



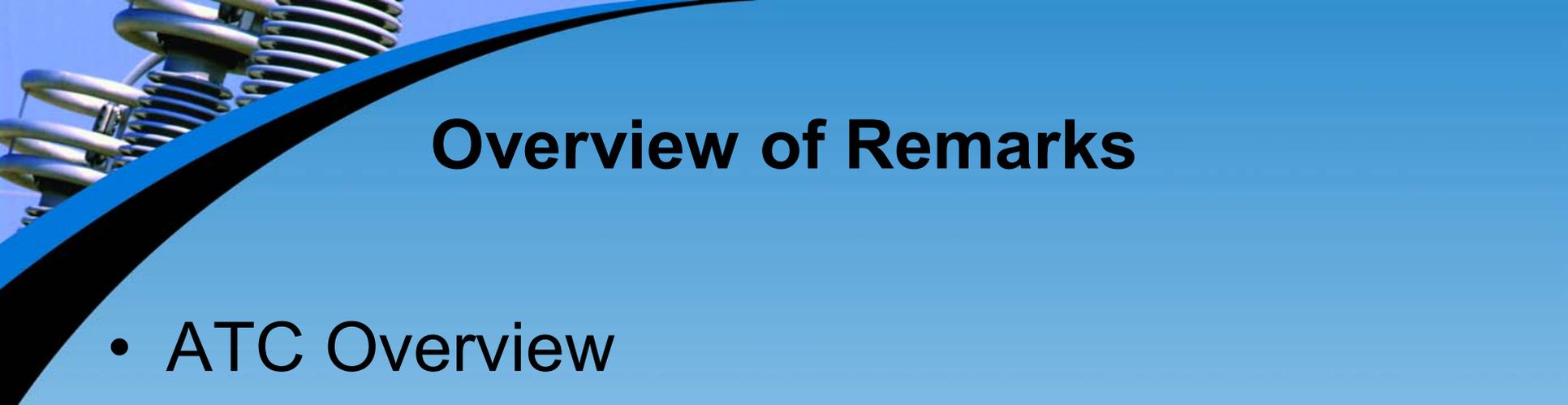
A Proactive View of Transmission Planning

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Harvard Electricity Policy Group

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Overview of Remarks

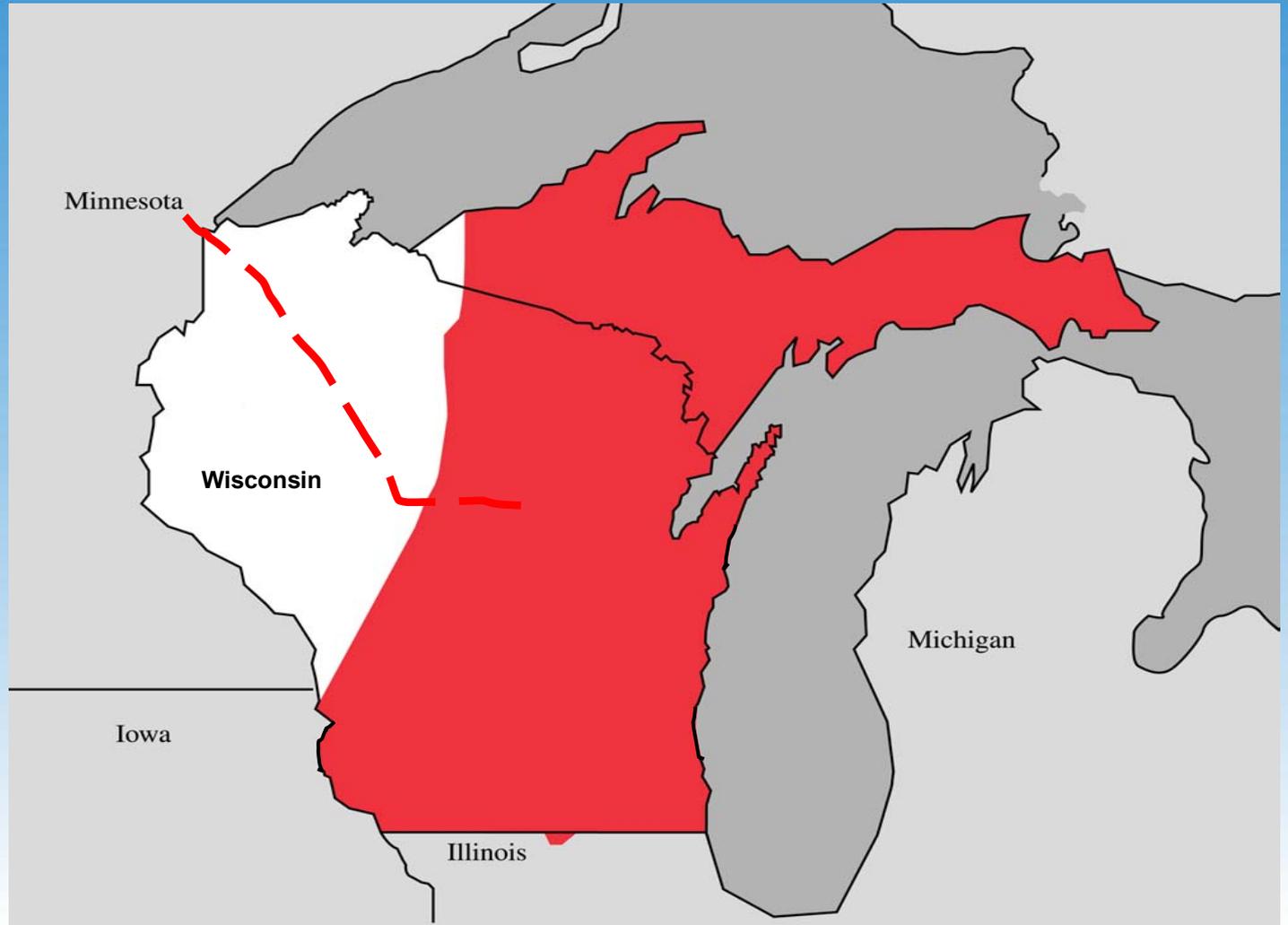
- ATC Overview
- Role of Transmission
- Role of planning at ATC
- Collaborative Planning Process
- Integration of transmission, generation and alternatives

