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businesses running
and communities strong®

2019 Economic Study Assumptions

Anna Torgerson, ATC Economic Planning

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Introduction

- Process Overview and Timeline
- 2019 Futures Development
- Study Areas
- Next Steps

ATC Process Overview and Timeline

- **ATC Economic Project Planning – Per ATC Tariff**
 - **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.

2019 Futures Development

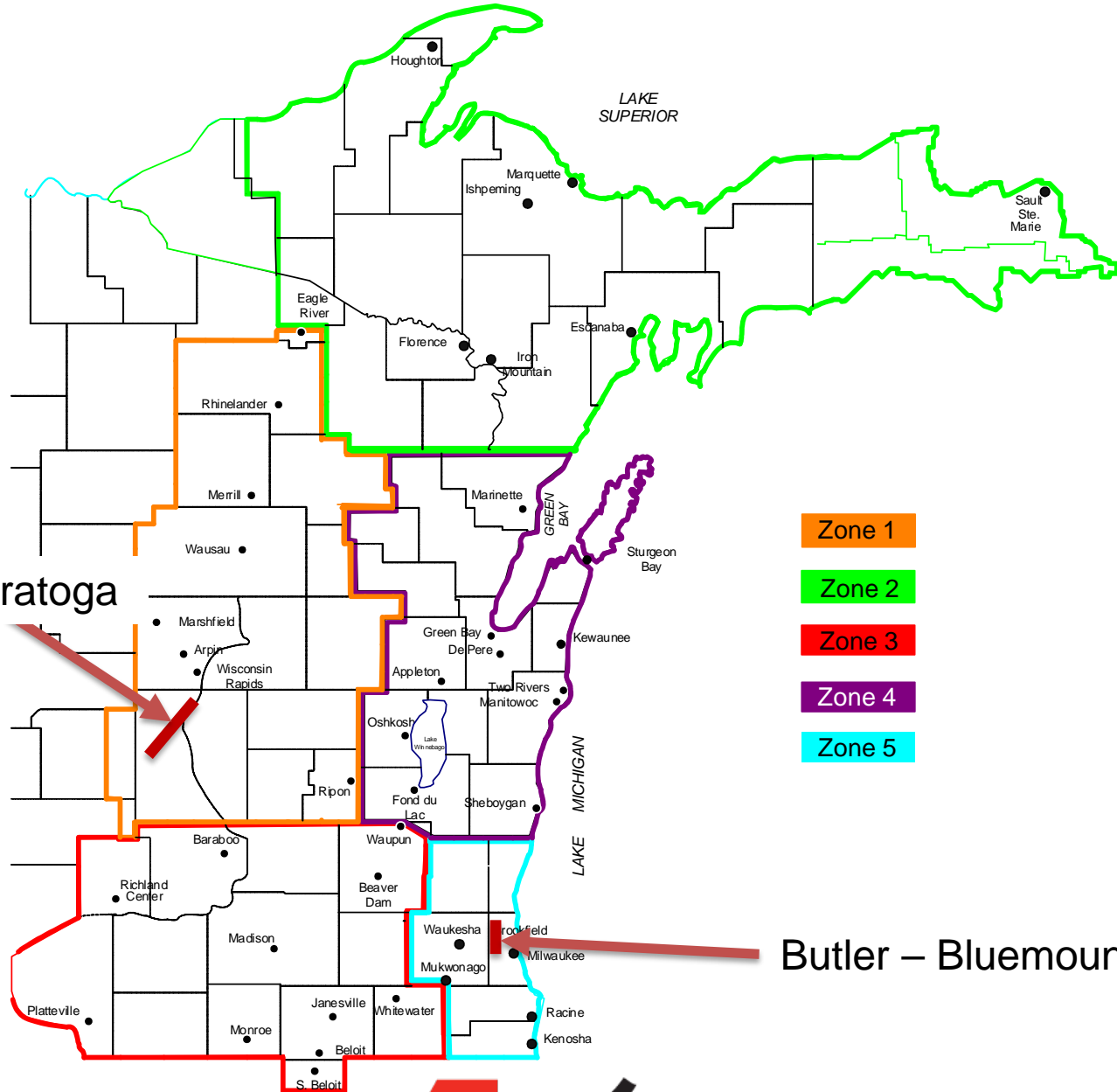
- Utilize the MISO MTEP models and futures
- Review MISO models and provide updates as necessary
 - Review generation interconnection request in MISO Queue
 - Review load profiles and demand and energy growth
 - Better modeling of time of use industrial customers
 - Most updated transmission topology
- Ensures greater alignment with MISO stakeholder process

MISO MTEP19 Futures

- Limited Fleet Change – (LFC)
- Continued Fleet Change – (CFC)
- Accelerated Fleet Change – (AFC)
- Distributed & Emerging Technology – (DET)

Notable MTEP19 Congestion

- **Butler – Bluemound 138 kV**
- **Petenwell – Saratoga 138 kV**
 - This has a remedial action scheme for constraint mitigation
- **North Monroe – Bass Creek 138 kV**
 - Driven by future assumed generation siting
- **Eden – Wyoming Valley 138 kV**
 - Driven by future assumed generation siting



Zone 1

Zone 2

Zone 3

Zone 4

Zone 5

Petenwell-Saratoga

Butler – Bluemound



Petenwell – Saratoga 138kV

- New NERC RAS study requirements increases cost of maintaining RAS
- A significant portion of the poles need to be replaced in 5-10 years
- \$20M Cost estimate to rebuild
- Evaluating other benefits of a project

Butler – Bluemound 138kV

- Studied last year
- Congestion occurs in MTEP19
- Analyzing extensive battery solutions for constraint

Next Steps

- **2019 Model Updates**
 - Update model with new signed interconnection agreements
- **Analysis of Projects**
 - Study Years – 2023, 2028 and 2033
 - Futures – All MISO MTEP19 Futures
- **Timelines**
 - May 15: Finalize Assumptions
 - November 15: Provide Analysis Update

Questions?

- ATC Economic Planning
- Dale Burmester
 - dburmester@atcllc.com
- Anna Torgerson
 - atorgerson@atcllc.com

Thank You For Your Time!

