

UPPER MIDWEST TRANSMISSION DEVELOPMENT INITIATIVE

Staff Request for Stakeholder Information

August 6, 2009

Company/Organization Name: Wisconsin Public Service Corp.

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Stakeholder Group: Transmission Dependent Utility

(1) Do the present RECB and generator interconnection cost allocation mechanisms adequately and equitably allocate the costs of new transmission facilities constructed to collect and deliver the prime wind-energy resource areas of the five UMTDI States? YES **NO**

Please provide reasons and examples to support your answer (use as many lines as needed):

The response to this question is twofold. First, WPSC agrees with the direct assignment of radial “collection” systems to the generator. By their nature, the radial collection systems have just one beneficiary and cost responsibility is obvious.

However, WPSC does not believe that the existing RECB and generator interconnection cost allocation mechanisms equitably allocate the cost of new network upgrades to beneficiaries. While it is fairly easy to determine the primary driver of a new network upgrade, such as new load, load growth, new or retired generation, loop flow, etc., it is not so easy to determine beneficiaries, the amount of benefit, or the type of benefit. By definition, network upgrades are part of a large interconnected system of transmission equipment that allows Midwest ISO to perform its single-system, least-cost dispatch. Arguably, the beneficiaries of a network upgrade change every 5 minutes, as the Midwest ISO sends out new dispatch signals to achieve a least-cost dispatch across the entire footprint. The changing beneficiary landscape is especially evident over the forty-plus year lifespan of a transmission asset. Arguably, network reinforcements within the single economic dispatch environment of Midwest ISO provide reliability and economic benefit to all LSEs within the market. Recognition that all transmission expansion will at some time provide benefit to all LSEs, even if that benefit is 10 years into the future, supports a postage-stamp approach to cost allocation.

Fundamental to any cost allocation mechanism (and especially to a postage-stamp approach) is the pragmatic and rational application of a transmission planning process that establishes system requirements, develops reinforcement alternatives, evaluates

those alternatives, and picks a preferred plan. When properly applied, the transmission planning process drives the solution rather than the other way around. In today's fast-paced and rapidly changing policy environment, there is a tendency to cut transmission planning corners which can lead to sub-optimal plans and lack of consensus. Lack of stakeholder consensus on expansion plans incites cost allocation disputes, even if the cost allocation mechanism is "perfect".

(2) Should UMTDI investigate a cost allocation method to fund transmission construction adequate to fulfill the RES/RPS requirements of just the five UMTDI States?

YES NO

Please provide reasons and examples to support your answer (use as many lines as needed):

WPSC believes that an *investigation* of a cost allocation methodology for just the five States will provide an alternative methodology if the Midwest ISO cost allocation mechanism does not meet the UMTDI cost allocation principles. However, we caution that the risk in *implementing* a five State cost allocation methodology is that there are likely beneficiaries beyond the borders of the five States. Failure to recognize those other beneficiaries while at the same time receiving costs from the beyond the five States through Midwest ISO's cost allocation mechanism will unfairly shift costs to the five States' rate payers.

WPSC supports a Midwest ISO-wide cost allocation methodology to ensure consistency and to encourage transmission expansion.

(3) If your answer to No. 2 was NO, what justifications and methods would you provide to States outside of the UMTDI footprint to convince them to pay for a portion of any new transmission costs required to deliver energy to those States outside of the five-State footprint?

Please provide reasons and examples to support your answer (use as many lines as needed):

Perhaps the strongest argument for the allocation of network upgrade costs outside of the five-State footprint is the RES/RPS requirements (or targets) of those other states. Legislative mandates leading to the development of significant amounts of wind generation in western Midwest ISO will require substantial transmission expansion to transport that energy to those states. It is therefore appropriate to allocate transmission expansion costs to those beneficiaries.

