



Regional planning

In 2014, ATC has been involved in various planning efforts that address regional, inter-regional and Eastern Interconnection-wide needs that could impact our transmission system. ATC continues to monitor and gauge the impact of changing energy policy on Capitol Hill and at FERC and on regulatory rules, such as EPA's proposed carbon dioxide emission rules under Sec. 111(d) of the Clean Air Act (CAA). To help anticipate future demands on the transmission grid of these changes, ATC undertakes internal analyses and participates in regional studies.

Eastern Interconnection Planning Collaborative (EIPC)

ATC is among the NERC-registered Planning Authorities in the Eastern Interconnection that form "Eastern Interconnection Planning Collaborative". The Eastern Interconnect covers the electric grid from the Rockies to the East Coast plus several Canadian Provinces. The EIPC group consists of 25 Planning Authorities.

In 2013 the Eastern Interconnection Planning Collaborative has been involved in developing a "roll up" model of existing transmission plans for two years – 2013 and 2023. Once the models were developed, two types of analyses were conducted. The first analysis was to identify "gaps" among the Planning Coordinator areas. This analysis found a few minor gaps in three Planning Coordinator regions that were ameliorated with potential solutions. The second analysis involved "stress testing" the system by increasing transfers by 5,000 MW between various neighboring areas of the Eastern Interconnection. The results of this analysis showed the system could increase transfers in 2018 between 1,100 MWs and >5,000 MWs and in 2023, transfers could be increased between 550 MWs and >5,000 MWs depending on the regions involved. The final report on this part of the effort was posted in February 2014.

The second part of the overall analysis involves analyzing two scenarios using the 2018 and 2023 models. The scenarios were chosen with stakeholder input. One will analyze the 2018 and 2023 models with more current updated plans that were originally studied. The second scenario is a Drought Scenario in part of the Eastern Interconnection and increased transfers coming from the non-drought regions. This effort is expected to be completed by the end of 2014.

More detailed information on the project can be found at <http://www.eipconline.com>.

Regional Transmission Assessments

ATC is a member of two regional reliability organizations, the Midwest Reliability Organization (MRO) and the ReliabilityFirst Corporation (RFC). ATC participates in regional transmission assessments conducted by the MRO Transmission Assessment Subcommittee (TAS), and the RFC Transmission Performance Subcommittee (TPS). ATC also participates in the Coordinated Seasonal Assessments (CSA) conducted by MISO.



MISO Market Constraints

There are three Narrow Constrained Areas (NCAs) identified in the MISO footprint and two of them are associated with ATC. An NCA is defined as “An electrical area that has been identified by the Independent Market Monitor (IMM) that is defined by one or more Binding Transmission Constraints that are expected to be binding for at least five hundred (500) hours during a given year within which one or more suppliers are pivotal.”¹ The two NCAs associated with ATC are Wisconsin and Upper Michigan System (WUMS) and Northern WUMS.

MISO’s Independent Market Monitor (IMM) stated the following in its February 28, 2014, NCA update report:² “Congestion into WUMS has declined in recent years, due in part to key transmission enhancements as well as new generation additions. The congestion is now often from north to south from WUMS to Com Ed. However, congestion in 2013 remained above 500 hours. Although there have been a number of transmission projects in WUMS, we still expect that the constraints that define the WUMS NCA to surpass the 500-hour criteria during the next 12 months.

North WUMS congestion significantly declined in 2012 and remained around the same levels in 2013, in part due to changes in commitment procedures related to local voltage constraints as well as transmission upgrades. We will be evaluating this region further and may make a recommendation to MISO to seek approval from FERC for removal of the NCA designation.”

MISO Planning Process

The MTEP process has adopted an approach that investigates transmission expansions for the long term, short term and for targeted issues/needs. The MISO North region is divided into three sub-regions for planning purposes: western, central and eastern. The ATC footprint falls within the western sub-region. MISO added a Southern region (made up of the Entergy companies and other utilities) to its footprint in late 2013.

The long-term studies are primarily value-based economic studies looking into the ten- to twenty-year horizon. Conceptual transmission overlays are proposed based on a value/economic view of future years utilizing an array of assumptions. This approach is often considered a “top-down” approach. The short-term planning looks into the five- to ten-year horizon and is thus primarily driven by Transmission Owners’ reliability needs and compliance with NERC reliability standards. To date, the projects that address short-term reliability needs have been proposed to the MISO by individual Transmission Owners. Need drivers and alternatives are then verified through the MTEP process and studies. This approach is often considered a “bottom-up” approach. The targeted studies investigate specific issues and the time frame can be between long- and short-term. The short-term and targeted studies typically follow a one-year planning cycle. The long-term economic studies thus far follow a two-year planning cycle.

¹ Excerpt from MISO Transmission Expansion Plan 2008, Section 8.

² Excerpt from the IMM’s “Informational Filing of Midwest Independent Transmission System Operator, Inc.’s Independent Market Monitor”.

