MPSC: IRP & MIRPP Redline

Presented by:
Karsten Szajner
Megan Mix
Zack Heidemann
Jon DeCooman
Naomi Simpson

October 17, 2024

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Disclaimer

- This meeting is being recorded, and the recording will be posted on the Commission's Integrated Resource Planning Process website.
- Please mute your lines when not speaking.
- There is a time reserved for an open discussion period. During this time, please use the raised hand function or type questions in the chat feature. Staff will announce your name when it is time to speak.
- Staff will be accepting informal feedback on its proposal. Written feedback should be sent to Amelia Arnold at arnolda11@michigan.gov by November 7, 2024.
- If you have any IT issues, please contact Naomi Simpson at SimpsonN3@michigan.gov.

Agenda

10:00-10:10	Welcome Remarks	Karsten Szajner, Economic Analyst, Resource Optimization & Certification
10:10-12:00	Overview of Staff's IRP/MIRPP Filing Requirements Redline	Resource Optimization & Certification Section
12:00-1:00	Break	Break
1:00-2:55	Overview of Clean Energy Plan Requirements Straw Proposal	Naomi Simpson, Manager, Resource Optimization & Certification
2:55-3:00	Closing	Naomi Simpson, Manager, Resource Optimization & Certification

Current Timeline

Sept 30, 2024
Initial filing includes draft Redlines of: Michigan Integrated Resource Planning Parameters, IRP Filing Requirements, and Clean Energy Plan Requirements.

Oct 17, 2024
1st Workgroup Meeting to review and discuss drafts.

Nov 7, 2024
1st round of Comments due.

Jan-Mar 2025
2nd Workgroup Meeting, Staff will present any changes it made based on comments and/or engage in discussion about the comments received.

Aug 31, 2025
Staff will finalize documents and file.

Sept-Dec 2025
Commission will conduct outreach pursuant to MCL 460.6t(1)(i).

Dec 2025
Commission will issue its final order finalizing the MIRPP, IRP FR, and CEP documents.

U-21570

- The February 8th, 2024 Order in Case U-21570 orders Staff to:
  - Create a webpage with an updated redline version of the MIRPP & IRP Filing requirements to comply with requirements established in PA 235.
  - Submit a straw proposal for IOUs, municipal electric utilities, cooperatives, and AESs to submit a Clean Energy Plan (CEP).
  - The Commission's order is focused on specific amendments to PA 341, Section 6t and amendments to PA 342 Sections 3,5,7,22,28,51,101, and 103.

PA 235 of 2023

- PA 235 of 2023 was signed into law by Governor Whitmer on November 21, 2023. Section 51 directs the following:

1) As a clean energy standard, an electric provider shall achieve a clean energy portfolio of at least the following:

(a) In 2035 through 2039, 80%.

(b) In 2040 and each year thereafter, 100%.

All alternative electric suppliers (AES), cooperatives, and municipally owned electric providers within Michigan shall file a Clean Energy Plan (CEP) on or before January 1, 2028. If electric providers file jointly for renewable energy plans, the same electric providers may file their CEP jointly. An electric provider whose rates are regulated by the commission shall include their CEP to comply with the clean energy standard as part of that electric provider's integrated resource plan.

Affordability, Forecasting, & Demand Response in IRPs.

Karsten Szajner, Economic Analyst
Resource Optimization and Certification

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Affordability in IRPs

- P.A. 231 Section 6t, 8a now requires the Commission to consider affordability in determining the reasonableness and prudence of an IRP.
  - Section XVIII (18) subsection h in the IRP Filing Requirements.

(8) The commission shall approve the integrated resource plan under subsection (7) if the commission determines all of the following:

(a) The proposed integrated resource plan represents the most reasonable and prudent means of meeting the electric utility's energy and capacity needs. To determine whether the integrated resource plan is the most reasonable and prudent means of meeting energy and capacity needs, the commission shall consider whether the plan appropriately balances all of the following factors:

(*i*) Resource adequacy and capacity to serve anticipated peak electric load, applicable planning reserve margin, and local clearing requirement.

(*ii*) Compliance with applicable state and federal environmental regulations.

(*iii*) Competitive pricing.

(*iv*) Reliability.

(*v*) Commodity price risks.

(*vi*) Diversity of generation supply.

(*vii*) Whether the proposed levels of peak load reduction and energy waste reduction are reasonable and cost-effective.

(*viii*) Affordability.

Affordability in IRPs

Annual Costs

Gives Staff a way to look at the trends in costs to customers and compare those to other utilities, inflationary indexes, etc.

Projection of Costs

Creates a wholistic picture on how invests made in IRPs along with other major utility plans could impact future costs.

Customer Assistance

Allows for more visibility into how a utility's plan effects those in need.

Energy Burden

Gets Staff and utilities thinking about how the proposed plan addresses the potential increased burden on customers.

Affordability in IRPs

Annual Costs

- Annual electric cost by customer class on a kWh basis over the past 10 years.

Projection of Costs

- 5-year projected of utility cost by customer class:
  - Generation Resources
  - Distribution plans
  - Major IT Upgrades

Customer Assistance

- Number of customers on assistance programs over the past 5 years and projected over the next 5 years.

Affordability in IRPs

Energy Burden

- PCA, Alternative Plan, and the prior PCA:
  - How do these plans effect the number of customers that spend more than 10% of their income on energy.
  - Expected average energy burden is for each plan.
  - How does the utility's plan address potentially increases to energy burden and the customers experiencing it.