The challenge in convincing others to help pay for a network upgrade is the identification of beneficiaries, the amount of benefit, and the type of benefit from new transmission facilities. This challenge is especially pronounced given the 40-plus year lifespan of transmission reinforcements - beneficiaries and the amount of benefit will

vary significantly over time. Arguably, transmission reinforcements within the single economic dispatch environment of Midwest ISO provide reliability and economic benefit to all LSEs within the market. Demonstrating that benefit through simulation of the energy delivery system requires assumptions for an overwhelming number of variables. A small change in any one of those variables can lead to different beneficiaries. WPSC would argue that all network upgrades will at some time provide benefit to all LSEs, even if that benefit is 5, 10 or even 20 years into the future, especially considering the single-system dispatch and operating reserve market of the Midwest ISO system.

(4) When allocating costs, should Generators pay for a portion of any new transmission construction required to collect, interconnect, or upgrade transmission facilities to deliver renewable energy from the Generator's facilities to load? **YES**
NO

Please provide reasons and examples to support your answer (use as many lines as needed):

WPSC agrees with the direct assignment of radial "collection" systems and direct interconnection costs to the generator. By their nature, the radial collection and interconnection systems have just one beneficiary (the interconnecting generator) and the cost responsibility is obvious.

WPSC does not agree with the direct-assignment of network upgrade costs to an interconnection generator. Direct assignment of network upgrade costs is the antithesis of a sound transmission planning process, which is as much an "art" as an exercise in engineering judgment. A sound transmission planning process considers and selects proposed transmission upgrades within the whole universe of factors affecting long-term transmission needs, such as:

- future load growth,
- changes in generation dispatch,
- economic congestion,
- loop flows,
- new generation interconnection,
- retirement of existing generation,
- regulating requirements as the generation mix changes,
- other transmission expansions,
- existing and new interconnections with other transmission systems,
- market structure,
- and regulatory mandates.

Sound transmission planning also recognizes that future transmission expansion plans are not developed on a blank slate and any changes to the network in the immediate future affect the transmission system's long-term development. A good transmission planner proposes reinforcements not based on the needs of a single generator at a

single point in time, but rather for the overall purpose of serving customers' needs in a least-cost manner giving consideration to all relevant factors affecting long-term transmission needs.

(5) When allocating costs, should Transmission Owners pay for a portion of any new transmission construction required to collect, interconnect, or upgrade transmission facilities to deliver renewable energy from a Generator's facilities to load? YES **NO**

Please provide reasons and examples to support your answer (use as many lines as needed):

This question is confusing because it is not clear whether Transmission Owners (TO) refers to the entire corporate entity of a vertically integrated TO or a stand-alone TO. Strictly speaking, TOs do not own generation, serve end-use customers, or take transmission service. Rather, TOs provide transmission service over the facilities that they own and charge for the use of that system. In this strict sense, TOs should not pay for network upgrades.

(6) When allocating costs, should Load-Serving Entities (Retail Utilities) in the wind collection area, LODF footprint, or RPS load footprint pay for a portion of any new transmission construction required to collect, interconnect, or upgrade transmission facilities to deliver renewable energy from a Generator's facilities to load? If so, in what proportion?

YES NO

Please provide reasons and examples to support your answer (use as many lines as needed):

Assuming the sound transmission planning process described in the response to question 4 is followed, LSEs in the wind collection area, LODF footprint, and RPS load footprint will benefit from the network upgrades. Arguably, network reinforcements within the single economic dispatch environment of Midwest ISO provide reliability and economic benefit to all LSEs within the market. Recognition that all transmission expansion will at some time provide benefit to all LSEs, even if that benefit is 10 years into the future, supports a postage-stamp approach to cost allocation.

WPSC agrees with the direct assignment of radial "collection" systems and direct interconnection costs to the generator. By their nature, the radial collection and interconnection systems have just one beneficiary (the interconnecting generator) and the cost responsibility is obvious.

