



CAWG MEETING
Aug. 30, 2006
Hyatt Regency DFW
Dallas, TX
11:00 – 5:00 pm

AGENDA

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|--|---------------|
| 1. Introductions | 11:00 - 11:10 |
| 2. Benefit Metrics for Economic Upgrades
Discussions lead by Mike Proctor | 11:10 –12:00 |
| 3. Lunch Break | 12:00 – 12:45 |
| 4. White Paper Discussion for Presentation to RTWG
Discussions lead by Mike Proctor | 12:45 – 2:30 |
| 5. 15 minute break | 2:30 – 2:45 |
| 5. White Paper Discussion for Presentation to RTWG (cont.)
Discussions lead by Mike Proctor | 2:45 – 5:00 |

CAWG WHITE PAPER ON ATTACHMENT Z**I. Background**

Over the past year, the CAWG meetings have focused on Attachment Z from the perspective of what changes are needed to help promote investment in transmission upgrades that reduce congestion and result in lower cost, wholesale electricity supply to load-serving entities and ultimately to end-use consumers. For purposes of this white paper, transmission facilities built to reduce congestion and lower the cost of electricity supply are called “Economic Upgrades.”¹ The key component of Attachment Z is the ability of an entity that has been directly assigned the costs of a transmission upgrade (“Assignee” to the “Directly Assigned Network Upgrade”) to receive revenue credits from additional use of these upgraded transmission facilities. Moreover, because it can be difficult and very costly on a per unit basis to construct small additions to the transfer capability of the transmission system, Attachment Z was initially designed to allow transmission customers not needing all of the capacity of the Directly Assigned Network Upgrade to recover a portion of that cost² through revenue credits.

A. Relationship of Revenue Credits to Investment in Economic Upgrades

In making a decision concerning investment in transmission facilities to improve the cost of wholesale electricity supply, vertically integrated utilities would be comparing these costs to a stream of benefits they expect to receive from the expanded transmission capacity. These benefits could be in the form of either: 1) direct load benefits in the form of lower-cost purchases of power; or 2) direct generator benefits in the form of expanded sales of power. In the context of vertically integrated utilities, both of these forms of benefits would reduce the cost of electricity supply for end-users.

Attachment Z provides an additional stream of revenues to be added to the cost/benefit calculation – revenue credits from others using the capacity of the facilities provided by the Directly Assigned Network Upgrade. Having this additional stream of revenues available to the

¹ The CAWG recognizes that transmission upgrades that are built to meet reliability standards can also reduce congestion and lower electricity supply costs, but these upgrades are required irrespective of their economic benefit and are not called “economic upgrades.”

² The portion of cost eligible for recovery is the amount directly assigned to the transmission customer in excess of the stated SPP rate.

calculus of such decisions is critical to providing correct price signals and incentives for those considering investments in Economic Upgrades to the SPP transmission system..

B. Various Forms of Investment in Economic Upgrades

Economic Upgrades to the transmission system can be classified as associated with either short-term (hourly, daily, weekly or monthly), mid-term (yearly up to 5 years) or long-term (5 years or longer) transactions for electricity supply.

Five years is used as a separation between long-term and mid-term because contracts for power supply that are 5 years or longer are eligible for regional cost allocation for a new or changed designated resources to serve load. Even in the case of long-term contracts, if the cost of the upgrades needed to deliver power from a new or changed designated resource exceeds \$180,000/ MW, the excess would not be eligible for regional cost allocation and would be considered a form of investment in an Economic Upgrade and the Assignee would be eligible to receive revenue credits on that directly assigned cost.

To obtain transmission service for mid-term contracts, a transmission customer would either be subject to “or” pricing if the transmission service requested is point-to-point, or to “and” pricing if the transmission customer is a network service customer not wanting to take additional point-to-point transmission service from the generation source. In either case, if the transmission customer pays more than the SPP transmission rate, as the Assignee, the transmission customer would be eligible to receive revenue credits on that directly assigned cost.

The CAWG was concerned about how those making an investment in Economic Upgrades for purposes of short-term transactions would be able to protect that investment. At one of the CAWG meetings Robert Pennybaker from AEP West made a presentation regarding the flexibility a transmission customer taking long-term point-to-point transmission service would have under the SPP tariff.³ In essence, even when load-serving entities are evaluating electricity cost savings associated with short-term transactions, in order to protect their investments in transmission, they may want to reserve firm point-to-point transmission service for one-year or longer.⁴

³ That presentation is included as an attachment to this white paper.