ATC Overview

- Formed in 2001
- Owns facilities in
 - Four states
 - Down to 50 kV
- Constructed/rebuilt nearly \$1B of transmission since 2001
- Ten year planned capital expenditures of over \$3B
- Currently owned by its customers (28)
- Owns, plans, builds, maintains and operates electric transmission facilities
- 8,900 miles of transmission line and 480 substations
- Member of MISO



ATC



Transmission is an enabler

- Facilitates access to generation
 - More efficient use of generation resources
 - Increases competition among generators
 - Lower reserve margins
 - Maintain reliability
- Not a substitute for generation
 - Generation planned and built quicker than transmission
 - Once built, transmission is used for its lifetime as part of the grid
- Not a substitution for energy efficiency

All customers and load serving entities benefit in the long term from a stronger, less congested transmission network



Role of Planning at ATC

Planning is integral part of ATC business model

- Accountable for:
 - Reliability of service
 - Costs of local transmission projects borne by retail customers
 - Market access
 - Interconnection studies for distribution and generation (delegated)
 - Meeting NERC Planning standards

Role of Planning at ATC

- 10 year plan published annually
 - Staff of 35
- Open, transparent, collaborative planning process
- Public input into routing and siting
 - Public/stakeholder outreach
 - Dane County Collaborative
 - Open meetings
 - Inclusive

End result of planning is construction



Collaborative Planning Process

*Transmission owner and RTO both have
important roles*

- Bottom up by transmission owner
- Top down by RTO



Collaborative Planning Process

Bottom up by transmission owner

- Local needs
- Political realities and priorities
- Assess constructability
- Work with neighboring utilities
- Many smaller projects
- Live with planning decisions

Planning must keep local component



Collaborative Planning Process

Top down by RTO*

- Projects that span multiple transmission owners
- Facilitates communications among stakeholders
- Identifies regional impacts, issues and objectives
- Facilitates transmission owner planning unless it is inadequate