(7) When allocating costs, should the stockholders/owners of a Load-Serving Entity (Retail Utility) pay, or a transmission owner forgo incentives in some

fashion, for a portion of any new transmission construction required to collect, interconnect, or upgrade transmission facilities to deliver renewable energy from a Generator's facilities to load? YES NO

Please provide reasons and examples to support your answer (use as many lines as needed):

Stockholders do not purchase transmission service or utilize the transmission system to move generation to load and should not pay for transmission upgrades.

(8) When allocating costs, should energy consumers in the wind collection area, LODF footprint, or RPS load footprint pay for a portion of any new transmission construction required to collect, interconnect, or upgrade transmission facilities to deliver renewable energy from a Generator's facilities to load? Should this be above and beyond any renewable energy credit (REC) payment they might pay to the generator? YES NO

Please provide reasons and examples to support your answer (use as many lines as needed):

Assuming the sound transmission planning process described in the response to question 4 is followed, energy consumers within the LSEs in the wind collection area, LODF footprint, and RPS load footprint will benefit from the network upgrades. Arguably, network reinforcements within the single economic dispatch environment of Midwest ISO provide reliability and economic benefit to all LSEs within the market. Recognition that all transmission expansion will at some time provide benefit to all LSEs, even if that benefit is 10 years into the future, supports a postage-stamp approach to cost allocation.

WPSC agrees with the direct assignment of radial "collection" systems and direct interconnection costs to the generator. By their nature, the radial collection and interconnection systems have just one beneficiary (the interconnecting generator) and the cost responsibility is obvious.

(9) When allocating costs, should any other Parties/Entities pay for a portion of any new transmission construction required to collect, interconnect, or upgrade transmission facilities to deliver renewable energy from a Generator's facilities to load?

YES NO

Please provide reasons and examples to support your answer (use as many lines as needed):

Assuming the sound transmission planning process described in the response to question 4 is followed, LSEs in the wind collection area, LODF footprint, and RPS load footprint will benefit from the network upgrades. Arguably, network reinforcements

within the single economic dispatch environment of Midwest ISO provide reliability and economic benefit to all LSEs within the market. Recognition that all transmission expansion will at some time provide benefit to all LSEs, even if that benefit is 10 years into the future, supports a postage-stamp approach to cost allocation.

WPSC agrees with the direct assignment of radial “collection” systems and direct interconnection costs to the generator. By their nature, the radial collection and interconnection systems have just one beneficiary (the interconnecting generator) and the cost responsibility is obvious.

(10) From an end-use customer’s perspective, what do you believe is a reasonable incremental cost for transmission facilities resulting from the UMTDI effort? Please attempt to quantify your answer on a per MWH, percentage, or other basis. (use as many lines as needed):

The incremental cost of transmission facilities to access wind generation within the high-capacity factor areas of Midwest ISO should not exceed the additional cost to site wind generation within lower-capacity factor areas, assuming both sites produce the same amount of yearly energy.

(11) Should the initial set of interconnecting generators to a newly constructed transmission line be the only generators charged a portion of the costs of the new transmission line that is required for UMTDI projects?

YES **NO**

Please provide reasons and examples to support your answer (use as many lines as needed):

This is the classic “first-mover” issue and should be avoided.

A simple example suffices to provide a small scale illustration of the “first-mover issue. Consider “Generator A” that assumes a contractual commitment pursuant to its interconnection agreement to pay for substantial network upgrades. Generator A pays for the network upgrades, interconnects to the system, and achieves commercial operation. Perhaps a year or two after Generator A is commercial, Generator B interconnects to the system near Generator A and utilizes the excess transmission capacity (since transmission upgrades are “lumpy”) created by Generator A. Thus, while Generator A was the initial cost-causer of the network upgrades, Generator B is a beneficiary with no obligation to help fund the network upgrade. This situation, often referred to as the “first-mover/free-rider” issue, clearly disadvantages one interconnection customer over another.

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