



**CAWG MEETING**  
**May 31, 2006**  
**Hyatt Regency DFW**  
**Dallas, TX**  
**11:00 – 5:00 pm**

**AGENDA**

- |   |               |
|---|---------------|
| 1. Meeting Begins   | 11:00 a.m.    |
| 2. Discussion of Attachment J & Z handout - Part I<br>Discussions lead by Mike Proctor  | 11:00 – 12:00 |
| 3. Lunch  | 12:00 – 12:30 |
| 4. Discussion of Attachment J & Z handout - Part II<br>Discussions lead by Mike Proctor | 12:30 – 3:00  |
| 5. 15 minute break  | 3:00 – 3:15   |
| 6. Finalize Z1 & Z2 revisions for submittal to RTWG<br>Discussions lead by Mike Proctor | 3:15 – 5:00   |

**1 Definitions**

**1.3h Base Plan Upgrades:** Those upgrades included in and constructed pursuant to the SPP Transmission Expansion Plan in order to ensure the reliability of the Transmission System. Base Plan Upgrades shall also include those upgrades required for new or changed Designated Resources to the extent allowed for in Attachment J to this Tariff.

**1.9b Directly Assigned Network Upgrade Costs:** A Transmission Customer's or Projects Sponsor's appropriate share of the cost of any required or requested Network Upgrade, determined in accordance with Attachments J and Z, including: (i) any costs directly assigned to a Transmission Customer for a Requested Upgrade in excess of the normally applicable transmission access charges for the associated transmission service; (ii) any costs directly assigned to a Transmission Customer that are in excess of the Safe Harbor Cost Limit for Network Upgrades associated with new or changed Designated Resource; and (iii) any costs directly assigned to a Project Sponsor for a Requested Upgrade.

**1.10 Direct Assignment Facilities:** Facilities or portions of facilities that are constructed by any Transmission Owner(s) for the sole use/benefit of a particular Transmission Customer or a particular group of customers or a particular Generation Interconnection Customer requesting service under the Tariff. Direct Assignment Facilities shall be specified in the Service Agreements that govern service to the Transmission Customer(s) and Generation Interconnection Customer(s) and shall be subject to Commission approval.

**1.10a ~~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.~~ Reserved.

**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 a portion or all of the costs of an ~~Economic~~ Requested Upgrade.

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**1.38a Requested Upgrades:** Transmission facility upgrades, requested by a Transmission Customer, Interconnection Customer or Project Sponsor ~~other entity, which do not meet the definition of any other category of Network Upgrades.~~

**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.<sup>1</sup>

**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.

<sup>1</sup> Note: Definition from the Uniform System of Accounts prescribed for Public Utilities and Licensees Subject to the Provisions of the FPA.

# Attachment J and Z Changes and Implications Part I: Background

CAWG Presentation

Mike Proctor

May 31, 2006

# Background

- Attachment Z was filed in the context where **Directly Assigned Upgrade Costs** were the fundamental method for expanding transmission service beyond the available capacity of the existing transmission system to meet requests for long-term transmission service. This includes:
  - Requests for new long-run PTP transmission service.
  - Requests for new or changed Designated Resources.

Note: Directly Assigned Upgrade Costs are any costs for transmission upgrades that are directly assigned to a Transmission Customer.

## New Long-Term PTP Service

- Directly Assigned Network Upgrade Costs occur under application of “or” pricing – sometimes called “higher of” pricing.
  - Compares the long-term PTP rate to the costs of the upgrades over the period of the PTP transmission service.
  - In order to have the request for new long-term PTP service granted, the Transmission Customer must pay the higher of the rate versus the cost of the upgrade over the period of the PTP transmission service.

Q. What is included in costs of the upgrade? See notes below.

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White paper should include a numerical example.

The costs of an upgrade include:

- 1) the recovery of the investment,
- 2) the recovery on the investment,
- 3) income taxes and
- 4) property taxes.

These costs are spread over the period of the requested long-term PTP transmission service, and a levelized payment is calculated for each year of that service. The levelized payment has the same present value as the payment stream calculated using straight-line depreciation.

## New or Changed Designated Resources

- Network Integrated Transmission Service Customer
  - Requests a new or changed Designated Network Resource (DNR) whose costs are evaluated per the Attachment Z aggregate study process.
  - Prior to Cost Allocation Plan in Attachment J, costs of any upgrades required are directly assigned to customer.
- PTP Transmission Customer
  - Same “or” pricing as for all long-term PTP transmission service.

Q. For NITS Customer, what time period was used to calculate the Revenue Requirements, and what costs are included? See below

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White Paper should include an example.

Costs included are the same as for PTP Customer.

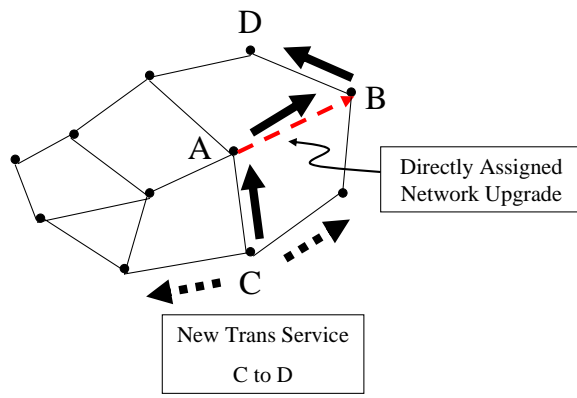
Time period is the depreciable life of the transmission assets.

## Original Purpose for the Revenue Credits per Attachment Z

- The Directly Assigned Network Upgrade could result in additional capacity on the transmission system that could be sold by SPP, the Transmission Provider (TP), for new transmission service (either PTP or NITS).
  - Transmission Customer (TCs) using the additional capacity associated with the Directly Assigned Upgrade Costs pay the TP for their use of that capacity.
  - The TP would credit the TC directly assigned the network upgrade costs for a portion of the revenues received from the new transmission service that uses capacity associated with the Directly Assigned Upgrade Costs.



# Diagram 1: New PTP Service



## Key Components

1. Impact is in the same direction as original overload/congestion..
2. MW impact determined by % positive response factor from C to D times the MW of the firm PTP reservation.
3. Revenue credit equals the MW impact times the rate being paid for new PTP transmission service.

Q. If the new PTP Service is Long-Term other upgrades may be required and “or” pricing may apply. Was the intent of the original Attachment Z to use the higher of rate, or to use the standard PTP rate?

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The FERC approved language is “rate applicable to such new reservations.” The edited version leaves in this same language. My understanding is that when “or” pricing is applied, the incremental revenue above the standard PTP rate is given to the TO that has built the needed upgrade.

This gets complicated unless the revenue requirement is seen as having two components: 1) standard rate; and 2) above standard rate. In this case, the concept that the new PTP service could not sold but for the Directly Assigned Network Upgrade, only applies to the standard component of the PTP rate.

## Issue Raised in CAWG

- Should the second PTP use of the Directly Assigned Network Upgrade share in the cost of the upgrade on an equivalent basis with the first PTP use?
- This topic will be presented and discussed in the “Changes” section of the white paper, not in the “Background” section.

## New Network Service Use

- Not in original Attachment Z filing.
- FERC compliance order required SPP to include new Network Service use of the Network Upgrade with directly assigned costs.
- Network Service use associated with
  - New network loads
  - New Designated Resources (DRs)
  - Increases in designation levels for existing DRs.

Q1. Was the intent to also include changed DNRs; i.e., does the term “new” include designation of a different resource?

Q2. What was the intent of the words “designation of new Network Loads?”

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Exact language in Attachment Z is “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.”

The term “new” DR refers to being new to the TC, not being a newly built resource.

New Network Loads would include any load growth that required the use of the Directly Assigned Network Upgrade. This means that absent the Directly Assigned Network Upgrade, the TO would have to upgrade the transmission system to reliably serve its load.

## New or Changed DNR

- Criteria: New or changed DNR uses the network upgrade that was directly assigned to a transmission customer in the same direction as the original overload.
- The cost calculated by the TP for the new or changed DNR should include a “share” of the Directly Assigned Network Resource Costs.
  - Prior to Regional Cost Allocation, these costs are directly assigned to the TC requesting the new or changed DNR.
  - Implies that new or changed DNR request would share in the costs of the network upgrade that was directly assigned to a transmission customer; i.e., the TC requesting the new or changed DNR becomes another TC to which the costs are directly assigned.
    - This was filed and approved by FERC, having the TC requesting a new or changed DNR paying revenue credits to the other TCs to which these costs were previously directly assigned.

