



U.P. Transmission Business Briefing **Planning Update**

November 29, 2007

Marquette, MI

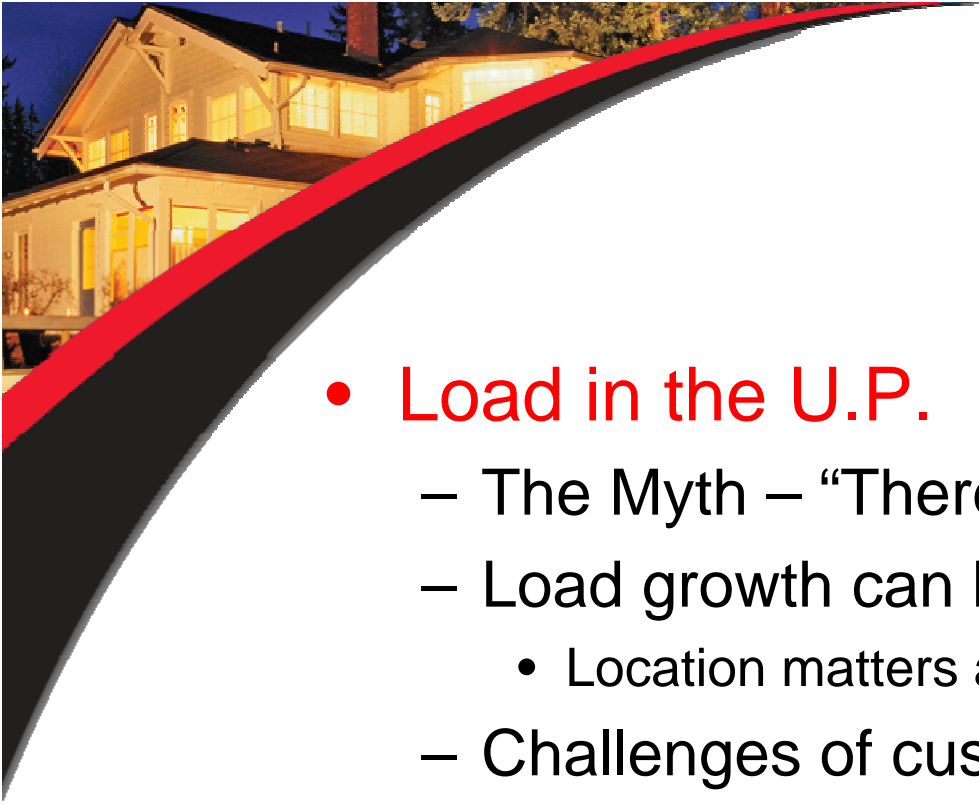
Flora Flygt, Director of Planning





Agenda

- ATC Planning Drivers
 - Load
 - Generation
 - Market Flows
- Policy Drivers
 - MISO Cost Sharing
 - RECB
 - Post Transition Pricing
 - FERC Order 693
 - Compliance with Enforceable Standards
 - FERC Order 890
 - Planning Principles
- ATC Planning Approach



Planning Drivers

A System in Balance

- Load in the U.P.
 - The Myth – “There is no load growth”
 - Load growth can be lumpy
 - Location matters a great deal
 - Challenges of customer specific load growth
 - Loads of 5 – 10 MW can place new stresses on the transmission system

