State Agency Roles in Comprehensive Planning: Examples from Michigan

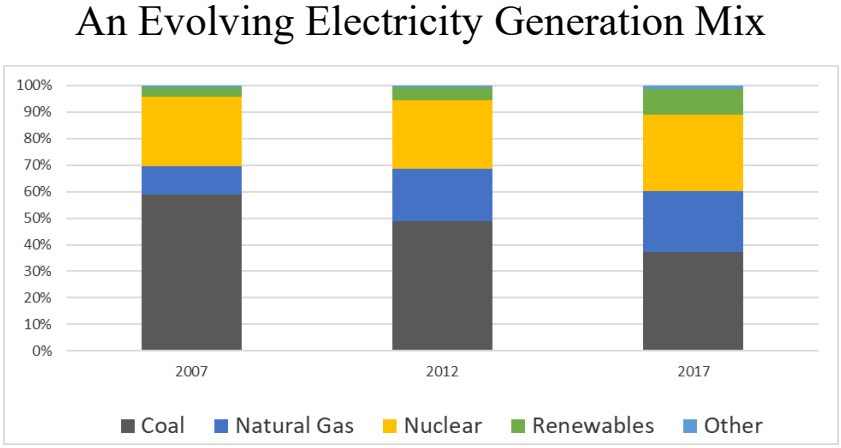
National Council on Electricity Planning
September 13, 2021

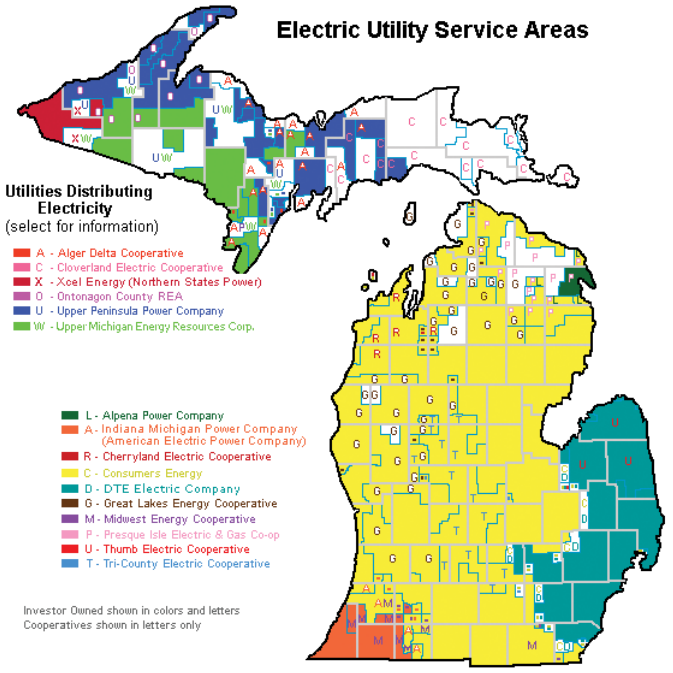
Dan Scripps, Chair
Michigan Public Service Commission

MPSC
Michigan Public Service Commission

Michigan Energy Overview

- Michigan's electric system is a hybrid
  - Distribution: Operated by 7 IOUs, as well as a number of municipal and cooperative utilities
  - Transmission: Independent, with ITC operating in much of the Lower Peninsula and ATC operating across much of the Upper Peninsula
  - Generation: Hybrid, with LSEs controlling 90% of the market, and 10% available for retail open access/ customer choice
- Michigan's electric mix is rapidly evolving, moving from traditional coal and nuclear units to growing share from gas and renewables
- Michigan is part of both MISO and PJM, with approx. 90% of load in MISO
- In September 2020, Governor Whitmer announced the "MI Healthy Climate Plan," aiming to achieve economy-wide net zero GHG emissions by 2050
  - Work is supported by the Council on Climate Solutions and the Council on Future Mobility and Electrification