## New Network Load

- **Criteria:** Load growth in Network Service load uses capacity of the network upgrade that was directly assigned to a transmission customer in the same direction as the original overload.
- **Allocation:** The costs calculated by the TP for load growth should include a “share” of the Directly Assigned Network Upgrade Costs.
  - Prior to Regional Cost Allocation, costs of network upgrades to correct reliability violations would be included in zonal rates of TOs; i.e., for network service there are no directly assigned costs for network upgrades associated with load growth.
  - This implies that the share of Directly Assigned Network Upgrade Costs for load growth would be rolled into TOs’ zonal rates.

## Calculating Share for NITS Customer

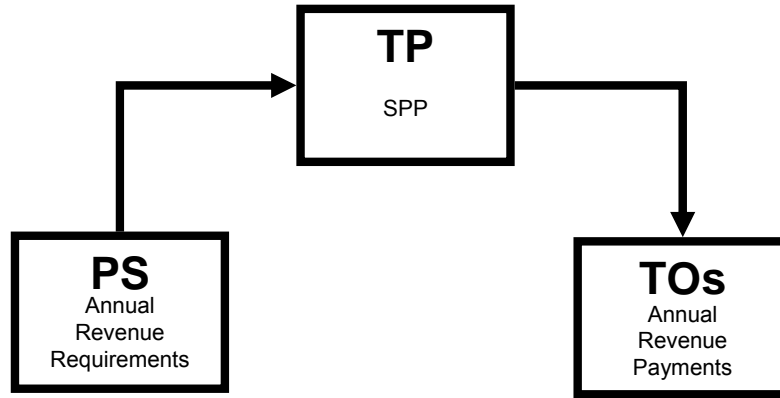
- Revenue Credit Shares
  - On the same basis as all prior TCs with directly assigned costs or revenue credits.
  - MW impact as % of MW impacts of all TC with directly assigned costs or revenue credits.
- Rolled Into Rates
  - Current Attachment Z sees the rolling of the credits into the TO's zonal rate as providing the source of revenues to the TP to pay the revenue credits.
  - A one-time payment to the TC with directly assigned costs was not considered to be an alternative in the current form of attachment Z.

## Not Quite So Simple

- Remember PS is a PTP Customer Paying “higher of” Pricing
  1. Pays PTP Rate when Costs of Upgrade < PTP Rate
    - $\Delta = \text{PTP Rate} - \text{Cost of Upgrade (in annual RR)}$
    - $\Delta$  is paid to TO that owns the upgrade
    - $(\text{PTP Rate} - \Delta)$  is distributed to all TOs on  
50% MW-mile / 50% Annual RR
  2. Pays PTP Rate + Excess when Costs of Upgrade > PTP Rate
    - Entire Payment goes to TO that owns the upgrade.

# Attachment

- Tracing the \$





# Conclusions for Current Form of Attachment Z <sup>Background C</sup>

1. Only considers Revenue Credits as payments to TCs paying the Directly Assigned Network Upgrade Costs.
2. Has a different calculation of Shares for Revenue Credits for PTP vs. NITS customers.
3. Is not clear with respect to long-term PTP customers paying a higher of rate that includes costs for other transmission upgrades.

Q. Are there other conclusions that should be included in the Background section of the White Paper?

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# Attachment J and Z Changes and Implications Part II: Changes

CAWG Presentation

Mike Proctor

May 31, 2006

Changes

## Changes Since Original Purpose for which Attachment Z was Designed.

1. FERC approval of Regional Cost Allocation for Reliability Upgrades.
2. Voluntary Project Sponsors for Economic Upgrades.

## Impact of Regional Cost Allocation

- Cost for new or changed Designated Resources are, for the most part, rolled into rates rather than directly assigned to the TC.
  - Rolls in costs associated with load growth and new or changed Designated Resources into general rates.
  - Limits Directly Assigned Network Upgrade Costs to new or changed Designated Resources to situations where certain conditions are not met (Attachment J).
- Economic upgrade costs
  - Would fall into the category of Directly Assigned Network Upgrade Costs
  - Would be eligible for revenue credits or payments from rolling costs into general rates via Attachment Z.

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## CAWG Discussions

- Focus was on what changes might be needed to Attachment Z to handle Economic Upgrades.
- Primary Issues:
  1. Would payments to Project Sponsors in the form of revenue credits provide sufficient incentives to Project Sponsors to make Economic Upgrades?
  2. Does attachment Z allow for payments to Project Sponsors for requested upgrades **not** taking new transmission service on Directly Assigned Network Upgrades?
  3. A major portion of Network Service use of a Directly Assigned Network Upgrade will be rolled into general rates rather than directly assigned to the TC requesting a new or changed DNR.

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## 1. Sufficient Incentives

- How to **protect** the funded network upgrade for the use of the Project Sponsor?
  - Through Project Sponsor requesting long-term PTP transmission service along with the upgrade.
  - If the Project Sponsor is a NITS customer, this request would be in addition to Network Transmission Service.
  - Allows TC to schedule bilateral transactions and thereby avoid paying congestion costs from the source.
  - Allows some degree of short-term flexibility through:
    - Redirecting the source (POD) of the long-term PTP path; or
    - When TC is not scheduling service on the long-term PTP path, the TP can sell short-term transmission service to others .

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## 2. Project Sponsor Not Taking New Transmission Service on Directly Assigned Network Upgrades

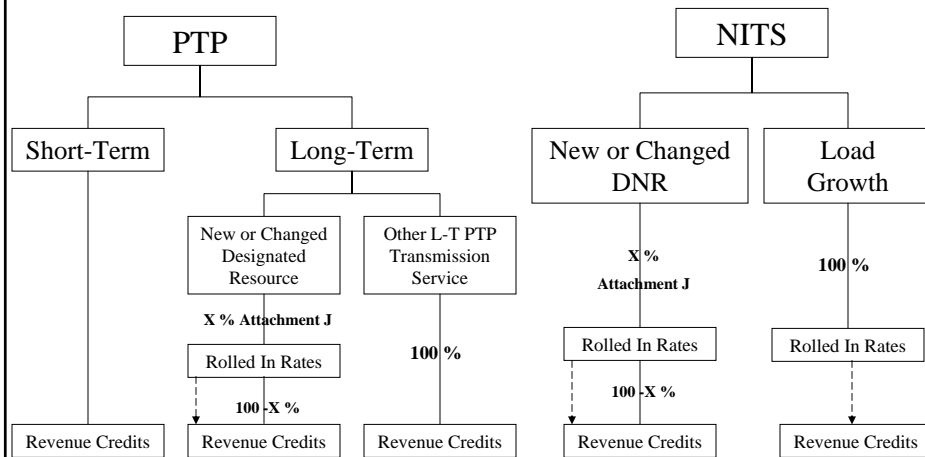
- Current version of Attachment Z combines aggregate process of requests for transmission service with payment for future use by others.
- **Recommend dividing Attachment Z into two attachments:**
  - **Attachment Z1** on aggregate process for requesting transmission service.
  - **Attachment Z2** on payments to Project Sponsors for future use of Directly Assigned Network Upgrades by others.
    - **Explicitly allow Project Sponsors not taking new transmission service on Directly Assigned Network Upgrades.**

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### 3. Roll In of Cost to General Rates

- Current Attachment Z does not allow for a lump sum payment when a **portion** of Directly Assigned Network Upgrade Costs are included in general rates.
  - Current tariff treats lump sum payments to Project Sponsors for rolling costs into rates as an exceptional event that would only occur when the total facility becomes eligible to be included in general rates.
  - Otherwise, Project Sponsors would receive revenue credits when a portion of the Directly Assigned Network Upgrade Costs are included in general rates.

### Diagram of Possible Future Uses of Directly Assigned Network Upgrades



## PTP Use of Directly Assigned Network Upgrade Costs:

### 1. A New or Changed Designated Resource

- New PTP Service for Designated Resource has a MW impact on the Directly Assigned Network Upgrade in the direction of the initial overload/constraint.
- The share of costs from use of the Directly Assigned Network Upgrade should be included in the calculation of costs for the New or Changed Designated Resource for Purposes of costs included in Attachment J.

## Calculation of Share of Costs from the Directly Assigned Network Resource Costs to be Included for Attachment J Purposes.

1. Directly Assigned Network Resource Costs Included
  - a. Remaining Annual Revenue Requirements of Directly Assigned Network Upgrade Costs eligible for revenue credits including unpaid balances eligible for revenue credits; or
  - b. Original investment cost of the Directly Assigned Network Resource Cost minus accumulated depreciation – calculated over the depreciable life of the asset.
2. Share Included for rolling into rates:
  - a. MW impact / MW Capacity on Directly Assigned Network Upgrade; or
  - b. MW impact as % of MWs of Capacity of Transmission Service on Directly Assigned Network Upgrade.

