Organization of MISO States

ORGANIZATION OF MISO STATES, INC.
Board of Directors Special Meeting
Conference Call Minutes
November 23, 2009

Approved November 30, 2009

Lauren Azar, President of the Organization of MISO States, Inc. (OMS), called the November 23, 2009 meeting of the OMS Board of Directors to order via conference call at approximately 1:15 p.m. (CST). The following board members or their proxies participated in the meeting:

Sherman Elliott, Illinois
Rob Berntsen, Iowa
Bill Bowker, proxy for David Armstrong, Kentucky
Monica Martinez, Michigan
Burl Haar, proxy for Tom Pugh, Minnesota
Robert Kenney, Missouri
Greg Jergeson, Montana
Tony Clark, North Dakota
Valerie Lemmie, Ohio
Tyrone Christy, Pennsylvania
Greg Rislov, proxy for Gary Hanson, South Dakota
Lauren Azar, Wisconsin

Absent
Indiana
Manitoba

Agency members participating
Angie Butcher, Lisa Pappas - Michigan
Don Neumeyer, Randy Pilo - Wisconsin

Others on the call
Bill Smith, Julie Mitchell – OMS Staff

The directors and proxies listed above established the necessary quorum for the meeting of at least eight directors being present.

1. OMS Hot Topic Comments on Resource Adequacy

Don Neumeyer introduced this document prepared by the OMS Resources Work Group. The Board briefly discussed the document

Sherman Elliott moved to send the revised comments to MISO. Greg Jergeson offered a second. A voice vote was taken. The motion carried with 12 states voting aye, 0 states voting no, Ohio abstaining and 1 province and 1 state absent.

2. FERC Dkt. No. AD09-8-000 (Responses to FERC's questions on transmission planning processes under Order No. 890)

Bill Smith introduced the draft for Randy Rismiller whose work groups had made revisions to include edits from Minnesota, Michigan, Indiana, Kentucky and Wisconsin.

Greg Jergeson moved to approve the revised work group comments on FERC Dkt No. AD09-8-000. Burl Haar seconded. The comments are due at FERC November 23, so Bill Smith offered to contact Indiana about its vote after the meeting.

Illinois - Abstain
Indiana - Absent
Iowa - Yes
Kentucky - Abstain
Manitoba - Absent
Michigan - Yes
Minnesota - Yes
Missouri - Abstain
Montana - Yes
North Dakota - Yes
Ohio - Yes
Pennsylvania - Yes
South Dakota - Yes
Wisconsin - Abstain

The motion carried with 8 states voting aye, 0 states voting no, 4 states abstaining and 1 province and 1 state absent.

In the open voting period following the meeting, Indiana weighed in later with a "yes" vote, making the final vote tally: 9 states voting aye, 0 states voting no, 4 states abstaining and 1 province absent.

The meeting adjourned at 1:40 p.m.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Transmission Planning Processes Under Order No. 890	))	Docket No. AD09-8-000

COMMENTS OF THE ORGANIZATION OF MISO STATES

Pursuant to the Federal Energy Regulatory Commission's ("Commission") Request for Comments issued on October 8, 2009, the Organization of MISO States ("OMS") hereby submits the following comments regarding transmission planning processes and transmission cost allocation. The Commission originally requested that Comments be submitted no later than November 9, 2009, but subsequently extended that deadline to November 23, 2009.

I. DISCUSSION

The Commission seeks comments about how the current transmission planning processes and the transmission cost allocation practices can be improved. The OMS supports the Commission's initiative to examine the effectiveness of existing transmission planning processes and cost allocation practices, particularly focusing on their regional and inter-regional aspects. The OMS cautions, however, that in its efforts to facilitate transmission investment, the Commission should not abandon principles that have served the industry well for decades. Given the high stakes for the nation in effective energy policy, the Commission must ensure that the processes being developed for regional and inter-regional transmission planning and the practices for transmission cost allocation provide for the nation's future energy needs, while recognizing individual states' interests in ensuring the reliable service to retail customers at

reasonable rates. Given the geographic expanse, abundant resource endowment, unique electrical topology and illogical seams and borders of the Midwest ISO region, the OMS has a particular interest and great stake in the Commission's examination of transmission planning and transmission cost allocation policies.

In particular, the OMS recommends that the Commission recognize and support the ongoing initiatives of state regulators, state policymakers, RTOs and stakeholders in particular parts of the country to address and resolve transmission planning, development and cost allocation in ways acceptable to the various needs and multiple interests in those parts of the country. The need for improved transmission planning and fair cost allocation will only increase if policies require the development and construction of additional renewable energy and no-carbon or low-carbon generation. New transmission will be necessary to support these policy choices, which may require that new renewable power be transmitted across long distances and multiple regions. In addition to improved transmission planning, fair transmission cost allocation will become even more important. If the ongoing regional and inter-regional grass-roots efforts to develop policy solutions are able to produce broad consensus, or at least a common understanding regarding solutions, such solutions would create a strong foundation of industry certainty that would likely have more permanence than federally imposed solutions.[1]

The OMS urges the Commission to act only in geographic areas and on issue areas where state and stakeholder action is absent or not working and Commission action may be necessary to stimulate progress. The Commission should allow the genuine state and regional-level efforts

[1] An example of an ongoing effort to develop such policy solutions is the OMS Cost Allocation and Regional Planning workgroup known as CARP. While CARP is further described below, mention of its work is warranted here. Since its inception in January of 2009, CARP has been working with the staff of the Midwest ISO to develop transmission plans that incorporate the viewpoints of OMS members. These efforts have also led to an investigation of a cost-allocation proposal that seeks to assign costs for transmission based on analyses of system usage, i.e., a cost allocation based on "injections" onto and "withdrawals" from the transmission system. CARP is positioned to begin making decisions relating to this proposal at its December meeting.

that have already been initiated to produce progress to proceed in those efforts. If, after a reasonable period of time without substantive results being produced by the existing cooperative efforts led by state policymakers, the Commission should consider issuing policy directives to address transmission planning and transmission cost allocation policies.

A. Transmission Planning Process

Historically, transmission planning and development focused on local reliability needs. However, the development of wholesale energy markets, the central dispatch of generation and the establishment of renewable energy portfolios have shifted this paradigm significantly. This requires transmission planners to perform reliability and economic analyses over much larger footprints. There is also the potential for Congress to enact climate change legislation that will also affect transmission planning and transmission system needs in significant ways. If climate legislation is enacted that restricts the emission of carbon dioxide, it is likely to have a transformational impact on the generation portfolio in many states over a very short period of time. Such new energy policy could result in the construction of new transmission lines to deliver significantly more energy from locations that are remote from load centers. Before the Commission proceeds to implement a large scale planning proposal of its own choosing, the Commission should be aware that states and regional state committees in some areas of the country have already begun the process of adapting to this new era of transmission planning. Indeed, the American Recovery and Reinvestment Act of 2009 ("ARRA") gives significant new impetus to creating a much larger and stronger collaborative approach among all stakeholders. These state and regional processes will lead to better transmission planning results than a federally-led process. These participants have an understanding of the local and regional concerns that are a key to the development of an effective transmission planning process.

At the state level, the OMS is aware of two significant efforts in the Midwest ISO footprint. First, the OMS has formed a Cost Allocation and Regional Planning ("CARP") initiative. In January 2009, this group began an initiative working with the Midwest ISO to consider new cost allocation methods. Part of this initiative includes the development of indicative regional transmission plans tied to particular sets of scenarios and to consider a cost-allocation methodology. Significant computer modeling of generation expansion and needed transmission infrastructure have been part of the CARP initiative. Results from this initiative may be ready as soon as early to mid 2010.

The second state policy-maker led approach involves the governors and state commissions from five states. Specifically, governors from Iowa, North and South Dakota, Minnesota and Wisconsin have formed the Upper Midwest Transmission Development Initiative ("UMTDI") with the goal of identifying necessary transmission infrastructure to deliver renewable energy from the western Midwest ISO footprint to states with renewable portfolio standard ("RPS") requirements. The UMTDI participants are also investigating the potential that the five states could develop transmission lines that would provide for the export of renewable energy beyond the borders of the states engaged in this effort. The UMTDI effort is expected to finish its work in 2010 and is also examining cost allocation issues.