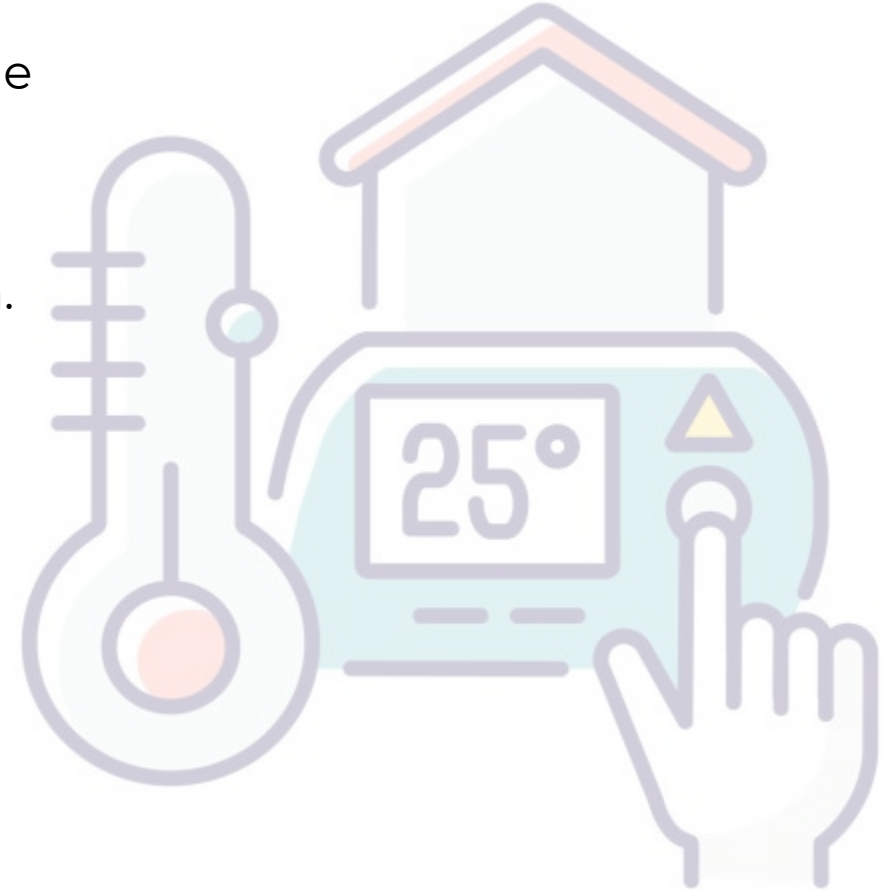
The University of Michigan's Energy Equity Project Report classifies 10% of income being spent on energy as severe energy burden.

Demand Response in IRPs

- The utility shall provide the following information for DR programs, DER programs, and other demand-side resources in relation to cost approval and recovery:
  - Annual O&M costs for each individual program.
  - Annual Capital costs for each individual program.
  - Expected cost sharing or financial incentive.

    granted to the utility by the Commission.

- This is in addition to the previously established requirements of these programs
  - Total demand reduction
  - Maximum single event demand reduction
  - Total resource capacity
  - Total energy reduction
  - Description of the program



Demand Response in IRPs

- Section 7 (VII) Demand-Side Resources
  - Utilities shall provide the following items
    - Descriptions of current DR and load management programs for the IRP study horizon.
      - Amount of load reductions.
      - Expected hours of interruption per:
        - Day
        - Month
        - Year
    - Review of historic performance of existing programs and how this information influenced resource decisions.
    - Describe method for determining whether to purchase energy rather than relying on DR.
    - Description of any program the utility is considering that could potentially expand DR.

Forecasting in IRPs

- Peak Demand and Energy Forecasts Section 11 (XI)
  - Forecasts of the utility's peak demand shall include:
    - Key variables used to develop forecasts.
    - Long-term forecasting methodology.
    - Forecasting uncertainty and risks.
    - Historical growth in electric sales for the previous 5 years.
    - Base Case deliveries and demand forecast.
    - Alternative forecast scenarios and sensitivities.
    - Detail how forecasts used for IRP modeling algin with forecasts used in distribution planning.
    - Detail information on:
      - DER adoption;
      - Electric vehicle adoption;
      - Electrification adoption.

Section 10 (X) also includes forecasting changes including:

1. Describing the utility's planned REC portfolio.
2. Forecast RECs obtained via MI incentive RECs.
3. Forecast expected compliance levels by year to meet renewable portfolio targets.
4. Identify key assumptions used in developing these forecast.

Q & A

Energy Storage in IRPs

Jon DeCooman, Engineer
Resource Optimization and Certification

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Energy Storage in IRPs

Section 101(1) and (2):

- (1) By **December 31, 2029**, each electric provider whose rates are regulated by the commission shall petition the commission for any necessary approvals, and each alternative electric supplier shall submit a plan to the commission, to construct or acquire eligible energy storage systems or enter into eligible energy storage contracts to **meet its share** of a **statewide energy storage target of a combined capacity of at least 2,500 megawatts.** An electric provider's share of the statewide energy storage target shall be apportioned based on the electric provider's annual average contribution to in-state retail electric peak load for the 5-year period immediately preceding the filing of the electric provider's plan under this subsection.

- (2) An electric provider whose rates are regulated by the commission shall **demonstrate compliance** with its plan under subsection (1) as part of the electric provider's **integrated resource plan** filed under section 6t of 1939 PA 3, MCL 460.6t. An alternative electric supplier shall demonstrate compliance with its plan under subsection (1) in the demonstration required under section **6w(8)(b) of 1939 PA 3, MCL 460.6w**.

Energy Storage in IRPs

- Section IX of the IRP Filing Requirements
  - Description of how a utility will meet its proportional share of the statewide energy storage target.

