



Helping to keep the lights on,
businesses running
and communities strong

2015 10-Year Assessment Preliminary Needs

Stakeholder and Customer Presentation – February 16, 2015

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Purpose

- Assumption reminders
- Summarize preliminary changes to needs
- Solicit input on needs
- Public Policy Requirements reminders
- Next steps

Preliminary Key Messages

- Load forecast growth slightly higher in early years, but has a slightly lower long-term growth rate relative to 2013 Assessment.
- Generation assumption changes
- Impacts of implementing TPL-001-4
- Continue to participate in Regional Studies
- Result - some need date changes, new needs, and eliminated needs

Core Assessment Studies

2014 TYA		2015 TYA	
<i>Model</i>	<i>Year(s) Studied</i>	<i>Model</i>	<i>Year(s) Studied</i>
Summer Peak	2015, 2019, 2024, 2029	Summer Peak	2016, 2020, 2025
Shoulder	2019, 2024	Shoulder	2020, 2025
40% Minimum Load	2015, 2019	40% Minimum Load	2016, 2020



Sensitivities being analyzed

- 90/10 2025 Summer Peak
- No bias cases
- Generator Retirement Study

Generator Retirement Study

- **Assumptions**
 - At least 50 years old by 2030
 - Primarily Coal or Diesel
 - Exclude conversions to natural gas, or pollution controls
 - Roughly 1,700 MW retired (study assumption only)
 - 2025 Summer All-Project Peak model
 - Power will be made up with imports into ATC
- **Sensitivity being considered**
 - Generators in the MISO DPP cycle added to retirements
 - Roughly 1,500 MW of generation added (study assumption only)
- **Not proposing additional projects**

Gen. Retirement Continued

Retirements (study assumptions only)	Additions
Biron, Dafter, Detour, Edgewater 3 & 4, Escanaba, Gladstone, Kraft, Lakefront 5 & 6, Manistique, Melissa, Munising, Nelson Dewey, Newberry Village, Portage, Presque Isle, Pulliam, Shiras2, Thilmany, Weston 1 & 2, White Pine	<ul style="list-style-type: none">• J293• J384• J390• J394• J395

Generation Dispatch Changes

- Studies without Pulliam 5,6 and Weston 1
- ATC Net Interchange Comparison to 2014 TYA
 - 2016 Peak: 16 MW reduction to exports
 - 2020 Peak: 140 MW reduction to imports
 - 2025 Peak: 140 MW reduction to imports



Preliminary Need Changes

- **Potential needs**

- P2-1
 - Low voltage at Charter
- P3-2
 - Overload at City Limits
- Long lead time
 - Low voltage near Boscobel

- **Potential needs eliminated**

- 1 Generation increase isn't materializing
- 1 Need eliminated by resurveying line
- 15 potential need eliminations, continued low load growth



Public Policy Requirements

- Following Attachment FF Processes
- Previously Identified Requirements
 - State Renewable Portfolio Standard (RPS) Mandates
 - EPA Regulations
 - State Mandates and Goals for Energy Efficiency (EE) and Demand Side Management (DSM) Programs
 - No New Requirements from the October 2014 Study Design review with stakeholders
- For the 2015 10-Year Assessment, assessing combined impacts using:
 - Expected Load Forecasts from LSEs
 - Generation Additions
 - Generation Retirements
 - Multiple Year Analysis over a range load levels
 - Minimum
 - Shoulder
 - Peak
 - High Load Sensitivity
 - Updating Potential Retirements Study
- Any public policy driven needs that may not be covered by the Assessment process?

Process Status

- **Completed 2014**
 - Requested load forecast from LDCs
 - Sent final load forecast back to LDCs
 - Process and assumptions meeting
 - Suggested sensitivity studies
- **Next Steps**
 - Preliminary solutions meeting/presentation
 - Develop cost estimates
 - Draft study write-up
 - Complete multiple outage study
 - ATC review/approval
 - 2015 Assessment publication



Questions?

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Load Forecast Trends

