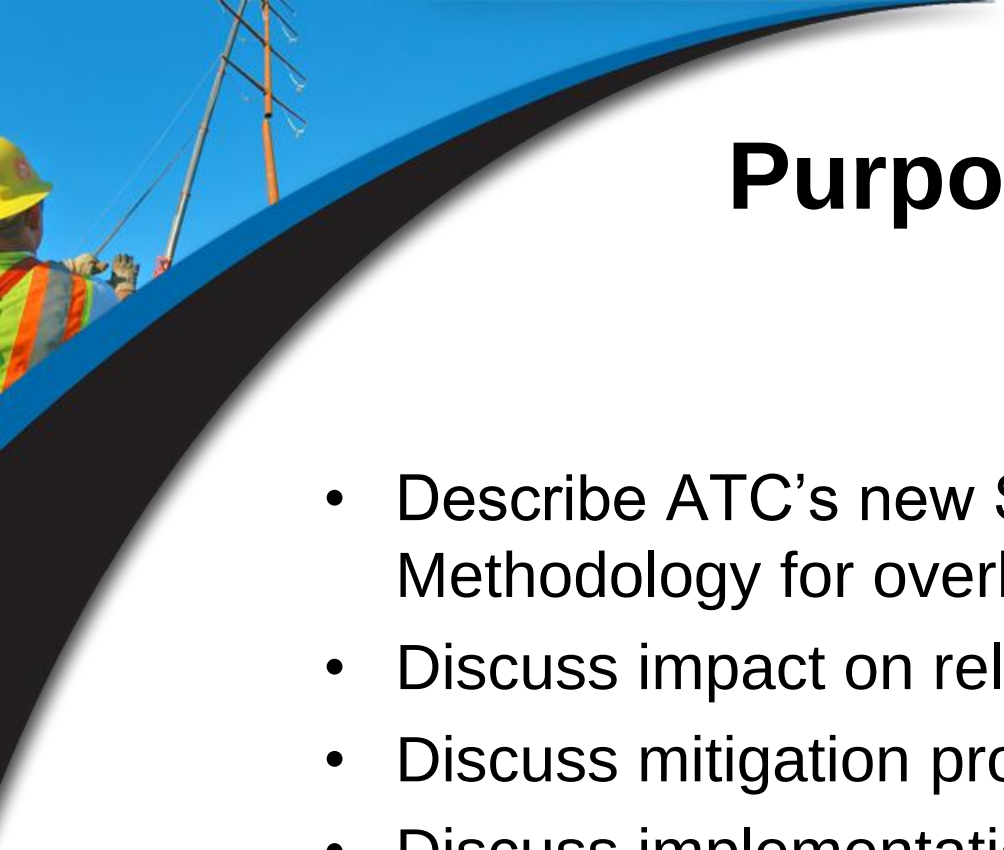
Implementing New Study-Based Rating Methodology for Overhead Conductors

