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# Transmission System Expansion Cost Allocation Alternatives for Renewable Resources

Cost Allocation Working Group  
March 26, 2008

**OG&E Ver 2 3/20/8**

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## Why

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- ◆ **The existing policy is seen as a deterring the promotion of wind generation in the SPP.**
- ◆ **The CAWG seeks change so the OATT is not an impediment to wind capacity in the SPP.**

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## **Basic Principles**

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- ◆ **Wind generation should be treated similar to any other generation in SPP.**
- ◆ **The SPP should remove the language in Attachment J that refers to the lesser of net dependable capacity or requested service, and simply refer to requested service.**

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## **Problems**

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- ◆ **Who bears the costs once borne by the requestor.**
- ◆ **TOs with significant additions of wind generation in their zone are understandably reluctant to bear that additional cost.**

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## Discussion (1)

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- ◆ **Most of the costs of upgrades in source zones will fall into one of two categories;**
  - the transmission from the project to the grid;
  - the grid.
- ◆ **Miscellaneous costs, which in general are not significant.**

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## Discussion (2)

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- ◆ **The project-to-grid costs are already borne by the generator.**
- ◆ **It is the grid costs that cause concern.**
- ◆ **The expensive transmission upgrades required by new service requests for wind will be 345kV or higher.**

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## **Proposed Solution**

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- ◆ **That we change the language in Attachment J as suggested;**
- ◆ **That we do not otherwise modify in any way the BPF language; and**
- ◆ **That we regionalize all new construction of transmission lines 300kV and above with a postage stamp allocation.**

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## **Solution Discussion (1)**

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- ◆ **If the expensive grid costs are regionalized, then source zones have little or no issue with the requirement to build transmission for requestors not in their zone.**
- ◆ **Zones will pick up their load ratio share of all 300kV and above costs**

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## **Solution Discussion (2)**

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- ◆ **Small zones with lots of wind generation will not bear large costs.**
- ◆ **Transmission at 300kV and above provides regional benefits.**
- ◆ **Postage stamp allocation spreads costs across the region.**
- ◆ **KISS in action!!!**

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## **Conclusion**

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- ◆ **This proposal has the benefit of:**
  - Treating all designated generation resources fairly and comparably – which is not true of today's policy.
  - Protecting the customers in pricing zones with new generation from potentially large costs for upgrades needed to transmit energy to other zones.
  - While still recognizing that the local transmission customers still derive a benefit from having new transmission facilities built in its zone via the regional allocation.

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# **Transmission System Expansion Cost Allocation Alternative To Deliver Renewable Designated Resources**

**Cost Allocation Working Group  
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## **Presenting Jurisdictional Utilities**

- ◆ **EDE, KCP&L, MWE, OGE, Sunflower, WR, XCEL**
- ◆ **Most endorsers are regulated by the following State Commissions and FERC:**
  - Arkansas
  - Kansas
  - Missouri
  - New Mexico
  - Oklahoma
  - Texas

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## Presentation Objectives

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- ◆ Present generally acceptable views regarding cost allocation of transmission system expansion/upgrades to support firm transmission delivery of renewable generation resources as designated network resources within the SPP footprint.
- ◆ Review issues and concepts raised by the CAWG and discussed by these jurisdictional utilities.
- ◆ Each utility may have a different view on specific provisions or solutions, however i) given the need for an immediate decision and ii) understanding that a more comprehensive review of the Base Plan Funding policy will occur in the future, the following concepts are submitted for consideration.

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## Background

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- ◆ At the CAWG meeting of February 27, 2008, members of the CAWG requested input from the Transmission Owners and Transmission Customers related to changes in the way the SPP OATT handles cost allocation for transmission service related to renewable resources, but especially Wind resources.
- ◆ Today, the SPP OATT handles the costs in the following manner:
  - Interconnection Costs: Are covered in the recently approved LGIA (Attachment V). All facility costs are directly assigned to the generator, however, those upgrades that are classified as Network Upgrades are eligible for credits pursuant to Attachment Z. There is no fixed time frame for the customer to be reimbursed.
  - For transmission service, the amount of the Network Upgrade costs eligible for Base Plan Funding is limited to: the lesser of a) the Accredited Capacity of the generator or b) the requested transmission service. For Wind generation, the Accredited Capacity is initially set at 10% of the name plate capacity, hence the majority of upgrades are directly assigned to the requestor.
  - The current tariff shifts a great deal of the costs to the transmission customer (or requestor), although the customer would be eligible for credits pursuant to Attachment Z of the SPP OATT. This methodology could be seen as a deterrent to the promotion of Wind Generation in the SPP. To help address this problem, the CAWG has been looking at several proposals and then asked for input from other segments of the SPP. The following are concepts from the jurisdictional Transmission Owners for changes in the Base Plan Funding (BPF) policy for designated resources under the SPP OATT.