⁴ Under proposed Order 888 reform, the FERC is requiring at least a 5 year reservation in order to be eligible for roll-over rights. If this change is implemented, it may be necessary to protect an investment in an economic

The CAWG also recognizes that investors in Economic Upgrades may not want to explicitly take point-to-point transmission service, but instead may simply want to sponsor the upgrade and allow the SPP Energy Imbalance Market to provide the benefits through lower load costs or higher generation sales.

C. Structure of the Attachment Z White Paper

The remainder of this white paper is divided into two sections: Section II - Recommendation of the CAWG for changes to Attachment Z; and Section III - Unresolved Issues related to Attachment Z. In the recommendation Section II, a brief explanation of the reason for the recommendation will be presented. In the issues Section III, details of discussion related to both sides of the issue are presented.

II. Recommendations of the CAWG for Changes to Attachment Z

A. Project Sponsors – Not Taking Transmission Service From the Directly Assigned Network Upgrade.

Project Sponsors are defined as those entities that request transmission upgrades be built, are willing to have the costs of the transmission upgrades directly assigned to them, but do not request transmission service to be taken from the Directly Assigned Network Upgrade. Introducing the concept of a Project Sponsor not taking transmission service from the Directly Assigned Network Upgrade requires some changes to be made to Attachment Z as it was originally drafted to provide an aggregate study process and revenue credits for transmission customers being directly assigned upgrade costs when such upgrades are needed in order to grant their requests for transmission service.

1. Should Project Sponsors that have not requested transmission service be allowed to request and be directly assigned the costs of network upgrades? **CAWG**

Recommendation: YES. This implies that Attachment Z should be divided into two distinct parts:

Part I: Aggregated Study Process for Transmission Service Requests.

Part II: Revenue Credits from Subsequent Transmission Use of a Directly Assigned Network Upgrade for Assignees (both Transmission Customers and Project Sponsors)..

upgrade designed for short-term electricity supply cost savings for the transmission customer to request a 5-year reservation for point-to-point transmission service.

2. Do any changes need to be made to Attachment Z regarding the aggregate study process? **CAWG Recommendation: YES**, there are several problems with the current aggregate study process that are listed below. Possible solutions to these problems are presented in Section III.
 - a. The current version of Attachment Z only refers to requests for transmission service. This would exclude Project Sponsors that are not requesting transmission service from participation in the aggregate study process as a way to determine whether or not there are transmission service requests that would benefit from the upgrade and thereby share in the cost of the upgrade.
 - b. A concern was express about speculative projects being submitted into the aggregate study process by project sponsors. Whether speculative projects are submitted in the form of transmission service requests or by Project Sponsors, the CAWG recognizes that such requests tend to bog down aggregate study process and there appears to be a need for a separate process for evaluating speculative or competing projects, e.g., transmission right for bids from competing resources.
 - c. The aggregate study process has required a significantly long time to reach a conclusion as restudy is required every time an additional transmission service request decides not to go forward.
3. Should the direction of the impact of subsequent requests for transmission service matter in determining the eligibility for revenue credits? **CAWG Recommendation: YES.**
 - a. If the original request is from a transmission customer, then the impact must be in the same direction as the original request for transmission service.
 - b. If the original request is from a Project Sponsor not taking transmission service with the upgrade, then the Project Sponsor should be required to specify the direction in which the upgrade is intended to increase the transfer capability of the transmission system.
 - c. This recommendation does not apply to the category 3 power devises.
4. Should Project Sponsors that are not requesting transmission service for the use of the Directly Assigned Network Upgrade be allowed to subsequently request transmission service and receive revenue credits? **CAWG Recommendation: YES**, this should be a viable alternative.
 - a. Short-term PTP transmission service can be used by the Project Sponsor for bilateral transactions that use the Directly Assigned Network Upgrade.
 - b. Long-term PTP transmission service can also be requested by the Project Sponsor at a subsequent time that uses the Directly Assigned Network Upgrade.
 - c. A Project Sponsor that is a NITS customer may subsequently request a new DNR that uses the Directly Assigned Network Upgrade.