ATC's emerging approach to load projections

Transmission's needs are different than Generation
or Distribution



Planning Drivers

A System in Balance

- **Generation**

- Generation Retirements

- Presque Isle 1-2
 - Presque Isle 3-4
 - Pulliam 3-4
 - Blount

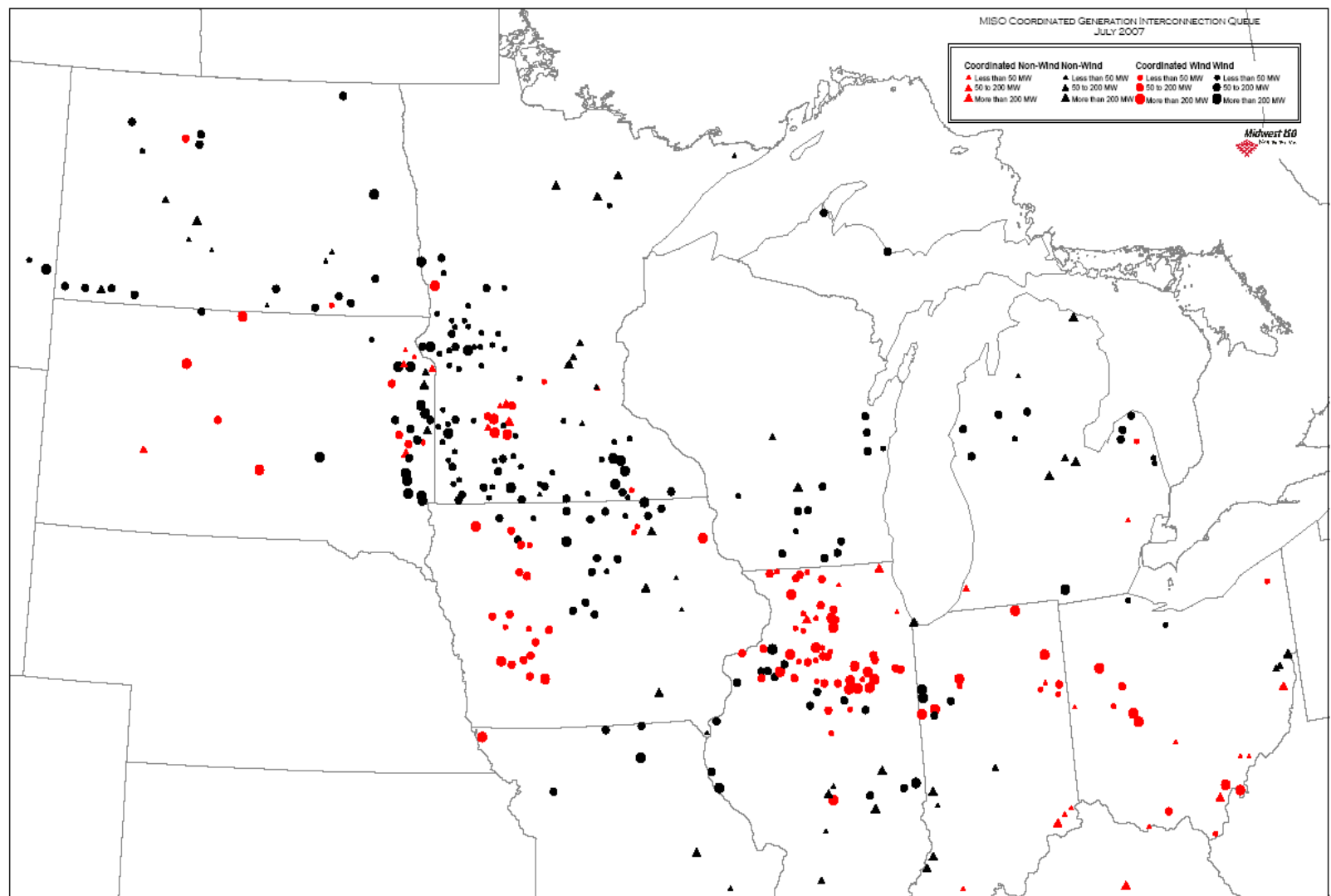
- New Generation (Under construction)

- Weston 4 (2008 - 550 MW)
 - Port Washington (Phase 2) (2008 - 690 MW)
 - Oak Creek (2009 - 650 MW and 2010 - 650 MW)
 - Wind projects (2007 - 458 MW and 2008 - 152 MW)



Planning Drivers

A System in Balance MISO Generation Queue





Planning Drivers

A System in Balance

- **Generation**
 - Renewable sources in the U.P.
 - Warden - Re-opened with Bio–Mass fuel
 - 320 MW of Wind under study.
 - Marquette County
 - Houghton County
 - Renewable sources in the ATC footprint
 - 588 MW Wind generation in the queue, but under suspension
 - 843 MW Wind generation in the queue and under study
 - 1500 MW Wind generation just added to the queue awaiting formal study agreement

Generation is changing the balance of flow on the transmission system



Planning Drivers

A System in Balance

- **Market Flows**

- MISO Day 2 LMP Market Began April 1, 2005
- Early (2005) market behavior had some unique drivers
 - Learning curve of MISO and market participants
 - Hurricane Katrina August 29, 2005
 - Coal conservation due to rail delivery challenges
- Stresses on the transmission system were modest
 - Drivers caused local generation to run



Planning Drivers

A System in Balance

- **Market Flows**

- Market operation in 2006 and 07

- Focused on capturing market efficiencies
 - Quickly shifts in response to changes in Load or Generation
 - Flow patterns depend on the daily and hourly generation and load offers and bids
 - Transmission system is consistently used to its limits
 - Frequently see “non-traditional” East to West bias
 - Still see the West to East bias
 - No longer have a “Normal” system flow

More flexibility required of the transmission system and transmission system planning



