



**POWER SUPPLY**  
STRATEGIC PLANNING

# 2026 Integrated Resource Plan (IRP) Update

Public Meeting: October 16, 2025





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# Opening Remarks and Introductions

**Andrew Boatright**

General Manager

Zeeland Board of Public Works



# Why Are We Here Today?

## Kickoff Zeeland BPW's 2026 Integrated Resource Plan (IRP) Process

- Discuss Zeeland BPW
- Discuss Integrated Resource Planning Processes
- Outline the Process for the 2026 IRP
- Begin Collaboration





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# Welcome

**Stewart Ramsay**

Meeting Facilitator

nFront Consulting LLC



# Agenda

- Safety and Meeting Guidelines
- Overview of Zeeland BPW
- Overview of an IRP and IRP Process
- Next Steps



# Safety and Meeting Guidelines

## Safety

- Exits
- Muster Point: East Side of Church Street
- AED Location
- Dial “911” in Event of an Emergency

## Principles to Guide Today’s Session

- Respectful Dialogue
- Questions and Comments Are Public
- Transparency of Questions and Answers





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# Overview of Zeeland BPW

**Robert Mulder**

Electric Power Supply and Market Operations Manager

Zeeland Board of Public Works



# Our Vision and Mission

## Who We Are

The Zeeland Board of Public Works (BPW) is a municipally owned electric and water utility serving the City of Zeeland and its surrounding community.

## Our Vision

The Zeeland Board of Public Works will be a key contributor to the community's quality of life and long-term success.

## Our Mission

The Zeeland Board of Public Works will deliver customer-focused, superior electric and water utility services that are reliable, safe, responsible, and cost-competitive.



# Our History

The City of Zeeland began providing electric and water service to its residents in 1902. The electric system was sold in 1915, and a 10-year franchise agreement signed with Consumers Power Company which was renewed in 1925 for another 10-year term.

Nearing conclusion of the second term, residents initiated efforts to reestablish their municipally owned electric utility. In 1935, the City resumed supplying electric service using its own generation and distribution system. A revision to the City Charter created the Board of Public Works in 1952.



# Current Operations

- BPW serves over 7,000 electric and 3,500 water customers within the City and neighboring townships.
- Annual energy requirements exceed 450,000 MWh with a peak load exceeding 90 MW.
- Ranked as the 4<sup>th</sup> largest municipal utility in Michigan based on annual energy sales.
- Proud members of:



# Michigan Public Power Agency (MPPA)

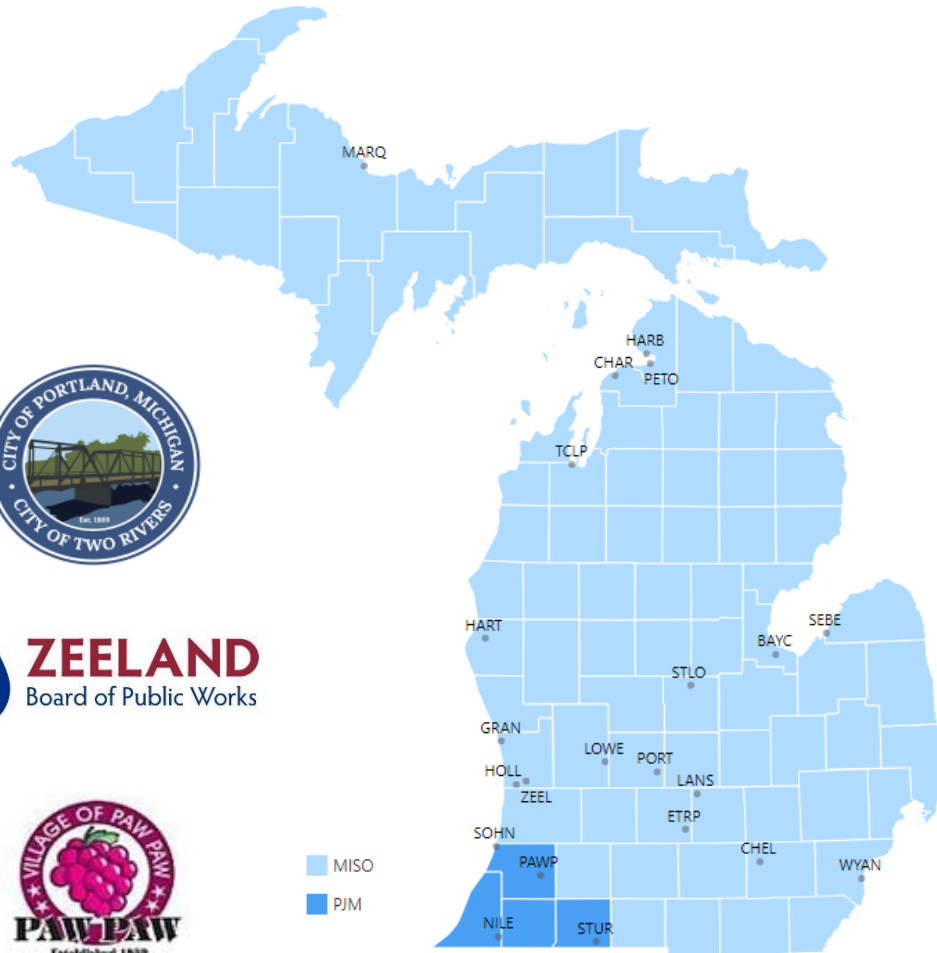
## Who is MPPA?

