



FERC Order No. 890

Midwest ISO Strawman Proposal
for
Compliance with Nine Planning Principles
Adopted by The Final Rule

May 29, 2007

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1 Executive Summary

On February 16, 2007 the Federal Energy Regulatory Commission issued its landmark revisions to the Commission's open access requirements for electric transmission providers. Order No. 890 requires, for the first time, that transmission providers engage in an open process for transmission planning that meets nine articulated "planning principles". Order No. 890 required the public posting of a planning strawman by each transmission provider, to be followed by technical conferences to discuss the proposals before the compliance filing deadline.

This document constitutes the Midwest ISO strawman, and contains a detailed description of the evolution of the Midwest ISO planning process, how it complies with the nine planning principles in Order No. 890 as well as certain other planning requirements of the final rule.

As an RTO subject to Order No. 2000, the Midwest ISO uses a planning process focused on providing non-discriminatory service, reliability and economically efficient use of the transmission system. Using a "top down" view for longer term regional analysis, and a "bottom up" component for local system near-term and reliability requirements, the Midwest ISO Transmission Expansion Plan ("MTEP") process has resulted in MTEP 06, with MTEP 07 and MTEP 08 currently under parallel development. MTEP 08, to be released in October 2008, will use scenario planning with a longer term planning horizon to incorporate the significant risk factors and competing policies that drive transmission investment decisions in today's industry.

The Midwest ISO planning process has evolved into a regional process involving a diverse stakeholder group that generally supports both the process and the regional cost allocation methodology. Each step in the Midwest ISO planning process is "interactive" in the sense that stakeholder groups and committees work closely with Midwest ISO planning staff throughout the process. Using non-disclosure agreements and publicly available economic data, the Midwest ISO is able to obtain the participation of divergent stakeholder interests and incorporate their views in the planning process. Similarly, the development of the cost allocation methodology for regional reliability projects, subsequently approved by the Commission, was arrived at through a consensus exercise that required cooperation and concession by all affected groups.

When projects are approved by the Midwest ISO Board of Directors as "MTEP Appendix A" projects they become eligible for regional cost sharing pursuant to Attachment FF of Midwest ISO's Energy Market Tariff. Stakeholders are involved in cost allocation and report preparation. After the MTEP study is approved, the Midwest ISO staff monitors the approved plan and provides quarterly updates to the Board of Directors on the implementation of the "Appendix A" projects. The quarterly updates provide transparency on plan implementation so that customers know the progress being made on projects of interest to them. The Midwest ISO Transmission Expansion Plan and quarterly updates are available on the Midwest ISO website.

The existing Midwest ISO planning process meets or exceeds each of the requirements of Order No. 890, including the Commission's nine planning principles. Section 4 of this strawman discusses the current Midwest ISO planning process and how it satisfies the new requirements. Appendix X provides a table illustrating each requirement including the nine principles, where each new requirement is found in Order No. 890, and the corresponding element of the Midwest ISO planning process.

Under the Transmission Owners Agreement, the facility owners are obligated to plan their transmission systems consistent with the need of the Midwest ISO to provide non-discriminatory, economically efficient transmission service while meeting applicable reliability standards. The elements of the individual transmission owners' planning processes will comply with the Order No. 890 planning principles. Pursuant to a series of coordination and operating agreements with neighboring systems, the Midwest ISO also coordinates its transmission planning process with surrounding systems.

In conclusion, the planning process used by the Midwest ISO and its stakeholders to develop needed transmission expansions exemplifies the new Order No. 890 requirement for an open, transparent, participatory, and regionally coordinated planning process.

2 Introduction

2.1 Purpose

In the Order No. 890 Final Rule, Preventing Undue Discrimination and Preference in Transmission Service, the Commission requires that Transmission Providers participate in a coordinated, open and transparent planning process on both a local and regional level. Further, each Transmission Provider's planning process must meet the Commission's nine planning principles, which are:

- 1) Coordination
- 2) Openness
- 3) Transparency
- 4) Information Exchange
- 5) Comparability
- 6) Dispute Resolution
- 7) Regional Participation
- 8) Economic Planning Studies, and
- 9) Cost Allocation

Each Transmission Provider is required to submit, as part of a compliance filing in the Order No. 890 proceeding, a proposal for a coordinated and regional planning process that complies with the nine planning principles and other requirements of the Final Rule. In the alternative, a Transmission Provider may make a compliance filing in the proceeding describing its existing coordinated and regional planning process, including appropriate language in the tariff, and showing that the existing process is consistent with or superior to

the requirements in the Final Rule. Under either of these approaches, the planning process must be documented as an attachment to the Transmission Provider's OATT.

The Commission will be holding technical conferences 90 to 120 days after the publication of the Final Rule in the Federal Register, March 15, 2007. To facilitate these conferences, each Transmission Provider should, within 75 days after March 15, 2007, post a strawman proposal for compliance with each of the nine planning principles adopted in the Final Rule.

2.2 Scope

This document constitutes the Midwest ISO strawman proposal document. The strawman document consists of five Sections plus ten Appendices. Section 3 is a description of the evolution of the planning process at the Midwest ISO from the initial regional plan published in June 2003 through the present process being employed to develop the Midwest ISO Transmission Expansion Plan – 2008 (“MTEP08”), which will be the fifth regional plan developed by the Midwest ISO; it is scheduled for release in October, 2008. Together with its stakeholders, the Midwest ISO has substantially advanced the approach to regional planning throughout this period. The Midwest ISO believes that the subject planning procedures are superior to requirements of Order 890, and will meet the needs of the Midwest ISO region.

In Section 4, the Midwest ISO provides a point-by-point description of how the Midwest ISO planning process complies with the nine planning principles adopted in the Final Rule, and Section 5 addresses other issues raised in the Final Rule. This Midwest ISO strawman document also includes in Section 6 a brief description of the planning process documentation that will be included as an attachment to the tariff in the Midwest ISO compliance filing to be submitted in October.

The Midwest ISO has adopted a planning process approach that incorporates both a top-down and a bottom-up perspective. The top-down, or regional, perspective addresses the need to look beyond the least-capital-investment solution and to develop transmission expansion plans that maximize long-term value and that are supported by a wide range of economic benefits. The bottom-up perspective ensures that near-term and localized reliability needs are addressed. Developing a process that simultaneously addresses the short-term and the long-term more efficiently allows for higher voltage solutions that meet multiple lasting needs. When planning is only near-term and reliability focused (*i.e.* the next five years) the resulting plans tend to involve facilities of a lower voltage, with low initial investment costs, but that generally do not enable significant improvements in market efficiency and the expected benefits to customer prices. High voltage transmission lines tend to provide longer-term solutions and need to be analyzed over a ten to twenty-year time horizon in order to recognize their full value. The Midwest ISO Transmission Planning methodology provides a mechanism to look at both the short-term reliability and long-term economic benefits of transmission expansion portfolios in a comprehensive manner that mitigates many of the planning limitations that have affected industry planning processes for the past several decades.

3 Evolution of the Midwest ISO Planning Process

3.1 Objectives

The Midwest ISO Transmission Expansion Plan (MTEP) process, through and including the MTEP06 released in February of 2007, has been bifurcated into two distinct areas for assessment: the first being reliability and the second being economic.

The first objective is to document and validate the need and sufficiency of all planned and proposed transmission projects provided by the member Transmission Owners to make sure they: i) are required to address a system need; ii) are sufficient to address reliability standards; and iii) form an efficient set of expansions to meet identified needs. This validation of bottom-up developed transmission facility expansions is an increasingly important requirement since regional cost sharing is now in place as a result of the Commission's acceptance of the Midwest ISO's Phase I Regional Expansion Criteria Benefits (RECB) filing. This initial movement to regional cost allocation is an important step to planning for the Midwest ISO, as an integrated whole, as it acknowledges, with stakeholder support, that the benefits of an infrastructure project don't stay neatly within the boundaries of individual utility systems.

The second objective is the development of economic projects to supplement or replace as appropriate, the reliability projects proposed to the Midwest ISO. The effort to identify economic expansions has required several years of foundational work including development of the tariff provisions for cost allocation, the extension of the planning horizon beyond the typical five-years associated with reliability needs assessment, and the establishment of practices and policies for developing planning models representative of these longer horizon futures. The March 2007 FERC Order accepting the Midwest ISO's Phase II Regional Expansion Criteria and Benefits (RECB II) filing pertaining to the cost allocation of economic projects moves the process dramatically forward to be able to develop large regional projects. Inter-RTO cost allocation still needs resolution to be able to provide national transmission projects that can, for example, take wind energy resources from the Midwest to relieve energy prices in the Northeast.

The MTEP07 and the MTEP08 plans are underway in parallel with each other, with MTEP07 to be released in October 2007, and MTEP08 to be released in October 2008. This parallel processing permits the Midwest ISO to provide in MTEP07, an incremental update to the reliability needs for the five and ten year planning horizons consistent with NERC reliability standards, while continuing with the identification of the initial set of top-down and value-driven regional expansions to meet the longer-term planning futures. The fundamental principles of the MTEP08 planning approach are described further below. Also refer to Figures 6-1.1 and 6-1.2 in Section 6.

3.2 Future Considerations: 2008 and beyond

As previously mentioned, the Midwest ISO planning process has historically balanced the

principle of safeguarding reliability with accommodation for the principle of supporting regulatory mandates through the EMT. In large part, this focus has been a result of extraordinarily high threshold questions of need within state regulatory processes. Integrating these principles presents several challenges. Historically, energy delivery planning was subsumed by capacity planning associated with new base load generation facilities and the infrastructure required to deliver that energy to a utility's native load. The delivered cost of energy was dealt with in the plant justification process and the required transmission facilities simply followed.