# Discussion on Costs Included: a.1 Revenue Credit Approach

Original Cost (Thousands \$ ) = \$15,000  
Discount Rate = 8.00%  
Fixed Charge Rate for 5 year Recovery = 32.00%  
Percent eligible for Revenue Credits = 50.00%

Only 50% of the project is above the PTP rate.

Year	Revenue Requirement \$1000	RR Eligible for Credits	Eligible for Revenue Credits	Past Revenue Credits	Remaining RR Eligible for Credits	Interest on Unrecovered Balance
1	\$4,800	\$2,400	\$2,400	\$1,000	\$1,400	\$112
2	\$4,800	\$2,400	\$3,912	\$1,200	\$2,712	\$217
3	\$4,800	\$2,400	\$5,329	\$1,600	\$3,729	\$298
4	\$4,800	\$2,400	\$6,427			
5	\$4,800	\$2,400				
	\$24,000					

Directly Assigned Network Costs Included = \$8,827

Notice that in calculating eligible revenue credits, Project Sponsor's PTP transmission service is taken into account by the 50%. This has an impact on calculating % going to new customer.

Q1. In the above example, does the \$2,400 from year 5 need to be discounted back to year 4?

Q2. Attachment J safe harbor condition is stated in total installed costs – how do we convert these numbers to equivalent values – i.e., remove the return on investment, taxes and any O&M costs?

# Further Discussion on Costs Included: a.2 Alternative Revenue Credit Approach

Original Cost (Thousands \$ ) = \$15,000  
Discount Rate = 8.00%  
Fixed Charge Rate for 5 year Recovery = 32.00%  
Percent eligible for Revenue Credits = 100.00%

Year	Revenue Requirement \$1000	RR Eligible for Credits	Eligible for Revenue Credits	Past Revenue Credits	Remaining RR Eligible for Credits	Interest on Unrecovered Balance
1	\$4,800	\$4,800	\$4,800	\$1,000	\$3,800	\$304
2	\$4,800	\$4,800	\$8,904	\$1,200	\$7,704	\$616
3	\$4,800	\$4,800	\$13,120	\$1,600	\$11,520	\$922
4	\$4,800	\$4,800	\$17,242			
5	\$4,800	\$4,800				
	\$24,000					

Directly Assigned Network Costs Included = \$22,042

To fix the problem with what is eligible for revenue credits not including the Project Sponsor's transmission service, 100% is used to calculate total costs included.

## Discussion on Costs Included

### b. Original Cost – Depreciation Approach

Original Cost = \$15 M

Depreciable Life = 30 years

Accumulated Depreciation =  $\$15 * (3/30) = \$1.5$

Included Costs =  $\$15 \text{ M} - \$1.5 \text{ M} = \$13.5 \text{ M}$

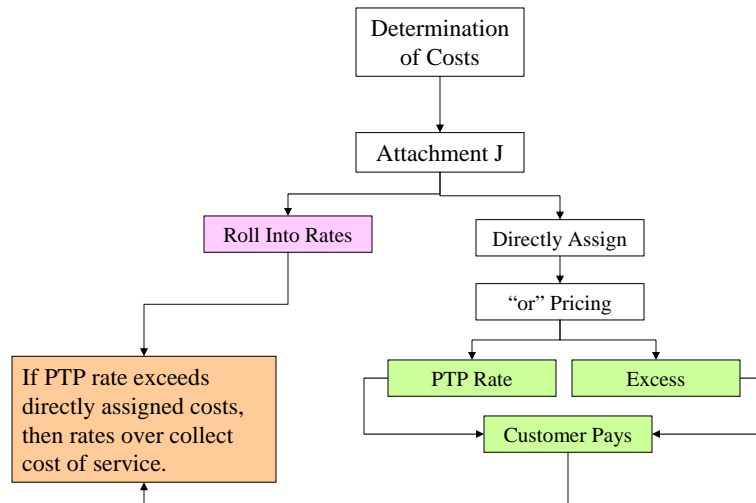
- Does not include past revenue credits, but does not include depreciation for past years.
- This calculation is directly comparable to what is required for Attachment J.

## Further Discussion

- Recommendations?



## Version 1: Apply Attachment J then “or” Pricing



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## Version 1: Adjustment to Amount that is Base Funded

- If in the application of “or” pricing, the PTP rate is higher than the costs assigned to the customer in the first step application of Attachment J, then the amount rolled into rates has to be decreased to keep from over collecting the Cost of Service.
- This reduction is calculated by taking the excess revenue requirement and dividing it by the fixed charge % to convert back to investment dollars. These investment dollars are subtracted from those eligible for Base Plan Funding to determine costs being rolled into rates.

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# Example of Version 1

Example 1: Basic Parameters Assumed		
Upgrade Original Cost	\$65,000,000	Gross Plant
Depreciation Life	30	Years
Accum. Depreciation	\$6,500,000	after 3 years
Cost Included	\$58,500,000	Net Plant
PTP Reservation	100	MW
Trans Serv Term	5	Years
PTP Service Charge	\$1,200,000	Assumed \$1/MW/Month
% Distribution Factor	20%	Impact on Upgrade

Version 1 Calculations

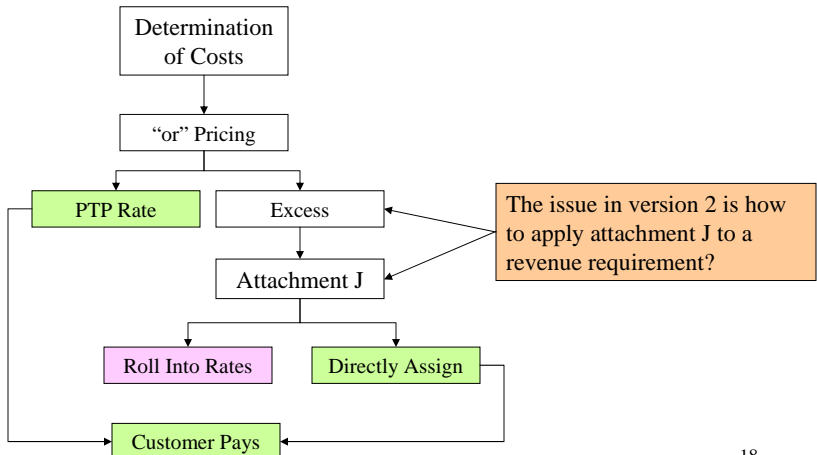
Attachment Z Calculation		
Cost Included	\$58,500,000	Net Plant
First TC MW	40	Assumed
New TC MW	20	(CDF / (MW Resrv))
Total MW	60	Sum
% New TC	33%	(New TC MW) / (Total MW)
New TC \$	\$19,500,000	(New TC %) * (Cost Included)

Attachment J Calculations		
Cost / MW	\$195,000	(New TC %) / (MW Resrv)
Safe Harbor Limit	\$18,000,000	(180,000/MW) * (MW Resrv)
Eligible for BPF	\$18,000,000	Min (New TC \$, Safe Harbor)

"Higher of" Rate Calculations		
Direct Assign	\$1,500,000	(New TC \$) - (Eligible for BPF)
Fixed Charge %	32%	Calc for 5 yr. Trans Serv Resrv
Annual Cost	\$480,000	per year
PTP Service Charge	\$1,200,000	per year
Customer Pays Higher of	\$1,200,000	Max (Annual Cost, PTP Serv Chrg)

Adjustment to Attachment J Calculation		
Excess over Annual Cost	\$720,000	per year
Excess in Costs	\$2,250,000	divide by fixed charge %
Rolled into Rates	\$15,750,000	Eligible for BPF - Excess in Costs

# Version 2: Apply "or" Pricing then Attachment J



## Version 2: Application of Attachment J

- Application of Attachment J
  - PTP Rate \$ + Excess \$ = Total RR \$
  - Calculate X% = Excess \$ / Total RR \$
  - Attachment J is applied to determine what is base funded and what is assigned to the customer.

$$\text{Base Funded} = \min \{ \$180,000 * \text{MW}, (X\%) * (\text{Original Cost}) \}$$

## Example of Version 2

Example 1: Basic Parameters Assumed		
Upgrade Original Cost	\$65,000,000	Gross Plant
Depreciation Life	30	Years
Accum. Depreciation	\$6,500,000	after 3 years
Cost Included	\$58,500,000	Net Plant
PTP Reservation	100	MW
Trans Serv Term	5	Years
PTP Service Charge	\$1,200,000	Assumed \$1/kW/Month
% Distribution Factor	20%	Impact on Upgrade