The CARP and UMTDI initiatives show that state leadership is already taking action to adjust to new transmission planning needs, the realities of the ARRA funding impacts and the possibility of new federal energy policy.

The most recent development in regional transmission planning is the largest in scope, comprising the entire Eastern Interconnection. The ARRA directed $80 million to the Department of Energy ("DOE") to conduct resource assessments and provide technical

assistance for interconnection-wide planning. The DOE released a Funding Opportunity Announcement ("FOA") in June of 2009 that identified distinct roles for transmission planners and engineers (Topic A) as well as a specified role for state policymakers and regulators (Topic B).[2]

After the release of the FOA, representatives from Governors' offices, state energy offices, regulatory commissions and other leaders throughout the eastern United States proposed to the DOE on September 14, 2009 under Topic B that an Eastern Interconnection States' Planning Council ("EISPC") be established. One of EISPC's major goals is to have state policymakers within the Eastern Interconnection create and establish a coordinated and consistent set of directives and analyses (e.g., assumptions and scenarios) for the modeling that will take place with this funding by the DOE-selected Topic-A entity. Of the 41 jurisdictions in the Eastern Interconnection, 38 have filed letters of support for the proposal. This represents an impressive and unprecedented level of cooperation among the states in the Eastern Interconnection.

EISPC, CARP and the UMTDI are prime examples of the role that state leadership can play in transmission planning and the development of new transmission infrastructure. There are a variety of reasons why these state and regional processes are likely to produce better results than a federally-led process. First, state commissions have the ultimate responsibility for retail electric rates and are therefore keenly aware of how the costs of interstate transmission lines will flow to ratepayers. Second, transmission planning must accommodate state choices with respect to generation portfolios and the complementary demand-side programs. Third, state regulators are better situated to identify and address transmission upgrades such that they do not harm or require excessive upgrades to existing facilities. Lastly, because state agencies are closer to

[2] U.S. Department of Energy Funding Opportunity Announcement DE-FOA-0000068

those regulated, their decisions will be more legitimate to those affected most by new transmission lines. State-level decision-making allows for more complete public information, participation, credibility and public acceptance.

The OMS encourages the Commission to support CARP, UMTDI, EISPC and other similar initiatives that may follow these models. The OMS also recommends that the Commission facilitate the development of additional such state-led transmission planning and cost allocation stakeholder efforts by framing and clarifying the range of available policy options, particularly with respect to inter-regional issues.

- **Are existing transmission planning processes adequate to identify and evaluate potential solutions to needs affecting the systems of multiple transmission providers? Should prospective transmission developers coordinate their projects in the interest of "right-sizing" facilities to make the best possible use of available corridors and minimize environmental impacts? If so, what process should govern the identification and selection of projects that affect multiple systems?**

The Midwest ISO's intra-RTO transmission planning process is generally working well and the above-mentioned interconnection-wide transmission planning efforts are too new to judge. While some of the inter-regional issues may ultimately be addressed by larger planning efforts like EISPC, the inter-regional transmission planning processes need to be improved and merit Commission guidance. The OMS offers recommendations in this regard below.

In general, RTO planning efforts focus on identifying the needs of the customers within the RTO and issuing a transmission expansion plan that identifies and evaluates options and proposes a solution to meet those intra-RTO needs. While some RTOs, including the Midwest ISO, participate in inter-RTO planning, those activities are often separate from the RTO's internal planning efforts. Internal RTO planning efforts are generally aimed at developing a transmission expansion plan with projects that the RTO directs to be built. As such, inter-RTO

planning efforts are largely an academic exercise, with no apparent coordination among the various regions.

Sound transmission planning should provide an orderly structure to coordinate transmission projects not only to "right size" facilities but to make the best use of transmission corridors and not unduly create more corridors or new constraints. To the extent transmission developers are able to work cooperatively together, project costs may be shared among them which should reduce each developer's project costs, thus benefitting the developers' customers.

Ideally, the purpose of any proposed project would be clearly stated and transparent. Potential developers would, on their own, collaborate on selecting and locating potential joint projects and introducing the joint project into their ISO/RTO planning process. However, when collaboration fails, then the ISO/RTO planning process should identify project or project-portion alternatives that could reduce overall costs, "right size" facilities to meet identified needs over a larger footprint or more efficiently use transmission corridors. The states where the projects would be located should, in certain cases, have this information to conduct their state regulatory processes, and any developers opposing the more efficient alternatives would need to explain why such efficiencies should not be approved.

In addition, in the case of large inter-regional projects, it should be recognized that State Regulators may not be able to justify such large projects based solely on the benefits for their own states. In these cases regional cooperation will be critical to ensure that all transmission upgrades are "right sized" for current needs, as well as the foreseeable future. The identification and adoption of fair cost allocation or cost recovery methodologies will be an important piece of this necessary regional and inter-regional cooperation.

While the RTOs, particularly the Midwest ISO, have undertaken cross-border transmission planning, very little in the way of practical projects has, to date, come from it. As such, improvements should be made regarding coordination and goals of such endeavors.

- **Are there adequate opportunities for stakeholders to participate in planning activities that span different regions, including for example those undertaken pursuant to bilateral agreements?**

There is adequate opportunity for stakeholders to participate in planning activities. Indeed, there are numerous stakeholder forums at PJM and the Midwest ISO associated with transmission planning. However, the reality is that the practical ability of many stakeholders, including retail customers and those representing the interests of retail customers is limited. Transmission planning and energy industry practices generally are evolving rapidly. The Commission must understand that stakeholder resources, particularly those within state commissions and other customer and public interest representatives, are spread thin. To the extent that the Commission can identify policies that will streamline and focus state and regional efforts, the scarce resources of the state commissions and the stakeholders can be more effectively focused.

While there is some transmission planning coordination between the Midwest ISO and PJM, the effort is largely an add-on to existing intra-RTO practices rather than being a combined transmission planning process. What is missing from the current inter-regional planning continuum is a coordinated process that involves the stakeholders of all affected RTO regions and a focus on issues impacting the regional and inter-regional RTO footprints. Furthermore, inter-regional involvement by stakeholders is very challenging, in that stakeholders would have to be involved in multiple ISO/RTO processes simultaneously. In particular, state commissions that straddle the PJM/Midwest ISO seam struggle to meaningfully participate in the transmission

planning efforts of both the Midwest ISO, PJM and SPP. Similarly, state commissions not close to RTO seams do not have the resources to participate in inter-seam planning, even though such actions would impact these states as well.

In sum, the inter-RTO transmission planning processes merit additional Commission guidance and the OMS makes recommendations below in this regard.

- **Is there adequate coordination among planning entities to provide consistency in the data, assumptions and models being used in planning activities?**

The OMS is not in a position to directly answer this question. The planning entities are in the best position to respond about consistency between the planning entities. However, it is clear that PJM and the Midwest ISO can be subject to some modeling inconsistencies such as those illustrated by the recent market flow calculation controversy in Docket No. ND10-1-000. Part of this settlement proceeding may include an investigation of whether the calculation errors impacted loop flow assumptions, day-ahead unit commitment and/or Financial Transmission Rights /Auction Revenue Rights auction results. While that matter involves market operations and settlements rather than planning issues, it illustrates the potential negative effect that even small data inconsistencies can have on modeling efforts.

Planning for large RTO regions is a very complex process that involves many assumptions about any number of planning scenarios. There may not be a one-size-fits-all approach to modeling the interconnected grid. However, more formal coordination of individual system expansion plans between individual regions and planning entities will likely lead to more effective and efficient transmission planning. Due to the complexity of the grid, coordination needs to focus on inter-regional projects and high voltage bulk power transmission planning. Further, data availability and consistency is almost certain to be an issue as larger planning

processes like EISPC move forward. To the extent the Commission can help facilitate the sharing and accumulation of data for this endeavor, it will increase the efficiency and the likelihood of success of the inter-regional coordination efforts.