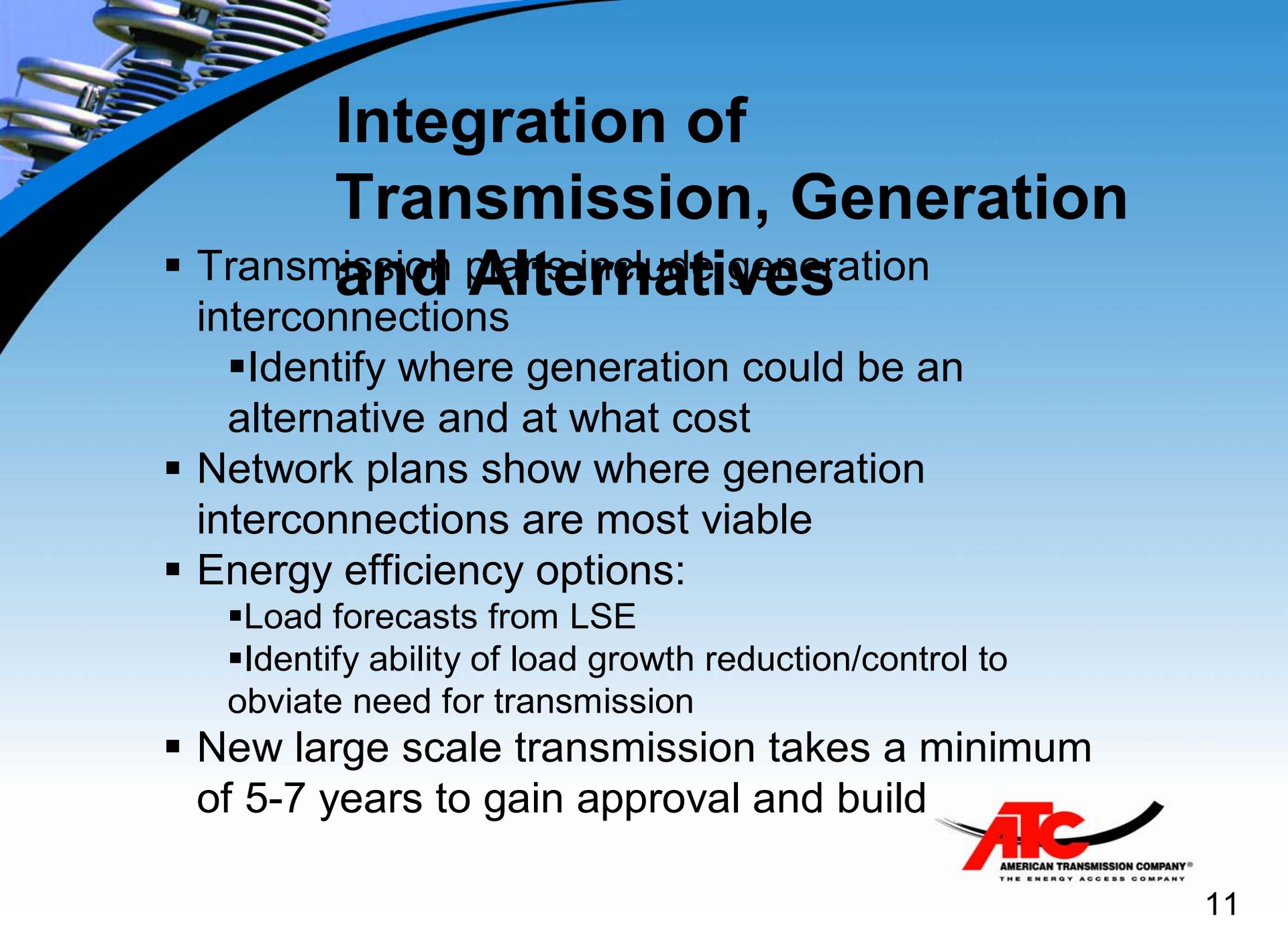
*Where there is no RTO, coordination needs to be carried out by the TO's



Collaborative Planning Process

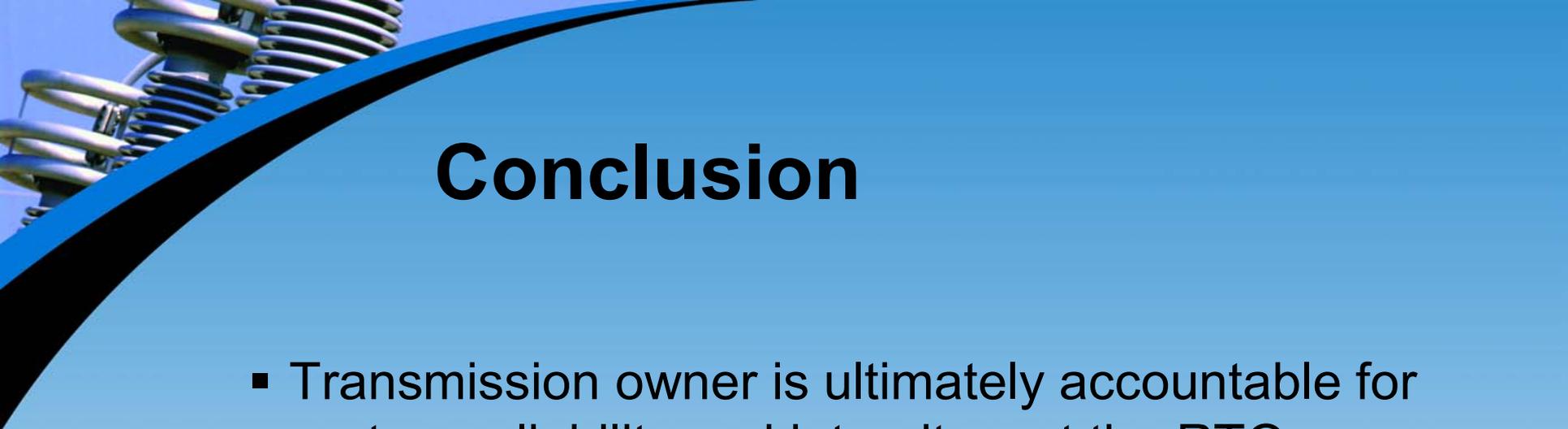
State Public Service Commissions must retain authority

- Ultimately responsible for local reliability
- Federal backstop authority on siting: a last resort



Integration of Transmission, Generation and Alternatives

- Transmission plans include generation interconnections
 - Identify where generation could be an alternative and at what cost
- Network plans show where generation interconnections are most viable
- Energy efficiency options:
 - Load forecasts from LSE
 - Identify ability of load growth reduction/control to obviate need for transmission
- New large scale transmission takes a minimum of 5-7 years to gain approval and build



Conclusion

- Transmission owner is ultimately accountable for system reliability and integrity, not the RTO
- End result of planning must be construction of needed facilities
- Planning needs to involve public input, be transparent and collaborative