Policy Drivers

MISO Cost Sharing

- **Project cost sharing processes**
 - RECB I
 - Reliability projects
 - ATC projects currently approved:
 - » Morgan – Werner West
 - » Cranberry- Conover –Plains
 - » Saukville – St Lawrence
 - » \$1.9M net reduction in 2007 billings
 - » \$3.6M net reduction in in 2008 billings
 - RECB II
 - Economic Projects
 - Cost sharing business practices under development by MISO
 - Post Transition Pricing
 - Effective date 2/1/2008





Policy Drivers

FERC Order 693

- **Compliance and Enforcement**
 - Effective June 2007
 - NERC becomes the ERO
 - Responsible to create enforceable industry standards
 - Responsible to audit for compliance of registered entities
 - 83 Standards approved for enforcement
 - \$1 Million per day maximum penalty authority
 - ATC audit scheduled for December 2007
 - Planning and System Operation are the focus

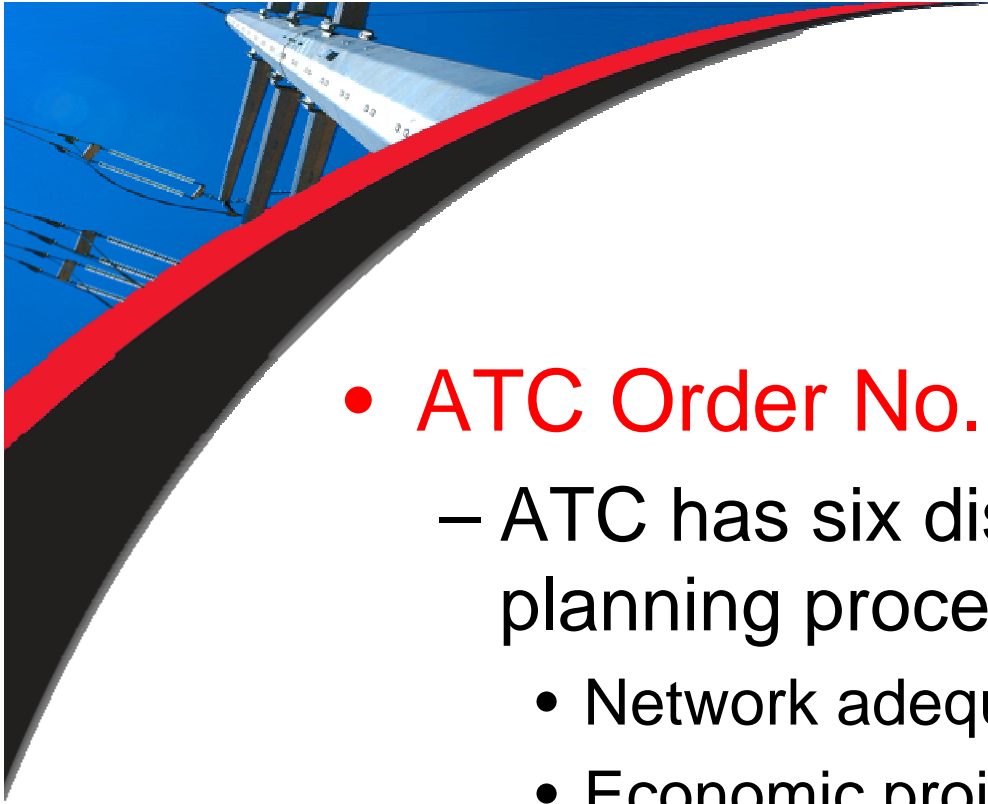




Policy Drivers

FERC Order 890 Tariff Reform

- **Order 890 Planning Principles**
 - FERC Order 890 requires the industry to adopt an Open, Transparent and Coordinated planning process.
 - ATC's Planning Process already meets most of what FERC is requiring
 - ATC's process must continue to improve to provide stakeholder involvement earlier in the development of assumptions which drive planning analysis.
 - ATC's Planning Process must incorporate more Economic Project Analysis
 - Paddock to Rockdale project among the first in the industry.