- **Will the interconnection-wide processes adopted pursuant to funding opportunities under the American Recovery and Reinvestment Act of 2009 result in an ongoing process for jointly identifying and evaluating alternatives to solutions identified in transmission plans developed through existing sub-regional and regional planning processes? Will the scope and function of these interconnection-wide planning activities be sufficient to help address the concerns identified above? How will planning activities conducted on an interconnection-wide basis be integrated into the development of sub-regional and regional transmission plans and vice versa?**

One of the ARRA's goals is to improve the coordination and development of transmission planning and infrastructure construction utilizing input from all stakeholders, the RTOs, the utilities, the states and others.[3] With respect to interconnection-wide planning, this legislation should be given its chance before the Commission steps in with alternative interconnection-wide policies. Once established, this baseline will allow appropriate entities to develop their business case for appropriate projects, and states with siting authority will have a foundation of sound planning and stakeholder input to begin their respective review processes.

While it is still too early to definitively say whether the interconnection-wide transmission planning process will succeed, the OMS believes that participants will work in good faith to provide interconnection-wide plans for the benefit of the entire Eastern Interconnection. We also believe that the ISO/RTO entities in the regions will attempt to incorporate the interconnection-wide plans into their regional planning processes and filter such regional plans down to the sub-regional levels. As such, it is too early for the Commission to impose change on those efforts. While there may be a place for Commission-initiated policy improvements with respect to both regional and inter-regional transmission planning in some parts of the country,

[3] U.S. Department of Energy Funding Opportunity Announcement DE-FOA-0000068, at 5

interconnection-wide transmission planning efforts are in their nascent stages and should be given time to produce the expected results. As interconnection-wide transmission planning proceeds over the next few years, situations may arise that call for the Commission to nudge it in one way or the other, but doing that now would be disruptive rather than helpful.

- **How are reliability impact studies aligned with economic-based evaluations of sub-regional or regional projects and assessments of projects needed to satisfy renewable energy standards? If not aligned, how can reliability assessments and economic evaluations be aligned in order to better identify options that meet regional needs?**

Presently, in the Midwest ISO footprint there is a distinction with respect to eligibility for cost sharing and cost allocation between network upgrades, reliability projects and economic or commerce-oriented transmission facilities. At the time these cost allocation distinctions were adopted, they made sense because transmission planning and development was a function of reliability and economics. However, such distinctions fail to fully capture the dynamic nature of the transmission grid. For example, from electrical engineering and economic perspectives, a transmission line that fulfills these goals today may have less of an impact on these objectives in the future.

The OMS is not aware that the distinctions between reliability planning, generator interconnection planning, economic planning and renewable resource planning create any problems focusing strictly on the RTO's engineering planning and not cost allocation. The difficulty lies in defining into which single category of "need" particular projects with multiple uses and benefits must be slotted. Such single-purpose designations do not further efforts to meet some of these particular planning purposes and fairly allocating the costs of the projects that are determined to be needed.

The Midwest ISO also includes reliability testing as well as economic evaluations in its current sub-regional and regional planning processes. For example, the Midwest ISO's Regional Generation Outlet Study (RGOS) is intended to identify which states have renewable portfolio standards, how much renewable energy is needed in each state, potentially where the renewable energy would come from and the transmission needed to deliver that energy. However, at the present time, the Midwest ISO's tariff is not aligned with its planning efforts. Although the Midwest ISO and stakeholders are working diligently to derive a new rate tariff structure that does reflect today's drivers for transmission planning and construction, this tariff-planning misalignment is causing significant issues for proposed projects.

- **How should merchant and independent transmission projects be treated for purposes of regional transmission planning?**

All proposed transmission projects, including independent transmission projects, should be treated the same in regards to regional transmission planning. In short, all transmission proposals should be subject to the planning and study processes that are in place to ensure that the interconnection and operation of the proposed project will not detrimentally impact the grid. After all, there is only one interconnected transmission system in the eastern interconnection (even DC lines need to interconnect with AC lines at the ends of the lines.) As such, all new proposals should have to go through the RTO planning processes in place to ensure the continuing integrity of the grid. No project should be approved by the FERC before these processes are completed or any approvals should be conditioned on successful, timely completion of these processes.

- **Should they be required to participate in the planning process and, if so, at what point must they engage in the planning process?**

All transmission proposals need to be subject to the RTO planning and testing processes to ensure that the project can safely and reliably be interconnected and operate within the grid. Exceptions would not be in the public interest.

- **Do rights of first refusal for incumbent transmission owners unreasonably impede the development of merchant and independent transmission? If so, how can this impediment be addressed?**

Please see the answer to the next question.

- **Are there other barriers to the development of merchant and independent transmission in the transmission planning process?**

The Commission must ensure that, with respect to RTO transmission planning, there is no undue preference for incumbent or non-incumbent transmission providers or their affiliates. In particular, any rights of first refusal in RTO transmission planning practices could have a negative influence on the development of transmission lines if an incumbent uses the right of first refusal to impede the development of transmission identified as approved in the RTO's planning processes. While any right of first refusal should not be permitted to unduly discriminate against merchant and independent transmission, allowance must also be made for differences in state regulatory structures.[4]

The Midwest ISO Transmission Owners' Agreement ("TOA") establishes the Midwest ISO as the regional planning authority. The TOA states, "The Midwest ISO shall engage in such planning activities as are necessary to fulfill its obligations under this Agreement and the

[4] For instance, in a traditionally regulated state, such as Indiana, utilities are generally vertically integrated with monopoly status within its service territory; i.e., no other utility may operate within the service territory of another utility without regulatory approval.

Transmission Tariff."[5] The TOA requires the Midwest ISO to produce a Midwest ISO Plan on a biennial basis.[6] The TOA provides that, "Approval of the Midwest ISO Plan by the Board certifies it as the Midwest ISO's plan for meeting the transmission needs of all stakeholders subject to any required approvals by federal or state regulatory authorities."[7] The TOA then requires that, "The affected Owner(s) shall make a good faith effort to design, certify, and build the designated facilities to fulfill the approved Midwest ISO Plan."[8] The TOA states that, "Each Owner shall use due diligence to construct transmission facilities as directed by the Midwest ISO [ ] subject to such siting, permitting, and environmental constraints as may be imposed by state, local, and federal laws and regulations, and subject to the receipt of any necessary federal or state regulatory approvals."[9]

While it is not specifically identified as a "right of first refusal," the TOA includes the following language:

> Ownership and the responsibility to construct facilities which are connected to a single Owner's system belong to that Owner, and that Owner is responsible for maintaining such facilities. Ownership and the responsibilities to construct facilities which are connected between two (2) or more Owners' facilities belong equally to each Owner, unless such Owners otherwise agree, and the responsibility for maintaining such facilities belongs to the Owners of the facilities unless otherwise agreed by such Owners. Finally, ownership and the responsibility to construct facilities which are connected between an Owner(s)' system and a system or systems that are not part of the Midwest ISO belong to such Owner(s) unless the Owner(s) and the non-Midwest ISO party or parties otherwise agree; however, the responsibility to maintain the facilities remains with the Owner(s) unless otherwise agreed.[10]
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> …,

[5] Agreement of the Transmission Facilities Owners to Organize the Midwest Independent Transmission System Operator, Inc. ("TOA") Article Three, Section I, Para. C.
[6] TOA Appendix B, Article VI
[7] TOA Appendix B, Article VI
[8] TOA Appendix B, Article VI
[9] TOA Article Four, Section 1, Para. C.
[10] TOA Appendix B, Article VI

> If the designated Owner is financially incapable of carrying out its construction responsibilities or would suffer demonstrable financial harm from such construction, alternate construction arrangements shall be identified. Depending on the specific circumstances, such alternate arrangements shall include solicitation of other Owners or others to take on financial and/or construction responsibilities. Third-parties shall be permitted and are encouraged to participate in the financing, construction and ownership of new transmission facilities as specified in the Midwest ISO Plan. In the event interest among other Owners or other entities is not sufficient to proceed, all Owners, subject to applicable regulatory requirements, shall be responsible for sharing in the financing of the project and/or hiring of a contractor(s) to construct the needed transmission facility; provided, however, the Owners' obligations under this sentence shall be subject to the Owners being satisfied that they will be compensated fully for their investments and will not be subject to additional regulatory requirements, unless the Owners otherwise agree to waive either or both of these requirements.[11]