1. Resources to meet the utility's proportional share must be filed in an IRP no later than December 31, 2029.

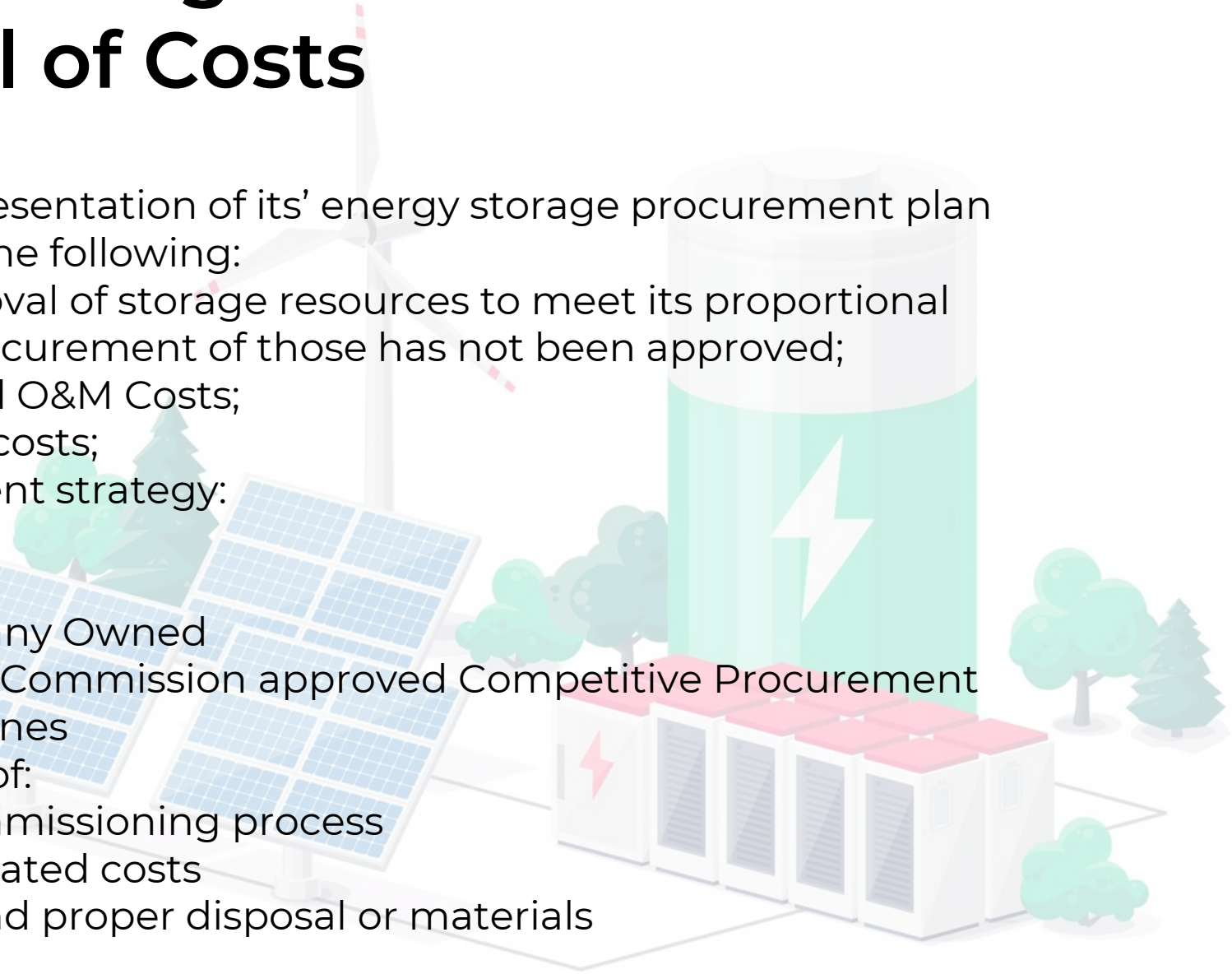
2. Identify the utility's proportional share and describe the procurement plan.

3. Include Nameplate capacity, energy output, storage technology on an annual basis.

4. Present analysis on how the optimal mix and timing of different storage technologies was selected.

Energy Storage: Approval of Costs

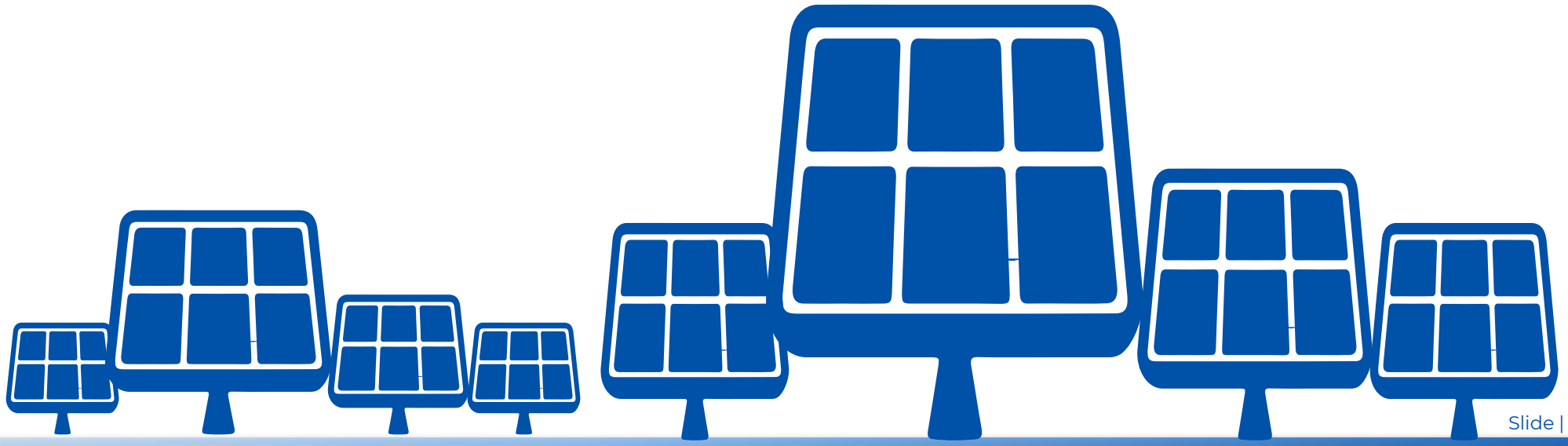
- The Utilities presentation of its' energy storage procurement plan must include the following:
  - Seek approval of storage resources to meet its proportional share if procurement of those has not been approved;
  - Capital and O&M Costs;
  - Financing costs;
  - Procurement strategy:
    - PPAs
    - BTAs
    - Company Owned
    - Follow Commission approved Competitive Procurement Guidelines
  - Summary of:
    - Decommissioning process
    - Anticipated costs
    - Safe and proper disposal or materials



Q & A

Environmental Justice & EGLE in IRPs

Megan Mix, Departmental Analyst
Resource Optimization and Certification



Environmental Justice in IRPs

- P.A. 231 Section 6t, 5p requires an Environmental Justice impact analysis be completed.
  - Some of these requirements were previously included in an appendix but not required by law.
  - Any mention of vulnerable or overburdened communities was changed to “environmental justice communities” and defined in the Definitions section on page 8.

~~Overburdened~~ **Environmental Justice (EJ)** Communities – Refers to overburdened, vulnerable, underserved or disadvantaged communities that are identified**, for the purpose of this analysis, by a minimum composite scoring ranging in the 70-80th percentile in either the EPA Environmental Justice Screening and Mapping Tool (EJSCREEN) or the Michigan Environmental Justice Screening Tool (MiEJScreen).** ~~in accordance with metrics and percentiles as recommended by the specific environmental justice screening tool used.~~ It is preferred that utilities use MiEJScreen tool to the extent practical.

XXII. Environmental Considerations and Environmental Justice:

Environmental Regulations and Compliance Costs

1. **Applicable Regulations**:

a. List all environmental regulations that apply to the utility fleet.

b. Identify which resources each regulation applies to.