5. Should Project Sponsors not taking transmission service with the Directly Assigned Network Upgrade be allowed to make a lump sum payment to the TO for the Network Upgrade? **CAWG Recommendation: YES**, however, the SPP should offer a standard payment such as revenue requirements over the asset life, and any alternative payment method should be a contractual arrangement negotiated between the Project Sponsor and the TO. **Issue – Gene Anderson also wants a standard for the lump sum payment (see next section).**
6. Should there be a limit on the revenue credits for which the Project Sponsor is eligible? **CAWG Recommendation: YES**
 - a. The current form of Attachment Z limits revenue credits to payments that exceed the standard rates for transmission service. When a limit is placed on the amount of revenue credits received, the tariff must also allow for accumulation of the difference between that limit and revenue credits actually received, including interest. If this occurs, it must be clear that this accumulated amount is still a limit, not an amount due to the project sponsor at the end of some period of time.
 - b. The tariff should also include a limit on the time over which revenue credits can be received. This length of this period of time is an issue discussed in the next section. **Charles Locke – 30 year time period / Gene Anderson – service life.**

B. Subsequent Transmission Use of Directly Assigned Network Upgrades in the Form of Requests for New or Changed Designated Resources.

1. Should subsequent transmission requests for new or changed Designated Resources (DRs) that qualify for Base Plan Funding under Attachment J and that impact/use Directly Assigned Network Upgrades provide some form of payment such as revenue credits to the Project Sponsors? **CAWG Recommendation: YES.** Transmission requests that qualify for Base Plan Funding include both:
 - a) NITS requests for new or changed DNRs; and
 - b) PTP requests for new DRs.
2. For purposes of Attachment J determinations, what costs from Directly Assigned Network Upgrades should be included as attributable to subsequent requests for new or changed DRs? **CAWG Recommendation:** The costs from Directly Assigned Network Upgrades that should be attributable to subsequent requests for DRs should include:

(a) * (b)

- a. The original cost of the Directly Assigned Network Upgrades minus straight-line depreciation over the period of time that these upgrades were in service. The CAWG recommends using straight-line depreciation as the request for a new or changed DR may occur several years after the date at which the Directly Assigned Network Upgrade is made, and there needs to be some mechanism to account for the age of the facilities in order that subsequent users are not overcharged for their use of older facilities. Straight-line depreciation is the most straight-forward method, and does not front load depreciation costs as would be the case for depreciation associated with levelized fixed charge rates.
 - b. The MW impact of the new or changed DR in the direction of the increased transfer capacity associated with the Directly Assigned Network Upgrade as a percent of either (see Appendix A for examples of these calculations):
 - (1) The incremental MW transfer capacity created by the upgrade in the direction of the increased transfer capability associated with the Directly Assigned Network Upgrade; or
 - (2) The sum of incremental MW impacts on the upgrade in the direction of the increased transfer capability associated with the Directly Assigned Network Upgrade from subsequent transmission service.
3. Under what circumstances should the denominator in the determination of the percent MW impact of a new or changed DR be determined as: (1) incremental MW transfer capacity; versus (2) incremental MW impacts from subsequent transmission service?

CAWG Recommendation:

- a. If the Directly Assigned Network Upgrade cost are assigned to a Project Sponsor that does not involve a transmission service request, then the denominator used in the determination of the percent of MW impact should be the incremental MW transfer capacity created in the direction of the increased transfer capability associated with the Directly Assigned Network Upgrade; and
- b. If the Directly Assigned Network Upgrade cost go to a Transmission Customer and involve a transmission service request, then the denominator used in the determination of the percent of MW impact should be the sum of incremental MW impacts in the direction of the increased transfer capability associated with the Directly Assigned Network Upgrade from subsequent transmission service.

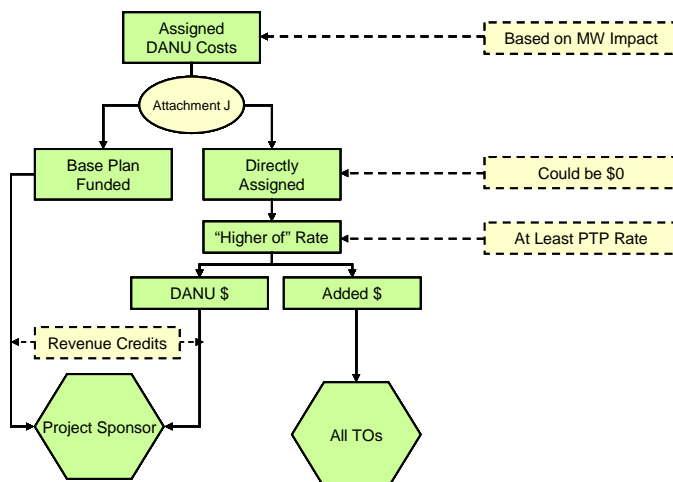
The current Attachment Z uses (a) for all subsequent point-to-point use of the Directly Assigned Network Upgrade and (b) for all subsequent network service use. However, the distinction should not be based on whether subsequent use is for point-to-point or network service use, rather the distinction should be based on whether or not the original entity being directly assigned the costs of the network upgrade is taking transmission service from the Directly Assigned Network Upgrade or not. If the original entity did not take transmission service, then it is impossible for the percent impact to be based on a share of the total incremental MW impacts from