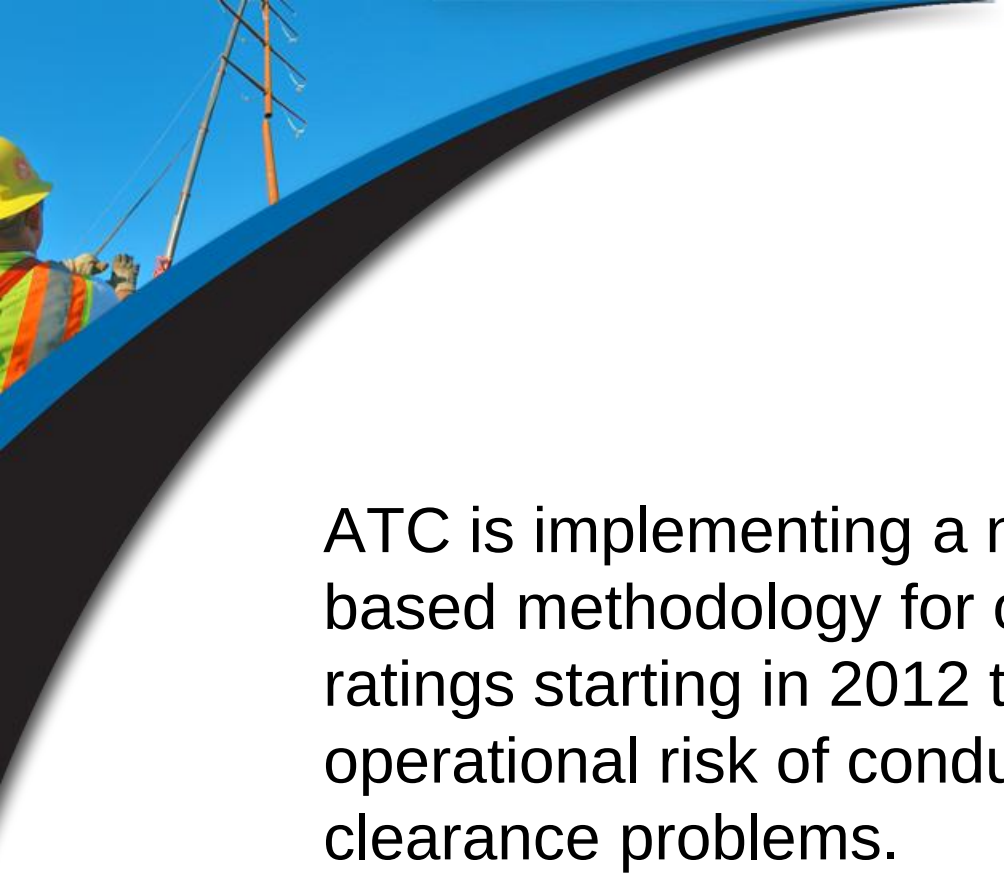
March 12, 2012

AMERICAN TRANSMISSION COMPANY®



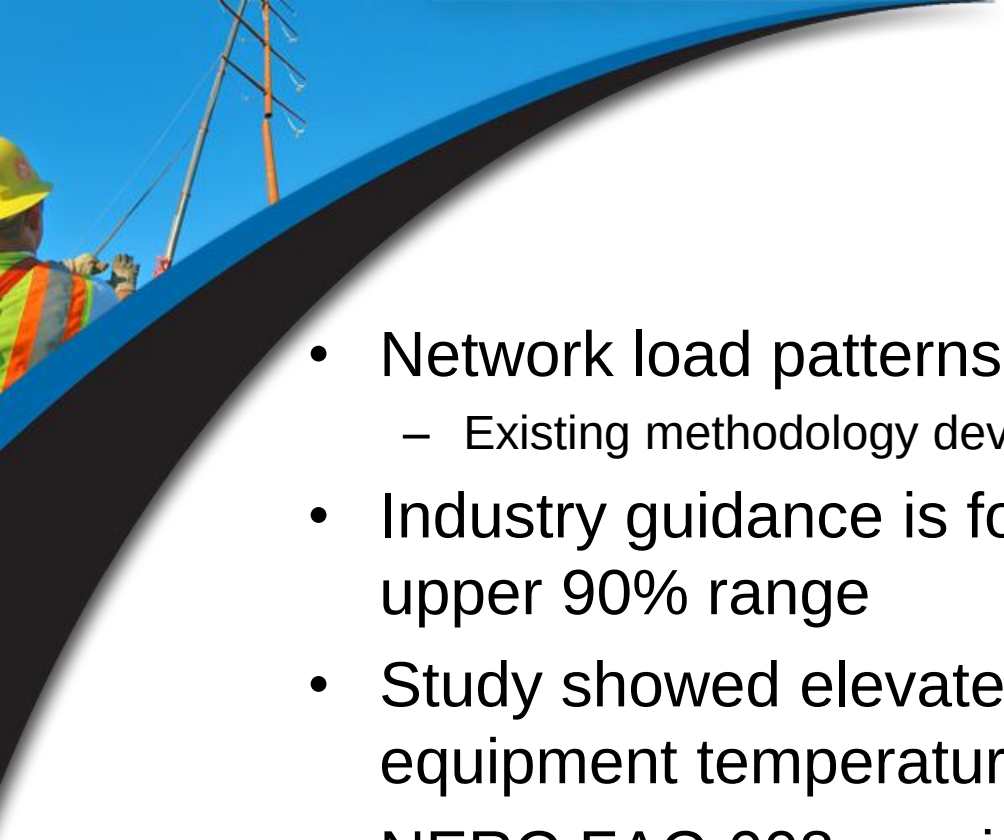
Purpose of Presentation

- Describe ATC's new Study-Based Rating Methodology for overhead conductor ratings
- Discuss impact on reliability and congestion
- Discuss mitigation process
- Discuss implementation schedule
- Address stakeholder feedback and concerns



Why Change?

