



The Evolving MISO Generation Portfolio

Midwestern Governors
Association meeting

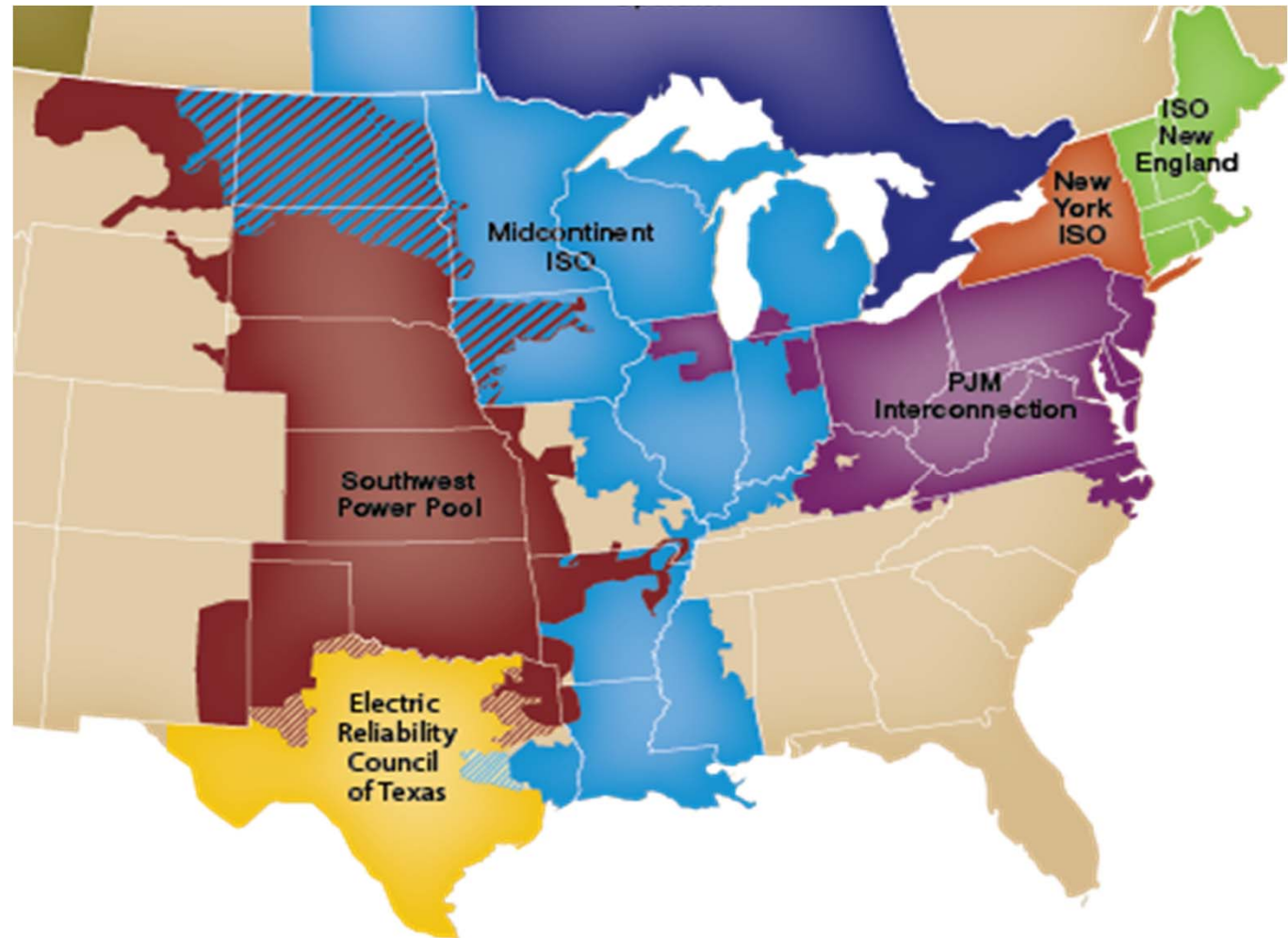
Oct 18, 2018

MISO, Ling Hua

MISO & neighboring U.S. electric grid operators

