the same as Transmission Customers taking Network Integration Transmission Service. This attachment details cost allocation and cost recovery for Requested Upgrades associated with transmission service requests, and for directly assigned costs that are in excess of the Safe Harbor Cost Limit for Network Upgrades associated with new or changed Designated Resources.

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**II. Open Season**

The Aggregate Transmission Service Study process commences with the initiation of an open season. The open season will be 4 months in duration. During that period, customers may make requests for long-term transmission service that start no earlier than 4 months after the close of the season. Customers may submit and withdraw requests during the open season without any obligation. At the close of the open season, the Aggregate System Impact Study

(ASIS) will include only queued requests for which Aggregate System Impact Study Agreements (ASISAs) have been executed. At the close of the open season, customer will have 15 days to execute such ASISAs per Section 19 of the Tariff. Existing long-term firm service Customers who desire to exercise a reservation priority under Section 2.2 of the Tariff shall do so pursuant to the terms of Section 2.2 and shall not be included in the aggregate study.

### III. Aggregate System Impact Study

a. At the close of the Open Season, all transmission service requests subject to an ASISA will be included in the ASIS. This study shall be done in accordance with Section 19 of the Tariff. The power flow models shall be developed for each season for the period from the earliest start of service to the latest end of service for the applicable requests. The models will include all other applicable existing reservations having equal or greater queue priority including prospective renewals of existing service having a reservation priority pursuant to Section 2.2 of the Tariff. System constraints will be identified and appropriate upgrades determined during the ASIS. The Transmission Provider shall determine the upgrades required to reliably provide all of the requested service. The Transmission Provider shall also perform a regional review of the required upgrades to determine if alternative solutions would reduce overall cost to customers. The Transmission Provider shall estimate the total cost of these upgrades.

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b. The Transmission Provider shall recognize constraints due to contractually limited facilities and allocate available capacity on a first come first served basis on the contractual constraint only.

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c. Within the ASIS the Transmission Provider will identify the facilities limiting the availability of the requested aggregate transmission service and the upgrades required to provide this service. It will also provide an estimate of the cost of those upgrades. The assignment of upgrade costs to each reservation will be provided to enable customers to estimate their costs. Upon receipt of the ASIS, customers will have 15 days to execute an Aggregate Facilities Study Agreement (AFSA) per Section 19 of the Tariff.

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### IV. Aggregate Facilities Study

The Transmission Provider shall perform an Aggregate Facilities Study including the requests of all customers who have executed an Aggregate Facilities Study Agreement (AFSA). The first phase of the facilities study process shall consist of a revision of the ASIS to reflect the withdrawal of requests for which an AFSA was not executed, if any. The Aggregate Facilities Study shall be done in accordance with Section 19 of the Tariff. The Transmission Provider, in conjunction with the applicable Transmission Owners, shall determine the necessary cost and lead-time for construction of each upgrade and the estimated cost of service for each request. The Transmission Provider, in conjunction with the applicable Transmission Owners, shall determine the optimal set of solutions to reduce the overall costs for the study group and reliably provide the requested service in a timely manner.

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**V. Cost Allocation for Requested Upgrades Associated with Transmission Service Requests**

The cost of Requested Upgrades associated with transmission service requests shall be allocated in accordance with this Section.

a. For the purpose of determining the cost responsibility for each transmission service request, all upgrades required to provide transmission service for all transmission service reservations included in an Aggregate Facilities Study shall be included in an Aggregate Cost Allocation Assessment. The cost of each transmission upgrade component will be allocated to each customer in the aggregation group on a pro-rata impact basis as provided in paragraph b. With regard to the cost allocation, the Transmission Provider shall review all upgrades and determine the earliest date that each upgrade is required. In the event an upgrade cannot be in-service by the earliest date that such upgrade is required, the start date of all the transmission service requests requiring the upgrade shall be deferred until the date that the upgrade is expected to be in-service. This date, with or without deferral of transmission service, is considered the Commitment Date for each upgrade. The cost of a facility upgrade shall be allocated to all customers in the aggregate group whose reservation period begins after the Commitment Date of a facility upgrade or begins before the Commitment Date of a facility and extends past the Commitment Date. If an upgrade is first required during a season after completion of service, no cost would be assigned to the customer. All requests that have a positive impact on the upgrade and for which the service has not been completed prior to the

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Commitment Date, for such upgrade, shall be allocated costs for the upgrade. These requests shall be reviewed and the request that ends at the latest point in time, shall define the amortization period for the facility.

