

Michigan's 21st Century Energy Plan

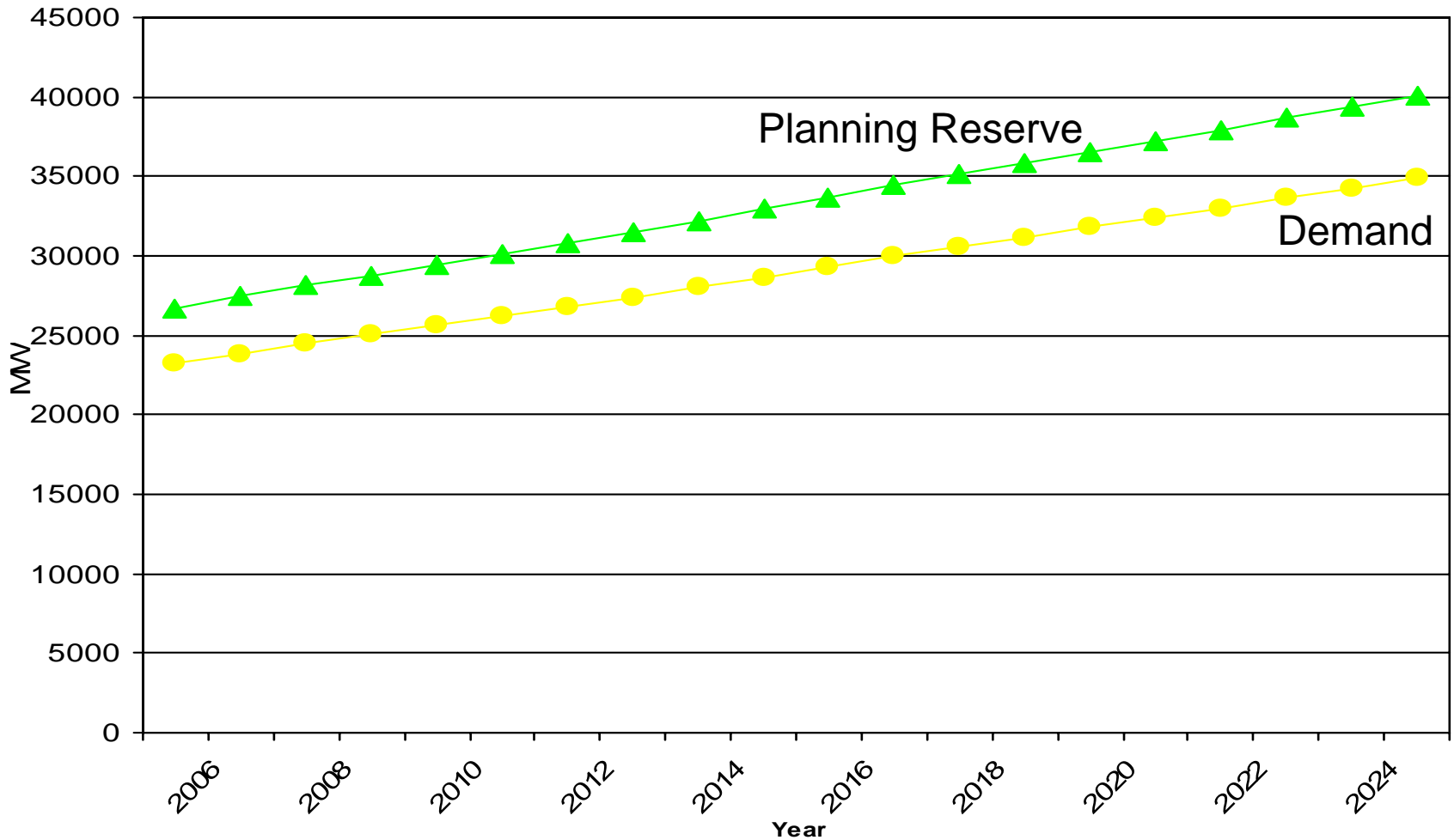
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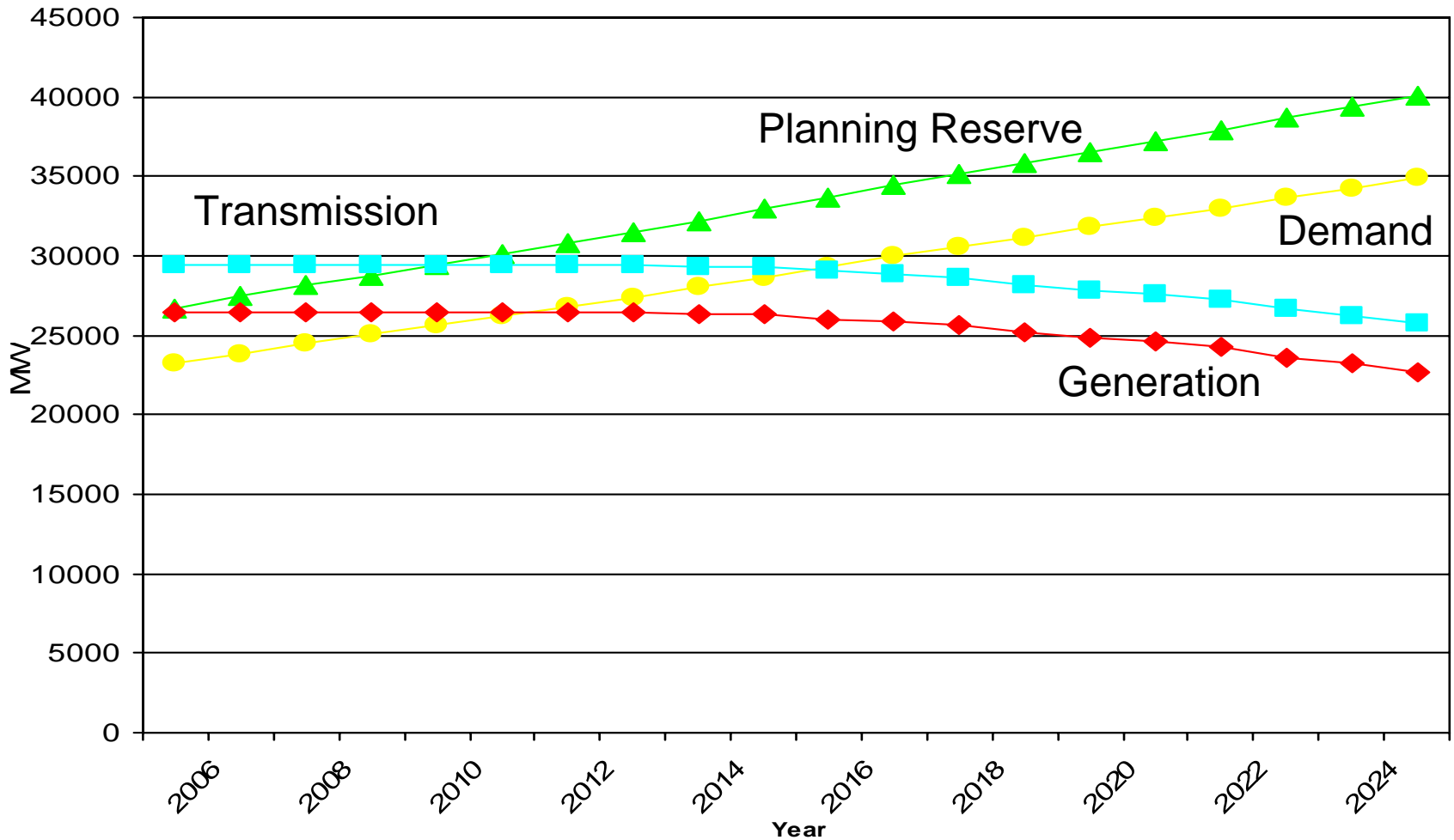
Michigan's 21st Century Energy Plan

