



**Southwest Power Pool, Inc.**

**TRANSMISSION EXPANSION  
COST ALLOCATION PROPOSAL  
BASE FUNDING PROPOSAL**

**October 26, 2004**



**Straw Proposal for Base Funded Upgrades**

The purpose of this short paper is to summarize the key elements of a proposal to allocate costs for base funded projects within SPP. This paper reflects the discussions of the CAWG members on September 16, 2004 and subsequent meetings with the CAWG and stakeholders.

**Key Elements of Proposal to Allocate Costs for Base Plan Upgrades**

The general consensus is that costs should be allocated using a regional/zonal approach. Given that context, the CAWG discussed proposals that consisted of the following elements:

1. Determine the regional allocation factor - X% of costs is allocated to SPP-wide regional postage stamp rate using a defined methodology.
2. Allocate remaining costs to zones – Allocate (100%-X) costs to zones using a defined methodology.
3. Flexibility for including future resources in base plan – this element addresses the question as to the flexibility accorded transmission customers to change their resources in the planning process so that any associated transmission upgrades qualify as a base funded project. This element consists of two components:
  - a. Commitments required for resources to be included in base plan – this element defines certain criteria that must be met in order for a resource to be included in the base plan and hence eligible for any associated upgrades costs to be base funded.
  - b. Limitations on requesting future resource requirements –
    - i. A concern was expressed as to how much capacity a transmission customer is permitted to reserve in relation to its historic requirements. One approach is to establish a hard cap (e.g., 125% of peak load). Another is to establish a reasonability check.
    - ii. Another concern was expressed regarding the potential for excessive costs that could be associated with designating a resource a long distance from the load. One approach is to limit location of network resource to be within a certain distance from the load. Another is to set a \$/MW cap on transmission investment.
4. Waivers – the CAWG recognized that there may be certain circumstances that would justify waiving certain provisions that would disqualify a proposed upgrade from being eligible for base funded upgrade status.

**Recommended Approach**

After weighing the different approaches, the CAWG has developed a recommended approach for allocating costs for base plan upgrades defined by the elements in the table below:

<b>Element</b>	<b>Recommended Approach</b>
<b>Regional allocation factor</b>	X = 33% meaning that 33% of the base plan upgrade costs will be included in an SPP region wide rate.
<b>Allocation of (100%-X) costs to zones</b>	Use the SPP incremental MW Mile approach to identify zones that benefit from the upgrade and allocate remaining costs of base plan upgrades to these zones.
<b>Conditions on including future designated network resources in base</b>	

<b>plan</b>	
a. Commitment required before upgrades associated with requests to change DNRs are eligible for base funding approach	5 years, meaning transmission customers would have to demonstrate a firm commitment to a resource for at least 5 years before any associated upgrade costs would be eligible to be included in base plan funding.
b. Maximum reserve margin	125% of peak load will be used as an initial limit. Requests that exceed this limit will be subject to a reasonability check by SPP before being approved and included in the base plan.
c. Safe harbor provision for associated network upgrade costs	\$180,000/MW <sup>1</sup> , meaning that if upgrade costs are less than this figure, they may be included in the base plan if they meet provisions a and b. If the upgrade costs exceed the safe harbor amount, the transmission customer must seek a waiver to have the additional costs eligible for base plan funding.
d. Safe harbor provision for zonal rate impact	[x%, specific figure TBD ], meaning that if the upgrade costs allocated to any zone do not increase the existing zonal rate for firm network transmission service by more than [x%], the upgrade may be included in the base plan and the costs shall be allocated to the zones via the SPP incremental MW mile approach. If the upgrade costs cause the zonal rate of any zone to increase by more than the safe harbor amount, the transmission customer requesting the DNR will be allocated the portion of the upgrade costs necessary to ensure the zonal rate(s) are not increased by more than x%. In determining the zonal rate impact, SPP shall exclude the portion of the upgrade costs allocated under the regional allocation factor. An example is discussed below.
<b>Waivers</b>	See amended Waivers section below.
<b>Review of the Regional Allocation Factor</b>	Review required at least once every 5 years. SPP Board may elect to review more frequently if conditions warrant.

**Safe Harbor Provision for Zonal Rate Impact**

This safe harbor provision sets a cap on the allowable impact a DNR-related upgrade may have on the zonal rates. To illustrate this provision, consider the following example.

<sup>1</sup> This figure was calculated as the average of the transmission investment throughout the region using each transmission owner’s annual revenue requirements and fixed charge rate. Hence, a transmission customer requesting to add or change a DNR for 100 MW of service would have a safe harbor limit of \$18M in transmission upgrade costs (\$180,000/MW \* 100 MW).

