

Economic Planning Study Update

PRESENTED BY

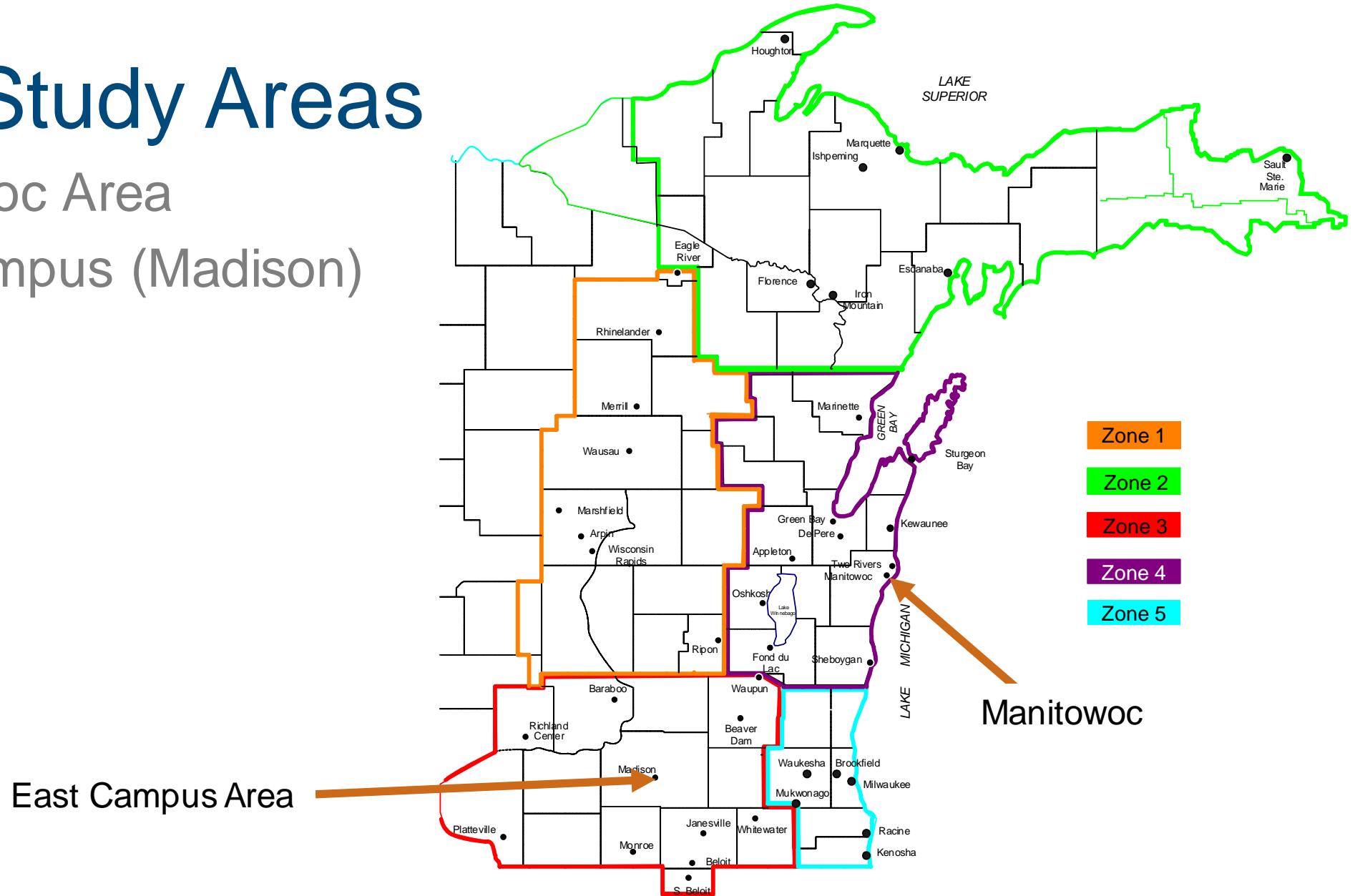
Stephanie Schmidt, ATC Economic Planning