To be of greater relevance, transmission planning must extend its analysis to include more than the minimum capacity required to maintain reliability. The recognition of relative transmission benefits, including greater access to varied generation sources and reducing the price of energy, needs to be assessed and quantified. These economic analyses are relatively new to transmission planning in certain regions of the Midwest ISO footprint

In order to meet this analytical need, planning horizons need to be extended from a nominal five (5) years to encompass the reality that large transmission projects require ten (10) years to complete. This reality reveals several analytical and policy challenges.

First, benefits may not begin to accrue for the entire 10-year gestation period of a large transmission upgrade project. Predicting benefits is more difficult when the time horizon for many assumptions about load growth and generation project development is 10 years or longer, rather than 5. Typically, queued generation projects have in-service dates as much as 5 years into the future, leaving the planning engineers to predict for horizons beyond 5 years not only what the fuel type of future generation may be, but also physically where these forecasted generation developments might be located. These assumptions have a profound impact on the magnitude of benefits and the identity of the beneficiaries. To date, economic analysis has focused on a set of analytics based only upon production cost of the existing generation fleet. Additional elements, including lower generation reserve margins, economic development effects, new technologies, demand response, environmental fuel source considerations, national security implications, and routing or siting constraints, must be included in the new equation.

Second, stakeholders insist that allocation of the costs of specific facilities must follow perceived benefits. Any justification of an economically driven project must consider "who will pay for it." A multi-year effort to develop the RECB cost sharing tariff produced an initial solution that will be monitored for viability. The need to connect beneficiaries with payors is also important in the regulatory process. Most state commissions are obligated to protect retail customers from unjust and unreasonable rates, and thus are required to find that the benefits of a given project will likely outweigh the cost to those customers. Under the case law and statutes of their various jurisdictions, state regulators have some latitude about the definition of benefits and are generally able to include regional or societal benefits in their consideration. In the end, however, these regulators must conclude that net benefits outweigh net costs to ratepayers in their jurisdiction, or they will be unable to find that construction of a network upgrade is in the public interest. The difficulty inducing regulators and utilities to embark on a decade long

battle from plan to operation of a large transmission project should not be underestimated. The uncertainties created by such a long time horizon make it unlikely that transmission facilities will be constructed unless an entity can recover its costs through some sort of regulated rate mechanism.

Third, national and local energy policy debates will continue to be a part of any proceeding to determine whether transmission facilities are required. Policy advocates have historically used transmission construction cases to argue that if only their policy position were adopted it would obviate the need for the additional infrastructure. Currently the call for “distributed generation” (generation that is built close to the appropriate load) is a typical policy position that might affect analysis of a facility’s need or capacity for a transmission upgrade. Similarly, advocates of a particular technology (*e.g.*, wind energy or pro-coal, anti-coal or anti-combustion or pro-gas) have all used these venues to advance their individual policy positions. Speculation about future load growth and energy production choices is also fertile ground for these policy debates. Complicating the discussion further, energy marketers and power producers may see financial benefits in existing transmission constraints and occasionally premise their business plans and policy positions on prolonging these constraints.

Fourth, an effective transmission expansion plan must understand likely generation capacity additions in assessing and forecasting transmission infrastructure benefits. There currently is no regional or national consensus forming on energy policy matters. There is significant anxiety and conversation around climate change and its effects on choices of generation. It can be predicted that wind energy will continue to enjoy regulatory favor (as evidenced by the various renewable portfolio requirements being developed for many states) but there is little consensus around dispatchable capacity: coal, gas or nuclear? Where is the cost or political trade off that will make nuclear generation a competitive option? If nuclear generation becomes a viable option, will there be siting constraints, and will policy makers force the location to be remote from load centers? With an estimated 2% rate of load growth, the Midwest ISO Region will need approximately 2500 MW of new capacity annually. It will be very challenging to predict what types of capacity will be constructed and the physical location of that capacity, especially when the time horizon under review begins in 10 years and likely ends after 30 years. The economic evaluation will require planners, for example, to forecast the physical placement and dispatch characteristics of 50,000 MW of capacity—or assume load growth (and economic growth) to be dramatically lower than the national experience during the last two decades.

Fifth, additional transmission capacity is not necessarily in the best interest of every particular incumbent load serving entity (“LSE”). Additional competitive pressure may inure to the benefit of end use customers, but vertically integrated LSEs have been rewarded for decades with a business model and regulatory structure that focuses on the benefits of monopoly service in return for the obligation to serve all customers in a geographic region. Increasing competition between wholesale energy supplies may not be in the strategic interest of a generation owner that enjoys an LSE retail monopoly. Importantly, not all LSEs are regulated similarly. Some states have opened retail service to competition, and some utilities have separated their LSE functions from other activities.

Municipal utilities may be exempt from regulation by the states within which they are located. Different Cooperatives have different obligations as well. A significant percentage, approximately 30%, of load within the Midwest ISO Region is non-jurisdictional. Thus, the proposition that regulatory structure can skew transmission incentives may hold true for the majority of load, but not necessarily for all entities.

The Midwest ISO's response to this complex set of questions is to construct a series of scenarios representing alternate futures that can be used both by planners (to design system enhancements) and by policy makers (to understand the context of the choices they are asked to make). The Midwest ISO Planning Advisory Committee is the focal point for addressing these strategic initiatives. The integration of the RECB and MTEP considerations is further discussed below.

3.3 Required Components of the Transmission Planning Process

Thirty to forty years ago the transmission system in the Midwest was planned and constructed to function with the reliability, communication and real-time operating tools available at that time. Relatively few transmission facilities have been built since. In the ensuing period, however, unprecedented technological advances in tools, analytical methods and communications have allowed transmission providers to better utilize the transmission system by extracting greater efficiencies and benefits. Arguably, with today's perspective, the transmission system in the 1960's and 1970's would be represented at the right side of Figure 3-1. Over the last forty years, lesser amounts of major transmission have been constructed in favor of local generation. Therefore, the industry has moved to the left side of the curve illustrated in Figure 3-1 and there no longer is an economic balance between transmission and generation.

Need to Determine The Optimal Transmission Investment/ Reserve Margin Combination

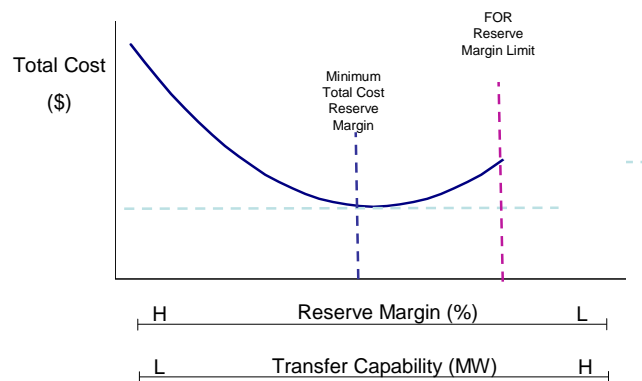


Figure 3-1

Midwest Independent Transmission System Operator, Inc.

To lower energy prices, while meeting reliability requirements in the most efficient manner, the planning focus must shift from a short-term cost minimization philosophy to one that is value driven. The value driven philosophy, to attain the optimum balance among social policy, reliability and economic efficiency, requires buy-in from both transmission owners and their regulators.

As the Midwest ISO integrates the regional cost allocation and MTEP processes into a Midwest ISO driven process, the objective is to move to the point that balances minimum total cost against reserve requirements and transmission transfer capability. Additional transmission is needed to use the existing generation (that was originally built as an alternative to transmission) in the most effective manner. Intuitively, the same system that enables generation reserve margins to be reduced to the economic level will also provide congestion cost relief and improve the resiliency of the network yielding a national security benefit.

To move to the lower total system cost represented by the center of the curve requires a thorough understanding of generation deliverability, loss of load expectation, generation and transmission costs, system economics and market rules, combined with existing and future policy needs, and the consensus to incorporate all of these elements in the planning analysis.

The first steps in this process occurred in early 2006 at the Midwest ISO Planning Advisory Committee with development of the portfolio assessment process. The Midwest ISO's strategy is to use scenario planning to inform both planners who design system enhancements, in addition to the stakeholder and regulatory policy makers about the context of the choices they are asked to make.

The Midwest ISO continues to use traditional power flow analysis to evaluate transmission system performance and to design possible enhancements and alternatives. Power flow models extending out a minimum of 15 years, with 20 years being optimal, are now being constructed to extend the planning horizon to correspond with the production cost and resource development model horizons. Where existing generators and proposed generators with signed Interconnection Agreements from the generation interconnection process do not meet the modeled forecast load, an additional portfolio of proxy generation needs to be identified to populate the outlying years in the transmission power flow models. The proxy generation needs to be developed using a consistent and repeatable process. The proxy required generation, determined from the generation portfolio development process, is sited into the power flow models based on a defined rule set that is consistent and repeatable.

The Midwest ISO uses a traditional integrated resource planning model to determine the portfolio of generation requirements over a 20 year planning horizon, for each of the future scenarios identified. Within MTEP08, there are four future scenarios under consideration. The modeled portfolio of generation in these four scenarios will be used to test the robustness of transmission plans and benefits evaluations.

The Midwest ISO has used production cost modeling to estimate the economic benefit of transmission projects in all of its transmission expansion plans to date. This capability continues to be expanded to evaluate the delivered cost of energy for all 8760 hours of a given year. In the short-term five-year horizon, this model has been very effective due to the Midwest ISO's ability to rely on queued generation projects for the generator assumption set. With the development of 15 to 20 year transmission models that incorporate optimized portfolios of proxy generation beyond that in the generation interconnection queue, production costing models for the long-term assessment of economic impacts can now be used.

Loss of Load Expectation ("LOLE") evaluation using Multi Area Reliability models in combination with the power flow modeling enables the integration of generation and transmission capacities to ensure that a sufficient combination of generation and transmission is available to maintain a reliable supply during generation forced outages. It is a reliability-only test which does not evaluate the relative economics of adding either generation or transmission. Instead, these tools identify regions requiring generating capacity, given existing transmission capacity, to maintain what has come to be a nationally-recognized adequacy standard of 1 occurrence in 10 years risk profile. The flip side of the analysis can also be performed to identify what new transmission is required to access existing generation to meet the reliability requirement. This alternate study methodology will be performed during 2007.