transmission service being taken from the upgrade as the Project Sponsor is not taking any transmission service and would have a zero impact. Using the incremental MW transfer capacity created by the upgrade is an alternative calculation that gives the same result as incremental MW impacts from transmission service sold when the total quantity of incremental MW impacts from transmission service sold are equal to the transfer capacity created by the transmission upgrade. The primary reason for using percent of MW impacts from transmission service sold is to put all subsequent transmission service use of the upgrade on an equal basis with prior transmission service uses of that same upgrade. This will help to encourage potential co-sponsors not to wait until after the upgrade is completed to request desired transmission service in hopes of obtaining such service at a lower cost than if they had co-sponsored the upgrade.

4. Should the costs from Directly Assigned Network Upgrades attributable to new or changed DRs be subject to the safe-harbor provision of Attachment J? **CAWG Recommendation: YES.**
 - a. The \$180,000/MW cap should apply to all requests for new or changed DRs.
 - b. The cost from already constructed Directly Assigned Network Upgrades should be included along with the costs of any additional upgrades needed to grant this transmission service.
 - c. If the \$180,000/MW cap is exceeded and a waiver is not granted, then the amount of the excess should be distributed in proportion to the costs of each project assigned to the DR request, including both Directly Assigned Network Upgrades and any new upgrades required.
5. Should “higher of” pricing apply to subsequent requests for a new or changed DR through PTP service? **CAWG Recommendation: YES.**
 - a. Applying Attachment J determines the amount of cost going into Base Plan Funding and the amount of costs (if any) that would be directly assignable to the TC for PTP service..
 - b. Any cost directly assignable to the PTP TC would then be compared to the tariffed rate for PTP service by applying usual “or” pricing procedures.
 - Customer will always pay at least the PTP rate.
 - If costs (above those included in Base Plan funding) are lower than the PTP rate, then the TC pays the PTP rate.
 - If costs (above those included in Base Plan funding) are higher than the PTP rate, then the TC pays the PTP rate plus an excess above that rate.

6. What are the dollar flows related to subsequent DR through PTP service using a Directly Assigned Network Upgrade? **CAWG Response:** See Appendix B for examples of all the possibilities listed below.
- Project Sponsors/Transmission Customer (“PJ/TC”) continues to pay for the cost of the Directly Assigned Network Upgrade.
 - Depreciated Cost of Directly Assigned Network Upgrades is assigned to subsequent PTP TC based on MW impacts.
 - Revenues from subsequent PTP DR Service
 - Rates via Base Plan Funding for Directly Assigned Network Upgrades go to SPP and are distributed to PS/TC. If Base Plan Funding covers all the costs, then the PS/TC is not entitled to any additional revenue credits from the subsequent transmission customer. The subsequent transmission customer pays the PTP rate and the revenues are distributed to transmission owners.
 - If Base Plan Funding does not cover all the upgrade costs, then the subsequent transmission customer is directly assigned whatever costs are not covered, and the PTP “higher of” rate applies.
 - If the “higher of” rate is the PTP rate, then that portion of the PTP rate that covers transmission upgrade costs will be paid back to PS/TC’s share of upgrade costs not covered by Base Plan Funding. The remaining revenues are distributed to transmission owners.
 - If the “higher of” rate is above the PTP rate, then all of the “higher of” rate is applied to cover transmission upgrade costs which include the PS/TC’s share of upgrade costs not covered by Base Plan Funding. There are no remaining revenues to distribute to transmission owners.

Diagram of Dollar Flows for New or Changed DR Through PTP Service



7. Can a DNR request by a NITS customer result in a form of “and” pricing? **CAWG**

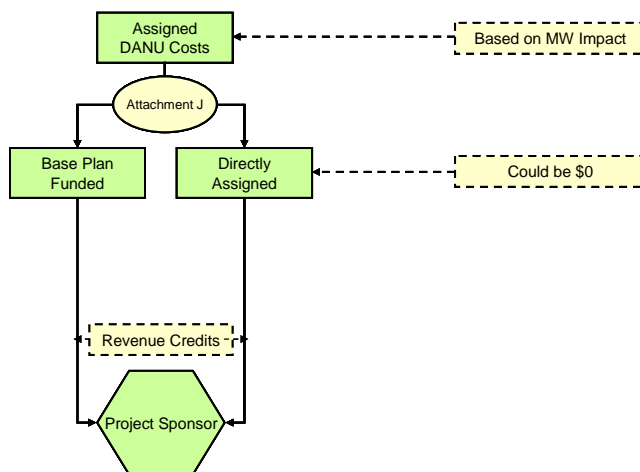
Recommendation: YES.