2. **Capital Costs for Compliance**:

a. Include capital costs for new and expected environmental regulations for existing fleet assets in the IRP.

b. Highlight key compliance costs.

XXII. Environmental Considerations and Environmental Justice:

Carbon Emissions and Methodology

3. **Projected Carbon Emissions (Scenarios):**

    a. Compare total projected emissions for each scenario (no sensitivities).

    b. Quantify emissions as a percentage of the base scenario.

4. **Carbon Accounting Methodology:**

    a. Justify the use of a specific carbon accounting methodology (e.g., EPRI, Commission-approved methods).

XXII. Environmental Considerations and Environmental Justice:

Resource Retirement, Carbon Goals & Technical Conference

5. **Retirement Due to Environmental Regulation:**
    a. Identify future capital costs and avoided costs if a resource is proposed for retirement.
6. **Carbon Reduction Goals:**
    a. Show progress in meeting state, federal, and utility carbon reduction goals.
    b. Illustrate how the current and proposed plans align with these goals.
7. **Technical Conference:**
    a. Plan a meeting with MPSC and EGLE within 30 days post-filing to discuss environmental data

EGLE Advisory Opinion in IRPs

EGLE Advisory Opinion & Portfolio Scope

- **Objective:** Ensure EGLE's advisory opinion in the IRP is supported by a comprehensive health and environmental impact analysis aligned with Michigan's environmental justice goals (Executive Directive 2020-10).
- **Portfolio Build Plans Evaluated:**
  - **Portfolio 1:** Previously approved IRP (status quo) optimized in MIRPP Scenario 1.
  - **Portfolio 2:** Utility's proposed build plan in MIRPP Scenario 1.
  - **Portfolio 3:** Optimized portfolio in MIRPP Scenario 1.
  - **Portfolio 4:** Optimized portfolio with high load sensitivity.
  - **Portfolio 5:** Alternative portfolio (if applicable).

XXIII. EGLE Advisory Opinion in IRPs

Environmental Data & Justice Analysis

- **Pollutant Data Provided to EGLE (Facility/Unit Level & Fleet-Wide) presented in total tons, with methodology used to determine the emissions from the respective RTO purchases:**
  - Sulfur dioxide (SO2)
  - Nitrogen oxides (NOx)
  - Carbon monoxide (CO)
  - Particulate matter (PM)
  - Lead (Pb)
  - Mercury (Hg)
  - Volatile organic compounds (VOC)
  - Carbon dioxide (CO2)

XXIII. EGLE Advisory Opinion in IRPs

- **Environmental Justice (EJ) Analysis:**
  - Perform screening using EPA's EJSCREEN or Michigan's MiEJScreen.
  - Comparative analysis of EJ community composite scores (within a 3-mile radius of each facility).

c) Analyze all portfolios to identify and quantitatively assess the potential impacts to **environmental justice** ~~overburdened~~ communities. The utility will perform an Environmental Justice Screening using the EPA Environmental Justice Screening and Mapping Tool (EJSCREEN) or the Michigan Environmental Justice Screening Tool (MiEJScreen). **This** ~~analysis will include~~ **includes a comparative analysis of at least two environmental justice community composite scores** ~~environmental justice communities~~ within a 3-mile radius of each facility for all facilities including peaking units. ~~Environmental Justice communities will be identified using the EJ composite score recommended by the tool used. This may vary based upon differences between tools.~~ Utilities are encouraged to use the MiEJScreen Tool to the extent practical. This assessment should address air emissions **and/or conversion of** early retirement of fossil fuel-fired facilities.

XXIII. EGLE Advisory Opinion in IRPs

- **Health Impact Assessment:**
  - Use **BenMAP-CE**, **COBRA** to estimate health impacts from air emissions (retirements, conversions, new fossil fuel units).
  - Results for portfolios #2 and #5 (if applicable) compared to portfolio #1, focusing on EJ communities.
  - Include county level COBRA results for any county that contains retired, newly constructed/acquired, or converted fossil fuel-fired units in Environmental Justice communities.

1. **Annual~~Overall~~ fleetwide health impacts of utility proposed early retirement of fossil fuel-fired ~~facilities~~ unit conversion to a different fuel source(s), newly constructed/acquired fossil fuel-fired units, and renewable energy adoption. When the online version of an analytical tool does not have the data needed for analyzing a year where noteworthy emission changes are expected to occur, impacts can be estimated using emission changes from a year as near as reasonably possible to the intended analytical year or use of the desktop version of the analytical tool may be needed. Results, including impacts and associated costs, will be presented for portfolios ~~#1~~, #2 and #5 (if applicable) in comparison to portfolio #1 Impacts on environmental justice communities ~~identified in the analysis will be completed in~~ section III (within a 3-mile radius). Comparing to Portfolio #1 results (including impacts and associated costs) will be presented for all the other ~~five~~ listed portfolios.**
2. **Include county level COBRA results for any county that contains retired, newly constructed/acquired, or converted fossil fuel-fired units in Environmental Justice communities.**

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XXIII. EGLE Advisory Opinion in IRPs