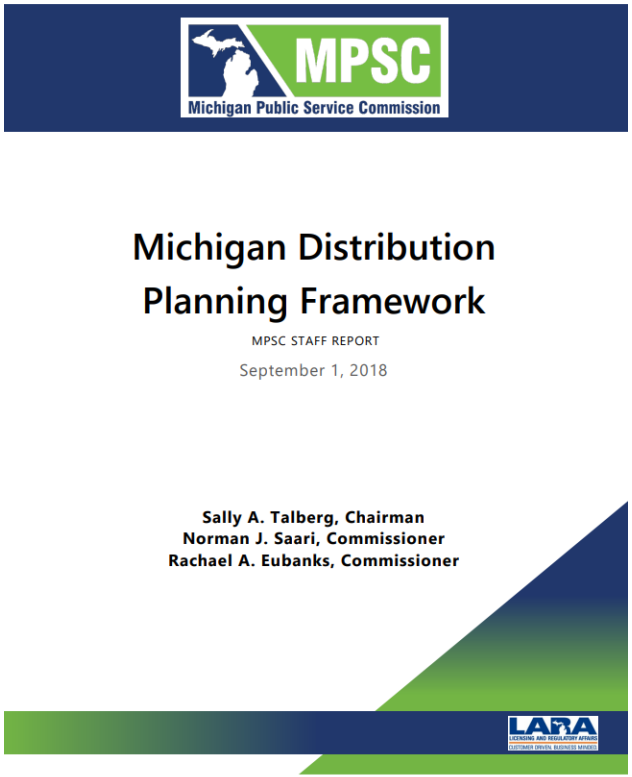


Integrated Resource Planning

- PA 341 of 2016 added requirement that regulated electric utilities file "integrated resource plans" based on 5, 10, and 15 year energy and capacity outlooks
- Integrated resource plans (IRPs) are required to include the following:
  - Long-term forecasts of utility sales and peak demand
  - Generation technologies, as well as proposed capacities and fuel costs
  - Projections on energy purchased or produced by renewable resources and cogeneration
  - Details on plans to reduce energy waste, including annual EWR projections
  - Projected load management and demand response savings, and associated costs
  - Analysis of potential new or upgraded transmission options
- In evaluating IRPs, the MPSC must find that the plan represents "the most reasonable and prudent" means of meeting the utility's energy and capacity needs and considers the following seven factors:
  - Ability to serve peak loads, including planning reserve margin and local clearing requirements
  - Compliance with state and federal environmental regulations
  - Competitive pricing
  - Reliability
  - Commodity price risks
  - Diversity of generation supply
  - Cost-effectiveness of proposed energy waste reduction (EWR) and peak load programs
    - Exceedance of RE and EWR goals not evidence of unreasonableness

Distribution System Planning

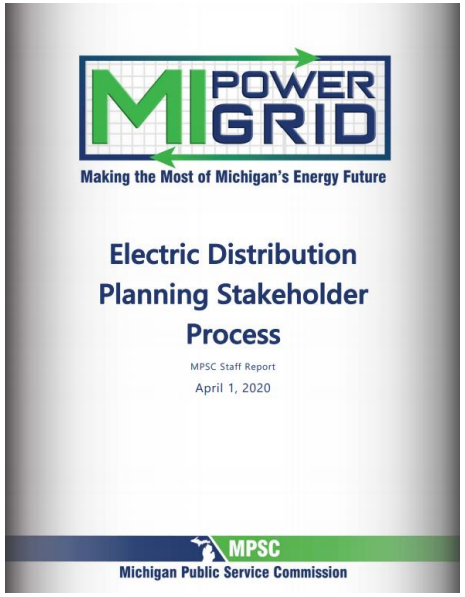
- Distribution planning, like resource planning, seeks to optimize utility investment decisions
  - Increasingly important as utility distribution spending now exceeds generation investments
  - Distribution spending is also increasing, driven by need to replace aging infrastructure
- Distribution planning also adds transparency, and allows for consideration of alternatives, as well as providing opportunities for customer preferences and new technologies to be considered
- In 2018, MPSC required DTE and Consumers to file distribution plans, held a technical conference, and Staff filed Distribution Planning Framework report
  - I&M directed to file distribution plan in 2019
  - Not currently required for other utilities



- Distribution plans allow greater understanding of how specific proposed investments are tied to longer-term (5 year) strategies
  - Stakeholders allowed opportunity to comment on utility plans, though unlike IRPs not currently conducted as contested cases
  - Also, unlike IRPs, distribution plans are not ultimately subject to Commission approval
    - Instead, specific investments are reviewed in utility rate cases

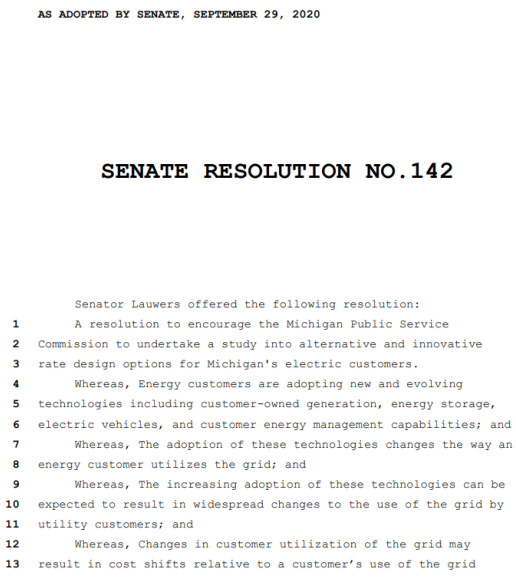
Distribution System Planning

- In 2019, MPSC launched MI Power Grid, a multi-year stakeholder initiative to maximize the benefits of the transition to clean, distributed energy resources for Michigan residents and businesses
- Initial focus included updating framework for utility distribution plans, as well as on other foundational issues such as updating interconnection rules and service quality rules and technical standards, improving the demand response framework, and better ways of evaluating utility pilot programs
  - Phase II includes focus on competitive procurement, new technologies and business models, and advanced planning
- Second round of distribution plans for Consumers Energy, DTE, and Indiana Michigan filed this summer
  - Still not required for other utilities
- Additionally, greater focus on integrating resource and distribution planning processes
  - Consumers Energy to align IRP and distribution plans
  - NSP agreed to do the same as part of its next IRP
  - Important as distribution elements included in IRPs