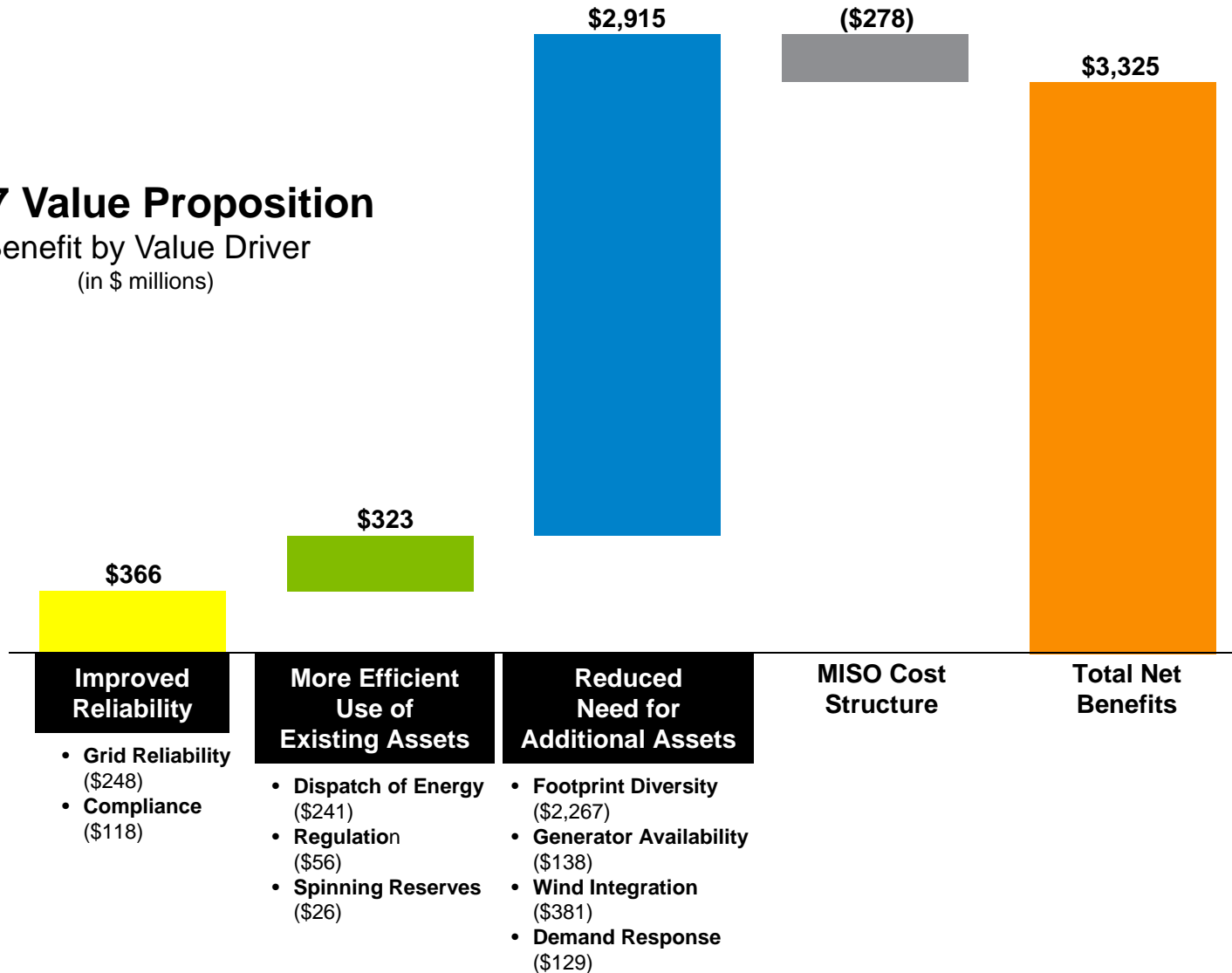
MISO

- 15 states
- 42 million customers
- \$27 billion market
- 175,000 MW*
- ~ 180 members
- > 400 market participants