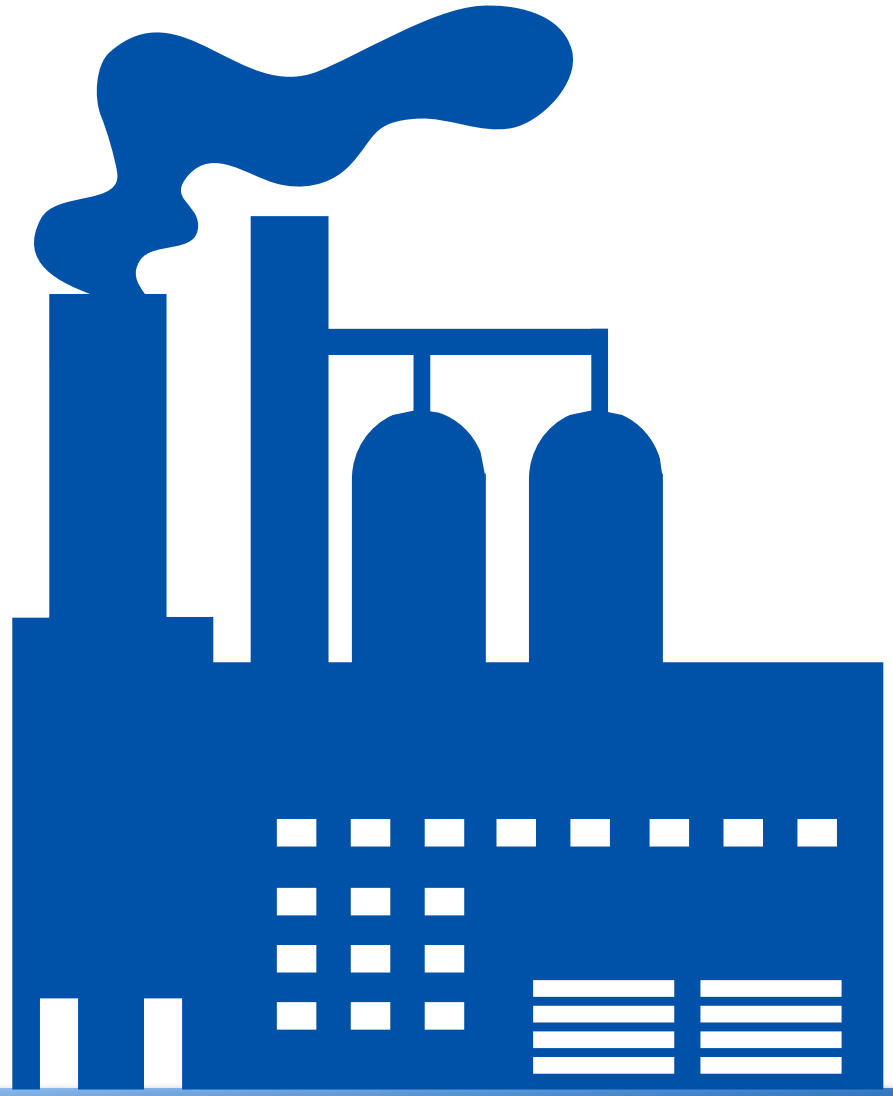
Health Impact & Nonattainment Area Assessments

- **$PM_{2.5}$ and Dispersion Modeling:**
  - If no $PM_{2.5}$ decrease near EJ communities (6-mile radius), conduct **dispersion modeling** to assess future impacts.
  - Model baseline and future concentrations for portfolio #2.
- **Nonattainment Area Impacts:**
  - Assess resource impacts on nonattainment status for pollutants (SO_2, ozone) in the utility's service territory.
  - Compare portfolios #1 and #2, and support with qualitative testimony
- **Explanation of how the above environmental analysis was taken into account in the utility's decisions.**

Q & A

Resources & Modeling in IRPs

Zachary Heidemann, Engineer
Resource Optimization and Certification



Retirements in IRPs

Quantification

The utility shall describe its quantification of risk that affects the evaluation of various resource plans.

Tabulation

The utility shall provide tabulation of key results and discuss how this affected decision making.

Variables

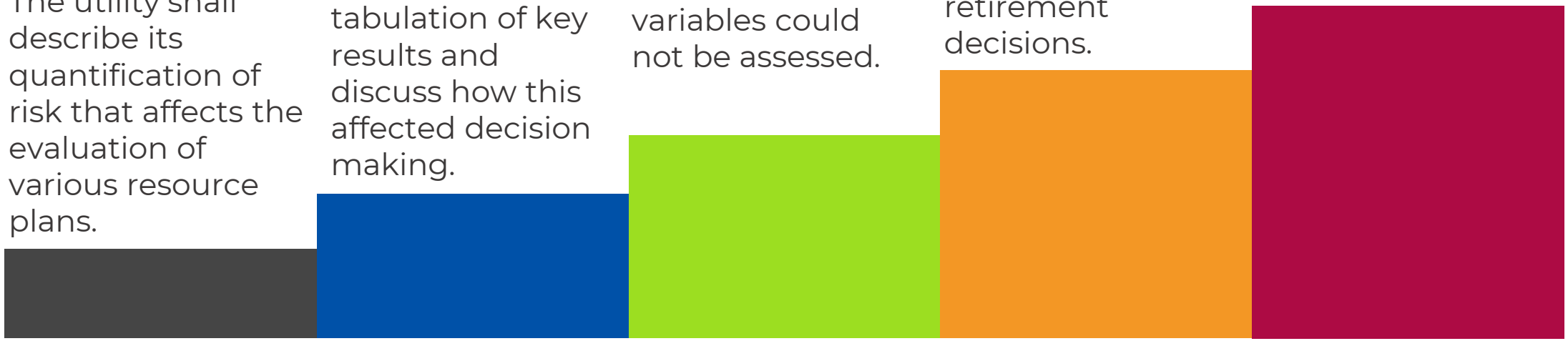
The utility shall explain if and why certain risk variables could not be assessed.

Justification

The utility should explain how it used the MIRPP to make and justify retirement decisions.

Modeling

The utility should model its PCA, alternative plan, and previously approved plan with the scenarios in the MIRPP.



Modeling/Retirements in IRPs

- **Modeling Process:**
  - Duration of Study and overview of the modeling process.

- **Resource Optimization:**
  - How the model optimizes resources to meet demand year-round.
  - Considerations: Seasonal characteristics, forced outages, derates, and resource availability.

- **Retirement Study:**
  - Refer to MIRPP Appendix G for scenario/sensitivity analysis when justifying early retirement.
  - Evaluate the previously approved IRP under the same scenarios, adding new generic resources as needed.

- **Proposed Accelerated Retirement:**
  - Share dates and criteria for analysis if the utility proposes to retire coal/natural gas plants earlier than planned.
  - Test sensitivity of retirement dates to ensure the plan is reasonable under various conditions (e.g., high load growth, high natural gas prices, extreme weather).

Modeling/Retirements in IRPs

- **Retirement Sensitivity Testing:**
  - Stress-test optimized resource strategies to ensure the retirement plan is prudent.
  - Test conditions: High load growth, natural gas price spikes, extreme weather.

- **Retirement Analysis Results:**
  - Present methodology and results of the retirement analysis.
  - If the PCA is not supported under specific conditions, explain how the utility plans to monitor and mitigate risk.

- **Risk Assessment Approach:**
  - **Quantification of risk:** Explain how risks were quantified and assessed for resource plan evaluation.
  - **Key quantitative results:** Tabulate findings and explain how they influenced the resource plan.
  - **Multiple risk assessments:** Justify why certain risk variables were included or excluded in various assessments.

Resources in IRPs

Overview of Resource Options for Future Electric Load

- **Objective:** Evaluate resource options and combinations to meet future electric load demands.