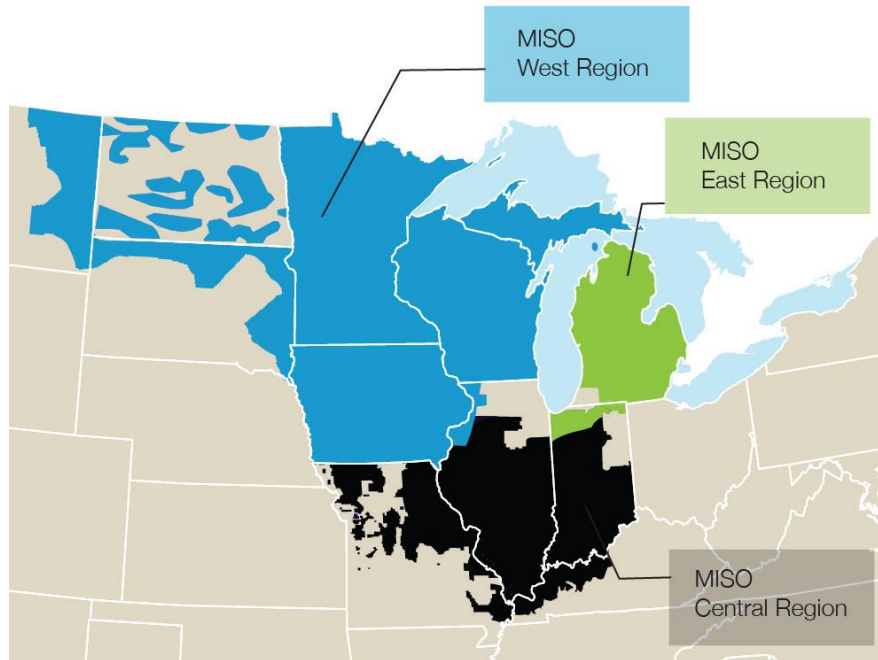


Figure RP-2: MISO North Sub-regions

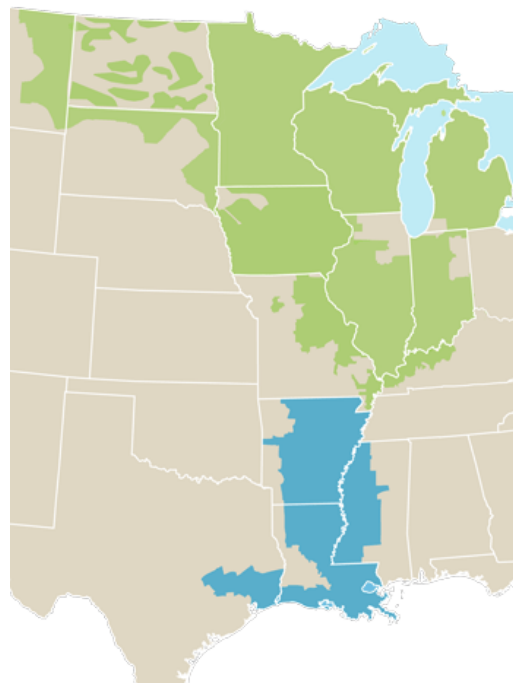


Figure RP-3: MISO North and South Regions

MISO Transmission Expansion Plan 2014 (MTEP14) reliability and economic studies

ATC Strategic Projects staff actively participates in the MISO MTEP14 bottom-up reliability and economic studies. These activities include:

- ☐ Ensuring ATC's project information is in the MISO project database,
- ☐ Participating in building/reviewing the annual MTEP powerflow and PROMOD models,
- ☐ Correlating the needs identified in the MISO analyses with the specific ATC projects,
- ☐ Reviewing and commenting on MTEP study results to ensure successful inclusion of the ATC projects in MTEP Appendix A in a timely manner,
- ☐ Actively participating in the Cross Border Top Congested Flowgate study and other targeted studies
- ☐ Ensuring the appropriate cost allocation is identified for those ATC projects eligible for regional cost sharing,
- ☐ Answering questions related to ATC projects at the West Sub-regional Planning Meetings (SPMs) and other stakeholder forums, and
- ☐ Providing suggestions/comments that help improve the MTEP process.

MISO Transmission Expansion Plan Cost Allocation Types

The MISO tariff and Business Practice Manual (BPM) describes how costs of projects are allocated, which is identified in the annual MTEP study. This cost allocation can be broken down into the project types below:

- Baseline Reliability Projects (BRP)
- Transmission Access Projects (TAP)
 - Generator Interconnection Projects (GIP)
 - Transmission Delivery Service Projects
- Market Efficiency Projects (MEP)
- Multiple Value Projects (MVP)
- Other Projects

Each cost allocation type listed above has different criteria defined in MISO's tariff that a project must meet in order to receive the cost sharing associated with that type. More detailed information on the criteria and cost sharing percentages can be found on the MISO website.

Other MISO planning activities

Our Strategic Projects staff also participates in other MISO planning activities such as the Planning Sub-Committee (PSC) and Planning Advisory Committee PAC). Our involvement includes taking part in various technical and policy discussions and providing feedback concerning the future direction of MTEP activities. ATC also actively participates in other groups including, but not limited to the MISO Interconnection Process Task Force (IPTF) and Economic Planning User Group (EPUG) and observes closely several generation interconnection studies included in the System Planning Analysis (SPA) and Definitive Planning Phase (DPP) group studies.



10-Year Assessment

An annual report summarizing proposed additions and expansions to ensure electric system reliability.

2014

2014 10-Year Assessment
www.atc10yearplan.com

Our staff is also very involved in joint planning studies with neighboring Regional Transmission Organizations (RTOs), including PJM and SPP. MISO and PJM coordinated and conducted a number of Market Efficiency Project (MEP) analyses thru the Inter-Regional Planning Stakeholder Advisory Committee (IPSAC). The IPSAC typically studies economic projects that could benefit both RTOs and qualify for cross-border cost-sharing. Another planning-related activity that ATC has been involved in is MISO's compliance with the Federal Energy Regulatory Commission's (FERC) Order No. 1000, particularly implementation of the competitive bidding process for selecting developers of MEPs and MVPs. ATC has applied to become a qualified developer and also has participated in the stakeholder process for drafting the business practice rules for the competitive bidding process for selecting developers. In regards to ATC's compliance with Order No. 1000, FERC in May 2014 accepted revisions to the company's local planning process to comply with the order's requirements that transmission needs driven by public policy requirements be considered in transmission planning.