### Version 2 Calculations

Attachment Z Calculation		
Cost Included	\$58,500,000	Net Plant
First TC MW	40	Assumed
New TC MW	20	(%DF)/(MW Reserv)
Total MW	60	Sum
% New TC	33%	(New TC MW) / (Total MW)
New TC \$	\$19,500,000	(New TC %) * (Cost Included)
"Higher of" Rate Calculations		
Fixed Charge %	32%	Calc for 5 yr. Trans Serv Reserv
Annual Cost	\$6,240,000	per year
PTP Service Charge	\$1,200,000	per year
Higher of Charge	\$6,240,000	max (Ann Cost, PTP Serv Chrg)
Attachment J Calculations		
Calculating the Cost of the Excess from the "Higher of" Charge		
Excess Charge	\$5,040,000	Higher of Chrg - PTP Serv Chrg
% Excess	81%	Excess Chrg / Higher of Chrg
Cost of Excess	\$15,750,000	(% Excess) * (New TC \$)
Calculating the Cost to be Rolled into Rates		
Safe Harbor Limit	\$18,000,000	(180,000/Mw) * (MW Reserv)
Rolled into Rates	\$15,750,000	Min (New TC \$, Safe Harbor)
No Adjustment to "Higher of" Rate		
Customer Excess	\$0	(Cost of Ex) - (Rolled into Rates)
Excess RR	\$0	(Cost Ex) * (Fixed Chrg %)
Adj. "Higher of" Charge	\$1,200,000	(PTP Rate) + (Excess RR)

# Compare Versions

Example 1: Basic Parameters Assumed		
Upgrade Original Cost	\$65,000,000	Gross Plant
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% Distribution Factor	20%	Impact on Upgrade

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PTP Reservation	100	MW
Trans Serv Term	5	Years
PTP Service Charge	\$1,200,000	Assumed \$1.1k/W/Month
% Distribution Factor	20%	Impact on Upgrade

Version 1 Calculations

Version 2 Calculations

Attachment Z Calculation		
Cost Included	\$58,500,000	Net Plant
First TC MW	40	Assumed
New TC MW	20	(NDP)/(MW Resrv)
Total MW	60	Sum
% New TC	33%	(New TC MW) / (Total MW)
New TC \$	\$19,500,000	(New TC %)* (Cost Included)

Attachment Z Calculation		
Cost Included	\$58,500,000	Net Plant
First TC MW	40	Assumed
New TC MW	20	(NDP)/(MW Resrv)
Total MW	60	Sum
% New TC	33%	(New TC MW) / (Total MW)
New TC \$	\$19,500,000	(New TC %)* (Cost Included)

Attachment J Calculations		
Cost / MW	\$195,000	(New TC \$) / (MW Resrv)
Safe Harbor Limit	\$18,000,000	(180,000/Mw) * (MW Resrv)
Eligible for BPF	\$18,000,000	Min (New TC \$, Safe Harbor)

Attachment J Calculations		
Cost / MW	\$195,000	(New TC \$) / (MW Resrv)
Safe Harbor Limit	\$18,000,000	(180,000/Mw) * (MW Resrv)
Eligible for BPF	\$18,000,000	Min (New TC \$, Safe Harbor)

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Direct Assign	\$1,500,000	(New TC \$) - (Eligible for BPF)
Fixed Charge %	32%	Calc for 5 yr. Trans Serv Resrv
Annual Cost	\$480,000	per year
PTP Service Charge	\$1,200,000	per year
Customer Pays Higher of	\$1,200,000	Max (Annual Cost, PTP Serv Chrg)

"Higher of" Rate Calculations		
Fixed Charge %	32%	Calc for 5 yr. Trans Serv Resrv
Annual Cost	\$6,240,000	per year
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"Higher of" Charge	\$6,240,000	max (Ann Cost, PTP Serv Chrg)

Adjustment to Attachment J Calculation		
Excess over Annual Cost	\$720,000	per year
Excess in Costs	\$2,250,000	divide by fixed charge %
Rolled into Rates	\$15,750,000	Eligible for BPF - Excess in Costs

Attachment J Calculations		
Calculating the Cost of the Excess from the "Higher of" Charge		
Excess Charge	\$5,040,000	Higher of Chrg - PTP Serv Chrg
% Excess	81%	Excess Chrg / Higher of Chrg
Cost of Excess	\$15,750,000	% Excess * (New TC \$)
Calculating the Cost to be Rolled Into Rates		
Safe Harbor Limit	\$18,000,000	(180,000/Mw) * (MW Resrv)
Rolled Into Rates	\$15,750,000	Min (New TC \$, Safe Harbor)
No Adjustment to "Higher of" Rate		
Customer Excess	\$0	(Cost of Ex) - (Rolled into Rates)
Excess RR	\$0	(Cust Ex) * (Fixed Chrg %)
Adj "Higher of" Charge	\$1,200,000	(PTP Rate) + (Excess RR)

Notice that what is rolled into rates and what the new TC pays are identical.

## Calculation: "Higher of" Price in Version 2

- Notice in Example 1 all of the Excess over the PTP rate is rolled into rates, and the PTP customer is charged only the PTP rate.
- In the following example, the Safe Harbor condition results in less than all of the excess being rolled into rates, and a resulting calculation of the "higher of" price needs to be performed.

# Example 2

Example 2: Basic Parameters Assumed		
Upgrade Original Cost	\$100,000,000	Gross Plant
Depreciation Life	30	Years
Accum. Depreciation	\$10,000,000	after 3 years
Cost Included	\$90,000,000	Net Plant
PTP Reservation	100	MW
Trans Serv Term	5	Years
PTP Service Charge	\$1,200,000	Assumed \$1/kW/Month
% Distribution Factor	20%	Impact on Upgrade

Example 2: Basic Parameters Assumed		
Upgrade Original Cost	\$100,000,000	Gross Plant
Depreciation Life	30	Years
Accum. Depreciation	\$10,000,000	after 3 years
Cost Included	\$90,000,000	Net Plant
PTP Reservation	100	MW
Trans Serv Term	5	Years
PTP Service Charge	\$1,200,000	Assumed \$1/kW/Month
% Distribution Factor	20%	Impact on Upgrade

Version 1 Calculations

Version 2 Calculations

Attachment Z Calculation		
Cost Included	\$90,000,000	Net Plant
First TC MW	40	Assumed
New TC MW	20	(%DF)/(MW Resrv)
Total MW	60	Sum
% New TC	33%	(New TC MW) / (Total MW)
New TC \$	\$30,000,000	(New TC %) * (Cost Included)

Attachment Z Calculation		
Cost Included	\$90,000,000	Net Plant
First TC MW	40	Assumed
New TC MW	20	(%DF)/(MW Resrv)
Total MW	60	Sum
% New TC	33%	(New TC MW) / (Total MW)
New TC \$	\$30,000,000	(New TC %) * (Cost Included)

Attachment J Calculations		
Cost / MW	\$300,000	(New TC %) / (MW Resrv)
Safe Harbor Limit	\$18,000,000	(180,000/Mw) * (MW Resrv)
Eligible for BPF	\$18,000,000	Min (New TC \$, Safe Harbor)

"Higher of" Rate Calculations		
Fixed Charge %	32%	Calc for 5 yr. Trans Serv Resrv
Annual Cost	\$9,600,000	per year
PTP Service Charge	\$1,200,000	per year
Higher of" Calculation	\$9,600,000	max (Ann Cost, PTP Serv Chrg)

"Higher of" Rate Calculations		
Direct Assign	\$12,000,000	(New TC \$) - (Eligible for BPF)
Fixed Charge %	32%	Calc for 5 yr. Trans Serv Resrv
Annual Cost	\$3,840,000	per year
PTP Service Charge	\$1,200,000	per year
Customer Pays Higher of	\$3,840,000	Max (Annual Cost, PTP Serv Chrg)

Attachment J Calculations		
Excess Charge	\$8,400,000	Higher of Chrg - PTP Serv Chrg
% Excess	88%	Excess Chrg / Higher of Chrg
Cost of Excess	\$26,250,000	(% Excess) * (New TC \$)

No Adjustment to Attachment J Calculation		
Excess over Annual Cost	\$0	per year
Excess in Costs	\$0	divide by fixed charge %
Rolled into Rates	\$18,000,000	Eligible for BPF - Excess in Costs

Calculating the Cost to be Rolled Into Rates		
Safe Harbor Limit	\$18,000,000	(180,000/Mw) * (MW Resrv)
Rolled Into Rates	\$18,000,000	Min (New TC \$, Safe Harbor)

Adjustment to "Higher of" Rate		
Customer Excess	\$8,250,000	(Cost of Ex - (Rolled into Rates))
Excess RR	\$2,640,000	(Cust Ex) * (Fixed Chrg %)
Adj "Higher of" Charge	\$3,840,000	(PTP Rate) + (Excess RR)

Notice that what is rolled into rates and what the new TC pays are identical.