- **Resource Options:**
  - Existing and Approved Resources
  - New Build:
    - Generation Technology & Operating Assumptions
    - Development Costs (Generation & Storage)
    - Combinations of Resources (e.g., storage + generation)
  - Distributed Energy Resources (DERs) & Demand-Side Resources
    - Includes Non-Wires Alternatives (NWAs)
  - Market Capacity Purchases:
    - Supply Outlook, Availability, and Price Assumptions

- **Workpapers:** Include detailed cost and performance data for each resource option in the filing.

Resources in IRPs

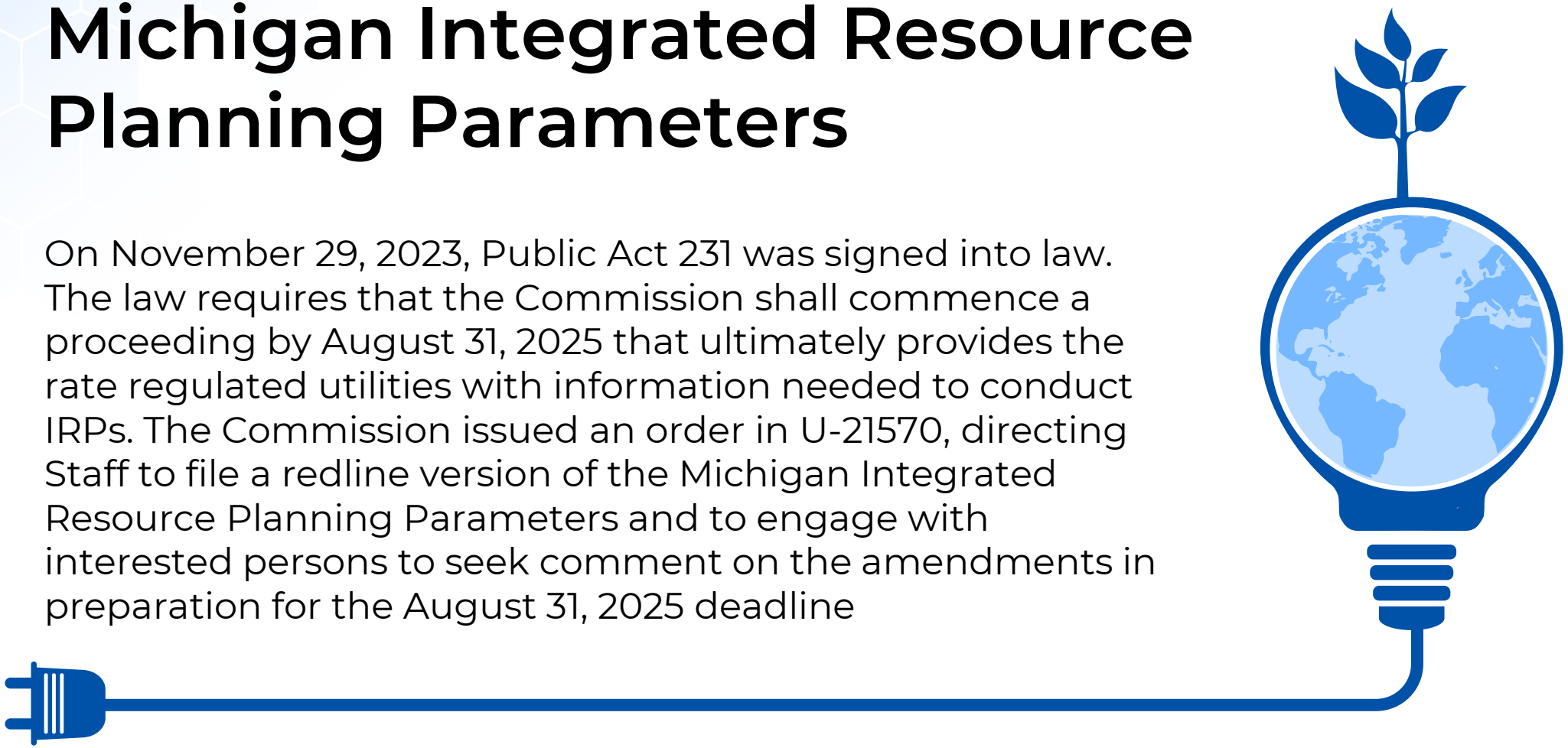
PPAs, Transmission Resources, and Market Considerations

- **Long-Term Power Purchase Agreements (PPAs):**
  - Consider long-term capacity procurement via PPAs as part of the resource strategy.
- **Transmission Resources:**
  - Import/Export Capability: Current status and future needs.
  - Network Upgrades: Assumptions for IRP.
  - Impact on Strategy: How transmission influences overall resource planning.
- **Market Capacity Purchases:**
  - Regional Supply Outlook and Capacity Availability.
  - Price Assumptions for short- and long-term capacity purchases.

Q & A

Michigan Integrated Resource Planning Parameters

On November 29, 2023, Public Act 231 was signed into law. The law requires that the Commission shall commence a proceeding by August 31, 2025 that ultimately provides the rate regulated utilities with information needed to conduct IRPs. The Commission issued an order in U-21570, directing Staff to file a redline version of the Michigan Integrated Resource Planning Parameters and to engage with interested persons to seek comment on the amendments in preparation for the August 31, 2025 deadline



MIRPP: Environmental Regulations

- EGLE has updated the following sections:
  - National Ambient Air Quality Standards
  - Sulfur Dioxide Nonattainment Areas
  - Ozone Nonattainment Areas
  - Mercury and Air Toxics Standards
  - Regional Haze
  - Resource Conservation and Recovery Act
  - Steam Electric Effluent Guidelines
  - Solid Waste Management (Part 115)
  - Water Resource Protection (Part 31)

MIRPP Additions

- **Major Changes to both scenarios:**
  - Electrification growth established using public data or utility customer trends.
  - New resource selection should align with the Company's renewable portfolio standard and clean energy plan goals.
    - 50% renewable by 2030
    - 60% renewable by 2035
    - 80% clean energy by 2035
    - 100% clean energy by 2040
  - Achieve and maintain energy storage resources necessary to meet the utility's share of the statewide energy storage target.
  - Of the two modeling scenarios we are presenting one is required and one is optional only if the utility replaces it with a similar scenario.