- When the assigned costs of the upgrades exceed the safe harbor limit of \$180,000/MW a portion of the assigned costs of the upgrade above \$180,000/MW are directly assigned to the NITS customer.
- For Base Plan funding, the DNR request must exceed 5 years and total capacity cannot exceed 125% of forecasted peak demand. Otherwise, the NITS customer must either receive a waiver or pay for the entire upgrade.

8. What are the dollar flows related to subsequent DNR through NITS service using a Directly Assigned Network Upgrade? **CAWG Response:** See Appendix B for examples of all the possibilities listed below.

- PS/TC continues to pay TO for the cost of the Directly Assigned Network Upgrade.
- Cost of Directly Assigned Network Upgrades are assigned to subsequent NITS customer based on MW impacts.
- Revenues from subsequent NITS DNR Service:
 - Rate via Base Plan Funding for Directly Assigned Network Upgrades go to SPP and are distributed to PS/TC.
 - Any Excess above Base Plan Funding paid by NITS customer also goes to PS/TC.

Diagram of Dollar Flows for New or Changed DNR through NITS



C. Subsequent Transmission Use of Directly Assigned Network Upgrades by New or Changed System Load.

In the previous section subsequent use of Directly Assigned Network Upgrades associated with new or changed Designated Resources was discussed separately from other uses because

these subsequent transmission requests are eligible for Base Plan Funding which provides a source of revenues to pay the revenue credits. In addition, there are reliability upgrades included in the SPP transmission plan that are eligible for either Base Plan Funding or to be included in the transmission owner's zonal rate. These upgrades are associated with reliably meeting system load with approved designated resources. Since upgrades needed to support approved new or changed designated resources are already taken into account through the transmission request process, the purpose of the SPP transmission plan is to ensure that the transmission system can continue to provide reliable transmission service to system load. In this context, new or changed system load refers to situations where load growth has occurred differently than expected and additional upgrades are needed to meet ERO and SPP reliability criteria. In addition, Transmission Owners may have planning standards more stringent than SPP criteria, in which case upgrades may be required from new or changed load that results in associated costs being rolled into the transmission owner's zonal rate.

1. Should Directly Assigned Network Upgrades that displace reliability upgrades that would otherwise be needed result in reduced costs for the Project Sponsors/ Transmission Customers ("PSs/TCs)? **CAWG Recommendation: YES**, to the extent that the reliability upgrades appear in the SPP Board approved plan at the time that the Project Sponsors submit their request for the Directly Assigned Network Upgrades. The cost of these reliability upgrades should be removed from the costs assigned to the Project Sponsor.
2. Should subsequent use of Directly Assigned Network Upgrades by "New Load" of a Transmission Customer result in revenue credits to PSs/TCs? **CAWG Recommendation: YES.** It appears from the FERC Order on Attachment Z that if "New Load" associated with NITS impacts the Directly Assigned Network Upgrade, the PS/TC should receive revenue credits.
 - a. Clearly the addition of a large, new load would qualify, but there is no designated/arbitrary megawatt floor in the tariff.
 - b. In addition, it would appear that it shouldn't make any difference whether there is only one customer or multiple customers that account for the new load.
 - c. In addition, it would appear that it shouldn't make any difference whether the new load comes from existing customers or new customers.

D. Subsequent Transmission Use of Directly Assigned Network Upgrades by New Point-To-Point Transmission Service Other Than New or Changed Designated Resource.

The previous two sections dealt with subsequent use of Directly Assigned Network Upgrades associated with transmission requests for serving native load (i.e., new or changed designated resources of new or changed loads). In addition to these requests for transmission service to serve load from designated resources, there may be requests for point-to-point transmission service not related directly to serving load from designated resources. For purposes of this portion of the white paper, these subsequent requests for point-to-point transmission service are separated between short-term (less than one year) and long-term (more than one year).