ATC is implementing a newly developed study-based methodology for overhead conductor ratings starting in 2012 to better manage operational risk of conductor damage and clearance problems.

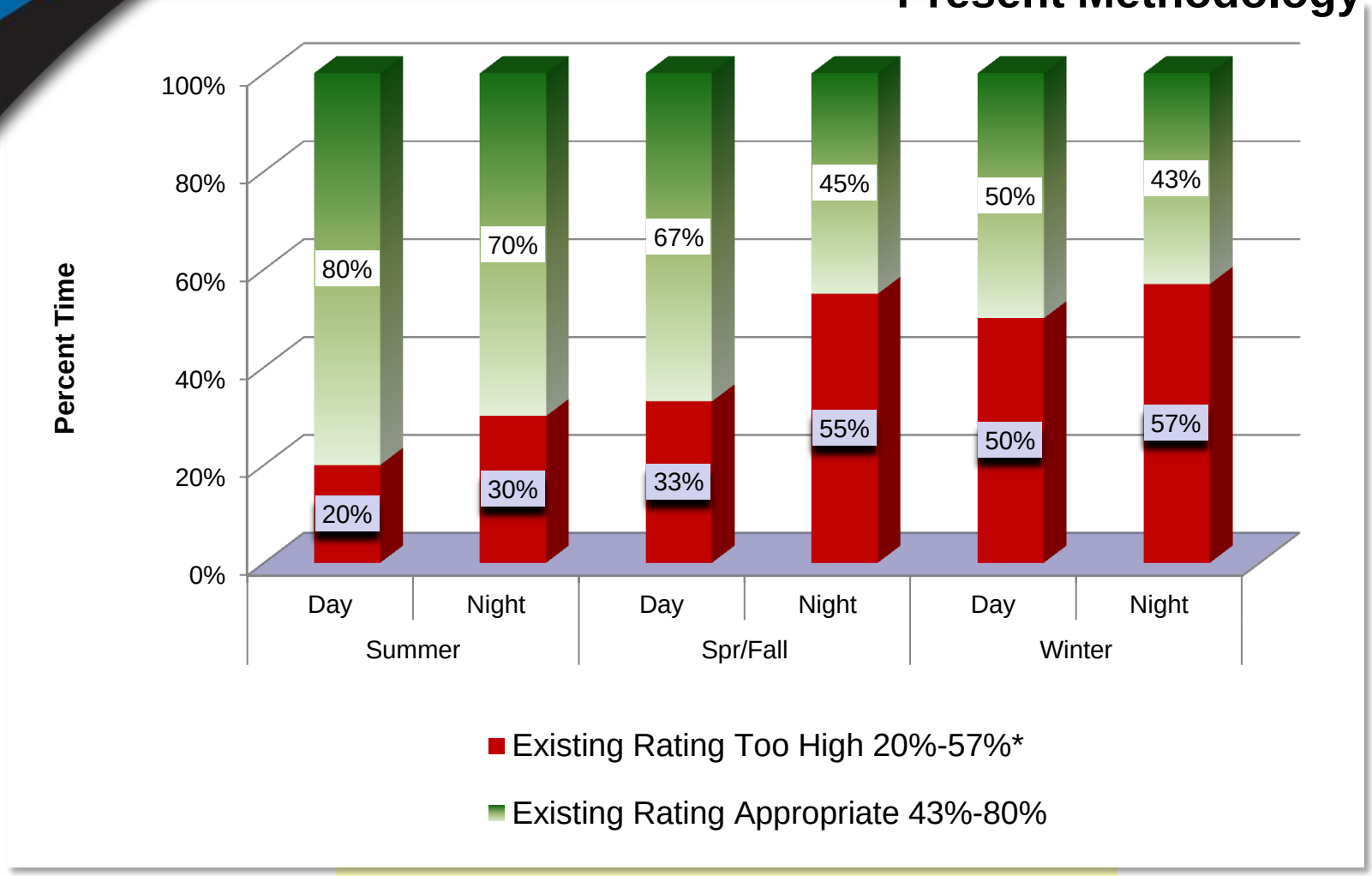


Justification

- Network load patterns have changed
  - Existing methodology developed 30+ years ago (peak-based)
- Industry guidance is for confidence levels in the upper 90% range
- Study showed elevated probability of exceeding equipment temperature limits or clearances
- NERC FAC-008 requires consideration of ambient conditions
- ATC-EPRI Study followed CIGRE TB 299
  - How to conduct study of local weather parameters
  - Establish risk level based on extent of study data
  - Study-based results similar to default (2-fps wind speed) parameters