# Additional Comparison

Example 3: Basic Parameters Assumed		
Upgrade Original Cost	\$10,000,000	Gross Plant
Depreciation Life	30	Years
Accum. Depreciation	\$1,000,000	after 3 years
Cost Included	\$9,000,000	Net Plant
PTP Reservation	100	MW
Trans Serv Term	5	Years
PTP Service Charge	\$1,200,000	Assumed \$1/kW/Month
% Distribution Factor	20%	Impact on Upgrade

Example 3: Basic Parameters Assumed		
Upgrade Original Cost	\$10,000,000	Gross Plant
Depreciation Life	30	Years
Accum. Depreciation	\$1,000,000	after 3 years
Cost Included	\$9,000,000	Net Plant
PTP Reservation	100	MW
Trans Serv Term	5	Years
PTP Service Charge	\$1,200,000	Assumed \$1/kW/Month
% Distribution Factor	20%	Impact on Upgrade

Version 1 Calculations

Version 2 Calculations

Attachment Z Calculation		
Cost Included	\$9,000,000	Net Plant
First TC MW	40	Assumed
New TC MW	20	(%DF)/(MW Resrv)
Total MW	60	Sum
% New TC	33%	(New TC MW) / (Total MW)
New TC \$	\$3,000,000	(New TC %) * (Cost Included)

Attachment Z Calculation		
Cost Included	\$9,000,000	Net Plant
First TC MW	40	Assumed
New TC MW	20	(%DF)/(MW Resrv)
Total MW	60	Sum
% New TC	33%	(New TC MW) / (Total MW)
New TC \$	\$3,000,000	(New TC %) * (Cost Included)

Attachment J Calculations		
Cost / MW	\$300,000	(New TC %) / (MW Resrv)
Safe Harbor Limit	\$18,000,000	(180,000/Mw) * (MW Resrv)
Eligible for BPF	\$3,000,000	Min (New TC \$, Safe Harbor)

"Higher of" Rate Calculations		
Fixed Charge %	32%	Calc for 5 yr. Trans Serv Resrv
Annual Cost	\$960,000	per year
PTP Service Charge	\$1,200,000	per year
"Higher of" Charge	\$1,200,000	max (Ann Cost, PTP Serv Chrg)

"Higher of" Rate Calculations		
Direct Assign	\$0	(New TC \$) - (Eligible for BPF)
Fixed Charge %	32%	Calc for 5 yr. Trans Serv Resrv
Annual Cost	\$0	per year
PTP Service Charge	\$1,200,000	per year
Higher of" Charge	\$1,200,000	Max (Annual Cost, PTP Serv Chrg)

Attachment J Calculations		
Excess Charge	\$0	Higher of Chrg - PTP Serv Chrg
% Excess	0%	Excess Chrg / Higher of Chrg
Cost of Excess	\$0	(% Excess) * (New TC \$)

Adjustment to Attachment J Calculation		
Excess over Annual Cost	\$1,200,000	per year
Excess in Costs	\$3,750,000	divide by fixed charge %
Rolled into Rates	\$0	Eligible for BPF - Excess in Costs

Calculating the Cost to be Rolled Into Rates		
Safe Harbor Limit	\$18,000,000	(180,000/Mw) * (MW Resrv)
Rolled Into Rates	\$0	Min (New TC \$, Safe Harbor)

No Adjustment to "Higher of" Rate		
Customer Excess	\$0	(Cost of Ex - (Rolled into Rates))
Excess RR	\$0	(Cust Ex) * (Fixed Chrg %)
Adj "Higher of" Charge	\$1,200,000	(PTP Rate) + (Excess RR)

Notice that what is rolled into rates and what the new TC pays are identical.

## Who Pays Revenue Credits?

- Do all three sources of revenue pay revenue credits?
  - ✓ PTP Rate → current Attachment Z
  - ✓ Rolled Into Rates → include in revised Attachment Z
    - ? How Much
  - ✓ Excess RR above PTP Rate (Example 2)
    - ? Pay revenue credits?
    - ? If so, how much?

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## Credits from Revenues Received by SPP from Rolling \$ Into Rates

- Example 2: \$18 M of Costs associated with Excess RR above PTP rate.
  - Revenues received from rates are entirely associated with Directly Assigned Network Upgrade Cost.
  - Any Revenue Credits should be identical in concept to a lump sum removal of these costs from what the Project Sponsors are paying.
  - Thus, all of the revenues from the costs rolled into rates should be paid in revenue credits to the Project Sponsors.

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## Discussion: For Costs Rolled Into Rates

Revenue Credits

VS

Lump Sum Removal

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## Credits From Excess Revenues Above the PTP Rate

- Higher of Rate = \$3,840,000
  - PTP Rate = \$1,200,000
  - Excess Rate = \$2,640,000
- Revenues from PTP Rate distributed based on % Distribution Factor.
- Revenues from Excess Rate come from the costs of the Directly Assigned Network Upgrade Costs exceeding the Attachment J safe harbor condition.
  - Should be treated the same as revenues coming from costs that are rolled into rates; i.e., 100% goes to revenue credits.

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## What Percent of Cost Included in Allocation to New TC?

- Cost Allocation for New TC  
 $(\% \text{Cost}) * (\text{Cost Included})$
- MW Impact of PTP Service
  - $(\% \text{ Distribution Factor}) * \text{MW Reservation}$ 
    - Examples:  $(20\%)*(100 \text{ MW}) = 20 \text{ MW}$
- Percent of Cost Alternatives
  1.  $\% \text{ Cost}_1 = \text{MW Impact} / \Sigma \text{MW Impacts}$ 
    - Example:  $(20 \text{ MW})/(60 \text{ MW}) = 33\%$
  2.  $\% \text{ Cost}_2 = \text{MW Impact} / \text{MW Capacity Upgrade}$ 
    - Example:  $(20 \text{ MW})/(200 \text{ MW}) = 10\%$

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## Discussion

- Because DRs from PTP service are comparable to DNRs from NITS, the percent cost included should be comparable. Implies using:
 
$$\% \text{ Cost}_1 = \text{MW Impact} / \Sigma \text{MW Impacts}$$
 if this is what is used for NITS.
- Would not apply to PTP service not related to DNR, where the revenue credits are calculated as:
 
$$(\text{MW Impact}) * (\text{PTP Rate})$$

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## Further Discussion

$\% \text{ Cost}_1 = \text{MW Impact} / \Sigma \text{ MW Impacts}$

VS

$\% \text{ Cost}_2 = \text{MW Impact} / \text{MW Cap Upgrd}$

## PTP Use of Directly Assigned Network Upgrade Costs:

### 2. Not a New or Changed Designated Resource

- New PTP Service has a MW impact on the Directly Assigned Network Upgrade in the direction of the initial overload/constraint.
  - Should the MW impact be used to determine the costs of upgrades to provide this request for new long-term PTP service?
    - If not (e.g., would not apply to short-term PTP service)
 

Revenue credits = (% impact on Directly Assigned Network Upgrade) \* PTP service charge.

## Policy Issue: Costs for New, Long-Term PTP Service

- Project Sponsor taking firm PTP service is paying the full cost of the Directly Assigned Network Upgrade Costs.
  - Point: A subsequent long-term PTP service customer should be put on the same basis as the original Project Sponsor with respect use of Directly Assigned Network Upgrade Costs.
  - Counter point: Transmission capacity is available, so the customer should only pay the PTP rate.
    - Adding costs may result in the TC not taking the transmission service, resulting in zero revenues and zero revenue credits.

## Some Additional Thoughts

- Suppose a portion of the Directly Assigned Network Upgrade Costs is included in the calculation of the rate to the new PTP TC:
  - Determination of the portion included in the calculation of the rate would be the same as used to determine the share of Directly Network Upgrade Costs that would be rolled into rates were this PTP request for a new Designated Resource.

## Discussion: New PTP Customer Pays What Rate?

**PTP Rate Only**

vs

**Higher of for Prev. Upgrade**

## NITS Use of Directly Assigned Network Upgrade Costs:

### **A. New or Changed Designated Resource**

- NITS Service for Designated Resource has a MW impact on the Directly Assigned Network Upgrade in the direction of the initial overload/constraint.
- The share of costs from use of the Directly Assigned Network Upgrade should be included in the calculation of costs for the New or Changed Designated Resource.

# Discussion

- Same issues as for DRs with PTP Service, absent application of “or” pricing.
  - What costs to include?
  - Revenue Credits vs. Lump Sum payment
  - Credits from Assigned Costs
  - % Cost Included

# Examples

- Applies when Original Project Sponsor takes PTP Service.