These provisions of the TOA, particularly the provision that provides existing transmission owners with the responsibility to construct facilities that are connected to the owner's system and the ownership rights to such facilities may be interpreted as a "right of first refusal". If interpreted in that manner, these provisions could act as a discriminatory barrier to independent and merchant transmission developers, since a developer that is not a designated "Owner" would only be able to construct in the Midwest ISO footprint when a designated "Owner" was financially incapable of doing so or otherwise declined to do so. While "third-parties" are permitted to participate in the financing, construction and ownership of new transmission facilities, such opportunity appears to arise only after the incumbent transmission owners have declined the opportunity. This right of first refusal may preclude the ability of independent transmission owners from competing with incumbents to build projects. Placing all transmission developers on equal footing could bring discipline to transmission costs through increased competition between developers. However, any changes to these provisions of the TOA would still need to recognize different state regulatory structures and not impede on state jurisdiction and statutes.

[11] TOA Appendix B, Article VI

The question of whether merchant and independent transmission projects are eligible for funding from RTO customers is an open one in the Midwest ISO in the area of transmission constructed for the interconnection of remote renewable energy sources. A merchant transmission developer could employ self-funding for its project. On its face, it would seem that a self-funded merchant transmission proposal would only need to satisfy the operational planning aspects of the RTO, since the developer would not be asking the RTO customers to fund the project. How such a project would or could be usurped by an existing transmission owner using a right of first refusal, with consequent funding from the RTO customers, is one of the questions that will need to be addressed during the MISO RECB stakeholder process. Two other issues also need to be discussed. One is how the recovery tariff will be set for one Transmission Owner whose AC line crosses five other Pricing Zones, or TO owners. Another issue to be discussed is who is responsible for funding and/or owning the underlying system upgrades that support the Extra High Voltage overlay.

In sum, the Commission must ensure that independent and merchant transmission developers can meaningfully participate in the RTO transmission planning process and that RTO practices do not unduly discriminate against any transmission owner with respect to transmission project development and ownership. Any provisions of RTO/ISO tariffs or agreements that frustrate this participation should be scrutinized and clarified, while still giving consideration and allowance for state regulatory structures.

- **Should similar assumptions regarding resource availability be used for generation owned by the transmission owner and merchant or independent developers?**

All generation, regardless of whether it is affiliated with a transmission owner must be treated the same with respect to transmission planning.

- **Is the interconnection queue process hindering the ability to plan the transmission system to integrate new generation? Would any reforms to the Commission's interconnection procedures support efficient planning of the transmission system?**

Any interconnection queue system could possibly hinder the ability to perform meaningful planning if it is not designed correctly. For example, a highly permissive queue system (i.e., one with few requirements for getting and staying in the queue) may not have sufficient controls to discourage or prevent game playing and will likely be overwhelmed with projects, many of which have a very low likelihood of actually being built. This system will send an unclear signal to transmission planners that are attempting to incorporate likely generation development into future development scenarios. Conversely, a queue process that is too restrictive may impede the identification and development of necessary generation and may unduly restrict the types of entities engaging in such development. Where the balance lies between these competing positions is difficult to determine, and may be very different from region to region, where different policies and resources may take precedent. However, striking such a balance is worth the attention in order to facilitate planning efforts.

The Midwest ISO's interconnection queue process itself generally does not hinder transmission planning. However, there are a large percentage of the projects currently in the queue that will never be built. The fact that many of these interconnection decisions are in the hands of parties proposing new generation rather than the Midwest ISO and its member transmission owners, could be seen as too permissive and makes efficient transmission planning difficult. Conversely, parties are starting to see that interconnection queue rules may discourage or prevent settlements between generators and transmission owners for the purposes of facilitating interconnection agreements. The Midwest ISO has been working with a variety of stakeholders in an attempt to find the proper balance for its interconnection queue.

Determining and implementing an interconnection queue process that is "just right" is clearly a difficult but important element to the implementation of a successful transmission planning effort. The Midwest ISO's effort to address its interconnection queue problems should be given a chance to succeed. To that end, the Commission should follow the Midwest ISO's interconnection queue reform processes and give them a chance to succeed as well as coordinate with current planning efforts by CARP, UMTDI and MISO stakeholders before the Commission seeks to develop or impose any policies concerning the Midwest ISO's interconnection queue.

- **Should there be consistency in the way transmission providers treat demand resources, such as demand response, energy efficiency and distributed storage, in the transmission planning process? Are there preferred methods of modeling or otherwise accounting for demand resources in the planning process? Does the planning process investigate transmission needs at fine enough granularity to identify beneficial demand resource projects?**

The importance of demand response, energy efficiency, distributed storage, distributed resources and price responsive demand is rapidly increasing and these elements will likely have even greater impact in the future. Effective transmission planning must take these elements into account. Granular transmission planning that is able to account for these resources and elements as well as the regional and regulatory differences that may apply to them will be a positive development. The measurement and verification of these types of resources is an issue that will need to be addressed.

- **Are existing dispute resolution procedures in transmission provider tariffs adequate to address disputes that arise in the planning process?**

The Midwest ISO tariff provides effective alternative dispute resolution ("ADR") procedures available for disputes that arise in the planning process. These procedures have been called on sparingly and far more often with respect to market and settlement issues than planning issues. The OMS is not able to advise whether the ADR procedures are infrequently used

because Midwest ISO market participants are not familiar with using these procedures or because the Midwest ISO has been successful in resolving most disputes at an early stage. It is the OMS' understanding that the Midwest ISO is considering modifications of the ADR procedures to improve stakeholder awareness of their availability, to make submission of a dispute easier, and to improve the fairness of the procedures.

B. Transmission Cost Allocation

The OMS recognizes that lining up the causes and beneficiaries of a single line is often difficult (particularly in an alternating current grid), and that the benefits of any single line are likely to change over time. The CARP work group, the RECB Taskforce as well as the UMTDI are investigating different approaches.

- **To the extent that a lack of up-front certainty about cost allocation is inhibiting transmission development, describe the relative impact of this concern on specific projects and as it relates to other impediments to development.**

State regulators have been told that the lack of up-front certainty about a cost allocation methodology is one of the greatest inhibitors to transmission development. Therefore state regulators and other policymakers are working together and are making a concerted effort to provide leadership to develop a workable and fair cost allocation methodology that will remove any barrier that the current methodology may create. CARP, RECB and UMTDI have cost allocation discussions as their main focus. The cost allocation methodologies that these processes work to develop will be evident in the near future.

- **Should processes be established to help stakeholders address cost allocation matters over larger geographic regions? What is an appropriate scope for those regions? Should they align with the regions for which planning is conducted?**

Transmission costs should be allocated over the same geographic areas that are affected by the energy transactions. Since inter-regional energy transactions are common and the effects of those transactions are often broad, then costs should be allocated commensurate with the beneficial effects of the transaction. The main issue lies in how beneficiary and cost causers are defined, which is precisely the question that CARP, RECB and the other regional processes described above are attempting to define in their cost allocation discussions.

Inter-RTO cost allocations may be a more difficult issue. In the case of PJM and the Midwest ISO, scenarios arise where the cost causers/beneficiaries are located in one or both RTOs. However, since the current Midwest ISO/PJM inter-regional tariff is discounted to zero, there is no opportunity to charge the load or generators in the other RTO for the benefits of new transmission projects that are received. As such, with the prospect of billions of dollars of new transmission projects in an RTO with significant renewable energy resources, customers in one RTO will be unfairly subsidizing transactions in the other. The Commission should direct the RTOs to create an inter-regional tariff that charges the beneficiaries of the transmission system, regardless of which RTO they are located in.