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b. An allocation of the cost of each facility upgrade to each request shall be determined on a pro-rata basis for the positive incremental power flow impacts of the requested service on such upgraded facility in proportion to the total of all incremental impacts on such upgraded facility. For each upgraded facility identified, the average incremental power flow impact of each request in the aggregate study shall be determined using each summer model available for the aggregate study period, after the Commitment Date of such upgraded facility. Each impact amount shall be determined by first establishing a set of initial seasonal base cases that excludes flows associated with all requests included in the Aggregate Facilities Study. Then each request will be added to the models and the change in flow across such upgraded facility shall be determined for each request included in the Aggregate Facilities Study. The cost of an upgrade allocated to each request shall be proportional to the average positive incremental impact of each request on such facility divided by the total average positive incremental impact of all requests included in the Aggregate Facilities Study on such upgraded facility. The cost of each upgrade shall be allocated to requests independently. Incremental flows having a negative impact on an upgraded facility shall be ignored.

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c. After concluding the above cost allocations to each reservation in the aggregate group, the Transmission Provider shall determine the charges for each request by using the levelized monthly revenue requirement associated with the transmission service requested by each customer in the aggregate group. This levelized monthly revenue requirement is determined by calculating the present worth of the revenue requirements associated with the upgrades as allocated to each customer in the aggregate group and then calculating an appropriate monthly amount for each customer in the aggregate group for each respective reservation.

## VI. Cost Recovery for Requested Upgrades Associated with Transmission Service Requests

### A. Cost Recovery

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The cost of Requested Upgrades associated with transmission service requests shall be recovered in accordance with this Section. For Point-to-Point Service, the levelized monthly revenue requirement derived from the cost allocation process shall be compared to the charge applicable for each request under the transmission access charges of Schedule 7, Sections 1 and 7, and each customer shall be required to pay the higher of the total monthly transmission access charges or the monthly revenue requirement associated with the facility upgrades. For Network Integration Service customers the charge shall be a direct assignment charge pursuant to Schedule 9, Section 4 and each customer will be required to pay the monthly revenue requirement associated with the facility upgrades in addition to the total monthly transmission access charges applicable under Schedule 9, Sections 1 and 6. Cost recovery from a Transmission Customer of the revenue requirement for a Requested Upgrade allocated to such Transmission Customer will be accomplished over the duration of the Transmission Customer's request. [Note: This is a clarification.] Transmission Customers paying the above charges may receive credits in accordance with Attachment Z2.

**B. Requested Upgrades Associated with Designated Resources – Cost Recovery for Costs in Excess of the Safe Harbor Cost Limit**

To the extent a waiver is not granted pursuant to Section III of Attachment J, the cost in excess of the Safe Harbor Cost Limit of Network Upgrades associated with Designated Resources shall be recovered in accordance with this Section VI.B. Each Transmission Customer shall be required to pay the monthly revenue requirement associated with the cost of facility upgrades that were directly assigned to that Transmission Customer in accordance with Section III.B. of Attachment J, in addition to any other applicable charges under this Tariff. Cost recovery from a Transmission Customer of the revenue requirement for a Requested Upgrade allocated to such Transmission Customer will be accomplished over the duration of the Transmission Customer's request. [Note: This is a clarification.] Transmission Customers paying the above charges may receive credits in accordance with Attachment Z2.

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**Deleted: B. Requested Upgrades and Economic Upgrades – Transmission Revenue Credits¶**  
Transmission Customers paying for Requested Upgrades and Project Sponsors bearing the costs of Economic Upgrades shall receive transmission revenue credits in accordance with Section VII. Any charges paid by a customer in excess of the transmission access charges in compensation for the revenue requirements for allocated facility upgrade(s) shall be recovered by such customer from future transmission service revenues until the customer has been fully compensated.