Overview of Michigan Electricity Planning



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Overview of Michigan Electricity Planning



CNF Planning Contingencies

- Demand Growth
- Fuel costs
- Environmental Risks
- Transmission



Resource Options

- Renewable energy
- Central station generation
 - Peaking
 - Baseload
- Energy efficiency and load management
- Transmission



Capacity Needs Forum (CNF) Conclusions

- Emerging reliability need in Southeast Michigan
- Need for baseload power when available
 - Energy production
 - Fuel diversity



CNF Policy Recommendations

- Recommendations within Commission's current scope of authority
- Electric reliability is a public good
- Changes to traditional ratemaking
 - Pre-commitment
 - Comprehensive portfolio of energy resources
 - Ratemaking modifications
 - Capacity solicitation
 - Project partnerships



21st Century Energy Plan Goals

- Develop a plan to meet Michigan's future electric energy needs
 - Confirm or modify CNF results
 - Further investigate resource options
- Develop a robust set of policy recommendations designed to implement Michigan's resource needs



Work Groups

- CNF Update
- Renewable Energy
- Alternative Technology
- Energy Efficiency/Load Management



Work Group Assignments

- Update CNF data where needed
- Provide additional information
- Identify policy issues
- Make recommendations



CNF Update Work Group

- Review demand forecast
- Update screening curves and load duration curve
- Review transmission studies
- Review and discuss central station options



Renewable Energy

- Review of renewable potential and costs
 - Wind
 - Biomass
 - Solar
 - Other
- Estimate capacity value of wind energy
- Estimate on-peak capacity contribution of wind energy



Alternative Energy

- Assessment of costs and schedules
 - Cogeneration
 - Fuel cells
 - Distributed generation
 - Smart grid and smart metering applications
- Identification and characterization of additional emerging technologies



Energy Efficiency & Load Management

- More detailed assessment of potential
 - Utility programming
 - Non-utility programming
 - Interruptible Load and demand response
 - Pricing options
- Benefit/Cost analysis
- Program scope



21st Century Energy Plan Schedule

- May 9-10 First Work Group Meetings
- May – August Work Group Meetings
- June 22 Joint Meeting
- July 18 Joint Meeting
- August 22 Joint Meeting
- September 29 Work Group Reports Completed
- October 16 Comments on Work Group Reports
- December 31 Final Report