Short-term requests for point-to-point transmission service are simply accepted or rejected by the SPP based on available transmission capability. There is no question of upgrades to meet these requests. This is not true of requests for long-term, point-to-point transmission service, where the length of term may require an upgrade in order to meet the request. It appears that upgrades could also be required for mid-term (over 1 year, but less than 5 years) requests for point-to-point transmission service even if the FERC implements the recommendation to limit roll-over rights to requests of 5 years or greater. At this time, it does not appear that limiting roll-over rights to requests involving more than 5 years would impact the following CAWG recommendations.

1. Should subsequent short-term PTP requests for transmission that impact Directly Assigned Network Upgrades provide revenue credits to the entities that have been directly assigned these costs? **CAWG Recommendation: YES.**
 - Must impact the Directly Assigned Network Upgrades involved in the same direction as the initial overload.
 - The basis for such revenue credits should be the same as is included in the existing Attachment Z = (MW impact)*(Applicable PTP rate)
 - MW Impact = (% Distribution Factor)*(MW Transmission Service)
 - PTP rate = the applicable rate paid by the subsequent TC.
2. Should subsequent long-term PTP requests for transmission that impact Directly Assigned Network Upgrades provide revenue credits to the entities that have been directly assigned these costs? **CAWG Recommendation: YES.**
 - Must impact the Directly Assigned Network Upgrades involved in the same direction as the initial overload.

E. Revenue Credit Streams Versus Lump-Sum Credits

1. Should the SPP consider a lump-sum credit to the Project Sponsor in lieu of revenue credits when a portion of the revenue credits are coming from Base Plan Funding?

CAWG Recommendations: Based on the following situations.

NO when:

- a. Project Sponsor is making payments for the Directly Assigned Network Upgrade using the SPP standard payment over the asset life (e.g., 30 years). A new DNR is approved and a portion of the cost of the Directly Assigned Network Upgrade is Base Plan Funded. The dollar flows for the revenue credit case are:
 - Project Sponsor pays SPP monthly payment for Directly Assigned Network Upgrade costs. SPP transfers payment to Transmission Owner.
 - SPP bills appropriate transmission customers for rates associated with new DNR. A portion of the revenues collected go to Project Sponsor.
 - In net, SPP credits the Project Sponsor's bill for revenues thereby reducing the Project Sponsor's net payment. SPP makes up the difference to the Transmission Owner from revenues received in rates for new DNR.

In effect, the Project Sponsor has received a lump-sum reduction to what is owed the SPP. But, this is different from receiving a lump-sum credit that would involve a one-time cash payment from SPP to the Project Sponsor.
- b. The Network Transmission customer funds the Directly Assigned Network Upgrade when requesting a new DNR that exceeds the safe harbor limit of \$180,000 per MW. The payment for the excess over the safe-harbor limit is made over the SPP standard payment period (e.g., 30 years). A new DNR is approved and a portion of the cost of the Directly Assigned Network Upgrade is Base Plan Funded. The dollar flows for the revenue credit case are identical to the previous example.

YES, when:

- a. The Project Sponsor funds the Directly Assigned Network Upgrade by paying the Transmission Owner the cost of the upgrade upfront. A new DNR is approved and a portion of the cost of the Directly Assigned Network Upgrade is Base Plan Funded. The dollar flows for the revenue credit case are:
 - Project Sponsor pays SPP a monthly fee for maintenance of the Directly Assigned Network Upgrade. SPP transfer payment to the Transmission Owner.
 - SPP bills appropriate transmission customers for rates associated with new DNR. A portion of the revenues collected go to Project Sponsor.
 - In net, SPP credits the Project Sponsor's bill for the revenues, thereby resulting in a net cash payment to the Project Sponsor. SPP makes up the difference to the Transmission Owner from revenues received in rates for the new DNR.

Alternatively, the SPP goes to the Transmission Owner and collects a lump-sum amount for portion of the Directly Assigned Network Upgrade that is included in Base Plan Funding.