Other ongoing processes

- Under PA 341, MPSC must update the IRP planning parameters and filing requirements every five years
  - MI Power Grid advanced planning workgroup filed “Integration of Resource, Distribution, and Transmission Planning Final Report” in May; awaiting Commission action and next steps
  - Following announcement of the MI Healthy Climate Plan, advanced planning workgroup charged with evaluating how to consider carbon reduction goals within planning process
    - Commission issued order in February requiring IRPs to model compliance with MI Healthy Plan goals
    - Power sector expected to overperform in order to meet 2025 targets, through questions remain as to how much
- MPSC also working to update EWR and demand response potential studies, as required by statute
  - Studies complete; will be integrated into MIRPP updates
  - Includes separate data for UP and Lower Peninsula
- Michigan Senate also requested MPSC to conduct a study to consider various rate design options to account for changing customer use of the grid
  - Launched study process with March 9 stakeholder session
  - Study to be completed by Oct. 31, 2021



AS ADOPTED BY SENATE, SEPTEMBER 29, 2020

SENATE RESOLUTION NO.142

Senator Lauwers offered the following resolution:

A resolution to encourage the Michigan Public Service Commission to undertake a study into alternative and innovative rate design options for Michigan's electric customers.

Whereas, Energy customers are adopting new and evolving technologies including customer-owned generation, energy storage, electric vehicles, and customer energy management capabilities; and

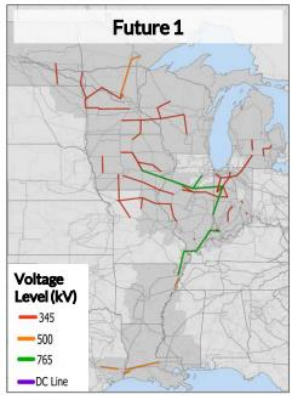
Whereas, The adoption of these technologies changes the way an energy customer utilizes the grid; and

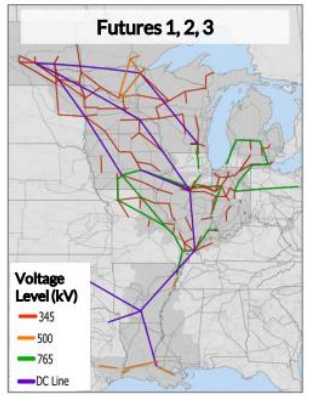
Whereas, The increasing adoption of these technologies can be expected to result in widespread changes to the use of the grid by utility customers; and

Whereas, Changes in customer utilization of the grid may result in cost shifts relative to a customer’s use of the grid

Transmission Planning

- Michigan is part of both MISO and PJM, which have primary responsibility for transmission planning
- MISO has ongoing Long-Range Transmission Planning process based on a set of assumptions of what the future may look like
  - Futures consider shifting generation fleet, electrification of other sectors, and need to maintain reliability
- In 2019, we asked MISO to examine transmission constraints that limit power flows into/ out of Mich.
  - CIL-CEL study complete; projects may be integrated into MISO LRTP process
- Michigan working to integrate transmission planning with state processes
  - IRP requires consideration of transmission options and RTO processes require consideration of non-transmission alternatives
  - MPSC and Michigan Energy Office participated in multi-year NARUC-NASEO Task Force on Comprehensive Electricity Planning
    - Blueprint and state action plans released in Feb. 2021





Limits of planning framework

- IRPs seek to optimize resource planning for individual utilities, but not across utilities
  - Also does not account for planning done by municipal and cooperative utilities
- Increasing overlap between planning for generation, transmission, and distribution
  - Challenges increase when looking at resources that can participate in both retail and wholesale markets
- Business model and jurisdictional issues create barriers to comparing generation and transmission alternatives on equal footing
- Planning to date focused on power sector
  - Planning for gas system planning adds complexity
- Planning to date largely does not consider climate change or GHG emissions
  - Historical data may be insufficient given realities of climate change and increasing extreme weather
- Planning also insufficiently considers equity
  - This includes future investments as well as inequities "baked in" to existing infrastructure

Dan Scripps
Michigan Public Service Commission

Email:
scrippsd1@Michigan.gov

Tel:
517-284-8060