OMS Response to August 2008 Hot Topic Questions

1) How should the Midwest ISO incorporate planning for the generation in the interconnection queue into its long term expansion planning process? Is the Regional Generation Outlet Study, and similar future studies, with its identification of Renewable Energy Zones, sufficient to achieve this goal?

Response:

- The Regional Generation Outlet Study (RGOS) appears to be a move in the right direction for Midwest ISO to integrate planning for queued generation with its long-term expansion planning process. The RGOS seems to have the appropriate focus and scope to plan concrete transmission projects that could be implemented in time to support state RPS goals. Notwithstanding, it may be premature to say whether the RGOS and similar future studies are sufficient because the RGOS has not been completed and its results have not yet been incorporated into committed projects let alone steel in the ground.
- Regardless of the outcome of the RGOS, Midwest ISO can play an important role by conducting additional system-planning analyses that examine the economic and reliability impacts of large-scale wind integration on the Midwest ISO footprint and sub-regions (e.g., Midwest ISO planning sub-regions or individual states). A considerable amount of this work is being done as part of MTEP 08 and 09, the Joint Coordinated System Plan, and ad hoc studies. Areas for potential future analysis could include:
    - A detailed ancillary services study to assess the level and estimated cost of ancillary services needed under different scenarios of wind generation and transmission configurations; such study could also examine the need for and scope of operational procedures to handle severe weather conditions under different wind scenarios. This type of analysis may be conducted as part of the DOE's eastern interconnection wind integration and transmission study (EWITS).
    - Expansion of the RGOS to other areas to develop incremental transmission improvements that each fit into an overall design.
    - Optimization or cost minimization study to examine trade-offs between quality and location of wind resources and transmission needs. Again, this could be done as part of the DOE's study.
    - Continuation and refinement of studies to determine the operational and economic impacts on thermal units from greater amounts of wind in the Midwest ISO footprint.
- The RGOS effort to identify and implement projects for delivering renewable energy to states with renewable portfolio standards is appropriate in as far as it goes. However, future efforts to address interconnection constraints should be expanded to include the delivery of other cost-effective resources to other areas rather than just deliveries of renewable energy to states with RPS requirements.

We encourage the Midwest ISO to help identify and prioritize outstanding questions for future studies that would provide valuable information to Midwest ISO members and policy makers.

2) How should the Midwest ISO address the apparent mismatch of supply and demand for resources in the queue? Should some priority be given to other renewables other than wind (solar, biomass, battery/air projects, etc.)? These questions apply to both the apparent oversupply of requests for wind generation as well as the apparent undersupply of interconnection requests for other generation types.

Response:

An "open season" approach, or regionally planned generation interconnection projects, could help match up supply and demand for renewable resources, particularly wind, and the associated transmission capability. Such approach could reduce barriers to transmission investment, facilitate access to the wholesale electricity market by renewable and other remote resources, and complement state renewable portfolio requirements. But as with many policies, the devil is in the details. It is essential that the risks—which could be significant—not be disproportionately placed on ratepayers, especially in light of the pass-through transmission rates in some jurisdictions and FERC's policy on abandoned plant recovery.

The Midwest ISO's open season white paper is one creative approach to address the apparent mismatch of supply and demand for resources in the queue. However, the Midwest ISO should continue to examine ways to quantify additional value drivers and propose other refinements to the attachment FF regional planning process.

If an open season approach is pursued, the Midwest ISO and its stakeholders should explore the following ratepayer protections: 1) a rate impact cap, perhaps one that could be exceeded based on a requisite showing of benefits; 2) an appropriate and binding financial commitment by subscribers of the project; and 3) a relatively high minimum subscription level. If only a fraction of the developers in the queue are serious about following through with their proposed projects, it should not be difficult to reach a high subscription level. This is especially true if a subscription can be transferred or sold, and there are appropriate "out clauses" for participants to address extenuating circumstances.

Regarding the apparent oversupply of wind interconnection requests or undersupply of other generation types, it is important to keep in mind that the queue is not necessarily representative of the new generation that will be built. The queue is one source of information about prospective developments. The queue's makeup is driven by technology and fuel costs, state RPS policies, cost allocation policies, and other factors. These factors can and do change over time.

The fact that there is little in the way of non-wind renewable projects seeking to interconnect to the Midwest ISO grid reflects the current economics and policy environment.

The Midwest ISO should move forward with its transmission planning based on the best information available about potential resources. At this time, it does not appear that non-wind renewable resources and storage technologies will be significant factors driving the design of the transmission system over the next few years. Nonetheless, the planning effort should recognize the risks from developing large-scale transmission that may not be fully utilized in the event of a technology breakthrough (e.g., grid interactive PHEVs or other storage capabilities).

3) As renewable development can be attributed in some part to portfolio mandates or goals, how should the Midwest ISO and/or its stakeholders provide information on the true incremental cost impact? Could the publishing of studies regarding these impacts (along with other impacts of renewable portfolio standards) assist developers and regulators and, in turn, minimize and/or optimize future grid development costs?