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**Deleted: D. Network Upgrades Associated with Designated Resources - Transmission Revenue Credits¶**  
Transmission Customers shall receive transmission revenue credits in accordance with Section VII for directly assigned costs of Network Upgrades associated with Designated Resources. Any charges paid by the Transmission Customer in excess of the transmission access charges in compensation for the revenue requirements for allocated facility upgrade(s) shall be recovered by such Transmission Customer from future transmission service revenues until that Transmission Customer has been fully compensated.¶

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REVENUE CREDITING FOR UPGRADES

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I. INTRODUCTION

This attachment details transmission revenue credits for Requested Upgrades and directly assigned costs that are in excess of the Safe Harbor Cost Limit for Network Upgrades associated with new or changed Designated Resources. Requested Upgrades that do not have an associated transmission service request are included for purposes of transmission revenue credits in this Attachment Z2.

II. APPLICABILITY OF TRANSMISSION REVENUE CREDITS

Transmission Customers or Project Sponsors paying for Requested Upgrades shall receive transmission revenue credits in accordance with Attachment Z2.

1. For Transmission Customers Requesting Transmission Service

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Any charges allocated to a Transmission Customer for a Requested Upgrade pursuant to Attachment Z1 in excess of the transmission access charges for the associated transmission service shall be recovered by the Transmission Customer from future transmission service revenues pursuant to Sections II.3 and III of this Attachment Z2. Transmission revenue credits shall be paid to a Transmission Customer to which such credits are due pursuant to Sections II.3. and III of this Attachment Z2, even if the duration of the crediting exceeds the duration of the Transmission Customer’s term of transmission service.

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2. For Project Sponsors Not Requesting Transmission Service

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All charges paid by the Project Sponsor for a Requested Upgrade without an associated transmission service request shall be recovered by the Project Sponsor from future transmission service revenues pursuant to Sections II.3 and III of this Attachment Z2.

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3. Duration of Revenue Crediting

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The transmission revenue credit provision in Sections II.1. and II.2. shall commence on the commercial operation date of the Requested Upgrade and shall



continue to the sooner of the **Service Life** of the Requested Upgrade or until the Transmission Customer or Project Sponsor has been fully compensated for such charges, including interest calculated in accordance with 18 CFR §35.19a(a)(2)(ii). Transmission revenue credits shall be terminated at the end of the depreciable life of the Requested Upgrade, even if the Transmission Customer or Project Sponsor has not been fully compensated.

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### **III. Revenue Crediting**

Transmission Customers and Project Sponsors paying for a Directly Assigned Network Upgrade shall receive credits for new transmission service using the facility as specified in Section II to this Attachment Z2. The credit amount shall be recovered, with interest calculated in accordance with 18 CFR §35.19a(a)(2)(ii), from new transmission service using the facility as defined below until the Transmission Customer or Project Sponsor has been compensated as specified in Section II to this Attachments Z2.

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1. New Point-To-Point Transmission Service: Revenues from new point-to-point service that increases loading on the new Network Upgrade in the direction of the initial overload will be included for crediting purposes. For each new point-to-point reservation having such loading impact on such Network Upgrade, made after (i) the request for such upgrade by a Project Sponsor or (ii) the request for transmission service causing the need for such upgrade, with service commencing after the facility upgrade is completed, the Transmission Customer or Project Sponsor shall receive a portion of the transmission service charge equal to the positive response factor of such new reservation on the Network Upgrade facility times the new reservation capacity times the rate applicable to such new reservation. The response factor shall be calculated on a monthly basis. [Note: Need to discuss how frequently the response factor should be calculated.] This allocation from new service shall continue until the Transmission

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Customer or Project Sponsor has been compensated, pursuant to Section II of Attachment Z2. [Need to continue discussion on comparability of crediting for P-to-P Service v. Network Service.] [Note: Need to address credits from new short-term reservations as well as from new long-term reservations.]

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2. New Network Transmission Service: Credits will be provided for Long-Term Network Transmission Service using the Network Upgrade in the direction of the initial overload to accommodate designation of new Network Loads, new Designated Resources or increases in the designation of existing Designated Resources above previously designated levels. Credits shall be determined based upon the subsequent incremental use of the Network Upgrade for such new or increased Network Load or Network Resource.