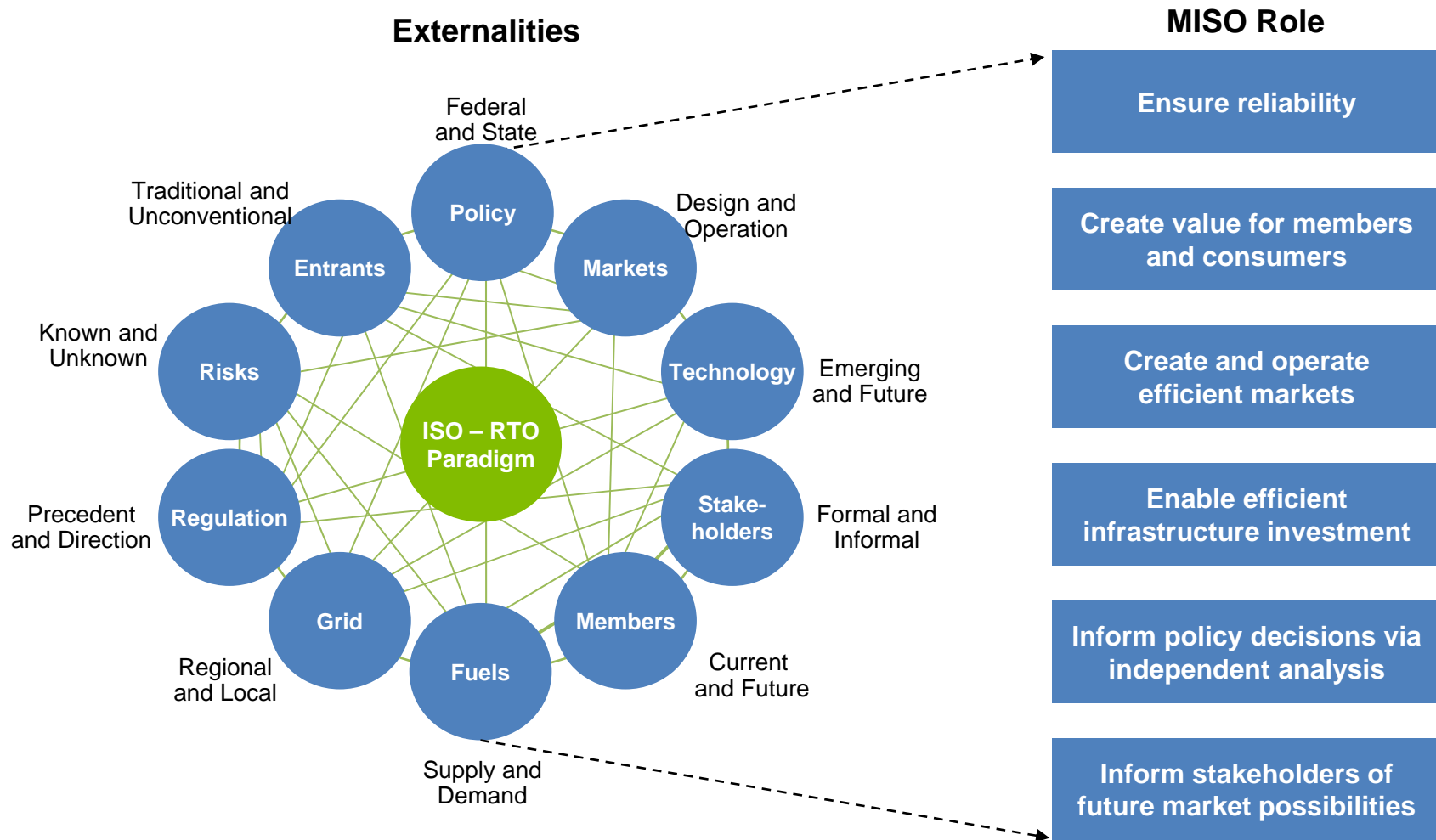


The region continues to successfully navigate the dynamic environment to create significant value