Response:

It is important to understand that renewable portfolio standard adoption decisions are largely made through the political process, rather than the regulatory process. Regulatory policy-making is largely associated with implementation of the renewable portfolio policy decisions that were formed through the political process. Nevertheless, reliable and unbiased information about the cost and system operational impacts of renewable policy decisions would be helpful to both political and regulatory policy-makers. As the independent, regional grid operator, the Midwest ISO is in a good position to provide that information.

It is difficult to estimate or determine the true incremental cost impact of renewable development because the costs may vary depending on a number of factors, such as the geographic concentration or distribution of wind generation, the amount of wind generation relative to other sources, technology changes, and the flexibility built into the existing system to handle variations in wind output (i.e., transmission, load or other generation). Nonetheless, the Midwest ISO should strive to provide objective information about direct costs, including transmission upgrade and operating costs (e.g., ancillary services), that can be estimated or determined reliably. Publishing studies regarding the cost impacts of various build-out options would be valuable to policy-makers, and could help minimize or optimize future grid development costs.

While it is important to understand the cost impacts of renewable development, studies should also attempt to identify the additional benefits that may be derived from transmission expansion options.

4) With respect to the Regional Generation Outlet Study or any other long-term transmission planned to integrate generation, what process or methods should be used to allocate the transmission capacity to queued generation requests (i.e. financial commitment, "milestone payments", first come first serve, auction, etc.)? Should this process only be offered to queued generators?

Response:

We assume this question is referring to details of an open season approach. If that approach is chosen, the Midwest ISO, OMS, and stakeholders should fully explore the options and work out such details at that time. Whatever approach is used should be non-discriminatory and equitable to all participants.

5) Is there a difference between a traditional generation interconnection project and the network upgrades currently required to interconnect generation on a constrained system? If yes, what attributes could be used to differentiate the two types of projects?

Response:

The existing transmission system was not designed to facilitate the wholesale market and bulk transfers of power across a broad region. The extent of upgrades needed to interconnect a significant amount of new generation and facilitate such transactions reflects this reality. It may be that some general system upgrades are being assigned to generation interconnection projects when perhaps the underlying system needs should be considered during other phases of the transmission expansion planning process. This is a topic for further stakeholder discussions.

6) Should costs for transmission network upgrades to integrate large amounts of generation be allocated using existing RECB methodologies? If no, what other approach would be fairer? [1]

Response:

- The existing cost allocation method for generation-driven network upgrades assigns 50% of network upgrade costs to the generator(s) that triggers the need for the upgrade.[2] This may work well for system expansions needed for more traditional generation projects. But it is not geared to handle free riders and may lead to inefficient or suboptimal system expansions when

[1] The Public Utilities Commission of Ohio will supply separate views on this question. The Ohio statement will replace this footnote.

[2] ITC and ATC have different cost sharing for network upgrades driven by generation interconnection projects (i.e., 100% reimbursement of generator).

considering the mid- to long-term needs to integrate large amounts of renewable energy across the Midwest ISO system. For whatever reason, this cost allocation policy also appears to be a significant factor driving the churn in the queue.

- Additionally, the remaining 50% of network upgrade costs not assigned to the generator is allocated primarily using the RECB 1 LODF methodology, which assigns most of the costs within the local area where the upgrades are made. This existing approach can inappropriately assign costs to local zones when remote resources are interconnected to serve regional loads.
- And based on modeling to date, it does not appear that many transmission projects to integrate large amounts of remote wind generation would qualify for cost sharing as a baseline reliability or economic (regionally beneficial) project under RECB.

The RECB II approach may be an appropriate starting place for developing a more value-driven cost allocation that better recognizes project benefits. Whatever cost allocation method is used, it is important that participating generators are adequately committed so ratepayers do not bear disproportionate amount of risk associated with large transmission projects. Resolving these cost allocation issues expeditiously may be critical to meeting state renewable standards, as well as the Midwestern Governors Association agreement to meet 30% of electricity from renewable resources by 2030.

7) What are the primary seams issues that should be addressed to help alleviate delays in getting additional generation interconnected?

Response:

Cost allocation between RTOs and between RTOs and non-RTO neighboring utilities should be addressed. Also, states within the Midwest ISO are positioned differently in terms of wind, load, and transmission attributes. Some end users may not benefit from production cost and congestion cost savings in a manner comparable to what they will pay for increased transmission. Perhaps a better accounting for benefits that flow outside of the Midwest ISO footprint would help FERC to better allocate costs outside the footprint.

8) What other actions should the Midwest ISO take to reduce backlogs and delays in the Interconnection Queue?

Response:

As discussed above, the Midwest ISO should further explore an open season approach, as well as additional value drivers and other refinements to its attachment FF regional planning process. The Midwest ISO is moving in the right direction to identify projects through the RGOS, at least for states with existing renewable portfolio standards. The Midwest ISO needs to continue to address cost allocation, subscription, and other issues.