- **Are there regional cost allocation methodologies outside RTOs, and broader regional cost allocation within RTOs, that should be considered or established? If so, how should this be done?**

In Order 890, the Commission did not require any specific cost allocation method, but provided the following overall guidance:

> First, we consider whether a cost allocation proposal fairly assigns costs among participants, including those who cause them to be incurred and those who otherwise benefit from them. Second, we consider whether a cost allocation

> proposal provides adequate incentives to construct new transmission. Third, we consider whether the proposal is generally supported by state authorities and participants across the region.[12]

Much has changed since the issuance of Order 890 and the Commission should now refine and clarify its guidance, particularly with inter-regional (e.g., inter-RTO) impacts in mind.

First, the Commission should reexamine and reiterate its desire to have cost causers and beneficiaries pay for the transmission upgrades that are necessary to fulfill a variety of goals. One way to assign new transmission costs is to base assignments on an assessment of those market participants that cause the costs to be incurred and those market participants that benefit or will benefit from the new transmission.[13] However, lining up the cost causers and beneficiaries of a single line is often difficult (particularly in an alternating current grid), and the benefits of any single line are likely to change over time. At the same time, as the 7th Circuit Court found, in order to be counted in the quantification, the purported benefits must be "articulable and plausible."[14] To that end, because the costs of new transmission are quantitative, the assessment of causation and beneficiaries should also be quantitative, if possible. While there are numerous just and reasonable ways to measure benefits and beneficiaries, the assessment should, to the extent possible, be a quantitative and demonstrable evaluation of incremental transmission facility impacts rather than just a qualitative assessment based on generalized assumptions or unsupported speculation. Indeed, quantified information should typically be weighted more heavily than non-quantified information. However, non-

[12] *Preventing Undue Discrimination and Preference in Transmission Service* 118 FERC ¶ 61,119, (2007) at P 559 ("Order 890")

[13] See *Illinois Commerce Commission, et al., v. Federal Energy Regulatory Commission, et al.,* ("7th Circuit Decision) at p. 10, where the Federal Court of Appeals for the 7th Circuit Court stated that, "To the extent that a utility benefits from the costs of new facilities, it may be said to have 'caused' a part of those costs to be incurred, as without the expectation of its contributions the facilities might not have been built, or might have been delayed."

[14] 7th Circuit Decision, at p. 11, where the 7th Circuit Court allowed that, if purported benefits cannot be quantified, they must at least be "articulable" and have a "plausible reason."

quantifiable costs and benefits definitely exist and need to be assessed and addressed. After the quantifiable factual and policy information is presented and vetted, non-quantifiable costs or benefits should be recognized and factored into the support or opposition to a case.

Second, the Commission has not heretofore given sufficient weight and sufficient clarity to its third guiding factor from Order 890. The Commission stated that it will "consider whether the [cost allocation] proposal is generally supported by state authorities and participants across the region."[15] However, the Commission has not yet clarified how it will judge whether there is general support by state authorities and participants across the region. Nor has the Commission established what the "region" is. The Commission has not yet clarified what weight it will give to general support by state authorities and participants across the region when it is evaluating a transmission cost allocation proposal.

With respect to transmission planning and cost allocation, the state commissions in the Midwest are primarily concerned with the following "regions": (1) the Midwest ISO region; (2) the PJM region; (3) the combined PJM and Midwest ISO region; (4) the combined Midwest ISO and SPP region; and (5) the combined Midwest ISO and non-Midwest ISO MAPP region.

With respect to the Midwest ISO region, the OMS formed the CARP working group to try to forge consensus (or at least a common understanding of differences in view) among the Midwest state regulators and policymakers on difficult transmission planning and transmission cost allocation issues. The Midwest ISO stakeholders have a Planning Advisory Committee ("PAC") and a Regional Expansion Criteria and Benefits ("RECB") task force to develop proposals and provide advice to the Midwest ISO on transmission planning and transmission cost allocation issues. The OMS CARP and the Midwest ISO RECB are working together in an

[15] Order 890, at P 559

iterative manner on transmission cost allocation policy. The CARP and RECB processes are inclusive, transparent, and comprehensive.

The OMS recommends that such arrangements serve as the model for cooperative and collaborative processes for transmission planning and transmission cost allocation. The Commission should declare that when cost allocation proposals (1) have been developed through such a cooperative and collaborative process and are generally supported by state authorities and participants; and (2) satisfy the cost causation - beneficiaries pay principle, the products and decisions produced by such process will receive great deference when submitted to the Commission for approval.

The OMS recommends that the Commission encourage the initiation of processes comparable to the CARP/PAC/RECB process for each of the other "regions" of interest to the Midwest state commissions, namely the (1) the PJM region; (2) the combined PJM and Midwest ISO region; (3) the combined Midwest ISO and SPP region; and (4) the combined Midwest ISO and non-Midwest ISO MAPP region.

As Steve Gaw pointed out in his September 10, 2009 Comments to the Commission in this proceeding, current RTO transmission planning does not deal well with the benefits of transmission projects to the extent those benefits flow to someone outside the RTO or outside the RTO's ability to bill for costs.[16] In some cases, benefits that accrue outside of the RTO responsible for the transmission planning are simply ignored. In which case, beneficial projects are not built because the aggregate of the benefits that are counted does not equal or exceed the cost of the project. In other cases, the benefits that flow outside the RTO are counted and the electric consumers inside the RTO are expected to pay for the costs of the project that generates

[16] Prepared Opening Remarks of Steve Gaw, Policy Director of the Wind Coalition, from September 10, 2009 Conference in Atlanta, GA under AD09-8

benefits to others merely because the RTO has no way of billing those others outside the RTO for the costs. Under such circumstances, projects will likely not be built because the intra-RTO customers expected to pay will balk with protestations that the benefits they receive do not equal or exceed the costs they must pay. In either case, the needs of the larger inter-RTO region are not well served.

Ideally, the geographic coverage of transmission planning processes would be coterminous with the flow of benefits from the transmission projects examined in such planning process. So, whenever intra-RTO planning finds projects for which benefits flow outside the RTO, a joint planning process with that transmission planning entity and its state policymakers and stakeholders must be initiated. In most cases, the flow of benefits from any particular project will be largely confined to the RTO's immediate neighbor. For this reason, the OMS recommends the establishment of standing joint planning processes with each of the Midwest ISO's neighboring transmission planning entities. However, in other cases, the benefits of a particular project may flow to even larger geographic regions, and, potentially, to the entire Eastern Interconnection. Therefore, the EISPC process may fulfill this needed element of transmission planning. The OMS is confident the Commission will be following the EISPC process to ensure that these broad geographic issues are sufficiently addressed in that process.

In the context of inter-RTO, and broader, transmission planning processes, the Commission should consider adopting rules or guidelines for inter-RTO transmission cost allocation. The guidelines must allow the RTO in whose footprint the transmission project will be built to assess costs, bill and collect from, the appropriate entities outside the RTO for costs of the project consistent with their benefits.

The state regulators are in the best position to judge the RTOs' beneficiary analyses. To the extent that a state's electric consumers will truly obtain benefits in accordance with the RTO's analysis, it can be expected that the state regulator will allow the recovery of the costs, provided that the costs are prudent and do not exceed the benefits that a project provides. Because, as explained above, if transmission costs are not reasonably allocated proportionate to benefits, it is likely that valuable transmission projects will not get built.

The Commission and the RTOs must work with the state commissions to establish how benefits of transmission projects will be measured and how the distribution of those benefits will be assessed.[17] The Commission and the RTOs must enable the state commissions to conduct their own independent analyses of benefits and beneficiaries. Unless sufficient data, information, analytical tools and capability to operate the analytical tools are provided to the state regulators, state regulators and the electric consumers they represent may balk at the prospect of incurring the costs of transmission projects.