March 6, 2023



2022 Study Areas

- Manitowoc Area
- East Campus (Madison) Area

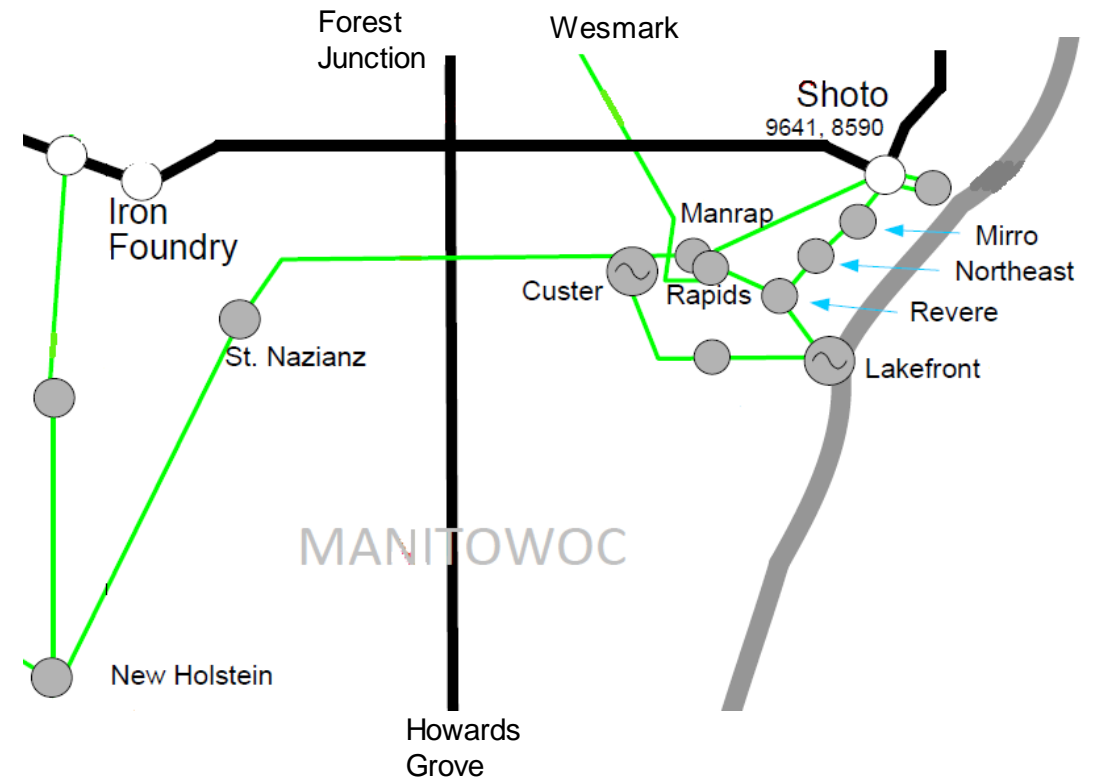


Manitowoc Area Updates

- **Lakefront 9 Attachment Y Retirement Update:**
 - MISO submitted SSR agreement to FERC on January 20th, 2023:
https://cdn.misoenergy.org/2023-01-20_ER23-914-000_Public627604.pdf
 - ◆ Mitigation: MPU will change to renewable fuel source for Lakefront 9 and return to service from SSR status no later than January 31, 2026
 - MISO's Lakefront 9 Attachment Y Study Report: http://www.oasis.oati.com/woa/docs/MISO/MISOdocs/Attachment_Y_Information.html
 - ◆ **MISO reviewed the reliability issues caused by suspension of Lakefront 9**
 - ◆ P6 contingencies for twelve constraints

Manitowoc Area Updates

- Continuing analysis on economic-based projects
 - New 138/ 69kV substation
 - 69kV Rebuilds and Upgrades
- Considerations
 - Future Asset Renewals
 - Operational Flexibility
 - Generational Changes



East Campus (Madison) Area

- Have positive results for studied alternatives
- **Additional economic studies will be performed** to evaluate the 2022 TYA “Provisional” Walnut-Blount 69kV transmission line
- Economic results may be used to compliment reliability analysis

Next Steps on 2022 Order 890 Studies

- Continued analysis
 - Weaving in reliability analysis and other projects
 - Developing projects that relieve multiple needs
- Additional updates during next stakeholder meeting

Economic Planning Kickoff

PRESENTED BY

Anna Torgerson, ATC Economic Planning

March 7, 2022



Introduction

- Process Overview and Timeline
- Models and Futures Development
- Stakeholder Input
- Next Steps