- Suppose a transmission customer requests a change to its DNRs and the change requires \$6M in upgrade costs. Assuming this upgrade was eligible for base plan funding, \$2M would be allocated to the SPP regional rate and \$4M would be allocated to the zones determined to benefit from the upgrade. Also, assume that the upgrade costs are less than the \$180,000/MW safe harbor limit provided for under item c.
- The SPP incremental MW mile analysis determines the following zonal benefits: Zone A – 50%; Zone B – 25%; Zone C – 25%. Hence, the maximum that would be allocated to these zones is: Zone A – \$2M; Zone B - \$1M; Zone C - \$1M.
- For purposes of this example, assume that the \$2M dollars allocated to Zone A would cause Zone A’s zonal rate to increase by more than the allowed x%. The \$1M allocated each to Zone B and Zone C does not increase the zonal rate beyond this limit.
- For Zone A, SPP determines that \$400,000 must be directly allocated to the requesting transmission customer in order to ensure Zone A’s rate does not increase by more than x%.

Under this example, the transmission customer requesting the DNR would be assigned the \$400,000. In addition, this customer would also pay its load ratio share of the upgrade costs rolled into the zonal rate. Other transmission customers within the zone would pay the zonal rate, which would now include their load ratio share of the \$1.6M in upgrade costs. Similarly, the customers within Zone B and Zone C would be pay their load ratio share of their respective zonal rates, adjusted as necessary to recover the additional costs allocated to them.

### Other Considerations

There were two other general areas that were discussed: waivers and review of the regional allocation factor.

### Waivers

The CAWG recognized that any plan must have sufficient flexibility built in to it so that it is both practical and doesn’t create any undesirable barriers to the competitive market place. During the meeting, the group discussed including the following waivers to the commitment period and limits on additional resources as part of any proposal:

1. Lack of competitive alternatives – it may be appropriate to approve a project as a base funded project if there are no competitive alternatives for (one or a group) of transmission customers.
2. Dollar magnitude – there may be a *de minimus* standard that is appropriate for small projects in terms of dollar amounts that provide significant value to the region.
3. Fuel diversity – to the extent a proposed project would benefit the region’s fuel diversity, it may be appropriate to allow certain upgrade costs to be eligible for base funding.
4. Upgrade costs in excess of safe harbor limit – to the extent a transmission customer’s request to change a designated resource has network upgrade costs that exceed the agreed safe harbor amount (i.e., \$180,000/MW), the customer may be required to demonstrate commitment beyond the minimum five-year commitment before such costs would be eligible for base plan funding.<sup>2</sup>

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<sup>2</sup> For example, a project that requires \$20M in upgrade costs for 100 MW of a requested designated network resource (i.e., \$200,000/MW) but has a ten-year commitment may qualify as a base funded project even though it exceeds the safe harbor limit of \$180,000/MW.

5. Commitment period waiver – it may be appropriate to grant a waiver for requests that do not meet the five-year commitment period if conditions such as the following are met:
  - a. Transmission upgrades associated with the request that are less than the \$180,000/MW safe harbor amount may justify flexibility in the minimum period commitment.<sup>3</sup>
  - b. Cost-benefit – facilities with a very short payback period<sup>4</sup> may be eligible for flexibility in the minimum period commitment.

### **Review of the Regional Allocation Factor**

The CAWG discussed the question as to how often the regional allocation factor (e.g., 33%) and the zonal allocation methodology (e.g., SPP MW-mile) should be reviewed and updated. The discussion focused primarily on whether the allocation factor and methodology should be: (1) updated on a regular basis (e.g., every planning cycle); (2) tied to the commitment level for the resources (e.g., the 3 year or five year term); or (3) fixed for a minimum period of time. The consensus position developed was that regional allocation factor should be reviewed at least once every 5 years. The SPP Board and RSC could review this more frequently if circumstances warranted. However, the SPP should review the reasonability of this factor under any circumstances at least once every five years.

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<sup>3</sup> For example, a project that costs \$8M in upgrades costs for 100 MW of a requested designated network resource (i.e., \$80,000/MW) and has only a three-year commitment may qualify as a based funded project even though it is below the five-year minimum to qualify as a designated network resource in the base plan.

<sup>4</sup> The payback period is the amount of time that is required for the economic benefits from upgrades associated with a designated network resource to cover the cost of the project. For example, if the payback period is 3 years or less, a project with a three-year commitment may qualify as a base funded project.