- **Should each transmission provider hold an open season solicitation of interest for needed transmission projects identified through the transmission planning process in order to assist in cost allocation determinations?**

While an open season is unusual for electric operations, holding open season solicitations for proposed transmission projects has the potential to provide several benefits. In particular, an open season would likely provide information concerning the degree of interest in constructing the line and would assist in deciding questions regarding the size, type and timing of the project to best meet the requirements of the system. In instances where cost allocation uncertainty exists, holding open season solicitations could provide beneficial information regarding how

[17] The Commission stated in Order 890, "The states, which have primary transmission siting authority, may be reluctant to site regional transmission projects if they believe the costs are not being allocated fairly." *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, 72 Fed. Reg. 12266 (Mar. 15, 2007), 118 FERC 61,119, at P 560 (2007)

many interconnecting projects are interested and how much energy these parties expect to transmit over the proposed transmission lines. The open season concept may also help to ensure that new generation and transmission projects are built in tandem, and thus guard against the potential for stranded or underutilized assets.

However, open season solicitations may be helpful in certain states or regions, but may conflict in others because different transmission owner business models are utilized. Therefore, any policies relating to open season solicitations should be mindful of any interconnection requirements or other similar efforts will have to be sufficiently flexible to account for these state and regional differences.

A similar concept to open season is a competitive bidding process for the construction of new transmission projects. If the Commission were to pursue this concept, the OMS would expect that all qualified developers would be permitted to compete to build the transmission projects that are determined to be necessary under the relevant regional or inter-regional transmission planning process. In most cases, the winners of the bidding process would have to qualify as a public utility under applicable state law. A competitive process should produce the most cost-effective option for constructing a needed expansion of the transmission grid. A workable competitive process should be based on established criteria and standards for determining the most cost-effective bid such as:

(1) *Optimizing* (not maximizing) renewable integration;
(2) Ability to obtain timely permits and other authorizations;
(3) Capability to obtain timely financing; and
(4) Other relevant economic factors.

While existing transmission owners may be in a good position to establish these criteria, independent developers will likely be able to exert some competitive pressure on the transmission owners. The state commissions, as facilitators of the regional or inter-regional

planning and cost allocation process would be in a good position to decide which entity/entities could most cost-effectively construct and own the transmission project.

- **How can the customers that benefit from a particular facility be determined? Is there a preferred method? Should the method vary depending on the nature of the facility?**

It is difficult to determine the particular customers that benefit from a specific transmission facility. There does not seem to be a widely accepted, preferred method that is applied in the United States. The OMS CARP group has been examining various methods this year. In particular, the CARP group has been exploring the injection/withdrawal cost allocation methodology. One aspect of a flow-based, injection/withdrawal cost allocation method is that the determination of beneficiaries is dynamic. The underpinning of this methodology is to model the generalized access and use of the current network. The results of this model then guide the allocation of costs of future transmission facilities. The OMS CARP group expects to complete its evaluation of the injection/withdrawal approach by the end of 2009.

- **Should costs for base upgrades needed for existing reliability or economics be allocated differently than excess capacity expected to be needed for later developed resources? Should the allocation of costs for certain projects take into account the risk of under-subscribed "right sized" lines? If so, how should costs be re-allocated over time as such lines become subscribed by new customers?**

In a world where there is a significant need for new transmission, the distinction between base reliability and market-based projects is at a minimum blurred and in reality, no longer needed. Defining "right sized" as posed in the question is challenging. Because of the overall need for further transmission, which is expected to continue to grow into the future, it makes some sense to purposely right size facilities to avoid having to "tear down and rebuild" in the near future or to have to come back in the and create additional transmission corridors to serve that next increment of future customer growth.

However, the "right sizing" concept may pose challenges to regulators and policymakers. Whether to support and how to address deliberately over-sizing (assumed to equate to "right-sizing") proposed transmission projects is a thorny issue that speaks directly to state and federal policies and laws. For example, as discussed above, over-sizing a project proposal can put state regulators and policymakers in a difficult position because most state law (and federal law) have various "public interest" and "used and useful" laws that typically discourage purposely constructing transmission capacity that will not be used when the line is put into service but is expected to be used in years to come. Such "right-sizing" of facilities is especially challenging for state regulators when the transmission project is over-built to serve projected needs in a different state. All of this is not to say that policies and laws may not start to be re-shaped to accommodate this change in thinking but it will not be done overnight.

- **Should cost allocation mechanisms continue to differ based on whether a project is deemed necessary based on reliability and adherence to approved reliability standards versus economic considerations?**

Reliability and economic considerations are both important reasons for transmission development, but this question fails to capture a significant reason why transmission development is necessary today. The fact is, most transmission development today is being discussed in order to fulfill policy considerations of encouraging and requiring additional renewable energy generation. Future development is likely going to be based on policy requirements to mitigate and reduce carbon dioxide emissions. While any development of new transmission will likely result in reliability and economic benefits, the cost allocation or cost recovery mechanisms may have to be focused on the policy reasons for the development.

Over time, any project will lower the risks of interruptions by some degree, and almost every upgrade justified for reliability concerns will inevitably yield at least some economic

benefit. Given that both economic and reliability projects create costs and benefits on the integrated transmission system, transmission projects should be considered as a whole. Failing to acknowledge this new reality will allow some transmission projects to be constructed because they provide what are perceived to be "reliability benefits" while other "economic projects" are rejected for insufficient benefits despite allowing access to regions with lower cost generation resources. Such an outcome effectively imparts an artificial dividing line between projects that both contain an economic and reliability component. Furthermore, by reflexively approving every proposed reliability project, the Commission would potentially be ignoring more cost-effective solutions to serving incremental load such as targeted demand response or distributed generation.

- **How should non-quantifiable costs or benefits be identified, factored in or otherwise weighted?**

As noted above, the Commission must be sure to address the non-quantifiable costs and benefits, which, while difficult to fit into a numeric equation, definitely exist. Indeed, non-quantified information should be factored in with quantified information. After the quantifiable factual and policy information is presented and vetted, non-quantifiable costs or benefits should be recognized and factored into the support or opposition to a case.

- **Should the determination of beneficiaries of a transmission facility include generators as well as loads?**

Both generators and load benefit from the construction and operation of interconnecting transmission. In fact, it is difficult to imagine that an RTO could develop a workable or comprehensive set of benefits metrics that did not take into account the positive benefits obtained by generators (either existing or new) from new transmission projects. While it is basically true that, in the end, load pays for all transmission costs, allocating costs to generators proportionate

to their benefits will better target the "correct" set of load as the generators attempt to recover their costs from their customers.[18]

- **Should benefits be recalculated over time? Would recalculations negatively affect usage decisions?**

The distribution of beneficiaries should be re-examined from time-to-time. As the electric system and its uses change over time, the beneficiaries of transmission projects are also likely to change over time. Re-examination of beneficiaries would also help to eliminate free riders on the transmission system.

Adjustments to a project's cost allocation to reflect changes in the beneficiary distribution over time need not create uncertainty for project developers provided that there is certainty that the transmission project costs will be recovered from a cost-causer or a beneficiary. The "someone" need not be fixed over the life of the facility in order for the developer to have reasonable assurance about the opportunity to recover its costs.

II. CONCLUSION

The OMS submits these comments because a majority of the members have agreed to generally support them. Individual OMS members reserve the right to file separate comments regarding the issues discussed in these comments. The following members generally support these comments.

Indiana Utility Regulatory Commission
Iowa Utilities Board
Michigan Public Service Commission
Minnesota Public Utilities Commission

[18] The OMS notes that the Commission has approved a cost allocation treatment that reimburses generators for 100% of qualifying interconnection costs in the ATC, ITC/METC, and ITC Midwest pricing zones of the Midwest ISO. The recent Commission order ER09-1431 RECB Phase I solution did not supersede the previously approved methodology for these zones. To the extent that these OMS comments do not contradict the policies approved by the Commission for these pricing zones, the Michigan PSC supports the OMS comments in this regard. Through the ongoing cost allocation forums such as CARP and RECB Phase II, etc the Michigan PSC will be examining alternative methodologies.

Montana Public Service Commission
North Dakota Public Service Commission
Public Utilities Commission of Ohio
Pennsylvania Public Utility Commission
South Dakota Public Utilities Commission

The Illinois Commerce Commission, the Kentucky Public Service Commission, the Missouri Public Service Commission and the Wisconsin Public Service Commission abstained from the vote on these comments. The Manitoba Public Utilities Board did not participate in this pleading.