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## Fundamental Beliefs & Guidelines

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- 1) High Voltage (345kV and above) upgrades are most likely to benefit Transmission Customers on a regional level than upgrades at the lower voltages – which are normally for local or zonal benefit. Therefore, there is some support to increase the current (1/3) regionalization cost allocation for upgrades related to transmission service requests for ALL designated resources within the SPP.
- 2) The long-term objective is for wind generation and all renewable generation to be treated comparably to other types of generation as far as allocation of the transmission service request costs. Short-term deviation from this principle is acceptable due to the urgency of addressing issues presented by the treatment of wind generation in the current cost allocation process.
- 3) The current policy in dealing with renewables should be improved upon in terms of calculating a Transmission Customer's initial Base Plan Funding eligibility based on the a) lesser of nameplate capacity or b) transmission service requested.

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## Fundamental Beliefs & Guidelines

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- 4) A revision to the current Base Plan Funding policy, as stated in Guideline #2, to provide for similar Base Plan Funding eligibility for renewable generation sources creates a new concern related to the non-host or sink zone allocations from the existing MW-Mile zonal allocation for the 2/3 Base Plan Funding component, especially when the supply zone does not sink/receive any of the renewable output as a Designated Resource.
- 5) The proposed revisions to the existing policy is limited to SPP designated resources which are renewable generation only and may need to be re-evaluated by the CAWG/RSC, as the development of federal and state policies related to the mandatory inclusion of renewable generation to supply energy to load in the SPP becomes more certain.
- 6) Since Wind Generation (as well as other renewable generation) is extremely sensitive to location, the pricing zone where the generator is located (supply zone) and "pass through" zones should receive some cost protection for the Transmission Customers in their zones, especially when all the load utilizing the output of the wind farm is outside the supply zone. Future consideration of similar protection for all non-supply zones should be addressed related to transmission service requests of ALL designated resources within the SPP. Page 6



## Fundamental Beliefs & Guidelines

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- 7) **Changes to the current Base Plan Funding procedures should be minimized at this time.** However, a future comprehensive review to address funding treatment for ALL designated resources would be appropriate.
  
- 8) Since a complete review of the Base Plan Funding policy will take additional time, it is possible to proceed, at this time, with a modified transmission cost allocation policy that only affects renewable resources.

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## Alternative Proposal Provisions

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- 1) **Revise Attachment J's Safe Harbor Limit for BPF from accredited capacity to the lesser of a) the request for transmission service or b) the amount of generation capacity the Transmission Customer has under contract.**
  
- 2) **Except for the host(sink) zone MW-Mile allocations related to the renewable transmission service request, the MW-Mile costs allocated to "all other" zones (including the supply zone) related to upgrade(s) to support the renewable request for transmission service, should be allocated accordingly:**
  - 1) 50% (1/2) to the region/postage stamp and
  - 2) 50% (1/2) directly assigned to the Transmission Customer or requestor
  
- 3) **The proposed Zonal MW-Mile re-allocation (Provision #2) does not apply to:**
  - i) allocations where the supply zone renewable resources and the host(sink) load are located in the same zone (supply=host or sink), and
  - ii) host(sink) zone allocations. All the standard BPF provisions (1/3 regional and 2/3 zonal MW-mile allocations) would apply.

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## **Alternative Proposal Provisions**

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- 4) Any direct assignments to the requestor of the costs above the Safe Harbor Limit and Zonal allocations from the MW-Mile analysis will be eligible for Attachment Z credits.
- 5) The maximum amount of Wind Generation that a Transmission Customer or load may receive and still qualify for BPF is **capped at 20%.**  
  
$$20\% = \frac{\text{Transmission Customer's total name plate Wind Generation in resource portfolio}}{\text{Transmission Customer's total name plate of resource portfolio}}$$
- 6) Such initial cap would be re-evaluated “after” and subject to the results of a renewable saturation study for the SPP region. All costs related to the renewable resources that exceed this cap will be 100% assigned to the Transmission Customer/Requestor.

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## **Alternative Proposal Provisions**

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- 8) No explicit tariff provisions are recommended to encourage waivers related to provisions #2 and #3
  - i.e. waivers of these provisions should be discouraged.

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## Conclusion

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◆ **This proposal has the benefits of:**

- Treating all designated generation resources in a more comparable cost allocation manner than today's policy.
- Protecting the customers not in the host (sink) zones from potentially large costs for upgrades needed to transmit energy from the renewable resources to the benefiting load – especially when none of the energy is being utilized by the transmission customers in the non-host zones.
- Recognizing, via regional allocation, that the supply and other impacted zone's transmission customers still derive an import benefit from having new transmission facilities built in its zone for exporting the renewable energy to the host zone.
- Enabling the CAWG/RSC and SPP to move forward “now” with an improved/tweaked cost allocation policy for renewables, and then re-evaluate as part of the comprehensive review of the Base Plan Funding Policy for the SPP RTO.

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