ATC Process Overview and Timeline

- **During February** – we hold an initial stakeholder meeting to review the market congestion summary and potential fixes and to discuss economic study scenarios, drivers, ranges, and assumptions.
- **By March 1** – we work with stakeholders to request and prioritize new/other economic studies and recommend study assumptions.
- **By April 15** – we identify preliminary areas of economic study, study assumptions and models and solicit further comments from stakeholders.
- **By May 15** – we finalize areas of economic study, study assumptions and models to be used in analysis.
- **By November 15** – we provide a summary of the results of the economic analyses to our stakeholders.

Model Development

- Utilize the MISO Transmission Expansion Plan (MTEP) 2021 models and futures
 - Added projects and generators to F1 and F2 models
 - ◆ DPP 2017, 2018 and 2019 queues
 - MTEP22 models were not developed
 - Unknown Timeframe for releasing MTEP23 Models

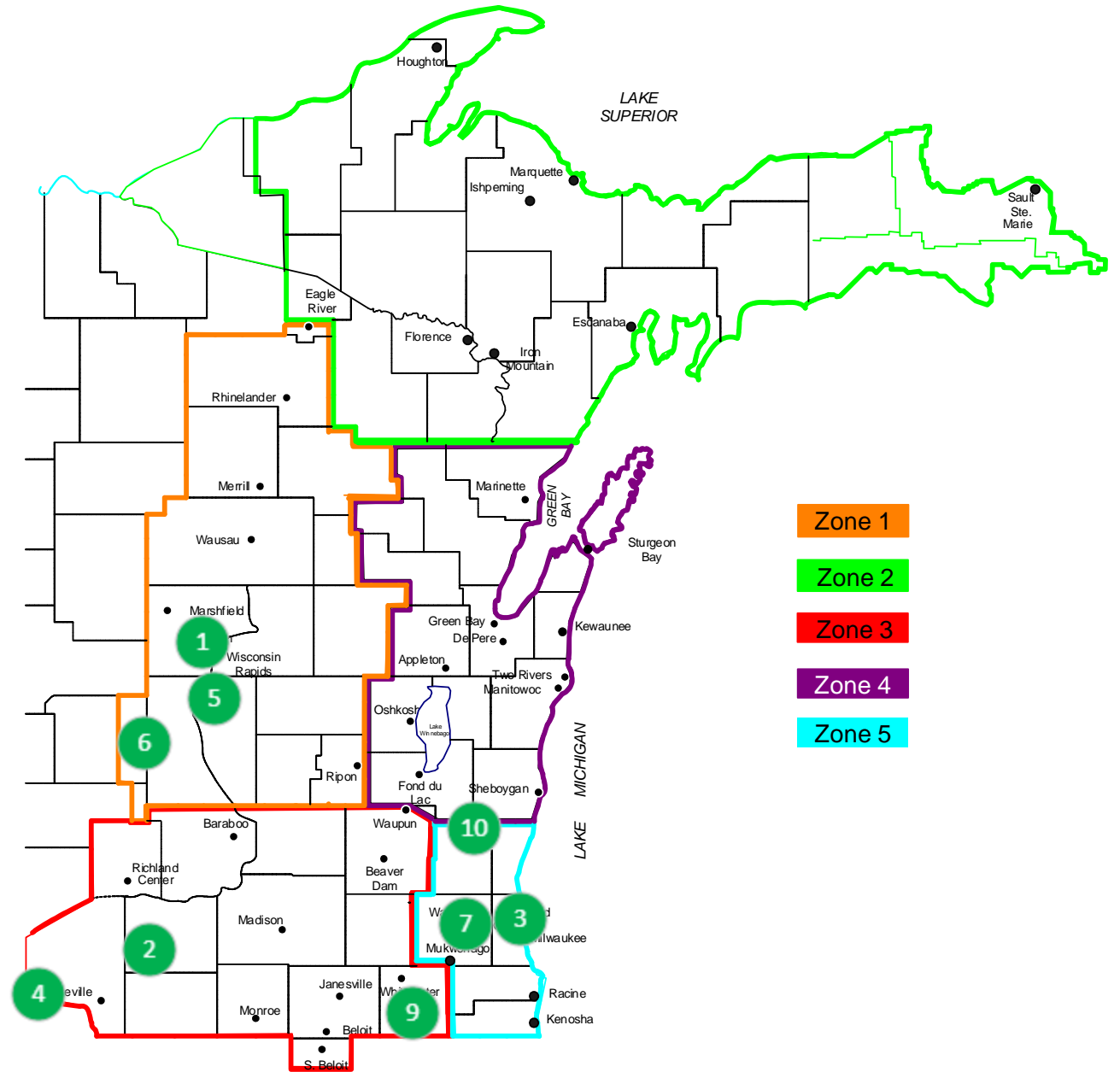
MTEP21 Summary

- MISO MTEP21 Futures Summary One-Pager
 - <https://cdn.misoenergy.org/MISO%20Futures%20One%20Pager538214.pdf>
- MISO Futures Report
 - <https://cdn.misoenergy.org/MISO%20Futures%20Report538224.pdf>
- MISO MTEP Futures Website
 - <https://www.misoenergy.org/planning/transmission-planning/futures-development/>

Notable 2022 Congestion

2022 Day Ahead Market Hours	2022 Real Time Market Hours	Constraint
914	360	Arpin - Sigel 138 kV (X-33)
784	297	Eden - Hillman 69 kV (Y-106)
649	228	Bluemound - Butler 138 kV (5061)
537	20	Nelson Dewey 161/138 kV Xfmr T91
405	30	Petenwell - Saratoga 138 kV (X-43)
330	178	Council Creek - Hilltop 69 kV (Y-74)
319	153	Granville - Tosa 138 kV (3443)
254	117	Minnesota to Wisconsin Exports Interface (MWEX)
192	119	Bluff Creek - University 138 kV (WHIG53)
158	96	Arcadian - Cypress 345 kV (L-CYP31)
77	102	Briggs Road - North Madison 345 kV (W-13)
49	2	Albany - Bass Creek 138 kV (X-12)
42	24	Kewaunee - Point Beach 345 kV (Q-303)