MIRPP: Scenario 1

1. **Carbon Reduction**: Targets an 86% reduction in CO2 emissions by 2040 compared to 2005 levels, in line with state and utility commitments.
2. **Energy Growth**: Assumes a 0.22% annual energy growth rate, reflecting moderate demand increases due to customer electrification and electric vehicle (EV) adoption.
3. **Fuel Costs**: Uses EIA reference case for natural gas pricing projections, supporting moderate fuel cost increases.
4. **Generation Mix**: Optimizes for resource allocation based on seasonal and operational characteristics, such as forced outages, seasonal resource availability, and facility derates.
5. **EV Adoption**: Assumes moderate EV adoption throughout the planning horizon, impacting overall energy consumption and grid demand.

Scenario 1 is based on **MISO Future 1a** and focuses on a moderate pace of decarbonization and electrification, reflecting both state and utility environmental objectives.

MIRPP: Scenario 1 Sensitivities

1. **Fuel Cost**: Natural gas price increased to match the high EIA forecast from the Low Oil and Gas Supply scenario.

2. **Load Projections**:
   a. High Load Growth: Energy growth rate increased by at least a factor of two above base case or 0.5% on a per customer basis, whichever is larger.
   b. Low Load Growth: Slower EV adoption and electrification, with growth rates consistent with 5-year historical growth rates prior to 2024.

3. **EWR Ramp-Up**: If under 2% EWR, ramp savings to 2% of prior year sales over three years, maintaining 2% thereafter.

MIRPP: Scenario 2

1. **Energy & Demand Growth**:
    1. **1.08% annual energy growth** due to accelerated electrification, including widespread EV adoption.
    2. **50% of EV adoption** by 2030 with a trend towards 100% of vehicle sales throughout the study period.
2. **Renewable Energy Focus**:
    1. Assumes Emissions decline driven by state and utility goals creating 99% carbon reduction by 2042.
        a. Utilities in PJM assume a 80% carbon reduction by 2040.

Scenario 2 is based on **MISO Future 3a** and reflects high electrification and rapid energy demand growth, reflecting both state and utility environmental objectives.

MIRPP: Scenario 2 Sensitivities

Scenario 2 Sensitivities:

1. **Fuel Cost Projections**: Increase natural gas prices to align with high EIA price forecasts by the end of the 20-year study.

2. **Energy Waste Reduction (EWR):** Utilities independently administering EWR programs must ramp up to 2.5% savings of prior year sales.

3. **Federal Hydrogen Investment**: Model federal incentives for high hydrogen investments starting in year 5.

4. **Federal Off-Shore Wind Incentives**: Include policies promoting off-shore wind investment starting in year 5.

5. **Federal Nuclear Investment**: Model incentives for nuclear energy, mirroring tax credits for renewables.

Q & A

Break
12:00-1:00PM

Clean Energy Plan Overview

Michigan Public Service Commission

Naomi Simpson

October 17, 2024

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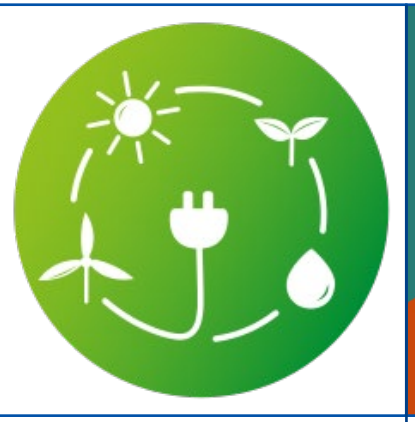
Review of PA 235

- **Section 2:** The purpose of this act is to promote the development and use of clean and renewable energy resources and the reduction of energy waste through programs that will cost-effectively do all of the following:

(a) **Diversify the resources** used to reliably meet the energy needs of consumers in this state.



(b) Provide **greater energy security** through the use of indigenous energy resources available within this state.

(c) **Encourage private investment** in renewable energy and energy waste reduction.

(d) **Coordinate with federal regulations** to provide improved air quality and other benefits to energy consumers and citizens of this state.

(e) **Provide more reliable and resilient energy** supplies during periods of extreme weather.

Definitions

- **Clean energy plan**: an electric provider's plan to meet the clean energy standard under section 51.
- **Clean energy**: electricity or steam generated using a clean energy system.
- **Clean energy portfolio**: the percentage of an electric provider's total retail electric sales consisting of clean or renewable energy.
- **Clean energy standard**: the clean energy portfolio required under section 51(1).

Definitions Continued

- **Clean energy system**: an electricity generation facility or system or set of electricity generation systems that meets any of the following requirements:
  - Generates electricity without emitting greenhouse gas;
  - Is fueled by natural gas and uses carbon capture and storage that is at least 90% effective;
  - An independently owned combined cycle power plant fueled by natural gas and adheres to the clean energy standard by reducing greenhouse gases using carbon capture and sequestration or other available applications;
  - Is defined as a clean energy system in rules adopted by the commission.

Review of Section 51

- As a clean energy standard, an electric provider shall achieve a clean energy portfolio of at least the following:
  - (a) In 2035 through 2039, **80%**.
  - (b) In 2040 and each year thereafter, **100%**.

2 Documents for 4 Types of Utilities

- One CEP filing requirement document for **Rate Regulated** utilities whose rates are regulated by the MPSC.