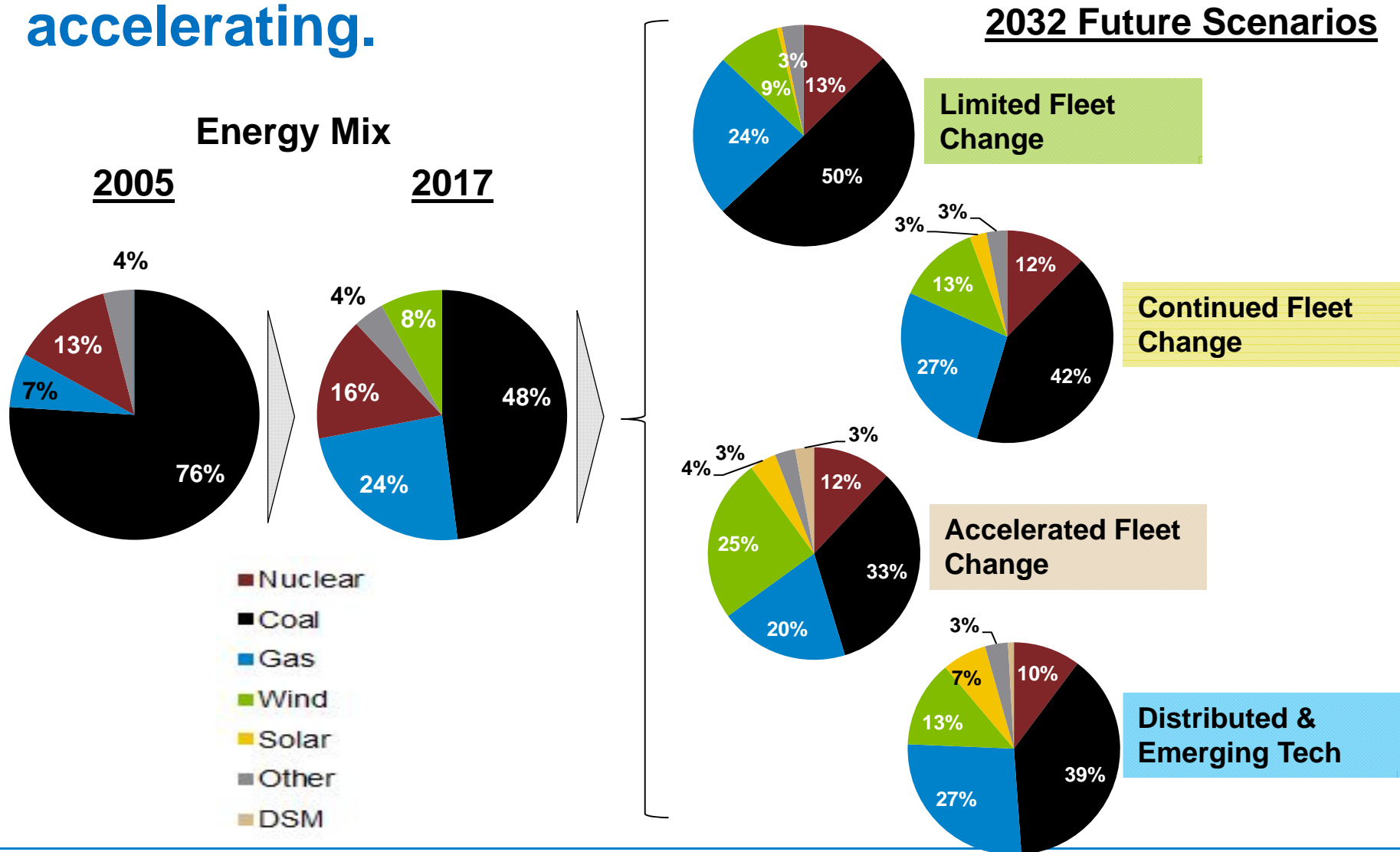
2017 Value Proposition Benefit by Value Driver (in \$ millions)



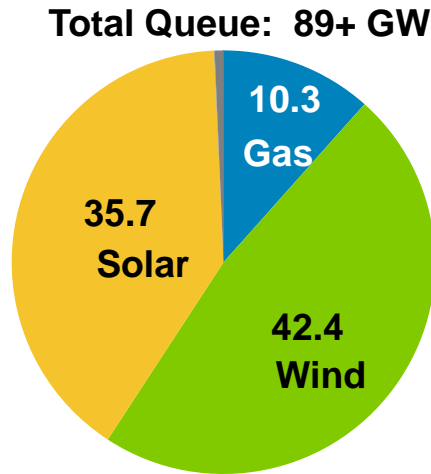
MISO's role continues to evolve as the industry's requirements change



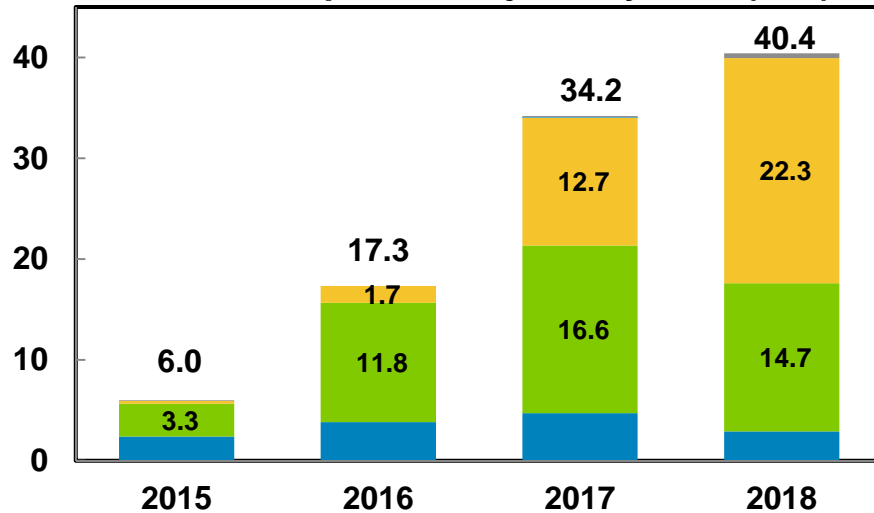
MISO connects a large, diverse generation fleet, which is shifting significantly, with the pace accelerating.