Example 1.b: Basic Parameters Assumed		
Upgrade Original Cost	\$65,000,000	Gross Plant
Depreciation Life	30	Years
Accum. Depreciation	\$6,500,000	after 3 years
Cost Included	\$58,500,000	Net Plant
MW New DNR	100	Determined by Load Flow Study

Calculation on % Cost = MW Impact / Sum MW Impacts

Attachment Z Calculation		
Cost Included	\$58,500,000	Net Plant
First TC MW	40	Assumed
NITS MW	20	Determined by Load Flow Study
Total MW	60	Sum
% New DNR	33%	(New TC MW) / (Total MW)
New DNR \$	\$19,500,000	(New TC %) * (Cost Included)

Attachment J Calculations		
Cost / MW	\$195,000	(New TC %) / (MW New DNR)
Safe Harbor Limit	\$18,000,000	(\$180,000) * (MW New DNR)
BPF \$	\$18,000,000	Min (New DNR \$, Safe Harbor)
Directly Assigned to TC	\$1,500,000	Min (0, New DNR \$ - BPF \$)

- Applies when Original Project Sponsor doesn't take PTP Service

Example 1.b: Basic Parameters Assumed		
Upgrade Original Cost	\$65,000,000	Gross Plant
Depreciation Life	30	Years
Accum. Depreciation	\$6,500,000	after 3 years
Cost Included	\$58,500,000	Net Plant
MW New DNR	100	Determined by Load Flow Study

Calculation on % Cost = MW Impact / MW Capacity of Upgrade

Attachment Z Calculation		
Cost Included	\$58,500,000	Net Plant
MW Capacity of Upgrade	200	Assumed
NITS MW	20	Determined by Load Flow Study
Total MW	200	MW Capacity of Upgrade
% New DNR	10%	(New TC MW) / (Total MW)
New DNR \$	\$5,850,000	(New TC %) * (Cost Included)

Attachment J Calculations		
Cost / MW	\$58,500	(New TC %) / (MW New DNR)
Safe Harbor Limit	\$18,000,000	(\$180,000) * (MW New DNR)
BPF \$	\$5,850,000	Min (New DNR \$, Safe Harbor)
Directly Assigned to TC	\$0	Min (0, New DNR \$ - BPF \$)

## NITS Use of Directly Assigned Network Upgrade Costs: **B. Reliability for Load Growth**

- Reliability for load growth has a MW impact on the Directly Assigned Network Upgrade in the direction of the initial overload/constraint.
- The share of costs from use of the Directly Assigned Network Upgrade should be included in the calculation of costs for Base Plan Reliability Upgrades.

## Limited Issues for Load Growth

- What costs to include?
- Revenue Credits vs. Lump Sum payment
- % Cost Included

## Financing Options

- Options for Original Project Sponsor
  - a. Payment of Annual Revenue Requirements
    - PTP Service – Over trans service period (simple)
    - Network Service – Over what period? (not so simple)
    - No Trans Service – Over what period? (complex)
  - b. One Time Payment
    - Includes Original Cost (simple)
    - Additional Payments
      - Fixed O&M via contract with TO (not so simple)
      - Tax Gross Up (complex)
- What about options for follow up users?
  - Very Complex

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## Discussion on Financing Options

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## 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 ~~two~~<sup>four</sup> types of Network Upgrades: Base Plan Upgrades, ~~and Economic 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 VI of this Attachment.

### 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](#)~~SPP~~ the information that [the Transmission Provider](#)~~SPP~~ deems necessary to verify that the new or changed Designated Resource meets conditions 1 and 2 above.

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 Z2 to this Tariff for any such directly assigned costs.

**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 ProviderSPP in order that the costs of the Network Upgrade may be classified in whole or in part as Base Plan Upgrade costs.

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 ProviderSPP simultaneous with its designation of a new or changed Designated Resource to be included in the SPP Transmission Expansion Plan.

Studies performed by the Transmission ProviderSPP as part of the transmission service study procedure, which is described in Attachment Z1, 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 ProviderSPP determines that the costs for Network Upgrades associated with a new or changed Designated Resource may exceed the Safe Harbor Cost Limit, the Transmission ProviderSPP shall notify the affected Transmission Customer when the Transmission Provider posts the associated Facilities Study. 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 ProviderSPP its request for a waiver within 15 days of such notice.

Following receipt of a request for a waiver, the Transmission ProviderSPP 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 Attachment. The Transmission Customer requesting the waiver shall be responsible for the reasonable costs of any studies that [the Transmission ProviderSPP](#) performs in making its determination. [The Transmission ProviderSPP](#) 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'sSPP](#) report and recommendation, and will provide its own recommendation (along with the [Transmission Provider'sSPP](#) 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.

## **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](#)~~SPP~~ 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.

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.

### **3. Service Agreement for a Transmission Customer Seeking a Waiver for Costs In Excess of the Safe Harbor Cost Limit**

The Transmission Provider shall tender and the Transmission Customer shall execute the Service Agreement pursuant to Section IV of Attachment Z1. For the Transmission Customer seeking a waiver for costs in excess of the Safe Harbor Cost Limit, the Service Agreement shall identify the costs associated with the required Requested Upgrades that the Transmission Customer shall be responsible for: (i) if the waiver is accepted; and (ii) if the waiver is denied.

The waiver decision by the SPP Board of Directors shall determine the applicable Transmission Customer costs for the Firm Point-to-Point Transmission Service or the Firm Network Integration Transmission Service as identified in the Service Agreement. The decision by the SPP Board of Directors shall be final.

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

1. The Transmission Provider~~SPP~~ shall review the reasonableness of the regional allocation factor (X%) and the zonal allocation methodology at least once every five years. The Transmission Provider~~SPP~~ 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~~SPP~~ 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.

#### ~~IV. — Economic Upgrades~~

~~The cost of an Economic Upgrade shall be borne voluntarily by the Project Sponsors. The Project Sponsors shall receive transmission revenue credits in accordance with Attachment Z to this Tariff.~~

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

A portion or all of the costs of a Requested Upgrade may be allocated to Transmission Customers or Project Sponsors. The Transmission Customer requesting transmission service that requires the construction of a Requested Upgrade shall be allocated the costs for such upgrade and shall pay for such upgrade in accordance with Attachment Z1.

The Project Sponsor requesting the construction of a Requested Upgrade voluntarily agrees to bear a portion or all of the costs of such upgrade. The Project Sponsor may select one of the following alternative methods of payment for the Requested Upgrade.<sup>1</sup> The preferred alternative is for the Project Sponsor to pay the

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<sup>1</sup> SPP Principles for Project Sponsor Funding:

revenue requirement associated with the Requested Upgrade over the Service Life of the Upgrade. The Project Sponsor shall provide the Transmission Provider an unconditional and irrevocable letter of credit as security to meet its responsibilities and obligations based on the sponsorship of engineering and construction of the Requested Upgrade, or an alternative form of security proposed by the Project Sponsor and acceptable to the Transmission Provider and consistent with commercial practices established by the Uniform Commercial Code that protects the Transmission Provider against the risk of non-payment.

The second alternative is for the Project Sponsor to pay an upfront payment that is equal to the revenue requirement associated with the Requested Upgrade based on the Service Life of the Requested Upgrade grossed up to include applicable IRS taxes.

The Transmission Customer or Project Sponsor shall receive transmission revenue credits in accordance with Attachment Z~~2~~.

#### **VI. Generation Interconnection Related Requested~~Network~~ Upgrades**

The cost of a generation interconnection related Requested~~Network~~ Upgrade shall be allocated in accordance with Section IV of this Attachment~~Attachment V to this Tariff~~. The Interconnection Customer shall be considered a Transmission Customer or a Project Sponsor depending on whether the Requested Upgrade is required due to the Interconnection Customer requesting transmission service or the Interconnection Customer requesting a Requested Upgrade and voluntarily agreeing to bear a portion or all of the costs of such upgrade, respectively. The Interconnection Customer shall receive transmission revenue credits in accordance with Attachment Z~~2~~.

1. Project Sponsors always have the option of funding a project through either payments of annual revenue requirements or upfront funding.
2. When the project is upfront funded, the Transmission Owner should be fully compensated for the cost associated with owning and operating the Project Sponsored portion of the proposed facilities. At a minimum this would include any tax gross up required by tax law, property taxes and any operating and maintenance expenses associated with the proposed facilities. The cost of an upfront funded project would not include the Transmission Owner's return on investment.
3. The terms and conditions of Project Sponsorship should be specified in the SPP Tariff so that Service may be provided on a non-discriminatory basis.

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

### **A. Base Plan Avoided Revenue Requirement**

To the extent ~~an Economic Upgrade,~~ a Requested Upgrade ~~or a generation interconnection related Network Upgrade~~ defers or displaces the need for a Base Plan Upgrade, the Transmission Provider<sup>SPP</sup> 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.