To be fully capable of meeting all cost allocation requirements for evaluating economic projects and integrating this evaluation process into the combined reliability and economic MTEP planning process, multiple, non-trivial requirements and processes must be utilized. To be able to perform a credible economic assessment that ensures compliance with both Electric Reliability Organization reliability requirements and also meets FERC objectives of developing economic, energy valued transmission, a 15 year planning horizon is optimal. The movement of the planning horizon beyond 5 years to 15 years is complete within the Midwest ISO and this will be a fundamental component of the MTEP08.

The following broad steps outline the requirements necessary for the Midwest ISO to move forward with the integration of regional cost allocation and MTEP over a long-term planning horizon.

3.4.1 Step 1: Define Future Generation Portfolios

In order to effectively design, evaluate, and recommend transmission upgrades within the Midwest ISO, analysis of four stakeholder-developed future generation portfolios will be performed. The Midwest ISO staff in conjunction with the Planning Advisory Committee leads the definition of the four future scenarios with input from stakeholders. On a continuing basis as the output of the futures methodology is reviewed, the process will be validated and changed accordingly to ensure that the results are intuitive and reasonable. The four future scenarios are developed to cover a range of possible generation outcomes which are of interest to the Midwest ISO's stakeholders. Stakeholders provide input on key

assumptions used in Strategist analysis. State energy resource-type mandates which are law are included in all cases. Because generation interconnection queues do not have adequate resources for a 20 year time horizon, all scenarios will contain generation portfolios developed using an integrated resource planning type model (portfolio development model).

The portfolio development model will be used to determine the type and timing of new generation, including demand response resources, on a regional basis. The Midwest ISO covers a large geographic area; and, to facilitate planning, the Midwest ISO will be using three planning regions. Generation portfolio assessments will be developed for each of the three planning areas within Midwest ISO (West, Central, and East). The output of Step 1 will be four generation outcomes by Planning Region which specify the type, amount and in service dates of these future generation resources.

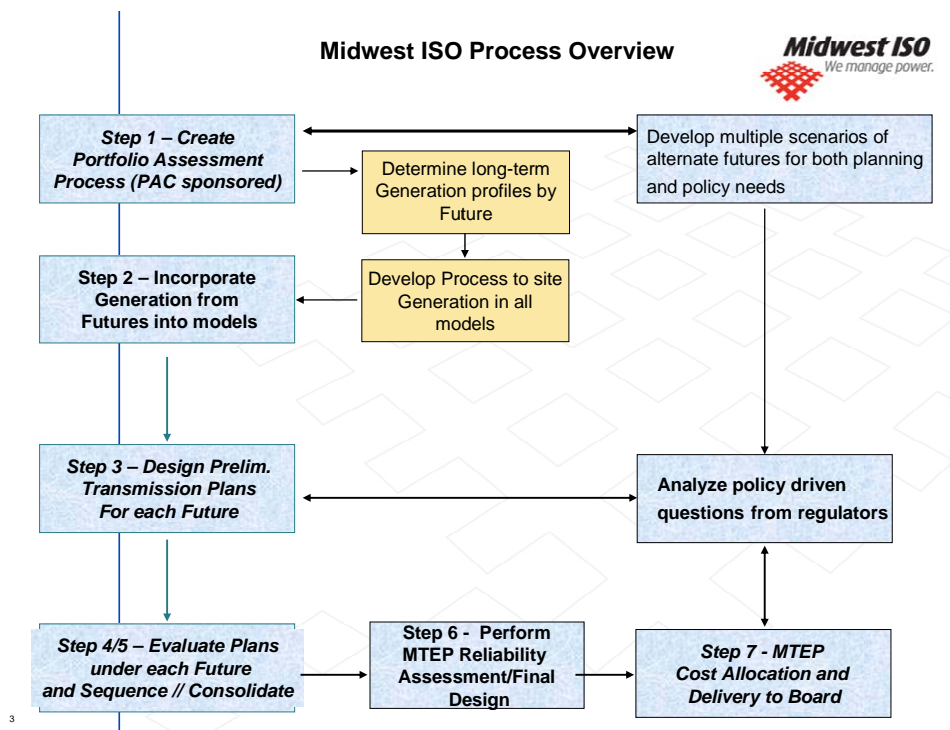
Development of the four scenarios is the key input to the economic studies portion of the MTEP study. The four scenarios will enable new generation resources to be analyzed with associated transmission developed in subsequent steps of the MTEP study process to determine what is required to integrate these future resources into the transmission system.

3.4.2 Step 2: Site Future Generation in Planning Models

After the long-term generation portfolios are developed in Step 1, the resulting proxy generation resources must be sited in the power flow models for each future scenario. Note that proxy generation resources in the models already include generators with signed Interconnection Agreements from the generation interconnection process. Stakeholders provided feedback to the process for siting the proxy or future generation into the power flow and production cost analysis. Potential generation siting locations are identified by using a defined set of criteria, and then engineering judgment is used in the actual injection point chosen. The modeled generation resources provide an initial reference condition for each of four scenarios. Using the existing, in-place generation as a starting point, the development of the transmission plan around this fixed generation can proceed to provide integrated reliability and economic enhancements. Having four generation scenarios enables a variety of potential futures to be examined.

Siting the generation associated with the four futures is a key input into MTEP study process. The development of four futures enables new generation resources to be analyzed with associated transmission that is developed in Step 3 below, over a wide range of potential realistic sensitivities. Coordinated development of power flow models is another key activity which enables testing of simultaneous feasibility of transmission plans with neighboring transmission entities.

3.4 MTEP08 Top-Down Study Process Overview



3.4.1 Step 1: Define Future Generation Portfolios

In order to effectively design, evaluate, and recommend transmission upgrades within the Midwest ISO, analysis of four stakeholder-developed future generation portfolios will be performed. The Midwest ISO Planning Advisory Committee (PAC) leads the definition of the four future scenarios with input from stakeholders. The four future scenarios are developed to cover a range of possible generation outcomes which are of interest to the Midwest ISO’s stakeholders. Stakeholders provide input on key assumptions used in Strategist analysis. State energy resource-type mandates which are law are included in all cases. Because generation interconnection queues do not have adequate resources for a 20 year time horizon, all scenarios will contain generation portfolios developed using an integrated resource planning type model (portfolio development model).

The portfolio development model will be used to determine the type and timing of new generation, including demand response resources, on a regional basis. The Midwest ISO covers a large geographic area; to facilitate planning, the Midwest ISO will be using three planning regions. Generation portfolio assessments will be developed for each of the three planning areas within Midwest ISO (West, Central, and East). The output of Step 1 will be four generation outcomes by Planning Region which specify the type, amount and in service dates of these future generation resources.

Development of the four scenarios is the key input to the economic studies portion of the MTEP study. The four scenarios will enable stakeholders to specify new generation resources to be analyzed with associated transmission developed in subsequent steps of the MTEP study process to determine what is required to integrate these future resources into the transmission system.

3.4.2 Step 2: Site Future Generation in Planning Models

After the long-term generation portfolios are developed in Step 1, the resulting new generation resources must be sited in the power flow models for each future scenario. Note that new generation resources in the models already include generators with signed Interconnection Agreements from the generation interconnection process. A stakeholder-validated process for siting the new or future generation into the power flow and production cost models is being used. The new generation resources provide an initial reference condition for each of four scenarios. Using the existing, in-place generation as a starting point, the development of the transmission plan around this fixed generation can proceed to provide integrated reliability and economic enhancements. Having four generation scenarios enables a variety of potential futures to be examined.

Siting the generation associated with the four futures is a key input into MTEP study process. The development of four futures enables stakeholders to specify new generation resources to be analyzed with associated transmission that is developed in Step 3 below, over a wide range of potential realistic sensitivities. Coordinated development of power flow models is another key activity which enables testing of simultaneous feasibility of transmission plans with neighboring transmission entities.

3.4.3 Step 3: Preliminary Transmission Plan Development for Four Futures

Step 3 is the development of an extra high voltage (EHV) transmission plan which enables the economic delivery of energy for each of the four Futures scenarios being investigated. The primary analytical tool in this step is a security constrained economic dispatch production cost model. The Midwest ISO uses PROMOD[®] for this purpose. The PROMOD analysis identifies constraints that prevent the delivery of energy resources to load, especially low cost resources and resources required by state mandates. PROMOD results are also used to calculate metrics in the economic assessment for the transmission plans developed under each of the four scenarios.

Using results from the PROMOD analysis of each scenario, a transmission upgrade plan is developed for each of the four futures in collaboration with stakeholders in an open planning process. This step will identify transmission which is valuable to the energy markets and also identify regionally beneficial projects. Resolution of all identified reliability issues is not intended to occur in Step 3, but will occur in Step 6, described below. The Midwest ISO cost allocation criteria (RECB II) for regionally beneficial projects will be used initially to evaluate the economic performance of the transmission plan for each of the four scenarios. Several iterations of each scenario's transmission

plans are expected to refine the plan with the objective of minimizing the total delivered cost of energy. Additional transmission valuation metrics are under development at the Midwest ISO Planning Advisory Committee with the Midwest ISO's stakeholders. The output of Step 3 is a preliminary transmission plan for each scenario.

Step 3 determines transmission upgrades required to deliver new generation resources and mitigate existing system constraints. Stakeholders are involved and have access to the information used to develop and evaluate the transmission plans.