ATC Rating Exposure

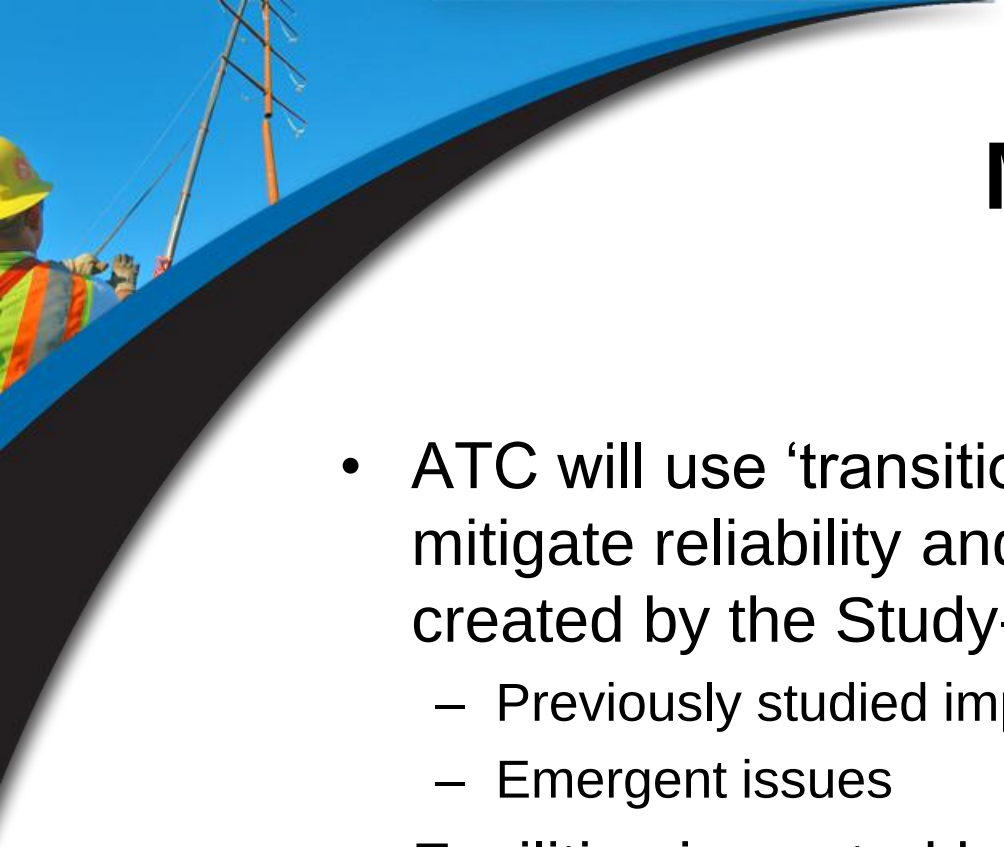
Present Methodology



**Industry Exposure is typically <5%*

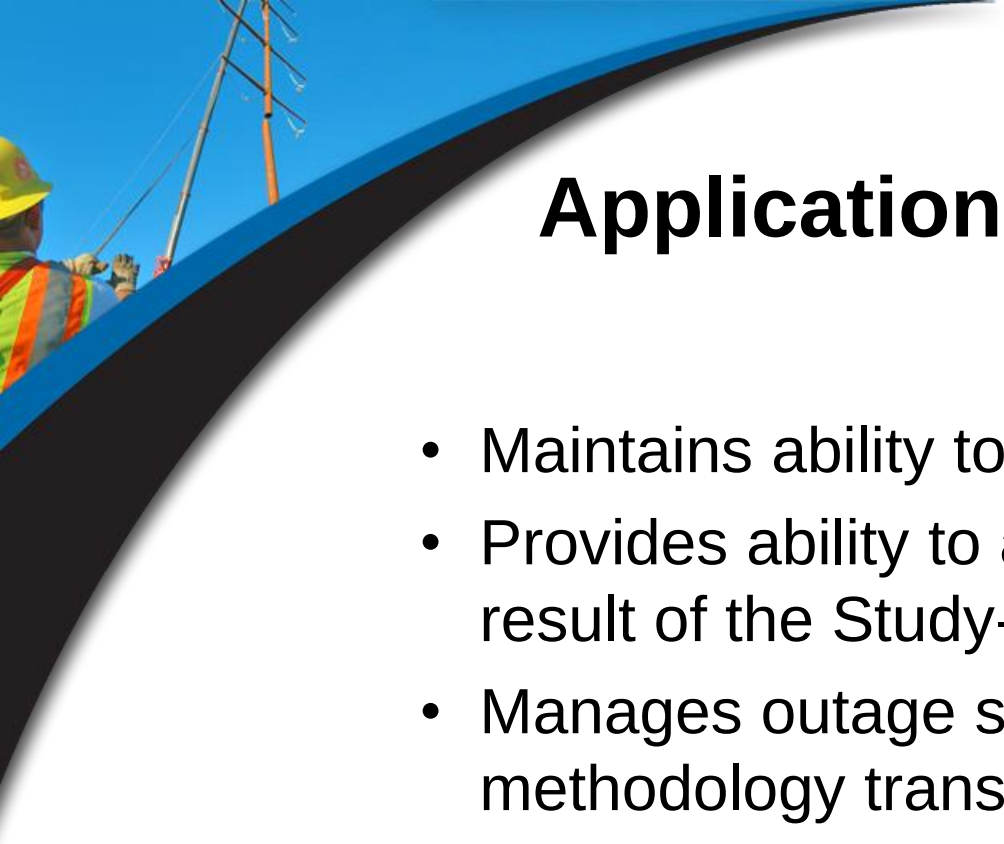
RELIABILITY FOCUS

AMERICAN TRANSMISSION COMPANY®



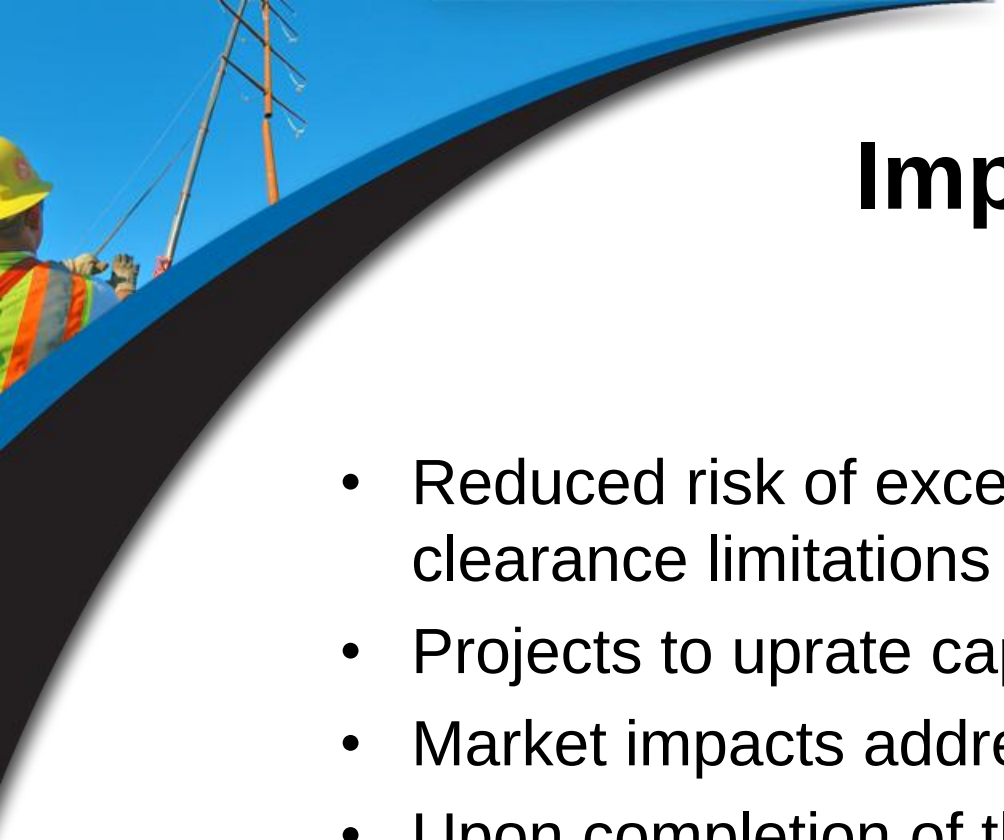
Mitigation Process

- ATC will use ‘transitional ratings’ process to mitigate