- SPP transfers this lump sum payment to the Project Sponsor and the amount of revenue credits for which the Project Sponsor is eligible is reduced.
 - SPP bills appropriate transmission customers for rates associated with new
 - Transmission Owner receives revenues from SPP for lump-sum payment.
 - The Project Sponsor continues to make monthly payments for maintenance.
- b. The Transmission Customer funds the Directly Assigned Network Upgrade by paying the Transmission Owner the cost of the upgrade through “higher of” pricing over the term of the transmission service contract. A new DNR is approved and a portion of the cost of the Directly Assigned Network Upgrade is Base Plan Funded.
- 1) If the term of the transmission service contract is completed and the TC is no longer taking transmission service, the dollar flows are the same as in the previous case except that if the TC is no longer taking transmission service, there are no maintenance fees.
 - 2) If the initial term of the transmission service contract is completed, but the TC continues to take transmission service, the dollar flows are as follows:
 - The customer pays the PTP rate and receives back in revenue credits a portion of the rate based on the MW impact on the Directly Assigned Network Facilities. The remaining revenues are distributed among TOs.
 - SPP bills appropriate transmission customers for rates associated with new DNR. A portion of the revenues collected go as a credit to the Transmission Customer who has funded the Directly Assigned Network Upgrade.
 - The sum of revenue credits received by the Transmission Customer may or may not exceed the PTP rate.

Alternatively, the SPP goes to the Transmission Owner and collects a lump-sum amount for portion of the Directly Assigned Network Upgrade that is included in Base Plan Funding.

 - SPP transfers this lump sum payment to the Transmission Customer and the amount of revenue credits for which the Project Sponsor is eligible is reduced.
 - SPP bills appropriate transmission customers for rates associated with new
 - Transmission Owner receives revenues from SPP for lump-sum payment.
 - The Project Sponsor continues to make monthly payments for the PTP rate net of the revenue credits from the impact on the Directly Assigned Network Upgrade.
 - 3) If the initial term of the transmission service contract is not yet completed, the TC continues to take transmission service, and the dollar flows are the same as above without any revenue credits being received from the Transmission Customer’s own impact on the Directly Assigned Network Upgrade.

III. Unresolved Issues Related to Attachment Z

A. Project Sponsors – Not Taking Transmission Service With the Upgrade.

1. Proposals for allowing Project Sponsors to benefit from the Aggregate Study process.

- a. Allow Project Sponsors to submit upgrades to which they are already fully committed into the aggregate study process at any time prior to the in service date of the upgrade.

Any transmission service request granted that requires the Project Sponsor's upgrade to be in place would share in the cost of the upgrade.

b. Any alternatives?

2. Proposals for evaluation of speculative or competing alternative transmission upgrade projects.

a. The SPP should have a process separate from the aggregate study process that provides estimates of transmission upgrade costs for speculative or competing alternative transmission upgrade projects where it is understood that these estimates do not include any cost sharing possible from the aggregate study process.

b. Any alternatives?

3. Proposals for cutting down on the time required to finish the Aggregate Study Process.

a. Only allow a fixed number of iterations (probably 6 – 120 days) by making anyone signing up for the last iteration to pre-commit to the project. This would require SPP providing information on worst case scenarios to those included in the second to last iteration prior to their making a commitment to participate in the last iteration.

b. Any alternatives

4. Along with a standard payment of revenue requirements over the asset life, should SPP also have a standard lump sum payment option, or should this be left as a contractual arrangement between the Project Sponsor and the Transmission Owner?

YES

Gene Anderson write up insert here.

NO

However, depending on how narrowly a lump-sum standard payment option is defined, there may be no objection to its inclusion. What follows are some thoughts about various things that need not be included in a lump-sum standard payment option.

- If by a standard lump-sum payment option is meant a determination of such terms as how many payments and when the payments are due, this should be left as a contractual arrangement between the parties. It would appear that having a single payment due at the time the project is in service would be the default standard, but variations could occur that involve interest payments. SPP should not be in the business of setting interest rates.
- If a standard lump-sum payment option is meant to address issues such as interest on funds used during construction, such issues would be addressed in the standard payment of revenue requirements over the asset life.

5. Should eligibility to receive revenue credits be for a fixed period (and if so, how many years), or should eligibility to receive revenue credits be for the service life of the asset?

a. Fixed Period – 30 Years

The definition of "service life" in the draft Attachment Z2 reads as follows: "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." This definition adopts an accounting life concept, in contrast with

other types of service life such as the actual physical life, an engineering projection of physical life, and the tax life used for accelerated depreciation. Whereas accounting life and tax life both play major roles in determining standard revenue requirements, the physical life determines the period over which the facility is available to create revenue credits.

One advantage of using the accounting service life of a project to determine the maximum crediting period is that it gives the appearance of matching the potential credits with the period of time over which the transmission owner receives a return on the facility that is funded by the project sponsor or transmission customer. However, these time periods may not match in any event since the amortization period for revenue requirements purposes can be shorter than the accounting service life. In addition, there are other issues related to the service life that must be resolved if it is to be used as the basis for defining the period in which credits are applied.