3.4.4 Step 4: Economic Assessment of Preliminary Transmission Plans

The outcome of the MTEP study process in Step 3 is the development of transmission plans for each future being studied. Up to this point, the preliminary plans are developed in isolation of each of the other futures. However, the Midwest ISO's goal is to develop one transmission plan that performs well under all futures. The planning process is inherently uncertain, and the Midwest ISO's objective is to manage that uncertainty as well as current tools allow. Therefore, each preliminary transmission plan must be analyzed under the uncertainty conditions associated with the development of each of the other plans. For example, if a transmission plan developed under scenario 1 performs well under scenario 2 and scenario 3 it is considered to be robust. However if the plan developed under one set of future conditions does not perform well under other scenarios then potential adjustments to the transmission plan will need to be evaluated to determine if there are changes that can be made to improve the plan.

To perform the robustness tests, each preliminary transmission plan is tested in PROMOD under the uncertainties used to develop each of the other futures and their associated transmission plans. A set of output attributes for making the value comparisons are used for the comparison process. The output of Step 4 is economic analysis of each plan under the other scenarios.

Step 4 determines the value of transmission upgrades required to deliver new generation resources and mitigate existing system constraints. Stakeholders are involved and have access to the information used to evaluate the transmission plans.

3.4.5 Step 5: Consolidation of Preliminary Transmission Plans

Step 5 uses the economic and value information from Step 4 to consolidate the transmission plans from the four scenarios into a single preliminary transmission plan. RECB II criteria and additional metrics developed under the Midwest ISO Planning Advisory Committee with stakeholders will be used to determine components of each transmission plan which should be included in the consolidated plan. These metrics are being developed. Steps 1 through 5 of the MTEP study process is to develop a robust transmission plan which addresses known market constraints and enables the delivery of energy from new resources to customers efficiently and economically. These steps develop a transmission system that incorporates economic analysis to understand the implications of delivering energy to load over a 15 to 20 year time horizon. All of the

components of this consolidated transmission plan would provide value under a range of future outcomes and would address known system constraints.

Step 5 determines the transmission upgrades required to deliver new generation resources and mitigate existing system constraints. Stakeholders are involved and have access to information used to consolidate the transmission plan scenarios into a single consolidated transmission plan.

3.4.6 Step 6: Reliability Analysis of Transmission Plan

Reliability analysis of the Midwest ISO transmission plan is performed annually. The models for this analysis will initially include the previously approved MTEP transmission plan, transmission upgrades associated with approved generator interconnections, upgrades associated with transmission service requests, and Regionally Beneficial Projects identified in Step 5. A suite of reliability tests is performed on the models to identify any issues that should be addressed. Historical operating data is reviewed and areas projected to experience congestion are identified. Stakeholder meetings are held to discuss identified issues which do not have an approved solution.

Transmission Owner plans are reported to the Midwest ISO which address identified issues. Midwest ISO staff may develop transmission upgrade proposals in collaboration with stakeholders to address identified issues. New and proposed projects are tested for effectiveness in meeting the identified needs. The consolidated plan containing previously approved, previously proposed and new projects is then tested for adherence to reliability and economic planning criteria. Stakeholder meetings are held throughout the process to discuss solution development and review recommended transmission projects.

Step 6 develops the transmission plan to meet reliability criteria, economic criteria, and test the simultaneous feasibility of the transmission plan with neighboring plans. Stakeholders are involved and have access to system issues which must be addressed by the transmission plan; they may participate in the development of solutions and the review of transmission upgrades recommended for approval.

3.4.7 Step 7: Lock Appendix A, Cost Allocation, Report Drafting and Approval

With the determination of the Midwest ISO Transmission Expansion Plan in Step 6, the projects which are submitted for approval to the Midwest ISO Board of Directors are designated as “MTEP Appendix A” projects. Projects in Appendix A which are eligible for regional cost sharing per Attachment FF of Midwest ISO’s Energy Market Tariff must have cost allocations determined by Midwest ISO staff. After the cost allocations are determined, stakeholder meetings are held to review the cost allocations. Projects which are in the early stages of planning, but address identified needs are listed in MTEP Appendix B. Appendix B projects are not approved for implementation.

The MTEP study report is prepared annually and describes the analysis performed, the recommended projects and cost allocations. The report is reviewed by stakeholders through the Planning Subcommittee, the Midwest ISO Advisory Committee and the Organization of Midwest ISO States (OMS). The final report is provided to the Midwest ISO Board of Directors for their review and approval. After the MTEP study is approved, the Midwest ISO staff then monitors the approved plan and provides quarterly updates to the Board of Directors on the implementation of the projects in Appendix A.

Step 7 determines the cost allocation of projects in the plan and prepares the study report. Stakeholders are involved in cost allocation and report preparation. The quarterly updates provide transparency on plan implementation so that customers know the progress on projects of interest to them. The Midwest ISO Transmission Expansion Plan and quarterly updates are made available on the Midwest ISO website. MTEP 06 can be found at the following link:

http://www.midwestmarket.org/publish/Document/27851_11011a2ccaa_7d000a48324a?rev=3

4 Midwest ISO Compliance with the Nine Planning Principles in the Order No. 890

4.1 Coordination

4.1.1 Overview of Coordination Planning Principle

This Principle requires that transmission providers must meet with all of their transmission customers and interconnected neighbors to develop a transmission plan on a nondiscriminatory basis. This Principle further requires that the planning process provide for the timely and meaningful input and participation of customers into the development of transmission plans.

4.1.2 Midwest ISO Compliance with the Coordination Principle

In accordance with the requirements of Order 2000, the Midwest ISO regional planning function is an open and collaborative process. The framework for this process is provided for in Appendix B “Planning Framework” of the Agreement of the Midwest ISO Transmission Owners to Form the Midwest ISO¹ (Transmission Owners Agreement or TOA). The requirements for the development of expansion plans are also discussed in Attachment FF to the tariff (“Transmission Planning Protocols”); and the planning process is also more fully described in the Midwest ISO Transmission Planning Business Practices Manual.

¹ Midwest ISO FERC Electric Tariff, First Revised Rate Schedule No. 1.

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The open and collaborative planning process defined by these protocols and procedures is fully compliant with the Coordination Principle of the Final Rule. The Planning Framework of the TOA requires that:

- The process for carrying out the planning of the Midwest ISO shall be collaborative with Owners, Users, and other interested parties.²
- The Midwest ISO Planning Staff shall create the Midwest ISO Plan by integrating, evaluating, and modifying the transmission plans, and other findings from (a) Facilities Studies, (b) plans and analyses developed by the individual Owners, and/or subregional groups, to define needs within the Owner's system(s), (c) plans and analyses developed by the Planning Staff to define regional needs, and (d) Planning Staff analyses giving consideration to information from the Planning Advisory Committee (established under this Appendix B) and other sources. The Midwest ISO shall make the final determination in the process, subject to the Dispute Resolution procedures under the Agreement and subject to review by the FERC or state regulatory authorities where appropriate.³
- There is . . . a Planning Advisory Committee consisting of one (1) representative from each of the constituent groups represented on the Advisory Committee established pursuant to Article Two, Section VI, Paragraph A of the [Transmission Owners] Agreement. The Planning Advisory Committee shall be a source of input to the Planning Staff concerning the development of the Midwest ISO Plan. The Planning Staff shall exercise its discretion in how it utilizes this advice in carrying out its responsibilities.⁴
- The Planning Staff, working in collaboration with representatives of the Owners and the Planning Advisory Committee, shall develop the Midwest ISO Plan, consistent with Good Utility Practice and taking into consideration long-range planning horizons, as appropriate. The Planning Staff shall develop this plan for expected use patterns and analyze the performance of the Transmission System in meeting both reliability needs and the needs of the competitive bulk power market, under a wide variety of contingency conditions. The Midwest ISO Plan will give full consideration to all market participants, including demand-side options, and identify expansions critical to support competition in bulk power markets and in maintaining reliability. This analysis and planning process shall integrate into the development of the Midwest ISO Plan among other things: (i) the transmission needs identified from Facilities Studies carried out in connection with specific transmission service requests; (ii) the transmission needs identified by the Owners in connection with their planning analyses to provide reliable power supply to their

² TOA, Original Sheet No. 105.

³ TOA, Original Sheet No. 106.

⁴ TOA, Original Sheet No. 106.

connected load customers; (iii) the transmission planning obligations of an Owner, imposed by federal or state law(s) or regulatory authorities, which can no longer be performed solely by the Owner following transfer of functional control of its transmission facilities to the Midwest ISO; (iv) the inputs provided by the Planning Advisory Committee; and (v) the inputs, if any, provided by the state regulatory authorities having jurisdiction over any of the Owners. In the course of this process, the Planning Staff shall seek out opportunities to coordinate or consolidate, where possible, individually defined transmission projects into more comprehensive cost-effective developments subject to the limitations imposed by prior commitments and lead time constraints. This multi-party collaborative process is designed to ensure the development of the most efficient and cost-effective Midwest ISO Plan that will meet reliability needs and will identify projects that expand trading opportunities, better integrate the grid, and alleviate congestion, while giving consideration to the inputs from all stakeholders.⁵

The Midwest ISO carries out these coordination requirements through the regular meetings of several stakeholder planning committees and working groups. Each of these groups is organized and conducts business as prescribed in formal stakeholder governance guidelines, developed by the stakeholders, and as further described under the Openness Principle discussed below.

The Midwest ISO has also developed joint agreements with neighboring transmission entities, including PJM Interconnection, L.L.C. (PJM), the Southwest Power Pool (SPP), the Tennessee Valley Authority (TVA), and Mid-Continent Area Power Pool (MAPP). In addition, regular coordination meetings are held and coordination protocols are in place between the Midwest ISO and the Ontario IESO. These agreements contain specific planning coordination protocols that include procedures for the exchange of planning information and data and for coordinating planning studies pertaining to transmission service requests, generation interconnection requests, and the development of coordinated system expansion plans. Included in several of these coordinated planning processes are requirements for creation and meeting of joint planning committees and the establishment of joint stakeholder planning committees. Coordination protocols call for open stakeholder planning advisory committee meetings to be held at the input stage and during the development and review of coordinated expansion plans. In the case of the Midwest ISO-PJM Joint Operating Agreement, the parties have already developed the first Coordinated System Plan that was released in December of 2006. This plan was developed with the input of stakeholders from both Midwest ISO and PJM that was obtained via four joint stakeholder meetings that were held in 2005 and 2006 to discuss the plan. Similar plan development processes are in earlier stages of implementation between the Midwest ISO and the other entities mentioned above.