### **B. Deferred Base Plan Upgrade**

In the case of a Base Plan Upgrade that may be deferred as a result of the ~~Economic Upgrade,~~ 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:

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 ~~Economic Upgrade, 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 ~~Service Life~~~~expected service life~~ of the facility that is displaced. 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 ~~Service Life~~~~expected service life~~ of the facility shall be substituted for the deferral period in all instances.

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

The Base Plan Avoided Revenue Requirements shall be allocated as follows:<sup>2</sup>

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<sup>2</sup> Need to include when Resident Load will start and stop paying the Base Plan Avoided Revenue Requirement when a Base Plan Upgrade is deferred or displaced due to a Requested Upgrade. Payment of the Base Plan Avoided Revenue Requirement should start when the Requested Upgrade goes in service. Need to discuss this further. Probably need to consider a present worth and future worth RR comparison. The language in B.2 is some kind of average.



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(s) ~~for an Economic Upgrade, 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 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.

#### **VIII. Uncompleted Network Upgrades**

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 ~~t~~ransmission ~~p~~lan, 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.

Example 1: Basic Parameters Assumed		
Upgrade Original Cost	\$65,000,000	Gross Plant
Depreciation Life	30	Years
Accum. Depreciation	\$6,500,000	after 3 years
Cost Included	\$58,500,000	Net Plant
PTP Reservation	100	MW
Trans Serv Term	5	Years
PTP Service Charge	\$1,200,000	Assumed \$1/kW/Month
% Distribution Factor	20%	Impact on Upgrade

### Version 1 Calculations

Attachment Z Calculation		
Cost Included	\$58,500,000	Net Plant
First TC MW	40	Assumed
New TC MW	20	(%DF)*(MW Resrv)
Total MW	60	Sum
% New TC	33%	(New TC MW) / (Total MW)
New TC \$	\$19,500,000	(New TC %) * (Cost Included)

Attachment J Calculations		
Cost / MW	\$195,000	(New TC %) / (MW Resrv)
Safe Harbor Limit	\$18,000,000	(180,000/Mw) * (MW Resrv)
Eligible for BPF	\$18,000,000	Min (New TC \$, Safe Harbor)

"Higher of" Rate Calculations		
Direct Assign	\$1,500,000	(New TC\$) - (Eligible for BPF)
Fixed Charge %	32%	Calc for 5 yr. Trans Serv Resrv
Annual Cost	\$480,000	per year
PTP Service Charge	\$1,200,000	per year
Customer Pays Higher of	<b>\$1,200,000</b>	Max (Annual Cost, PTP Serv Chrg)

Adjustment to Attachment J Calculation		
Excess over Annual Cost	\$720,000	per year
Excess in Costs	\$2,250,000	divide by fixed charge %
Rolled into Rates	<b>\$15,750,000</b>	Eligible for BPF - Excess in Costs

Customer Charges            \$1,200,000    PTP Rate > Annual Cost  
Adjust Roll in for Excess    \$15,750,000

Example 1: Basic Parameters Assumed		
Upgrade Original Cost	\$65,000,000	Gross Plant
Depreciation Life	30	Years
Accum. Depreciation	\$6,500,000	after 3 years
Cost Included	\$58,500,000	Net Plant
PTP Reservation	100	MW
Trans Serv Term	5	Years
PTP Service Charge	\$1,200,000	Assumed \$1/kW/Month
% Distribution Factor	20%	Impact on Upgrade

### Version 2 Calculations

Attachment Z Calculation		
Cost Included	\$58,500,000	Net Plant
First TC MW	40	Assumed
New TC MW	20	(%DF)*(MW Resrv)
Total MW	60	Sum
% New TC	33%	(New TC MW) / (Total MW)
New TC \$	\$19,500,000	(New TC %) * (Cost Included)

"Higher of" Rate Calculations		
Fixed Charge %	32%	Calc for 5 yr. Trans Serv Resrv
Annual Cost	\$6,240,000	per year
PTP Service Charge	\$1,200,000	per year
"Higher of" Charge	\$6,240,000	max (Ann Cost, PTP Serv Chrg)

Attachment J Calculations		
Calculating the Cost of the Excess from the "Higher of" Charge		
Excess Charge	\$5,040,000	Higher of Chrg - PTP Serv Chrg
% Excess	81%	Excess Chrg / Higher of Chrg
Cost of Excess	\$15,750,000	(% Excess) * (New TC \$)

Calculating the Cost to be Rolled Into Rates		
Safe Harbor Limit	\$18,000,000	(180,000/Mw) * (MW Resrv)
Rolled Into Rates	<b>\$15,750,000</b>	Min (New TC \$, Safe Harbor)

No Adjustment to "Higher of" Rate		
Customer Excess	\$0	(Cst of Ex) - (Rolled into Rates)
Excess RR	\$0	(Cust Ex) * (Fixed Chrg %)
Adj "Higher of" Charge	<b>\$1,200,000</b>	(PTP Rate) + (Excess RR)

Customer Charges            \$1,200,000    PTP Rate > Annual Cost  
Excess Charges Rolled In    \$15,750,000

**AGGREGATE TRANSMISSION SERVICE STUDY PROCEDURES AND COST  
ALLOCATION AND RECOVERY FOR REQUESTED UPGRADES**

**I. Introduction**

This attachment describes the process used to evaluate long-term transmission service requests and other requests for Requested Upgrades 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 and other requests for Requested Upgrades received during a specified period of time into a single aggregate transmission service study. Using this aggregate study process, the Transmission Provider<sup>SPP</sup> 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: ~~(i) cost allocation and cost recovery for Requested Upgrades associated with transmission service requests; and (ii) transmission revenue credits for Requested Upgrades, Economic Upgrades, 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.~~

**II. Open Season**

The Aggregate Transmission Service Study process commences with the initiation of an open season. The open season will be four (4) months in duration. During that period, customers may make requests for long-term transmission service that start no earlier than six (6)<sup>1</sup> 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

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<sup>1</sup> Note: Using 4 months is unrealistic with the 120 day process.

have fifteen (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 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 ProviderSPP 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.

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

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 ASISImpact Study, customers will have fifteen (15) days to execute an Aggregate Facilities Study Agreement (AFSA) per Section 19 of the Tariff.

### **IV. Aggregate Facilities Study**

a. 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 impact study~~ 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.

b. When the Transmission Provider posts the Aggregate Facilities Study, the Transmission Provider shall provide the customer a letter agreement. The customer shall have fifteen (15) days to execute the letter agreement, indicating if and how the customer wants to move forward in the Aggregate Transmission Service Study process. If the customer does not execute the letter agreement within fifteen (15) days, the request will no longer be a Completed Application and shall be deemed terminated and withdrawn.

c. Upgrade specific Facilities Studies shall be performed, reflecting the withdrawal of requests for which a letter agreement was not executed, if any. Upon completion of the Facilities Study, the Transmission Provider shall provide the Transmission Customer a Service Agreement in the form of Attachment A for Firm Point-to-Point Transmission Service or Attachment F for Firm Network Integration Transmission Service. The Transmission Customer shall agree to take and pay for the Transmission Service in accordance with the provisions of: (i) Parts I, II and V of the Tariff for Firm Point-to-Point Transmission Service; and (ii) Parts I, III and V of the Tariff for Firm Network Integration Transmission Service. The Transmission Customer shall have thirty (30) days to execute the Service Agreement or request the filing of an unexecuted Service Agreement. If the Transmission Customer does not execute the Service Agreement or request the filing of an unexecuted Service Agreement within thirty (30) days, the request will no longer be a Completed Application and shall be deemed terminated and withdrawn.

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, unless there is a redispatch option. The Transmission Provider will provide the top 100 redispatch pairs, if available. This redispatch option will be used to allow the Transmission Customer to begin transmission service based on the original requested start date. The Transmission Customer shall notify the Transmission Provider of the preferred start date of the service. Redispatch services shall be provided in accordance with Attachment K of the Tariff. The date the required upgrade is expected to be in-service, 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~~~~commercial operation date~~ of a facility upgrade (~~COD~~) or begins before the ~~Commitment Date~~~~COD~~ of a facility and extends past the ~~Commitment Date~~~~COD~~. If an upgrade is first required during a season after completion of service, no cost would be assigned to the customer. ~~With regard to the cost allocation, SPP shall review all upgrades and determine the earliest date that each upgrade is required. This date is considered the COD for each upgrade.~~ All requests that have a positive impact on the upgrade and for which the service has not been completed prior to the ~~Commitment Date~~~~COD~~ 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 (~~End of Term: EOT~~), shall define the amortization period for the facility.