39	24	Racine - St. Rita 138 kV (8531)
29	23	Forest Junction - Tecumseh Road 138 kV (971K91)
24	35	Colley Road - Rock River 138 kV (X-23)
19	0	Branch River - Forest Junction 345 kV (W-15)
14	0	Arcadian 345/138 kV Xfmr T3

- 1 Arpin - Sigel 138 kV (X-33)
- 2 Eden - Hillman 69 kV (Y-106)
- 3 Bluemound - Butler 138 kV (5061)
- 4 Nelson Dewey 161/138 kV Xfmr T91
- 5 Petenwell - Saratoga 138 kV (X-43)
- 6 Council Creek - Hilltop 69 kV (Y-74)
- 7 Granville - Tosa 138 kV (3443)
- 8 Minnesota to Wisconsin Exports Interface (MWEX)
- 9 Bluff Creek - University 138 kV (WHIG53)
- 10 Arcadian - Cypress 345 kV (L-CYP31)



Stakeholder and Customer Feedback

- ATC is soliciting stakeholders and customers for new/other economic studies, recommended study assumptions changes, and study areas for our 2023 study
- ATC requests feedback in areas where Public Policy Requirements may drive transmission needs.
 - Public Policy Requirements are enacted statutes (i.e., passed by the legislature and signed by the executive) and regulations promulgated by a relevant jurisdiction, whether within a state or at the federal level, including duly enacted laws or regulations passed by a local governmental entity, such as a municipal or county government. Stakeholders are encouraged to provide ATC with Public Policy Requirements. ATC utilizes transmission needs driven by Public Policy Requirements in its assumptions when performing economic analysis of study areas. The transmission needs driven by Public Policy Requirements that will be included in ATC's finalized assumptions will be posted prior to May 15th.

Next Steps

- Project / Analysis Development
 - Review of Congestion and Generation Interconnection Projects
 - Stakeholder Feedback
- Analysis of Projects
 - Study Years – 2025, 2030, 2035 and 2040
 - Futures – All MISO MTEP21 Futures
- Timelines
 - By April 15: Define Preliminary Assumptions
 - By May 15: Finalize Assumptions
 - By November 15: Provide Analysis Update

Questions?

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