⁵ TOA, Original Sheet No. 110, No. 110a.

The Midwest ISO planning process is therefore compliant with the Coordination Principle.

4.2 Openness

4.2.1 Overview of Openness Planning Principle

This Principle requires that the planning process must be open to all interested parties, and that the planning process must include safeguards to ensure data and information confidentially and to manage Critical Energy Infrastructure Information (“CEII”) concerns.

Transmission planning meetings are open to all affected parties; with the Notice procedures and frequency of meetings are posted on the Midwest ISO public website: www.midwestiso.org Nearly all meetings of the various stakeholder planning groups are conducted as face-to-face meetings, and include, as necessary, web-conferencing capabilities to facilitate stakeholder participation.

4.2.2 Midwest ISO Compliance with the Openness Principle

As previously described, the Midwest ISO Planning Advisory Committee (PAC) is comprised of stakeholder sector representatives, and this group typically meets on a monthly basis or more frequently to discuss planning policy issues and to provide input and review of Midwest ISO Transmission Expansion Plans. Notably, these meetings are open to the general public, even if an attendee is not a member of the Midwest ISO. The PAC reports to the Midwest ISO Advisory Committee and advises the Board of Directors on planning issues. The Midwest ISO Advisory Input process is outlined below in Figure 4-1.

The Midwest ISO Planning Subcommittee reports to the PAC, and is an open stakeholder group that meets on a regularly scheduled bi-monthly basis to discuss all aspects of transmission planning at the Midwest ISO. The charter for the Planning Subcommittee describes the group’s function as:

The Planning Subcommittee (PS) draws upon the collective knowledge of its Transmission Owner, Transmission Customer, and other industry participants to advise, guide, and provide recommendations to the Midwest ISO staff with the goal of enabling the Midwest ISO to efficiently and timely execute its planning responsibilities, as set forth in the Midwest ISO Tariff, the Midwest ISO/Transmission Owner Agreement, FERC Order 2000 and other applicable documents.

There are two working groups that report to the Planning Subcommittee: the Expansion Planning Group (EPG) and the Model Building Group (MBG). These groups are also open stakeholder groups that meet on a regularly scheduled bi-monthly

or “as needed” basis, and have input and review responsibilities specific to the development of the MTEP, and supporting planning models, respectively.

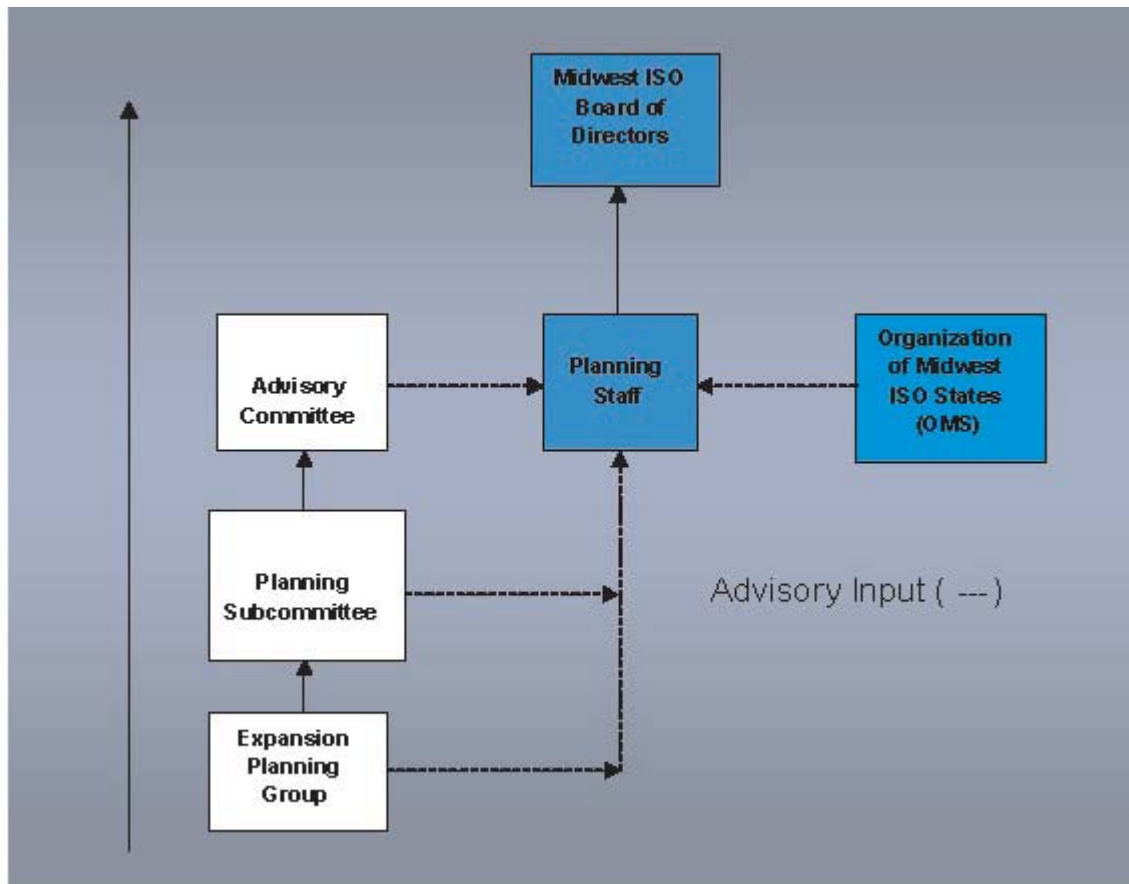


Figure 4-1

In accordance with the Midwest ISO stakeholder governance guidelines, transmission planning meetings are scheduled in advance and posted on Midwest ISO website calendar. The Midwest ISO also has email distribution lists for transmission planning groups, which can be easily subscribed to by interested parties. The Planning Subcommittee and Expansion Planning Working Group are primary stakeholder groups involved in transmission planning. Both groups hold regularly scheduled meetings and are open to all interested parties.

The Midwest ISO also has a Non-Disclosure and Confidentiality Agreement to address sharing of transmission planning information (power flow models, preliminary results, planning reports drafts). Order No. 890 also notes that there should be a method for handling confidential information related to economic (congestion) studies. This data is clearly market sensitive information which must remain confidential. The Midwest ISO uses generic (publicly available) cost information from industry sources in the Midwest ISO’s economic studies. Using publicly available cost information prevents accidental release of confidential information, which is possible even under strict data

controls. It also enables a truly open process because results of economic studies are available to all interested parties, and the Midwest ISO does not have to restrict presentation of the economic results. As transmission planning is a forward looking effort, the use of generic data is reasonable input data for planning studies. See Appendix V through Appendix IX.

The Midwest ISO planning process is therefore compliant with the Openness principle.

4.3 Transparency

4.3.1 Overview of Transparency Planning Principle

The Transparency Principle requires that Transmission Providers disclose basic planning criteria, planning assumptions and planning data along with study methodology, criteria, and processes. Transmission Providers are required to have written documentation of the study methodology, criteria, and processes used to develop transmission plans. Transmission Providers must make available information regarding the status of upgrades identified in their transmission plans in addition to the underlying plans and related studies. Transmission Providers are required to disclose criteria, assumptions, data and other information that underlie transmission expansion plans. Where demand resources are capable of providing the functions assessed in a transmission planning process, and can be relied upon on a long-term basis, the demand resources should be permitted to participate in the process on a comparable basis.

4.3.2 Midwest ISO Compliance with the Transparency Principle

The Midwest ISO criteria, planning assumptions, data, study methodologies, and processes are defined and described in the Transmission Owners Agreement, the Transmission Planning Protocols of Attachment FF to the tariff, and the Transmission Planning Business Practices. This planning documentation is maintained on the Midwest ISO website which has a specific webpage devoted to Expansion Planning information and issues.

The Midwest ISO produces a regional expansion plan entitled the Midwest ISO Transmission Expansion Plan, or "MTEP", at least biennially. Since commencement of operations in 2001, the Midwest ISO has prepared and published three regional plans, MTEP 03, MTEP 05, and MTEP 06. MTEP 07 is scheduled for release in October 2007, and MTEP 08 in October 2008. The MTEP regional expansion plan incorporates all known plans required as a result of Impact and Facilities Studies associated with Transmission Service Requests, and Generation Interconnection Requests made to the Midwest ISO as Transmission Provider. In addition, the plans identify expansions necessary to ensure the ongoing efficient and reliable service to all transmission Customers under the tariff.

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The MTEP provides listings of identified projects and their status, and the MTEP is posted on the Midwest ISO's website. The Midwest ISO tracks the progress of expansion projects identified in the MTEP and approved by the Midwest ISO Board of Directors, and reports to the Board on the progress of these plans on a quarterly basis.

The Midwest ISO has been developing a Demand Response initiative with stakeholders for several years through the Demand Response Working Group, and intends to increase the reporting of information on the effectiveness of Demand Response Resources in resolving transmission reliability and congestion issues in future expansion plans.

Midwest ISO also has a secure File Transfer Protocol (FTP) site which has supporting technical information for transmission planning studies, such as, power flow models, contingency files, monitored element files, output of analytical tools. Participants must execute the non-disclosure agreement for system planning information to access this FTP site.

The Midwest ISO planning process is therefore compliant with the Transparency Principle.