reliability and minimize congestion issues created by the Study-Based Rating Methodology
  - Previously studied impacts
  - Emergent issues
- Facilities impacted by the Study-Based Rating Methodology may continue to be operated at the old rating until upgrades are completed



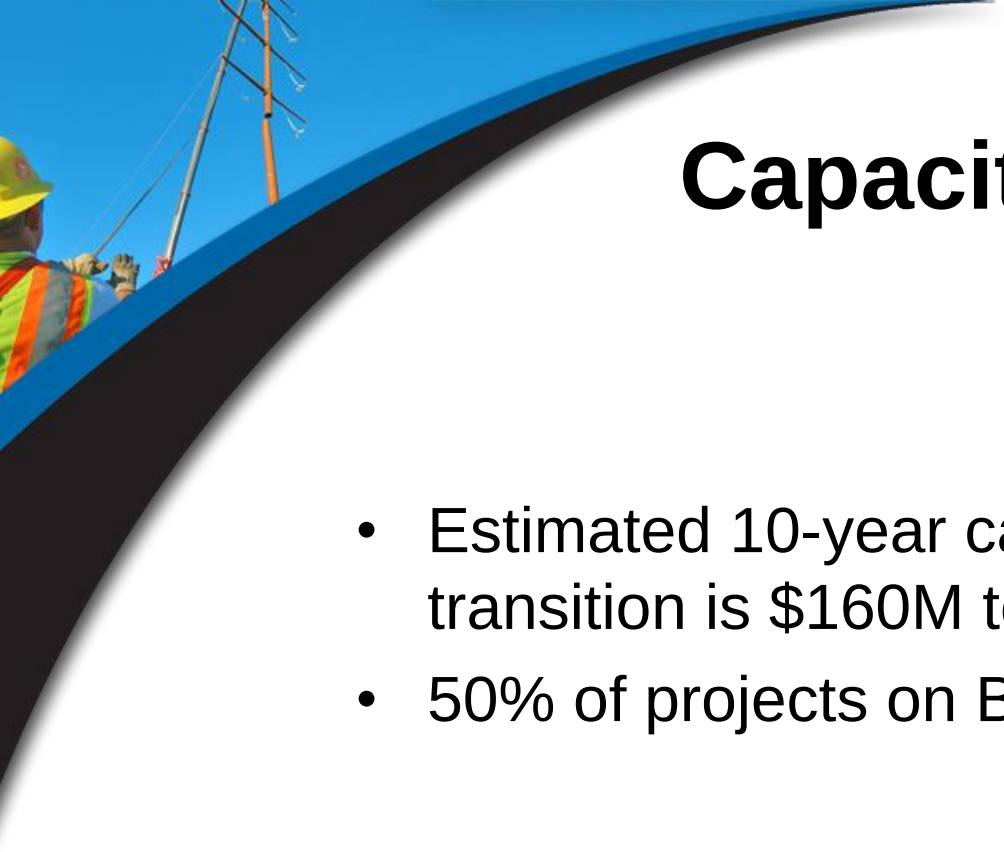
Application of Transitional Rating

- Maintains ability to serve load
- Provides ability to address congestion as a result of the Study-Based Rating Methodology
- Manages outage scheduling until the ratings methodology transition is complete
- Minimizes impact on G-T Interconnection projects in MISO Definitive Planning Process before ATC's OASIS posting