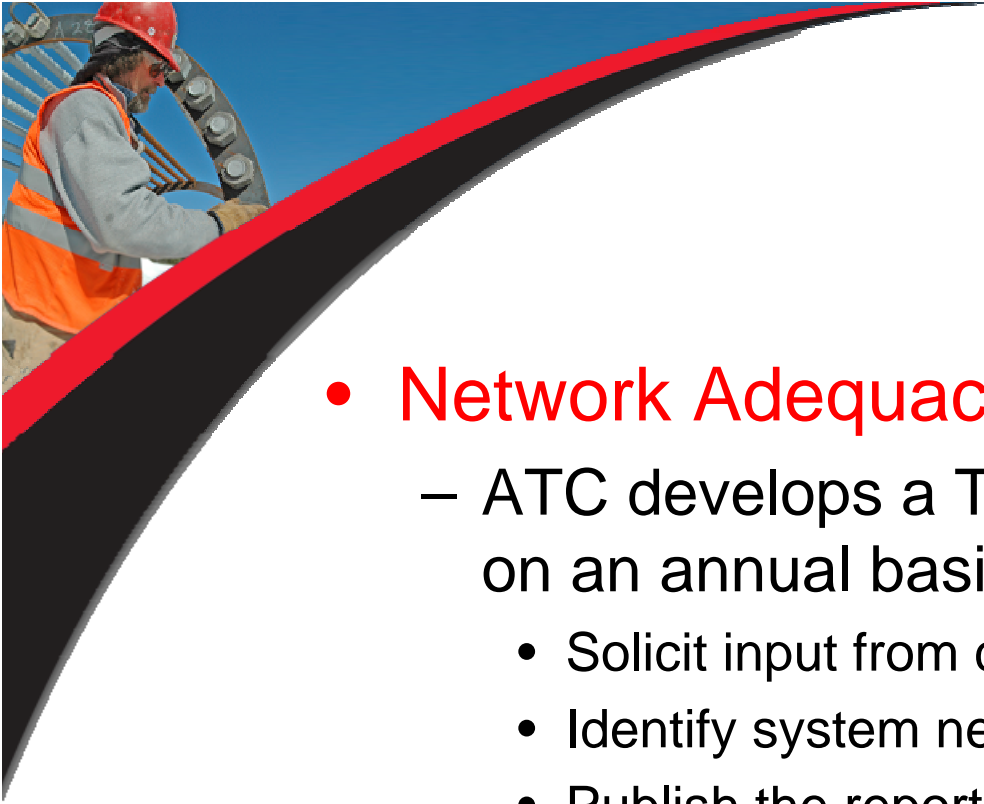


Policy Drivers

FERC Order 890 Tariff Reform

- **ATC Order No. 890 Attachment K**
 - ATC has six distinct but inter-related planning processes
 - Network adequacy projects
 - Economic projects
 - Generation-Transmission interconnections
 - Transmission-Transmission interconnections
 - Transmission-Distribution interconnections
 - Transmission service requests





Policy Drivers

FERC Order 890 Tariff Reform

- **Network Adequacy Planning**
 - ATC develops a Ten-Year Assessment (TYA) on an annual basis
 - Solicit input from customers
 - Identify system needs and solutions
 - Publish the report and invite feedback
 - We are adding:
 - Meetings with customers and stakeholders up front to review methodologies and assumptions
 - Meetings to share interim results
 - Because this is an annual process, feedback from one TYA can flow into the next TYA





Policy Drivers

FERC Order 890 Tariff Reform

- **Economic Project Planning**
 - ATC will do at least two economic studies per year funded through Attachment O
 - Prepare pre-study information
 - Stakeholders will have opportunity to request studies
 - ATC chooses projects with stakeholders' input and review
 - Study assumptions and models and assessment tools will be posted and stakeholder feedback sought
 - Other studies done at customers' requests and cost as ATC's resources permit





Policy Drivers

FERC Order 890 Tariff Reform

- **Interconnection and Transmission Service Request Studies**
 - Generation-Transmission, Transmission-Transmission and Transmission-Distribution interconnections handled same way we do them today
 - Long-Term Firm Transmission Service Requests
 - Studies done under contract to MISO and governed by MISO EMT



Policy Drivers

FERC Order 890 Tariff Reform

- **Regional Activities**
 - ATC represents the U.P. in Regional Planning processes
 - Actively participating in the development MISO's MTEP 07, MTEP 08, and MTEP 09 and the Joint Coordinated Plan (MISO, PJM, SPP and TVA)
 - Assumptions about the size, location and fuel source for future generation is a key driver.



Policy Drivers

FERC Order 890 Tariff Reform

- **Order 890 Next Steps**
 - ATC issued the revised draft Attachment K this week
 - Preparing information regarding our planning processes for posting on Web site
 - Filing due Dec 7, 2007



Planning Approach

Maintaining A System in Balance

- Load, Generation and Market Flows require a more flexible transmission infrastructure and more flexible transmission planning
 - Requires consideration of a range of plausible futures.
 - Requires “robust” transmission solutions
- Emerging industry standards are validating many of ATC’s existing processes
 - ATC processes must continuously improve to address new policy drivers

As we develop flexible views of the future(s) we need to continue to work closely with our customers and stakeholders.



Questions?