4.4 Information Exchange

4.4.1 Overview of Information Exchange Planning Principle

Transmission Providers, in consultation with customers and other stakeholders, must develop information exchange guidelines and schedules for submittal of information from both network and point-to-point transmission customers.

4.4.2 Midwest ISO Compliance with the Information Exchange Principle

The Midwest ISO tariff specifies load and resource reporting requirements. In accordance with section 29.2 of the Energy Market Tariff, the Midwest ISO requires each Network Customer to annually submit load and resource forecasts for a 10 year horizon. This planning horizon is consistent with current ERO reliability planning compliance requirements. The Midwest ISO has used a standard form for all Network Customers to submit this information in a common format. This information is used to supplement load and resource information provided by Transmission Owners annually in the power system model building process, and generation interconnection information from the interconnection request queue. In addition, Transmission Service Request queue information is applied in the expansion planning process in order to factor firm transmission service commitments into the planning models.

The Midwest ISO does not currently collect specific information from Point-to-Point transmission customers regarding their expected future service needs. The Commission expects that this information may be useful in projecting future generation development scenarios. The Midwest ISO expansion planning process,

described in the Transmission Planning Business Practices incorporates a similar concept in the development with stakeholders of a variety of generation development scenarios that are based on a number of factors including load forecasts, environmental and other policy issues, fuel cost scenarios, geographic resource availability, and load center locations and projections. The Midwest ISO will continue to enhance this process by incorporating information from Point-to-Point customers consistent with the Information Exchange Planning Principles of the Final Rule.

A key step in the MTEP process is the reporting of Transmission Owner identified expansion needs. The Midwest ISO Planning Subcommittee has approved project reporting guidelines for transmission system upgrades which need to be submitted to Midwest ISO for model building and the transmission planning process. Specific schedules are defined for Midwest ISO model building process. Transmission planning power flow models are foundational inputs to the transmission planning process. MTEP transmission project data is updated quarterly.

The Midwest ISO's non-disclosure agreement for system planning information addresses confidentiality issues in data exchange.

The Midwest ISO planning process is therefore compliant with the Information Exchange Principle.

4.5 Comparability

4.5.1 Overview of Comparability Planning Principle

Order No. 890 requires each Transmission Provider to develop a transmission plan that (1) meets the specific service requests of its transmission customers; and (2) otherwise treats similarly situated customers comparably in transmission system planning.

Customer demand resources should be considered on a comparable basis to the service provided by comparable generation resources, where appropriate.

4.5.2 Midwest ISO Compliance with the Comparability Principle

As an independent Transmission Provider, the Midwest ISO planning process treats all similarly situated customers comparably. The Midwest ISO provides transmission services including interconnection services to all customers taking service on the Midwest ISO Transmission System, including requests for service by member Transmission Owner Network and Point-to-point customers, as well as affiliated generators seeking interconnection service. In addition, as described above, the MTEP is developed to provide for efficient and reliable service to all transmission customers throughout the planning horizon by treating similarly situated customers comparably in transmission system planning activities.

The Midwest ISO planning process is therefore compliant with the Comparability Principle.

4.6 Dispute Resolution

4.6.1 Overview of Dispute Resolution Planning Principle

For transmission planning related issues, Transmission Providers must have a dispute mechanism outlined in their OATT which is able to address both procedural and substantive planning issues.

Transmission Providers can utilize existing dispute resolution process, but must specifically state how the process will be used to address planning disputes.

4.6.2 Midwest ISO Compliance with the Dispute Resolution Principle

The Midwest ISO has a defined dispute resolution process provided for in Appendix D to the TOA. This dispute resolution process provides for resolution of any disputes arising under the TOA, and is documented as the means to address issues related to development of the regional expansion plan in the Planning Framework in Appendix B to the TOA. In addition, other disputes arising under other areas of the tariff are addressed under the dispute resolution process defined in the Midwest ISO EMT in Sections 11 and 12. These procedures are consistent with the dispute resolution Principle of the Final Rule because they are able to address both procedural and substantive planning issues.

The Midwest ISO planning process is therefore compliant with the Dispute Resolution Principle.

4.7 Regional Participation

4.7.1 Overview of Regional Participation Planning Principle

Each Transmission Provider is required to coordinate with interconnected systems to: (1) share system plans to ensure that they are simultaneously feasible and otherwise use consistent assumptions and data; and (2) identify system enhancements that could relieve congestion or integrate new resources.

Transmission Providers are required to specify the broader region in which they propose to conduct coordinated regional planning.

The coordinated regional planning must be open and inclusive and address both reliability and economic considerations.

4.7.2 Midwest ISO Compliance with the Regional Participation Principle

As described under the Coordination Principle, the Midwest ISO has joint operating agreements or seams agreements with neighboring transmission providers that provide for the sharing and coordination of planning information and transmission plans with neighboring systems.

In 2006, the Midwest ISO and PJM completed the first Coordinated System Plan (“CSP”) under their JOA. This plan analyzed the planned performance of the joint RTO systems, including reliability and congestion issues. The CSP identified constraints to the deliverability of generating units in each RTO, under both separate and combined market conditions. The CSP also identified key points of congestion in the combined market model of the 2011 plan year, and identified expansion projects in each system that could potentially resolve identified issues. Continuing analysis of the effectiveness of these upgrades will be included in subsequent coordinated plans.

The Midwest ISO and SPP have begun the development of the first Midwest ISO – SPP Coordinated System Plan, as provided for under the Midwest ISO-SPP JOA.

The Midwest ISO planning process is therefore compliant with the Regional Participation Principle.

4.8 Economic Planning Studies

4.8.1 Overview of Economic Planning Studies Planning Principle

Transmission Providers are required to perform economic planning studies: (1) to address both local congestion and “congestion between control areas [sic, balancing authorities] and sub-regions”; and (2) to integrate new generation resources and / or loads on an aggregated or regional basis.

Customers may request studies that evaluate potential upgrades or other investments that could reduce congestion or integrate new resources and loads on an aggregated or regional basis.

Transmission Providers, in consultation with their stakeholders, must develop a means to allow the clustering or batching of requests for economic planning studies so that the Transmission Provider may perform the studies in the most efficient manner.

Transmission Provider must post requests, as well as responses to the requests, for economic planning studies on their OASIS or website.

Stakeholders must be given the right to request a defined number of high priority economic planning studies annually. The cost of the defined number of high priority studies will be recovered as part of the overall *pro forma* OATT cost of service. Stakeholders may request additional studies at their own expense.

Transmission Providers must clearly define the information sharing obligations placed on customers in the planning attachment to the OATT.

Transmission Providers need to study economic upgrades but do not have an obligation to build or fund.

4.8.2 Midwest ISO Compliance with the Economic Planning Studies Principle

The Midwest ISO MTEP Planning Framework outlined in the TOA requires the expansion planning process to address not only reliability needs but also the needs of the competitive bulk power market. In addition, the Transmission Planning Protocol of Attachment FF to the Tariff provides for the development of Regionally Beneficial Projects.

The Midwest ISO continues to enhance the MTEP study process which addresses both identification and development of economic transmission projects and integration of aggregated resources. As described in detail in Section 3 of this strawman, the present MTEP study process develops multiple generation portfolio scenarios which represent a diverse range of potential generation futures. This is key input into addressing integration of future generation resources. These four scenarios are developed by the PAC with input from all interested stakeholder groups. The development of these four futures address a key long-term planning issue facing all transmission planners, namely the nature of future generation expected over a 10 to 20 year planning horizon and where generation resources are likely to be located. Transmission plans are developed for each generation portfolio outcome which addresses the constraints to moving generation to market. This is an iterative process which has the goal of minimizing the delivered cost of energy to customers. These plans are then tested against the other generation futures to determine which components of the plans are robust and valuable over the range of futures.

This regional expansion process is inclusive of all stakeholder inputs, and takes advantage of both operational market experience and stakeholder concerns in developing transmission plans to address relief of congestion that will provide the greatest value to the aggregate of market participant. The Transmission Planning Protocol, as well as Commission Orders require the Midwest ISO to evaluate the planning process and to provide regular reports to the Planning Advisory Committee, the Organization of Midwest ISO States, and the Commission on the effectiveness of that planning process. The Midwest ISO believes that this comprehensive, open, and inclusive economic planning process will provide for efficient and orderly expansion plans that will maximize the coordination and efficiency of regional portfolios of economic plans, and is consistent with or superior to the Commission requirements under this planning Principle.

The Midwest ISO planning process is therefore compliant with the Economic Planning Studies Principle.

4.9 Cost Allocation

4.9.1 Overview of Cost Allocation Planning Principle

The planning process must address the allocation of costs of new facilities. This applies only to regional projects that do not fit under existing rate structures, such as regional projects involving several transmission owners or economic projects that are identified under the study process described under the economic planning studies principle. The planning proposal should identify the types of new projects that are not covered under existing cost allocation rules.

The Order does not modify the existing process for specific interconnection or transmission service requests pursuant to which projects to be built by a single transmission owner would continue to be billed under its existing rate structures.

The Commission does not propose any single allocation method for costs of network upgrades. Instead, the Commission outlines three general principles of cost allocation. A cost allocation methodology should:

- Fairly assign costs to those who caused the problem as well as to those who will benefit from the solution.
- Provide adequate incentives to the Transmission Providers to construct new facilities.
- Be generally supported by the states and participants across the planning region.

4.9.2 Midwest ISO Compliance with the Cost Allocation Principle

The Midwest ISO is a leader in the industry in developing comprehensive cost allocation provisions for regional transmission expansion projects. The Midwest ISO has obtained Commission approval for stakeholder developed cost allocation policies for all new Baseline Reliability, and Regionally Beneficial (economic) Projects. These cost allocation policies (which are found in Attachment FF) apply to all new network upgrades regardless of whether they are regional and multi-state in nature, or local and apply to an existing pricing zone.