Impact on Customers

- Reduced risk of exceeding the thermal and clearance limitations of line conductors
- Projects to uprate capacity needed
- Market impacts addressed
- Upon completion of the upgrades, the net impact is positive

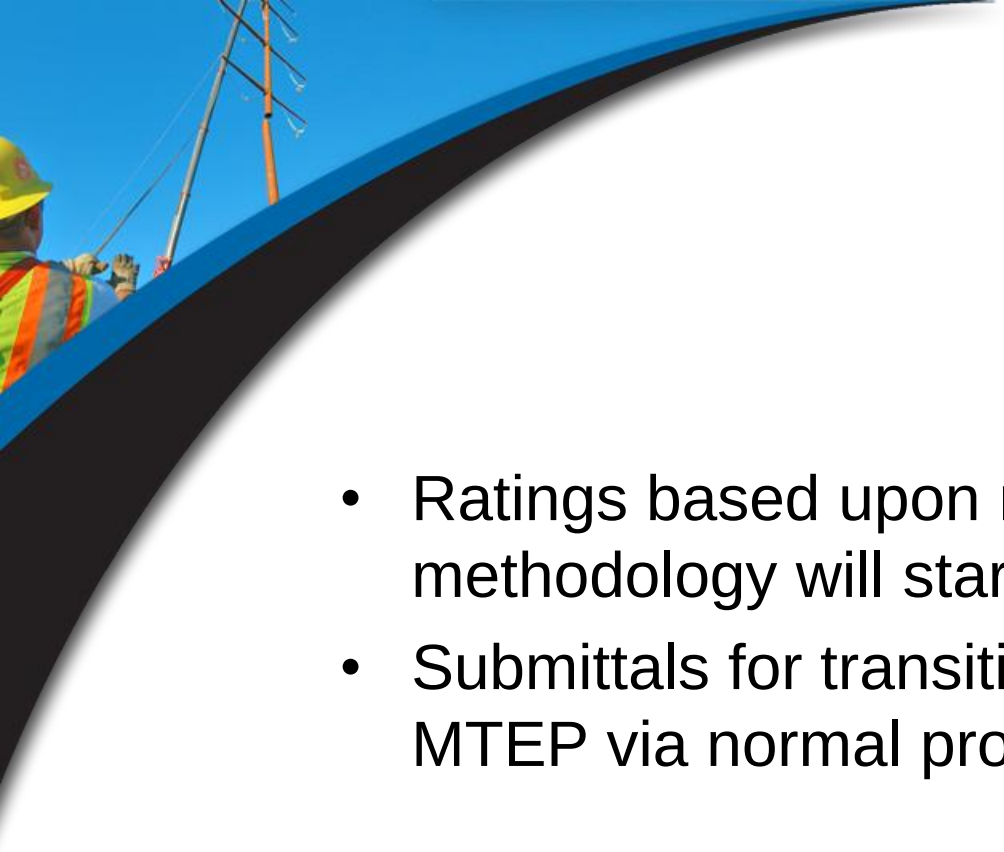


Capacity Uprates Needed

- Estimated 10-year capital cost to complete the transition is $160M to $200M
- 50% of projects on Bulk Electric System

Market Impacts

- Manage Congestion through…
  - Transitional rating process
  - New projects
- Identify additional congestion and develop mitigation projects to alleviate the congestion
- Address impact on Auction Revenue Rights (ARR) and Financial Transmission Rights (FTR) feasibility in cooperation with MISO