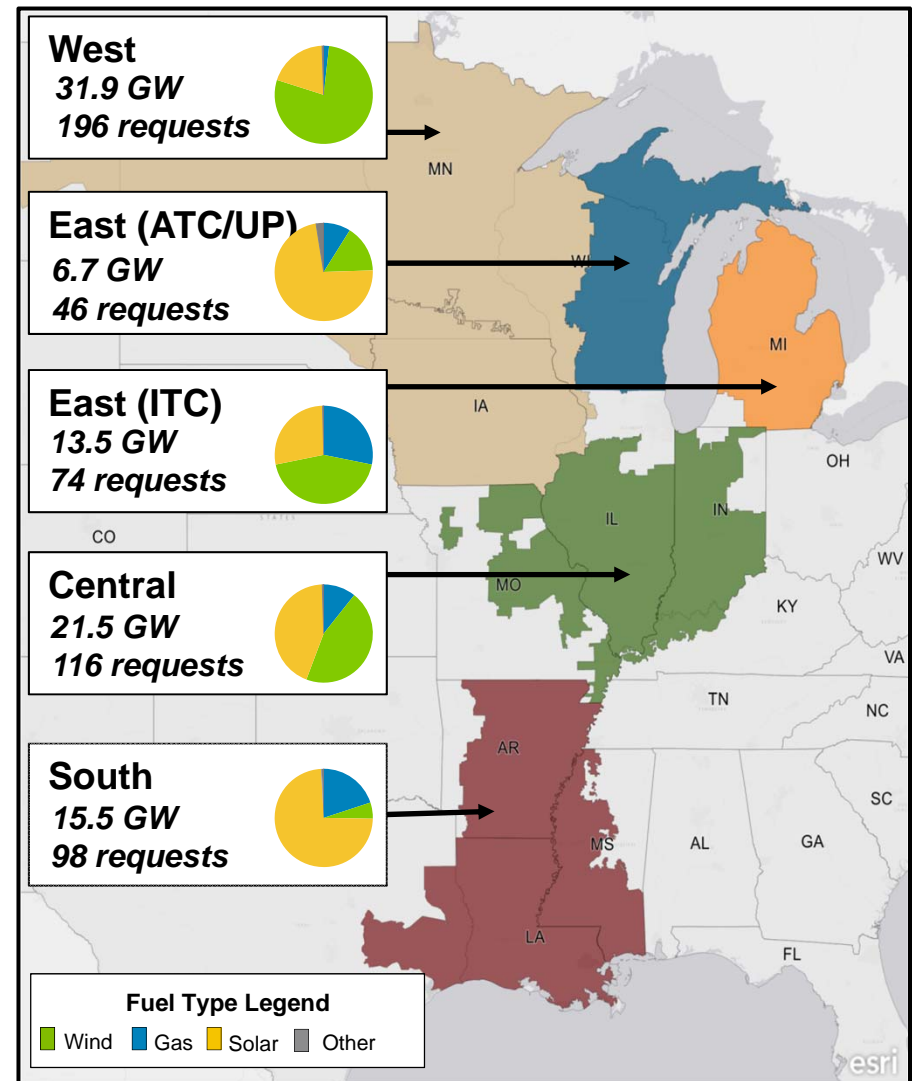
The current generator interconnection queue consists of 530 projects totaling nearly 90 GW...