Most upgrade projects are likely to include equipment assigned to multiple FERC accounts, with each account having a different service life, a different net salvage value, and a different depreciation rate. In such cases, a determination has to be made as to which equipment component's service life is used to determine the crediting period, and no single value may be accurate for the upgrade project in aggregate.

The service life used for accounting purposes can vary among companies, among regulatory jurisdictions, and among rate case orders. Should the crediting period vary depending on the transmission owner that constructs the project? Should the crediting period change if a rate order modifies the service life and the accompanying depreciation rate?

Both physical life and accounting life can be shortened by natural events, accidents, and technical obsolescence. Presumably, the crediting period must be shortened if a facility is retired early. In addition, the physical life sometimes can be extended by maintenance activity, capital additions, or both. These factors potentially create more uncertainty regarding the determination of service life.

As mentioned above, a possible alternative to utilizing service life as the maximum crediting period is to use a standard limit such as 30 years for all requested upgrades. A standard time limit would resolve some of the above questions associated with service life and would be simpler to administer. In addition, a standard crediting period may result in greater equity as a consistent time limit is applied to all upgrade projects, all transmission owners, and all customers or project sponsors.

b. Service Life

Service life should be used for the period over which a project sponsor, whether taking transmission service or not, can receive revenue credits for the reasons below.

1. The project sponsor should receive revenue credits for all additional transmission service that could not be provided without the upgrade; therefore as long as the project is in service the project sponsor should be eligible to receive revenue credits.
2. The excess that the project sponsor will pay over and above the base rates will be based upon the revenue requirements of the upgrade which will represent a composite (dollar weighted) service life for the upgrade.

3. Transmission owners do not use the same depreciation rates and choosing a standard term for revenue credits would be inconsistent with how the excess which is eligible for revenue credits is initially determined.
4. If an upgrade is removed from service earlier than originally anticipated that upgrade is no longer available to provide revenue credits whether service life or some other term is chosen.

B. Subsequent Transmission Use of Directly Assigned Network Upgrades in the Form of Requests for New or Changed Designated Resources.

1. **In Attachment J, if a DNR request results in the load-serving entities reserve margin to exceed the 125% limit in the first few years after the resource comes on line, should the customer pay the charges for any upgrades during those years but then be eligible for Base Plan Funding at the time the load-serving entity's reserve margin falls below 125%?**

YES

The purpose of the 125% reserve margin limit on DRs is as an upper bound to prevent gaming with respect to an individual load-serving entity from in essence reserving significantly more transmission than is needed to serve its load. If the actual reserve margin falls below the 125% level after an initial period where that limit was exceeded, then the payments for the upgrades that were directly assigned to the transmission customer should now be Base Plan Funded through the cost allocation mechanism. Moreover, once the reserve levels fall below the 125% level, the issue of reserving significantly more transmission than is needed to serve load goes away.

NO – is there an alternative?

C. Subsequent Transmission Use of Directly Assigned Network Upgrades by New Network Load.

1. **Would it make sense to simply include revenue credits from Base Plan funded projects that would otherwise be needed “but for” the construction and availability of the Directly Assigned Network Upgrades?**

YES, this is a case where the “but for” condition makes sense, at least to the extent that this can be done in the SPP planning process.

- a. One way to do this is to exclude all Directly Assigned Network Upgrades from the SPP base case to identify criteria violations and needed upgrades.
- b. Then answer the question: which of the needed upgrades are displaced by existing Directly Assigned Network Upgrades.

NO. –is there an alternative?

D. Subsequent Transmission Use of Directly Assigned Network Upgrades by New Point-To-Point Transmission Service Other Than New or Changed Designated Resource.

1. Should the applicable PTP rate include “higher of” pricing via applicable cost from Directly Assigned Network Upgrades?

YES

- a. Should be the same as for a request for DR through a request for long-term PTP service that impacts a Directly Assigned Network Upgrade, and both should include an assigned portion of the costs in the calculation of the “higher of” price.
- b. A request for long-term PTP service may (and is likely to) require additional upgrades. If the Directly Assigned Network Upgrades are excluded from the “higher of” calculations, then a proper allocation of revenue credits to Project Sponsors will not result.

NO

- a. Discourages sales of PTP service and will result in lower revenues.
- b. Could potentially result in gaming by customers taking short-term rather than long-term PTP service.

E. Revenue Credit Streams Versus Lump-Sum Credits – this was left in the white paper in case there is not agreement on what was included in the previous section on this subject as a recommendation.