The Minnesota Office of Energy Security and the Indiana Office of Utility Consumer Counselor, as associate members of the OMS, participated in these comments and generally support these comments.

Respectfully Submitted,

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Dated: November 23, 2009

OMS answers to Resource Adequacy Hot Topic questions for December 2009 AC meeting

Questions:

1. Overall, are there any major reasons to believe that the resource adequacy construct is not likely to achieve resource adequacy reliably and efficiently?

a) In the next five years?

b). More than five years?

No. OMS understands the intent of the question is to ask if the resource adequacy construct is likely to provide adequate incentives to market participants to reliably and efficiently achieve resource adequacy. No RTO construct by itself can achieve resource adequacy. In addition to the construct, other factors include: market participant behavior, state jurisdiction, NERC reliability standards regulations, financial markets, and manufacturing industry business cycles.

The efforts by the Midwest ISO to address resource adequacy should be viewed in the context of state jurisdiction. That is, since most states within the Midwest ISO have the statutory authority and responsibility to ensure reliable service, resource adequacy is not likely to be as much of a concern as it is in other RTOs. Having enforceable planning reserve requirements provides added support for states to take actions necessary to assure resource adequacy. Jurisdictional utilities would not want to be in a position of making a request to their state commission to recover the cost of penalties for insufficient resources.

With some improvements, the workings of the existing resource adequacy construct, in conjunction with energy and ancillary services markets, and other factors mentioned above, **are** likely to provide adequate incentives to achieve resource adequacy reliably and efficiently because the markets would be designed to pay the right resources in the right location at the right time. See OMS response to Question 8.d.

With the present resource adequacy construct embracing LOLE standards and the planning reserve method and the recent Module E approval as implemented by the Midwest ISO, states have plenty of capacity and reserves for the next five and ten years. System adequacy is fine. The combination of the bilateral market, the voluntary capacity market, states with more aggressive construction programs, and the recent demand destruction due to the current economic downturn has put the Midwest ISO footprint on a sound basis.

ICC Opinion: The Midwest ISO Module E does nothing, in and of itself, to ensure resource adequacy. Resource adequacy is currently being ensured by other means. The Midwest ISO Module E just creates administrative burdens, imposes complexities and inefficiencies and increases costs that consumers end up paying. Resource adequacy in the long run can be ensured by fine-tuning the Midwest ISO's energy and operating reserves markets so that prices more accurately reflect actual and expected conditions and by enabling price responsive demand participation for retail customers.

2. Module E was crafted explicitly to respect states' rights regarding resource adequacy, while ensuring reliable grid operation. Has the implementation of Module E supported this objective?

Yes, but with qualification. States have been able to pursue individualized resource adequacy approaches towards meeting MISO's requirements. One example is state RPS requirements. Another is state oversight of a utility's operation of its facilities and cost recovery for building new or closing or mothballing generating plants. The OMS states take their resource adequacy rights seriously, and certainly intend to continue to strive to ensure reliable electric service within their states. As noted in our response to Question 8.b. however, there are still some barriers to pursing different levels of reliability without affecting neighboring LSEs or states. This can create friction in policies between restructured (retail access, generation spin-off, etc.) and traditional structured states. For example, absent a targeted, non-firm and firm (in a worse case situation) load shedding event, one state is leery of the programs operating in a neighboring state because of the potential effects in their own state.

ICC Opinion: No. The Midwest ISO would better support states' rights by abandoning the Module E approach and allowing state commission and state legislative designs to continue to provide for resource adequacy either through traditional regulatory methods or through market means combined with retail customer empowerment, e.g., retail access and price responsive demand.

3. Has the resource adequacy construct helped to promote (or not hindered) efficient, liquid bilateral markets for capacity in long-term contracts and planning resource credits? For example, by increasing transparency in price and demand? Is the monthly construct optimal?

The construct has not hindered bilateral markets. States still review the purchase of power by LSEs under their jurisdiction, and can base their review on whether the resulting power will be reasonably priced compared to alternatives, just as they have done in the past. While information for other bilateral contracts is still lacking, other price information has grown. The monthly construct is not optimal, but is perhaps a workable compromise between an annual construct that meets the intent of an annual planning reserve requirement and a weekly construct that reflects frequent LSE load switching that can occur in retail choice states. See OMS answer to Question 9 about transparency.

OMS supports the Midwest ISO goal of encouraging long-term bilateral contracts. The Midwest ISO's construct is a better means of achieving that goal as opposed to an RTO-run capacity "market," where encouragement for long-term bilateral contracts is questionable.

ICC Opinion: The Midwest ISO Module E has created an unnecessary administrative bureaucracy. It mandates a particular type and level of hedging regardless of the retail market designs that would be preferred by state legislators and state regulators.

4. Are all resource types treated comparably/equitably (i.e., generation, small generation, DR, imported resources, non-dispatchable resources such as wind, BTMG, use-limited resources, etc.) with respect to qualification requirements, performance requirements, penalties, etc.?

Yes in the sense that all can or soon will be able to participate in the market and planning functions. No in the sense that qualification levels are and should be different to properly reflect the different operating characteristics of each type of resource; such as dispatchability, rate of change, outage rates, etc. Demand response and price responsive demand programs are still evolving. As such programs are being brought into the market, some are evolving, some are new, and the Midwest ISO is still working through implementing details via the stakeholder process. This process should be allowed to reach its fruition. As for wind resources, the Midwest ISO has rolled out a statistical approach that looks promising. In previous OMS comments to the Board, OMS suggested the use of statistical methods. The Midwest ISO's adoption and exploration of this technique is appropriate and should be commended. The continued refinement of wind analysis via the stakeholder process is effective and appreciated.

ICC Opinion: Ensuring resource comparability in a capacity construct is a quagmire that will produce unending arguments and disagreements. The better approach is to facilitate broad participation in the energy and operating reserves market by all resources capable of providing those services.

5. Does the Resource Adequacy construct adequately address the special circumstances in retail choice states? If not, what steps should Midwest ISO pursue to remedy this?

Mostly it does. The use of a monthly construct (instead of an annual construct) to recognize potential load switching in retail choice states is one example. There is still work to be done regarding retail choice providers, demand response including price responsive demand, Aggregated Retail Customers, and the individual needs of each state. The OMS urges the Midwest ISO to continue work on these issues via the stakeholder process.

ICC Opinion: No. The Midwest ISO Module E approach directly conflicts with state policy that would seek to ensure resource adequacy through retail customer choice and retail customer price responsive demand built on a foundation of an efficient regional energy and operating reserves wholesale spot market that provides accurate price signals.

6. In a previous Advisory Committee Hot Topic, the sectors weighed in on Load Forecasting. After six (6) months of the new Resource Adequacy construct, has your sector view changed at all? How?

It is imperative that the Midwest ISO, state commissions, and load serving entities work together to develop a comprehensive and robust forecasting process. We think OMS is right to prefer a "bottoms-up" approach but this should not be viewed as mutually exclusive to having appropriate elements of a "top-down" approach as part of the load forecasting process. For the following reasons, it is critical that the Midwest ISO be a full partner in the load forecasting effort:

1. The Midwest ISO has primary responsibility for reliability.[1] Ultimately, the Midwest ISO needs to have confidence in the validity of the forecasting process. Without confidence in the forecasts, the Midwest ISO would have to increase its planning reserve requirements which would result in higher costs to customers. States and LSEs are mindful of the significant financial, reliability, and operational benefits associated with reduced planning reserve requirements.

2. The Midwest ISO has a unique perspective that would benefit the forecasting process (e.g., load and resource diversity). Without coordination of those involved in load forecasting, there is a greater potential for under or over-counting. For example, in states where there is a potential for load switching, LSEs may have greater difficulty anticipating future load requirements.