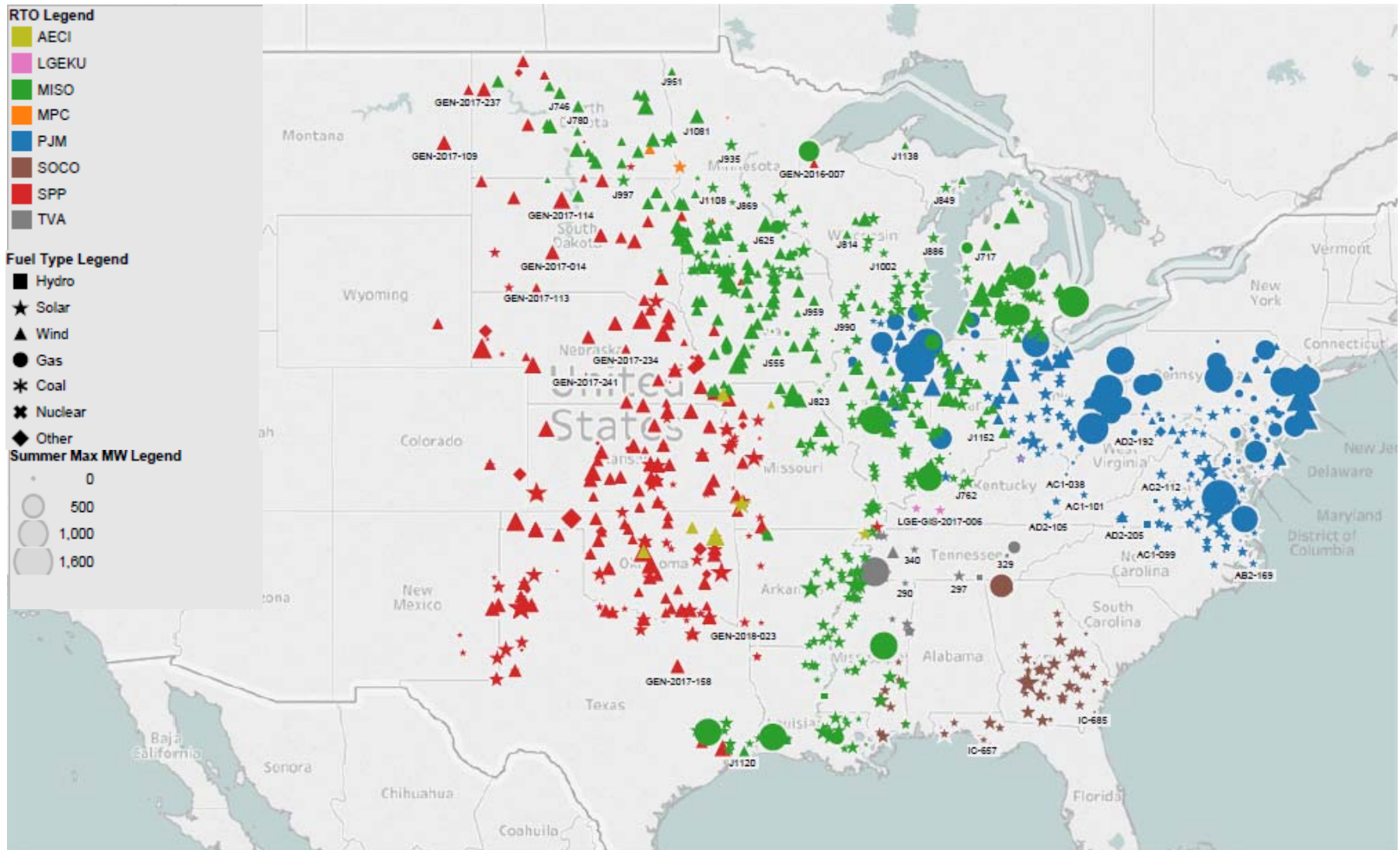
Active/Completed Projects by Year (GW)