In addition, the Midwest ISO has filed proposed cost allocation policies for cross-border reliability projects, after working together with PJM, to address projects in one RTO that may also benefit the other RTO.

The Midwest ISO planning process is therefore compliant with the Cost Allocation Principle.

5 Additional Issues Relating to Planning Reform

5.1 Compliance of Midwest ISO Transmission Owners with the Planning Principles

Order No. 890 provides that an RTO must indicate how all participating transmission owners within its footprint will comply with the planning requirements of the Final Rule. The mechanics of such compliance have been left to the RTO, “however, the RTO’s or ISO’s planning processes will be insufficient if its underlying transmission owners are not also obligated to engage in transmission planning that complies with Final Rule.” Order No. 890, P. 440.

The Planning Framework of the TOA provides that: “To fulfill their roles in the collaborative process for the development of the Midwest ISO Plan, the Owners shall develop expansion plans for their transmission facilities while taking into consideration the needs of (i) connected loads, including load growth, (ii) new customers and new generation sources within the Owner’s system, and (iii) known transmission service requests.” Some Midwest ISO Transmission Owners have developed and use an open local planning process for their facilities. Those processes will be described in the planning strawman proposals submitted by those Transmission Owners. Other Transmission Owners submit transmission plans for local facilities below 100 kV in the Midwest ISO’s open planning process, described previously in this strawman. All Transmission Owners that submit to the Midwest ISO their transmission planning needs for local facilities below 100 kV have these and existing facilities of this class fully incorporated within the Midwest ISO planning process even though these facilities may not be under the functional control of the Midwest ISO. Planning for these facilities by the Midwest ISO is accomplished by incorporating these facilities into the planning models, planning analyses, and regional open, transparent and coordinated planning process of the Midwest ISO in the same manner as for higher voltage transmission facilities.

The following Midwest ISO Transmission Owners have agreed to incorporate all of their transmission facilities, including those below 100 kV, within the Midwest ISO planning process:

1. Alliant Energy Corporate Services, Inc. on behalf of its operating company affiliate Interstate Power and Light Company (f/k/a IES Utilities Inc. and Interstate Power Company).
2. City Water, Light and Power (Springfield IL)
3. Duke Energy Shared Services, Inc. (f/k/a Cinergy Services, Inc.) for Duke Energy Kentucky, Inc., f/ka The Union Light, Heat and Power Company; Duke Energy Ohio, Inc., f/k/a The Cincinnati Gas & Electric Company; and Duke Energy Indiana, Inc., f/k/a PSI Energy, Inc.
4. American Transmission Systems, Inc. (ATSI)
5. Montana-Dakota Utilities Co.
6. Southern Illinois Power Cooperative
7. Southern Indiana Gas & Electric Company (d/b/a Vectren Energy Delivery of Indiana)
8. Wabash Valley Power Association, Inc.

The Midwest ISO Planning Framework provides that any plans that call for modifications to the transmission system which would significantly affect ATC must be approved by the Midwest ISO before being implemented. In practice, this provision requires that the Midwest ISO review all plans developed by the member transmission owners. This is particularly true with the advent of regional cost allocation for expansions, recently approved by the Commission. The Midwest ISO must review all Transmission Owner plans that are submitted to determine if they are eligible for cost sharing under the tariff. Part of the requirement for making this determination, is to evaluate whether the project meets the project criteria and need thresholds prescribed in Attachment FF to qualify as Baseline Reliability, or Regionally Beneficial Projects. As the Midwest ISO collaborative planning process has evolved for consistency with these tariff requirements, coordination and review of member Transmission Owner system plans is an integral part of the Midwest ISO regional planning process.

In addition, all planning analyses for transmission service requests, including generation interconnection service under the Midwest ISO tariff are the responsibility of the Midwest ISO. In the evaluation of these requests, the Midwest ISO ensures that all impacted transmission facilities within the footprint are included in the planning analyses.

Accordingly, the Midwest ISO Transmission Owners that submit all of their transmission facilities to the Midwest ISO for inclusion in the planning process are fully compliant with the Commission's nine Planning Principles.

5.2 State Commission Participation

The Final Order strongly encourages state participation in the transmission planning process and expects that all Transmission Providers will respect states concerns in the planning process, but the Final Order did not prescribe a particular level of state participation.

The state regulatory commissions involved with the Midwest ISO have organized the Organization of Midwest ISO States (OMS), and are very active in enhancing the stakeholder process by participating in many Midwest ISO forums, including the planning forums, resource adequacy forums, and the Midwest ISO Advisory Committee.

The Midwest ISO strives to understand and meet the needs of the OMS when developing RTO policies, particularly those involving areas of state jurisdiction such as transmission expansions and cost allocation of transmission facilities.

5.3 Recovery of Planning Costs

The Final Order requires the transmission planning process to provide a mechanism for recovery of costs. Transmission Providers were directed to work with other participants in the planning process to develop their cost recovery proposals in order to determine whether

all relevant parties, including state agencies, have the ability to recover the costs of participating in the planning process.

The Midwest ISO funds the cost of the OMS pursuant to an annual budget developed by the OMS and submitted to the Midwest ISO as part of the budgeting process. Although the Midwest ISO provides assistance with other stakeholders (e.g., by at times providing data and analysis), the Midwest ISO MTEP process does not contain any direct subsidies for parties participating in the planning process.

5.4 Open Season for Joint Ownership

The Commission agrees that joint ownership may be useful in certain situations and encourages Transmission Providers and customers to consider the use of open seasons to realize construction of upgrades identified in planning studies. However, the Final Rule did not mandate open season procedures to allow market participants to participate in joint ownership.

The TOA and the Tariff provide that entities that agree to jointly fund transmission expansions may do so. The TOA provides that a Transmission Owner designated to fund a new facility can elect to arrange for another entity or another existing Transmission Owner to build and/or own the project in their place. If the Transmission Owner designated to provide the new facilities does not or cannot agree to implement the project in a timely manner, the Midwest ISO can solicit and evaluate proposals to build and/or own the project from other entities and select an entity from the solicitation to build and/or own the project.

6 Midwest ISO Summary of Transmission Expansion Planning Process

The Midwest ISO is updating existing business practices and transmission planning guides to collate them into a single document. The Midwest ISO will post a comprehensive Business Practice Manual (BPM) to fully describe and disclose its coordinated Transmission Planning process. The BPM is intended to be a reference source for stakeholders and to describe in detail the Transmission Planning Process, as indicated in the example charts, and BPM Excerpt included in 6.1 and 6.2 below.

6.1 MTEP High Level Process Diagrams

Development of the MTEP 2007 and 2008 transmission plans are currently underway as parallel processes. These processes are diagrammed in Figure 6-1.1 and Figure 6-1.2 and demonstrate the stakeholder input, analysis and coordination required to complete the Midwest ISO's Transmission Expansion Plans.

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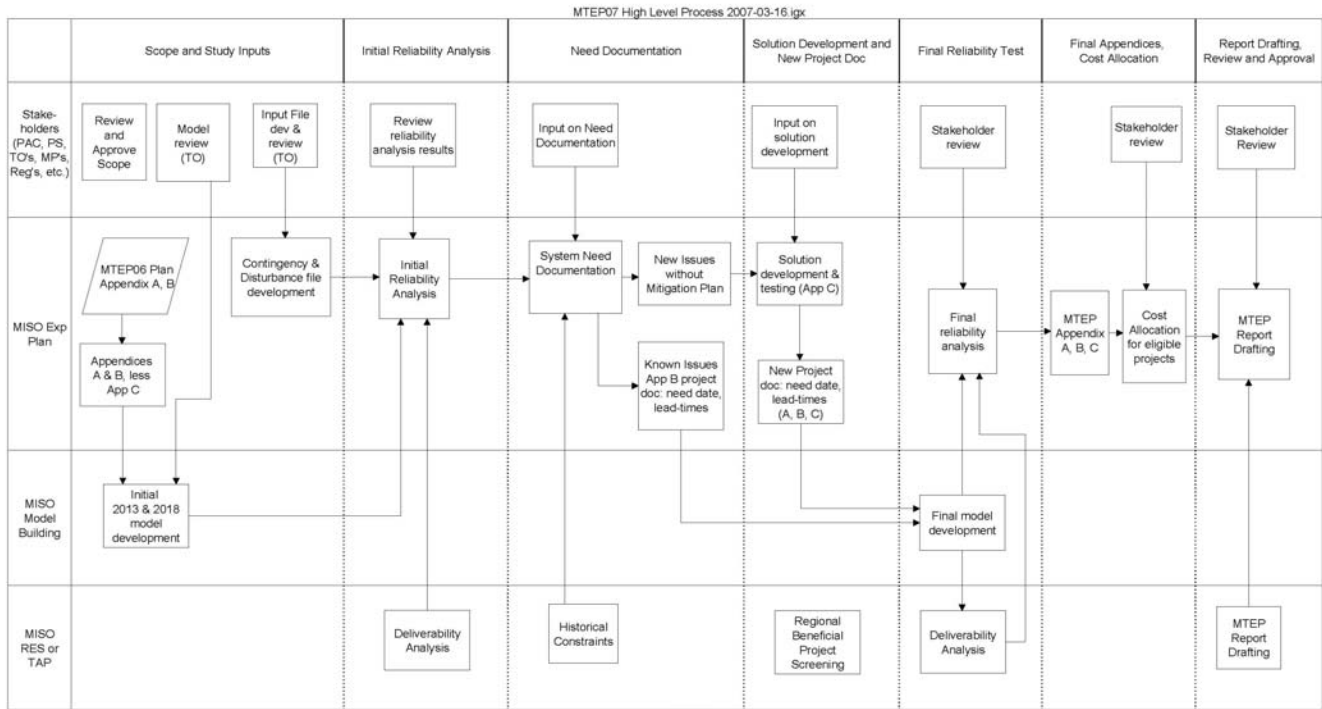