The annual credit amount to be billed and paid monthly by the new Network Customer, or included in rates, for each such new or increased use shall be the product of the annual revenue requirement associated with the Network Upgrade and the ratio of the incremental impact placed on the Network Upgrade by each such new or increased use to the total of the incremental impacts placed on the Network Upgrade by all currently and previously identified incremental Network Service and Long-Term Firm Point-To-Point uses of the Network Upgrade. [Note: If the payment for a Requested Upgrade is not based on “revenue requirement” (such as the “cost” is paid upfront), then we need to consider how to perform the revenue credit from new Network Service in this instance.] The cost of such credit amount shall be paid by the Network Service Customer making such new or increased use of the Network Upgrade, or included in rates pursuant to the Base Plan funding formula in Attachment J, in addition to all other applicable charges under this Tariff.

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Such credits shall be given to all previously identified incremental Network Service and Long-Term Firm Point-To-Point uses [and Project Sponsors](#), including prior incremental Network Service uses that resulted in the obligation to pay credits. [For the calculation of such credits to be given to a Project Sponsor paying for a Directly Assigned Network Upgrade, the incremental use assigned to such Project Sponsor shall be the capacity of the Directly Assigned Network Upgrade minus all currently and previously identified incremental Network Service and Long-Term Firm Point-To-Point uses. \[Note: This addition is to address how to calculate revenue credits for upgrades paid for by a Project Sponsor that does not have requested transmission service; and therefore, does not have any incremental impact on the upgrade. See the accompanying spreadsheet, New Network Service Credit Example TC v PS 01-31-06.xls which shows an example of calculating revenue credits for an upgrade paid for by Transmission Customers via an Aggregate Study versus an upgrade paid for by a Project Sponsor.\]](#) The grant of such credits shall be in proportion to the fraction of the annual revenue requirement associated with the Network Upgrade for which they are responsible, net of any credits previously applied.

3. Power Controlling Devices: Credits will be provided for New Long-Term Network Transmission Service using the device in either direction to accommodate designation of new Network Loads, new Designated Resources or increases in the designation of existing Designated Resources above previously designated levels. Credits shall be determined based upon the subsequent additional incremental use of the device by any such new or increased use.

The annual credit amount to be billed and paid monthly by a Network Customer, or included in rates, for each such new or increased use shall be the product of the annual revenue requirement associated with the device and the ratio of the incremental impact placed on the device by each such

new or increased use to the total of the incremental impacts placed on the device by all currently and previously identified incremental Network Service and Long-Term Firm Point-To-Point uses of the device in both directions. The cost of such credit amount shall be paid by the Network Service Customer making such new or increased use of the device, or included in rates pursuant to the Base Plan funding formula in Attachment J, in addition to all other applicable charges under this Tariff.

Such credits shall be given to all previously identified incremental Network Service and Long-Term Firm Point-To-Point uses [and Project Sponsors](#), including prior incremental Network Service uses that resulted in the obligation to pay credits. The grant of such credits shall be in proportion to the fraction of the annual revenue requirement associated with the Network Upgrade for which they are responsible, net of any credits previously applied.

Crediting for Long-Term Firm Point-to-Point Transmission Service using the power controlling device in either direction shall be a portion of the transmission service charge equal to the positive response factor of such new reservation on the device times the new reservation capacity times the rate applicable to such new reservation less any revenue credits applicable to other Network Upgrades on the transmission path. Crediting for Short-Term Firm and Non-Firm Point-to-Point Transmission Service using the device in either direction shall be the percent usage of the total revenue received by the Transmission Provider that is not required for other transmission funding obligations. [\[Need to clarify “other transmission funding obligations”.\]](#)

**VI. [Future Roll-In of Requested Upgrades](#)**

When a [Requested Upgrade](#), being paid for pursuant to the provisions of [Section IV to Attachment J](#), is rolled into the revenue requirements used for the development of generally applicable transmission service rates, the Transmission Owner that constructed

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the Requested Upgrade, shall pay the remaining balance of each Transmission Customer's or Project Sponsor's unrecovered payments described in Section II of this Attachment Z2, that are applicable to that Requested Upgrade. All Transmission Customers or Project Sponsors who have paid for the Requested Upgrade pursuant to the provisions of Section IV to Attachment J and have remaining balances subject to cost recovery pursuant to Section IV of Attachment J, shall be compensated pursuant to Section II of this Attachment Z2. The Transmission Customer shall continue to pay the charges specified in the Transmission Customer's transmission service agreement for the transmission service initially reserved.

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