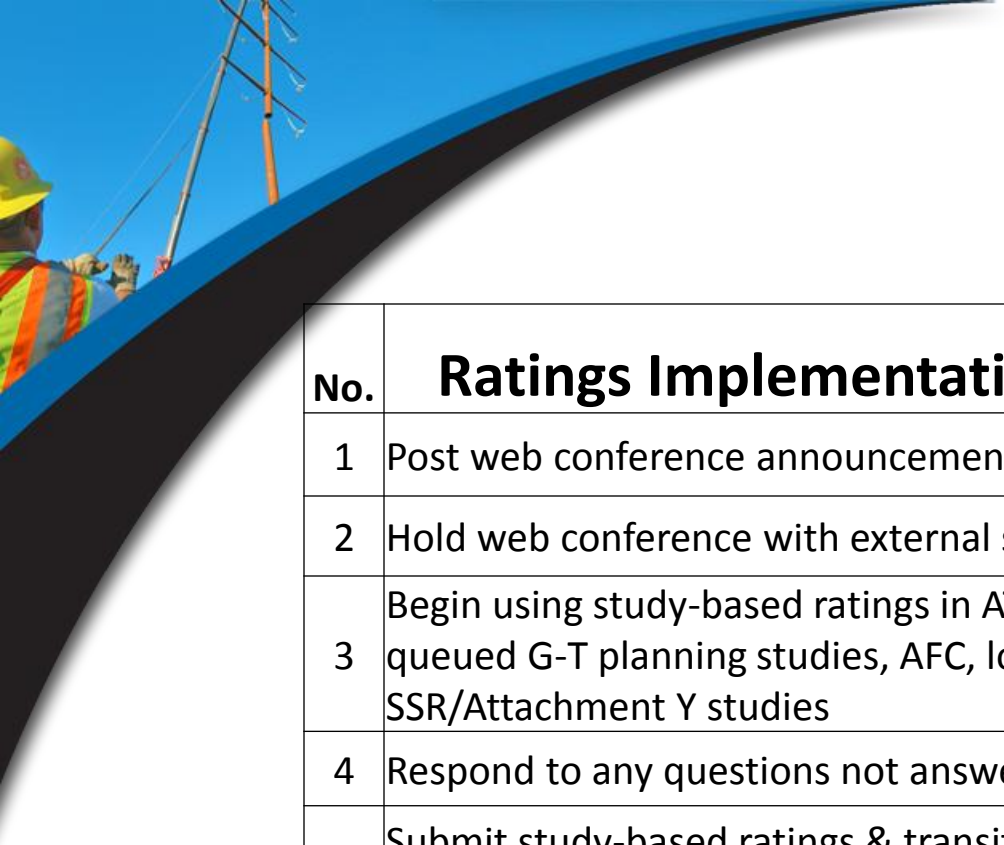


MTEP

- Ratings based upon new study-based ratings methodology will start being used in MTEP13
- Submittals for transitional ratings projects to MTEP via normal process

Impact on MISO-Queued G-T Interconnection Projects

- Projects in MISO's Definitive Planning Process (DPP) before ATC's OASIS posting, apply ATC's existing rating methodology
  - Goal: little to no customer cost and schedule impact
  - Parallel studies with existing & Study-Based ratings methodologies (at ATC incremental cost)
  - Transitional ratings for projects that reach Commercial Operation Date before ATC mitigation upgrades are complete
- Projects not in MISO's DPP before ATC's OASIS posting, apply Study-Based Rating Methodology



No.	Ratings Implementation Milestones Timeline	Target Date
1	Post web conference announcement to MISO OASIS	2/27/12
2	Hold web conference with external stakeholders	3/12/12
3	Begin using study-based ratings in ATC T-D planning studies, new MISO-queued G-T planning studies, AFC, long-term TSRs, and MISO SSR/Attachment Y studies	3/12/12
4	Respond to any questions not answered in 3/12/12 web conference	3/26/12
5	Submit study-based ratings & transitional ratings (as applicable) to MISO MOD for planning studies that represent topology after 6/1/13	6/1/12
6	Submit study-based ratings to MISO Web tool for the following models; outage coordination, ARR allocations, FTR auction, FRAC, day-ahead, and real-time operations	12/15/12
7	Study-based ratings effective for planning and real-time operations	6/1/13

Questions

AMERICAN TRANSMISSION COMPANY®