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~~COD~~ 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.

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. ~~Requested Upgrades~~—Cost Recovery**

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<sup>5</sup>; 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<sup>5</sup>; 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. Transmission Customers paying the above charges may receive credits in accordance with Attachment Z2Section VI.B.

**~~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.~~

**CB. Requested Network 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~~Section VII~~. 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. Transmission Customers paying the above charges may receive credits in accordance with Attachment Z2~~Section VI.D.~~

~~**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.~~

REVENUE CREDITS AND PAYMENTS FROM ROLLING COSTS INTO  
TRANSMISSION ACCESS CHARGES TO COMPENSATE TRANSMISSION  
CUSTOMERS AND PROJECT SPONSORS FOR DIRECTLY ASSIGNED NETWORK  
UPGRADE COSTS

I. INTRODUCTION

This attachment details transmission revenue credits and payments for rolling in costs for Directly Assigned Network Upgrade Costs (“DANUC”). Requested Upgrades with DANUC that have an associated transmission service request as well as Requested Upgrades with DANUC that do not have an associated transmission service request are included for purposes of transmission revenue credits or rolling costs into transmission access charges in this Attachment Z2.

II. ELIGIBILITY FOR TRANSMISSION REVENUE CREDITS AND PAYMENTS  
RELATED TO THE ROLL IN OF COST INTO GENERALLY APPLICABLE  
TRANSMISSION ACCESS CHARGES

The Transmission Customer or Project Sponsor may recover DANUC either through transmission revenue credits or payments related to the roll in of cost into generally applicable transmission access charges.

- a. New transmission service, granted subsequent to establishing the need for the Network Upgrade with DANUC, which uses the Network Upgrade with DANUC may result in payments to the Transmission Customer or Project Sponsor through revenue credits pursuant to Section III of this Attachment Z2.
- b. However, if the DANUC or a portion of the DANUC for the Network Upgrade are eligible to be rolled into generally applicable transmission access charges, the Transmission Customer or Project Sponsor would not be eligible for revenue credits from the portion of DANUC rolled into the generally applicable transmission access charges, but would instead receive payments pursuant to Section IV of this Attachment Z2.

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**1. For Transmission Customers Requesting Transmission Service**

Any Directly Assigned Transmission Upgrade Costs assigned to a Transmission Customer pursuant to Attachment J or Attachment Z1 in excess of the generally applicable transmission access charges for the associated transmission service shall qualify for recovery by the Transmission Customer from future transmission service either through revenue credits pursuant to Sections II.3 and III of this Attachment Z2 or through payments from the Transmission Provider through rolling costs into transmission access charges pursuant to Sections II.3 and IV of this Attachment Z2.

**2. For Project Sponsors Not Requesting Transmission Service**

Any Directly Assigned Network Upgrade Costs assigned to a Project Sponsor for a Requested Upgrade without an associated transmission service request shall qualify for recovery by the Project Sponsor from future transmission service either through revenue credits pursuant to Sections II.3 and III of this Attachment Z2 or through payments from the Transmission Provider through rolling costs into transmission access charges pursuant to Sections II.3 and IV of this Attachment Z2.

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**3. Duration of Revenue Crediting or Payments from Rolling Costs Into Transmission**

**Access Charges**

The transmission revenue credit provisions in Sections II.1 and II.2 or the payments from the Transmission Provider through rolling costs into transmission access charges provision in Section IV shall commence when the Transmission Customer or Project Sponsor gets billed by the Transmission Provider for the DANUC associated with the Network Upgrade and shall continue to the sooner of: the end of the Service Life of such Network Upgrade, even when the duration of the Transmission Customer's term of transmission service ends prior to the end of the Service Life of the Network 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). The possible recovery of transmission revenue credits or payments from the Transmission Provider through rolling costs into transmission access charges shall be terminated at the end of the Service Life of the Network Upgrade, even if the Transmission Customer or Project Sponsor has not been fully compensated.

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**VIII. RevenueService Crediting for Directly Assigned Network Upgrade Costs**

Transmission Customers and Project Sponsors paying for ~~a DANUC~~Directly Assigned Network Upgrade shall receive credits for new transmission service using the facility as specified in Section II to this Attachment Z2~~VI~~. The ~~credit~~amount of the revenue credit 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 Attachment Z2. The provisions of this Attachment Z2 are applicable to Transmission Owners subject to the provisions of Section 39.1 of this Tariff.<sup>1</sup> ~~credit due is zero.~~

1. New Point-To-Point Transmission Service: Revenues from new point-to-point service that increases loading on the ~~new~~Network Upgrade with DANUC in the direction of the initial overload will be ~~applied~~included for revenue crediting purposes for the portion of the Network Upgrade with DANUC not included in the generally applicable transmission access charges. For each new point-to-point reservation having such loading impact on such Network Upgrade with DANUC, 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 or extending beyond the date<sup>2</sup> the facility upgrade is completed (~~EOC date~~), the Transmission Customer or Project Sponsor~~customer~~ shall receive a portion of the transmission service charge equal to the positive response factor of such new reservation on the Network Upgrade with DANUC~~facility~~ times the new reservation capacity times the generally applicable transmission access rates~~rate applicable to such new reservation~~. ~~The response factor shall be calculated on a monthly basis.~~ This allocation from new service shall continue until the Transmission Customer or Project Sponsor has been ~~fully~~ compensated pursuant to Section II of Attachment Z2~~for all charges paid in excess of the normally applicable transmission access charges pursuant to Schedules 7, 8 or 9 and 11.~~<sup>3</sup>

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<sup>1</sup> Note: From 02-10-06 Compliance Filing with FERC's 01-11-06 Order on Compliance Filing.

<sup>2</sup> Note: From 02-10-06 Compliance Filing with FERC's 01-11-06 Order on Compliance Filing.

<sup>3</sup> Note: Need to address credits from new short-term reservations as well as from new long-term reservations.

2. New Network Transmission Service: Credits will be provided for Long-Term Network Transmission Service using the Network Upgrade with DANUC 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 for the portion of the Network Upgrade with DANUC not included in the generally applicable transmission access charges. Credits shall be determined based upon the subsequent incremental use of the Network Upgrade with DANUC for such new or increased Network Load or Network Resource.

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a. When Directly Assigned Network Upgrade Costs Are Assigned to Transmission Customers

For use of a Network Upgrade that was built pursuant to a request for transmission service and for which there are DANUC, ~~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 of the Network Upgrade with DANUC 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. 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.

Such credits shall be given to all previously identified incremental Network Service and Long-Term Firm Point-To-Point uses, 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 with DANUC for which they are responsible, net of any credits previously applied.

b. When Directly Assigned Network Upgrade Costs Are Assigned to Project Sponsors With No Accompanying Transmission Service Request

For use of a Network Upgrade that was built pursuant to a request from a Project Sponsor with no accompanying transmission service request and for which there are DANUC, the annual credit amount to be billed and paid monthly by a Network Customer for each such new or increased use of the Network Upgrade with DANUC 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 capacity of the Network Upgrade. The incremental use assigned to the Project Sponsor shall be the capacity of the Network Upgrade with DANUC minus all currently and previously identified incremental Network Service and Long-Term Firm Point-To-Point uses. The cost of such credit amount shall be paid by the Network Customer making such new or increased use of the Network Upgrade in addition to all other applicable charges under this Tariff.<sup>4</sup>

3. Power Controlling Devices:<sup>5</sup> 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

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<sup>4</sup> Note: Unlike when a Network Upgrade is required to provide transmission service (III.2.a.), when a Network Upgrade is requested by a Project Sponsor (III.2.b.), credits are not given to incremental Network Service uses that resulted in the obligation to pay credits.

<sup>5</sup> Note: Need to clarify this section of Attachment Z2 and make consistent with any changes that we make to the point-to-point service section (III.1) and network service section (III.2).

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 [transmission access charges](#)~~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 [transmission access charges](#)~~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, 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 [with DANUC](#) 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.<sup>6</sup>

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<sup>6</sup> Note: Need to clarify “other transmission funding obligations”.



**IV.H. Future Roll-In of Directly Assigned Network Upgrade Costs**

When a facility upgrade being paid for pursuant to the provisions of this Attachment Z is rolled into the revenue requirements used for the development of generally applicable transmission service rates, the Transmission Owner that constructed the facility upgrade shall pay the remaining balance of each customer's unrecovered payments described in Sections VI.B and VI.D that are applicable to that facility upgrade. All customers who have upgraded facilities and have remaining balances subject to cost recovery pursuant to Section VI of this Attachment Z, shall be paid in full. The customer shall continue to pay the charges specified in the customer's transmission service agreement for the transmission service initially reserved.