3. We don't believe there is any dispute among OMS members that demand response and energy efficiency should be included with the load forecasts. The question is "how." To answer the "how," there should be no dispute that the Midwest ISO needs to be intimately involved in the process. Even at a high level, without necessarily giving consideration to the effect of specific DR and energy efficiency programs, energy prices emanating from the Midwest ISO should have a feedback effect on the forecasted energy sales and demand for individual customers. The Midwest ISO is in a better position to provide regional price information than individual LSEs.

4. The Midwest ISO is in a better position to referee. Some states are concerned that, with enforceable reserve requirements that could result in penalties, there is an incentive for LSEs to under-forecast load requirements and overstate the effects of demand-response and energy efficiency in their forecasts. To the extent this occurs, those LSEs that have expended considerable time and effort to produce high-quality load forecasts as well as represent unbiased results would be subsidizing those LSEs that didn't make the effort, were unable to produce a high quality long-term forecast, or intentionally skewed the results to reduce the financial ramifications of the Planning Reserve Requirements. It is extraordinarily difficult to conduct a forensic analysis on load forecasts to determine if there was intentional under forecasting or over-estimation of demand response and energy efficiency so the "evil doers" could get by with foisting costs on others.

5. The Midwest ISO could provide a perspective that is needed to improve the forecasting processes. For example, something as fundamental as the planning horizon varies among states and LSEs with some being shorter than the RTO planning horizon and may not, then, give adequate consideration to more expensive generation and transmission facilities.

ICC Opinion: If Module E is eliminated, this particular forecasting controversy would evaporate.

[1] The North American Reliability Corporation defines Reliability as having two components –"Security" and "Adequacy." Security relates to Operating Reserves and other short-term operations while Adequacy relates to Planning Reserves. The two converge in real-time because there needs to be sufficient investment in resources over time to ensure that Real-Time energy market requirements are satisfied.

7. How does your sector view the efficiency and effectiveness of the Voluntary Capacity Auction in supporting Resource Adequacy?

The VCA is a useful adjunct. Prices have been relatively low, reflecting the surplus of capacity in the Midwest ISO at the present time. Therefore, VCA effectiveness at accommodating short term solutions for different entities is difficult to judge. The VCA represents a small portion of capacity market buyers, those who are capacity-short and potentially exposed to the deficiency charge, so it is also not clear how and if it relates to prices of bilateral contracts in general. In some situations, for example, the deficiency charge could have more effect on capacity market prices than the VCA. Currently, there is little if any transparency in bilateral contract terms and prices. If price transparency is important, it would be more effective for the Midwest ISO to post results of bilateral arrangements after a certain period of time. This would require entities reporting to the Midwest ISO to provide price and quantity information of their bilateral arrangements to the Midwest ISO who would post this information with an appropriate lag, perhaps 6 months. Party and counter party information could remain confidential, but pricing, quantity, and duration terms would be made public.

The OMS is concerned that the Midwest ISO VCA process lacks meaningful market power monitoring and market power mitigation. Also, state regulators and independent analysts should be allowed access to the data needed to conduct independent analyses. Even when there are adequacy resources system wide, local constraints can lead to market power for sellers in the VCA.

8. Scarcity pricing is one of the drivers in the Midwest ISO Resource Adequacy design intended to maintain long term reliability. Are the rules related to scarcity pricing in regards to this objective?

a) Are the current scarcity price values/formulas adequate in meeting this objective?

They are adequate in terms of objective, but still need the further improvements that the Midwest ISO is working on, such as software fixes to prevent false scarcity events and improvements in pricing. Also needed are the changes to emergency operating procedures as discussed on OMS response to the next question. The OMS urges the Midwest ISO to continue working on improvements.

ICC Opinion: The arbitrary capacity mandates of the Midwest ISO's Module E undercut the purpose of scarcity pricing in the energy and operating reserves markets. The energy and operating reserve scarcity pricing approach has never really been allowed to work because Module E was implemented.

b) Are any changes needed to the emergency operating procedures currently in place by which Midwest ISO implements scarcity pricing (EOP - 002)?

As the non-dispatchable wind penetration continues to increases, the technical task teams that are studying the current operations and future systems are likely to suggesting some new product that has a 4 hour or so time frame. That product would possibly have a stand-by payment and then a forward pricing mechanism with some rate of response (MW up and/or MW down) capability. This will need additional research. The anticipated Eastern Wind Integration Transmission Study should provide additional insight.

Under the Midwest ISO's long-term resource adequacy goals, market forces should allow LSEs to choose different levels of reliability and experience the consequences without detrimental effects in their neighbors. There are two barriers yet to overcome to make this work: Targeted load shedding and prices during emergencies.

The Midwest ISO does not provide for targeted load shedding. When combined with the Module E assumption that almost all resources (APRCs) are deliverable throughout the Midwest ISO's footprint, reliability ends up being shared even where it was meant to be different. During the Midwest ISO and stakeholder work on a Real Time Sufficiency Tool a few years ago, the OMS supported the idea of targeted load shedding during emergencies to provide for better consequences of different levels of reliability. As OMS understands it, the Midwest ISO ceased work on the tool because of difficulties tracking resources to identify exactly which LSE is short during an emergency. When combined with the shortcomings of the Midwest ISO's scarcity pricing, the result is still lacking.

The Midwest ISO's current emergency operating procedures undercut the market price signals that would efficiently ensure reliability and make the need for deployment of the emergency operating procedures more likely. For example, if an LSE deploys demand response mechanisms under retail tariffs the resulting decrease in load causes wholesale prices to decrease, sending a price signal that goes in the wrong direction for an emergency if no resources are left for firm load. Outside an emergency, an LSE can deploy demand response to decrease load to keep prices down, but this is different because there is no scarcity and therefore the LSE is not likely to be exposed to real time prices. During emergencies, however, those LSEs that are short and therefore exposed to real time wholesale prices should see prices that relate to the emergency.

c) Do the current Tariff and operating provisions facilitate transparency of the scarcity pricing process?

The process appears transparent when the resulting prices make sense. The process is not transparent where prices are the result of software logic glitches. The process is also not transparent when prices drop due to demand response deployment during emergency events that should trigger higher prices. Allowing demand response to set prices in the later stages of an emergency event will also improve transparency. The OMS appreciates the Midwest ISO's efforts to identify and fix these shortcomings.

d) Has/Does the combination of capacity requirements plus energy/scarcity pricing provide adequate incentives to ensure long-term resource adequacy?

The question addresses the central resource adequacy issue, which is whether relatively short-term prices can provide the proper incentives to ensure long-term resource adequacy. The OMS says yes. Some have said that the longer term prices are needed, such as 3 or 4 year forward prices used by RTOs to the east in their resource adequacy constructs. In the context of long-term resource adequacy, however, they are also short-term prices. The Midwest ISO capacity requirements and energy/scarcity pricing, are the right combination when considered in the bigger picture of state resource adequacy, financial markets, electric industry manufacturing business cycles, market participant behavior, and risk exposure. RTOs cannot and should not be expected to provide resource providers with the sole means of long term financial security. In other words, RTO-run resource adequacy constructs are a means to another end, not an end in itself.

The resource requirements and the energy/scarcity pricing mechanisms should each provide incentives to ensure long-term resource adequacy. The resource requirements provide a monetary incentive to secure adequate resources to meet load forecasts via a deficiency charge. The energy-scarcity pricing provides information on the value of a resource for its location, type, and when available, which is useful for establishing what is likely to be needed in the future. The goal is to ensure that the right type of resource is available in the right place and the right time.

ICC Opinion: A well-designed energy and operating reserves market that features scarcity pricing combined with state policy maker decisions regarding hedging levels and retail customer empowerment would efficiently ensure resource adequacy. There is no need for a separate capacity construct.

9. If you could change one thing to improve the Resource Adequacy mechanism, what would it be?

All of the changes indentified in responses to these questions are important towards making the mechanism right. The one overall most important thing would be to fine-tune the energy and ancillary services market so that it sends the most accurate price signals.

ICC Opinion: Eliminate Module E. Fine-tune the energy and ancillary services market so that it sends more accurate price signals. Enable retail customer price responsive demand.