MISO Active Queue by Study Area

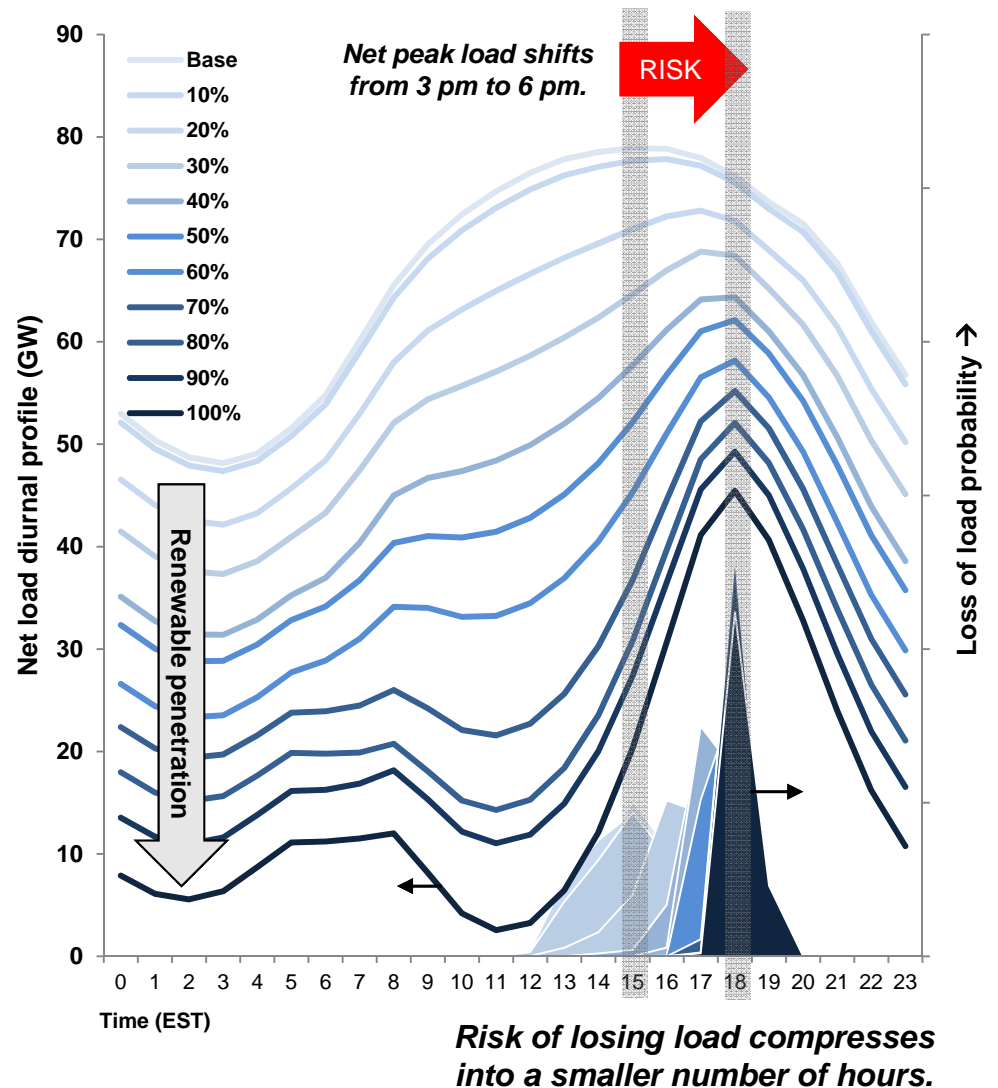
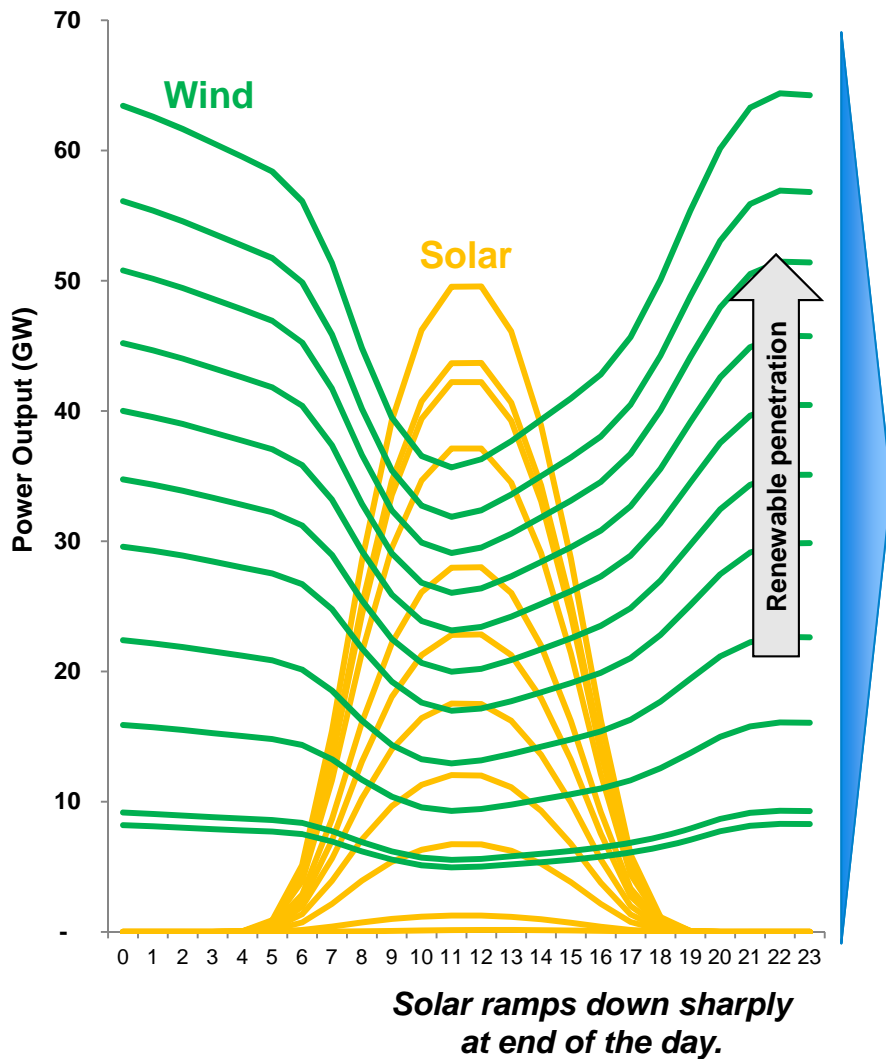