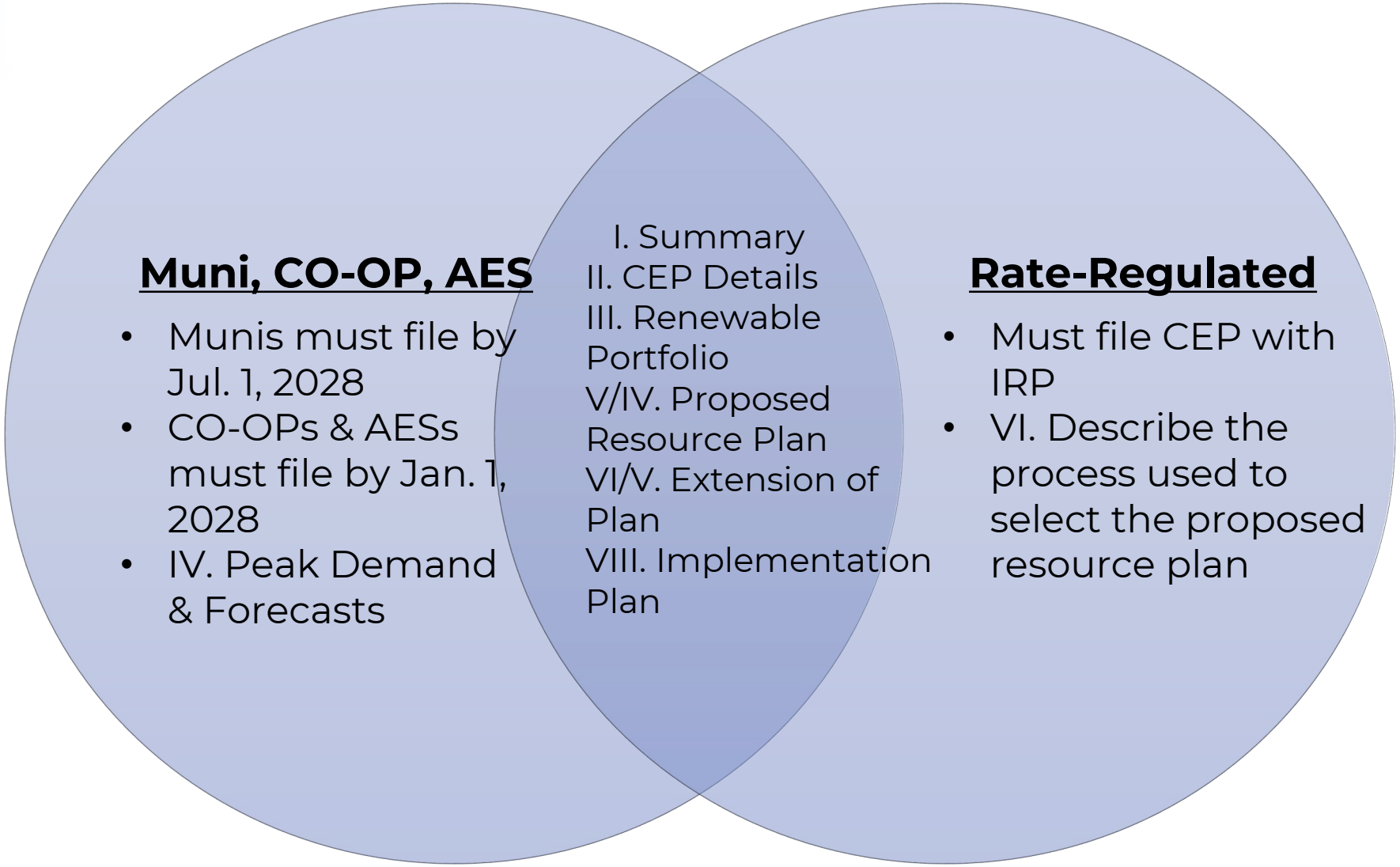
- One CEP filing requirement document for **Municipalities**, **Electric Cooperatives (CO-OP)**, and **Alternative Electric Suppliers (AESs)** all defined as follows:
  - Municipality: A utility service owned by a city or town.
  - CO-OP: A utility service owned and governed by their customers.
  - Alternative Electric Supplier: A competitive supplier of retail electric services.

- Differences between these documents will be discussed in the following slides.

Differences in Filing Requirements – Participant Engagement & Public Outreach

- **Public Outreach**
  - Participant engagement early in CEP development is strongly encouraged for all utilities.
  - Rate regulated utilities file a CEP as part of the IRP. The IRP Filing Requirements have a detailed engagement process already.
  - Municipalities, CO-OPs, & AESs are not regulated but have members, governing boards, or a small set of customers that drive decisions.
    - All are encouraged to discuss, **in the CEP filing**, the engagement process used in developing their CEP.
    - All are encouraged to provide a webpage to allow community members to share comments in the 4-6 months prior to filing.

Differences in Filing Requirements – Filing, Data, & Documentation



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Key components - Rate Regulated Doc

- Same filing announcement as IRP.
- Utilities should engage participants about the development of the IRP and CEP simultaneously.
- Information duplicative with the IRP is unnecessary.
- RE resources included in CEP should be consistent with REP.
- Complete the template that illustrates compliance.
- Provide a high level implementation plan.

Key components – Muni, CO-OP, AES Doc

- Filing Announcement 30 calendar days prior to filing.
- Engagement is strongly encourage to facilitate transparent decision-making and provide opportunity for meaningful feedback.
- RE resources included in CEP should be consistent with REP.
- Provide long-term energy and demand forecast.
- Detail clean resources in the plan.
- Complete the template that illustrates compliance.
- Provide a high level implementation plan.

Template

Row No.		2024	2025	2026	2027	2028	2029	2030
1	**Electric Sales (MWh)**							
2	**Method: Weather Normalized or 3 Year Average**							
3	If Selected Weather Normalized:							
4	Current Year Sales to Retail Customers							
5	Current Year Weather Normalization Factor							
6	Current Year Weather Normalized Sales							
7	If Selected 3 Year Average:							
8	Current Year Retail Sales to Retail Customers							
9	Prior Year #1 Retail Sales to Retail Customers							
10	Prior Year #2 Retail Sales to Retail Customers							
11	3 Year Average of sales							
12	**Clean Energy Standard Requirement (MWh)**							
13	Company Owned Renewable Energy (MWh)							
14	Company Owned Nuclear Energy (MWh)							
15	Other Company Owned Clean Energy Generation (MWh)							
16	Qualifying Clean Energy System Power Purchase Agreeements (MWh)							
17	Total Clean Energy System Generation (MWh)							
18	**Percentage Clean Energy Achievement (Clean Energy System Generation ÷ Electric Sales)**							
19	Percentage Achieved Annually							

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Questions

Current Timeline

Sept 30, 2024
Initial filing includes draft Redlines of: Michigan Integrated Resource Planning Parameters, IRP Filing Requirements, and Clean Energy Plan Requirements.

Oct 17, 2024
1st Workgroup Meeting to review and discuss drafts.

Nov 7, 2024
1st round of Comments due.

Jan-Mar 2025
2nd Workgroup Meeting, Staff will present any changes it made based on comments and/or engage in discussion about the comments received.

Aug 31, 2025
Staff will finalize documents and file.

Sept-Dec 2025
Commission will conduct outreach pursuant to MCL 460.6t(1)(i).

Dec 2025
Commission will issue its final order finalizing the MIRPP, IRP FR, and CEP documents.

Closing

- Staff will be accepting informal feedback on its proposal. Written feedback should be sent to Amelia Arnold at arnolda11@michigan.gov by November 7, 2024.
- If you have any general questions, please contact Naomi Simpson at SimpsonN3@michigan.gov.
- The recording will be posted on the Commission's Integrated Resource Planning Process website and the Clean Energy Standard website. You can also find the documents we presented there as well.
- Thank you for your participation and we look forward to your feedback!