Figure 6-1.1

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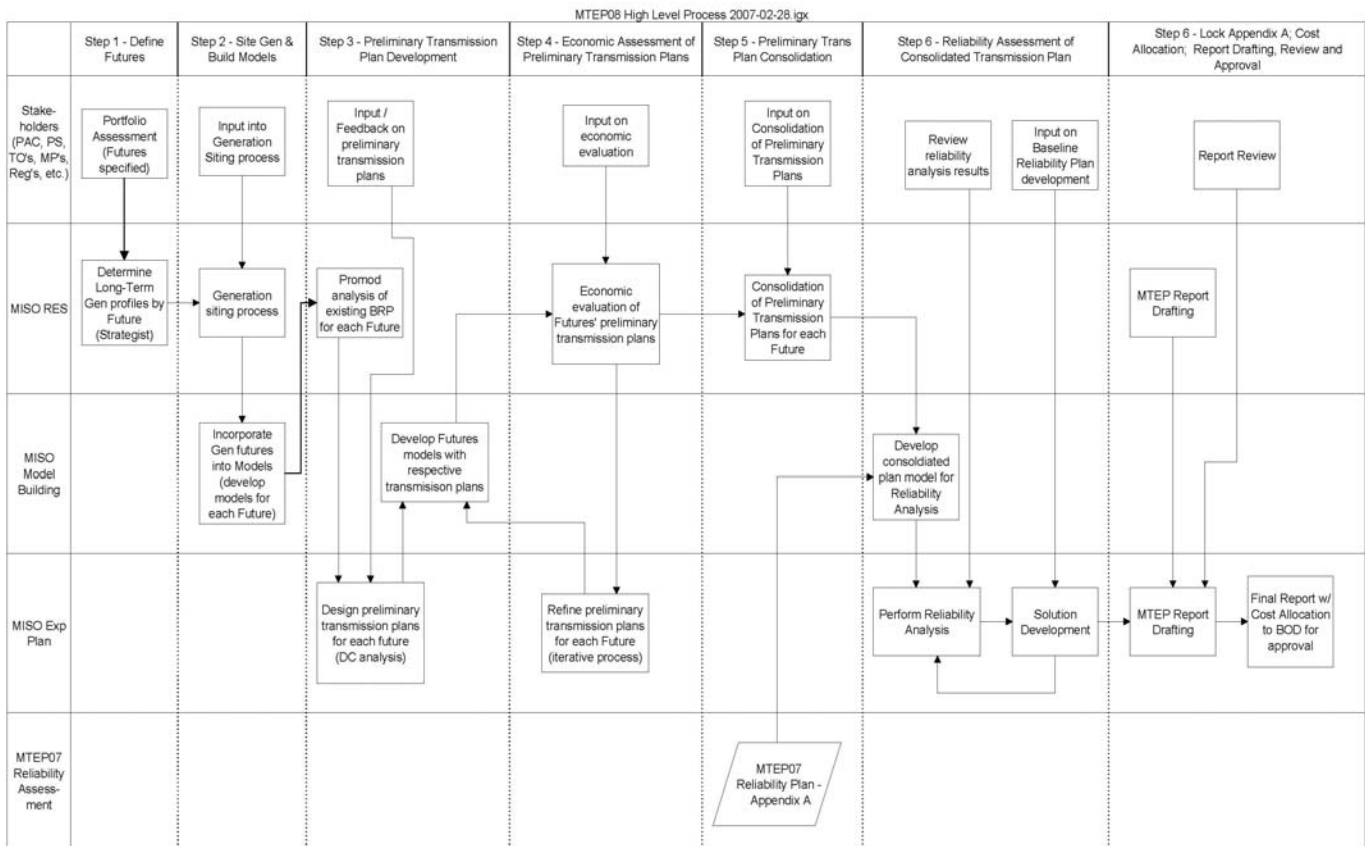


Figure 6-1.2

6.2 [PBM Excerpt] Project Reporting Guidelines:

Members who are Transmission Owners are required to report projects with an expected in-service date within the MTEP planning horizon (currently 5 years). Projects with in-service dates beyond the MTEP planning horizon and up to 10 years from the current year may be submitted for Midwest ISO review and tentative inclusion in MTEP. Projects that are under the operational control of the Midwest ISO (typically 100 kV and above) with the following criteria must be reported:

1. All projects that represent a system topology change (i.e., constructing a new circuit, tapping an existing circuit, removing a circuit from the planning model, or retiring a circuit). All projects that include interconnecting new distribution service from new or existing transmission facilities must report distribution sub taps.

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2. All new circuit breaker additions to transmission facilities.
3. All upgraded circuit breakers that result in changes to a breaker's continuous current-carrying or interrupting capacity).
4. All projects that change the electrical characteristics of a circuit (i.e., changes to shunt or series inductors, capacitors, conductor type or performance, switches, current transformers, or wave traps).
5. All projects involving like-for-like replacements with direct costs of \$1 million or more.
6. All projects that change a circuit rating.
7. Generator interconnection projects with signed Interconnection Agreements (provided by Midwest ISO Interconnection Planning)

Project information flow from the Transmission Owners through the Midwest ISO planning process and into applicable reports is shown in Figure 6-2 below.

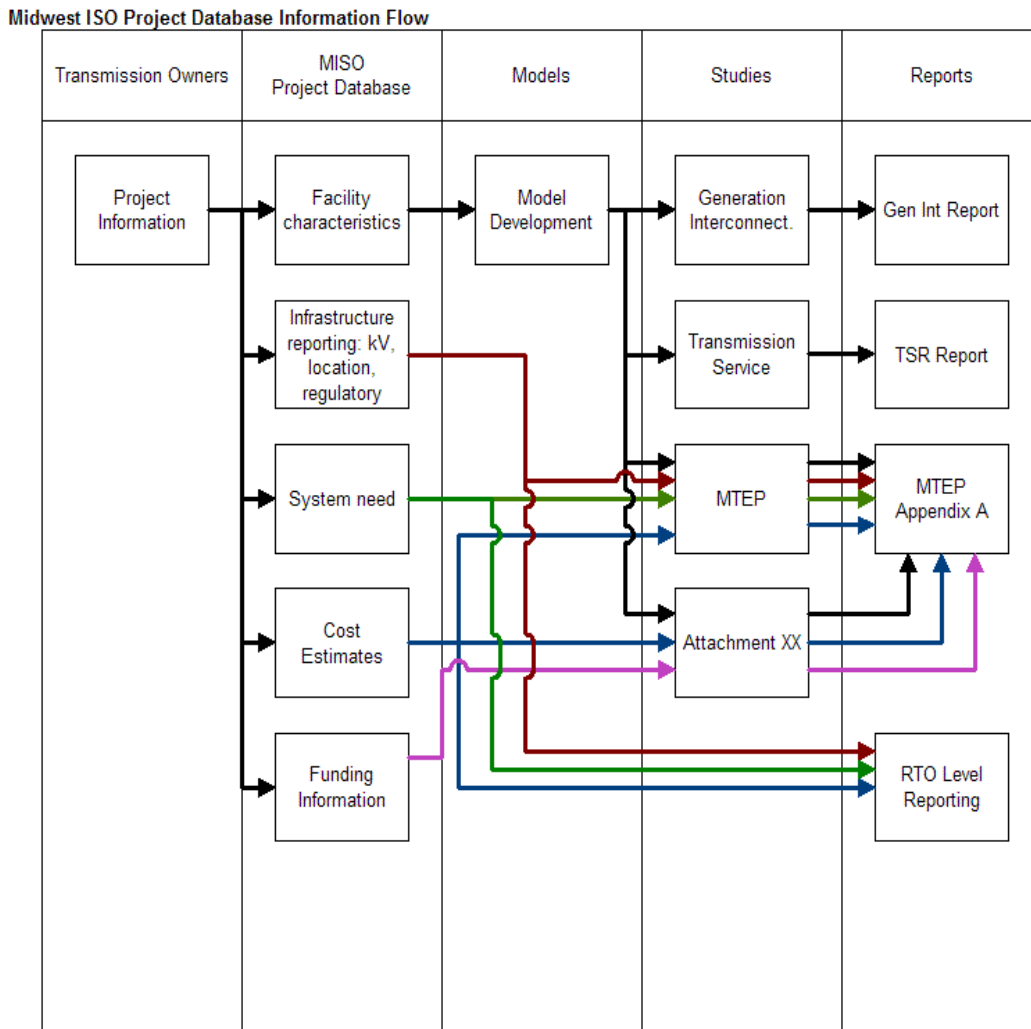


Figure 6-2

7.0 Conclusion

Based upon the material presented in this Strawman Proposal, the Midwest ISO believes that its regional planning process meets or exceeds the requirements of Order No. 890, and that its stakeholders will continue to develop additional features consistent with and complementary to the Commission’s requirements for an open, transparent, participatory, and regionally coordinated planning process. The Midwest ISO welcomes the opportunity discuss its Strawman Proposal and to receive input from interested parties at the Commission’s upcoming technical conference scheduled for that purpose.

Appendices

- Appendix I: Transmission Owners Agreement Appendix B - Planning Framework**
- Appendix II: Midwest ISO OATT/EMT Attachment FF – Transmission Planning Protocols**
- Appendix III: Transmission Owners Agreement Appendix D - Dispute Resolution Process**
- Appendix IV: Midwest ISO OATT/EMT Sections 11 and 12 - Dispute Resolution Processes**
- Appendix V: Midwest ISO/ PJM Joint Operating Agreement - Planning Coordination Section**
- Appendix VI: Midwest ISO/ MAPP Seams Agreement**
- Appendix VII: Midwest ISO/PJM/TVA Joint Agreement**
- Appendix VIII: Midwest ISO/SPP Joint Agreement**
- Appendix IX: Midwest ISO/IESO Joint Agreement**
- Appendix X: Compliance Summary**