...which the existing transmission system cannot accommodate

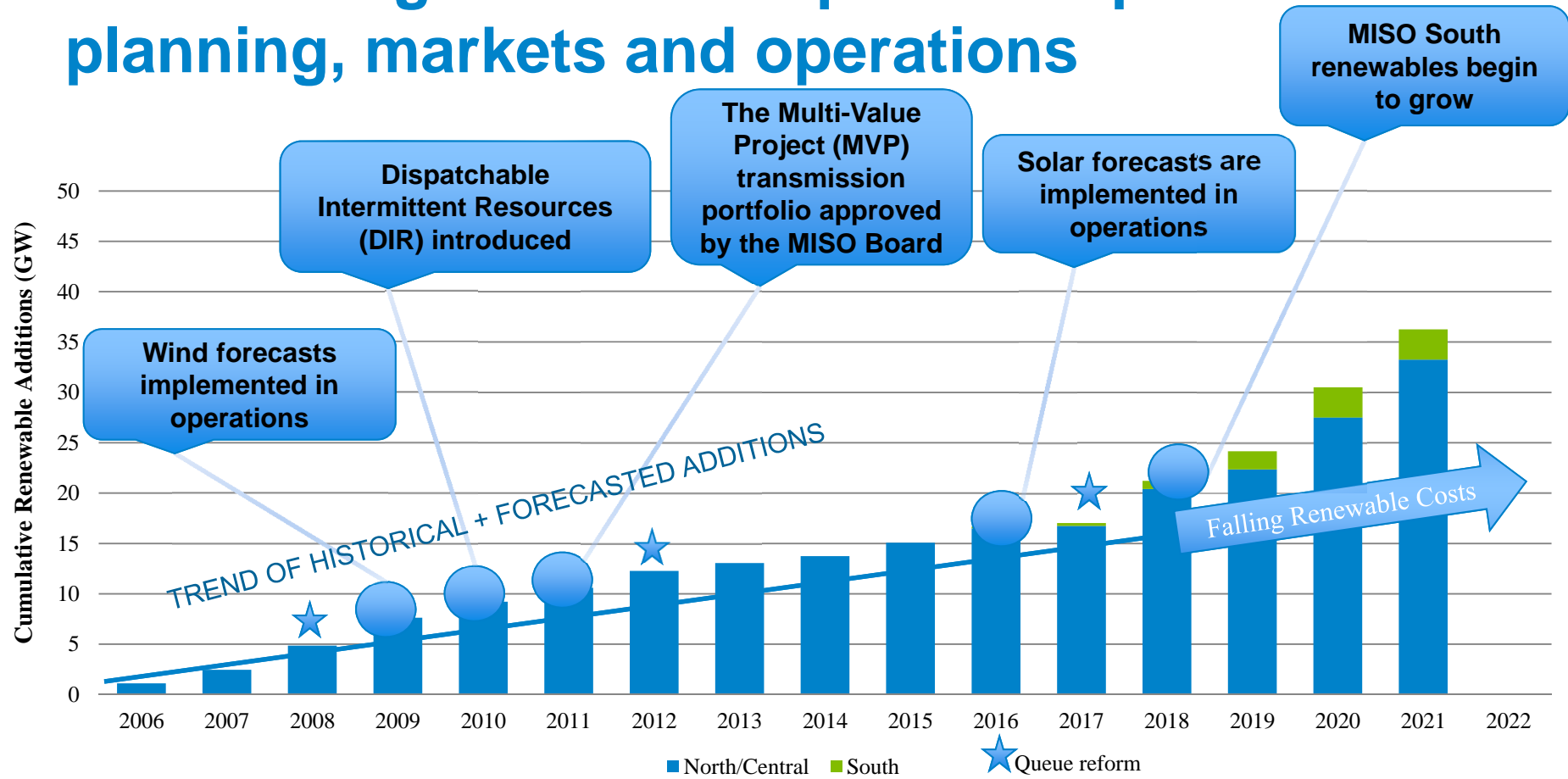


As renewable penetration increases, planning and operating risk shifts and becomes more acute

Illustrative



Experience demonstrates that integrating renewable generation requires adaptation in planning, markets and operations



**Historical queue additions + forecasted additions of 50% of DPP queue wind and solar capacity*