- Founded in 1978, MPPA is a not-for-profit project based joint action agency that works collectively with municipally-owned utilities to share energy supply and related services to lower costs, reduce risks, and leverage expertise.
- MPPA is comprised of 22 Members and 6 Associate Members, and accounts for 80% of the public power electric load in the State of Michigan.
  - Over 275,000 Retail Customers
  - Over 6 Million MWh of Retail Sales
  - 1.4 GW (1,400 MW) Peak Load



# MPPA

Michigan Public Power Agency



■ MISO  
■ PJM



# Our Top Priorities

- Reliability
- Competitive Rates
- Relationships & Service
- Responsibility

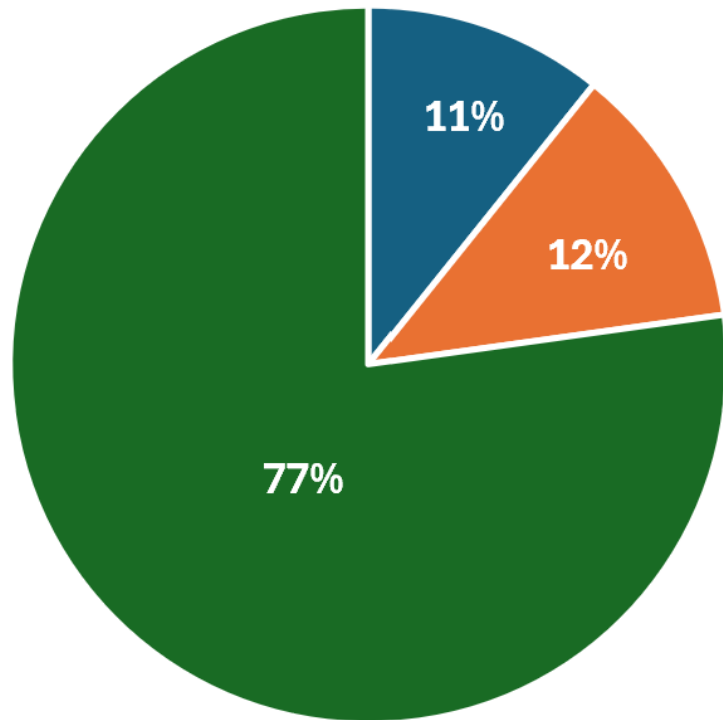
*These Remain True: Yesterday, Today & Tomorrow*



# Customer Demographics

## Electricity Sold by Customer Category

(Fiscal Year 2024)



■ Residential ■ Commercial ■ Industrial

## Electricity Sold by Customer Category

(Fiscal Years 2020-2024)

Classification	2024	2023	2022	2021	2020
Residential	10.8%	11.1%	12.3%	11.9%	11.8%
Commercial	12.0%	12.5%	6.0%	-	-
Industrial*	77.2%	76.4%	81.7%	88.1%	88.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

\*2021 to 2020 Commercial + Industrial



# Customer Demographics *(continued)*

## Largest Electric Customers

*Percent of Total Energy Sales (Fiscal Year 2024)*

Company	Industry	Percent of Total Energy Sales (kWh)
Gentex Corporation	Automotive & Glass Parts	41.8%
Reckitt	Infant Formula	11.6%
MillerKnoll	Institutional Furniture	5.1%
Plascore Inc.	Structural Honeycomb Products	3.3%
Zeeland Public Schools	Education	2.6%
<b>Ten Largest Customers</b>		<b>72.6%</b>

## Electric Customers By Type

*Number of Accounts*

Fiscal Year Ending	Residential	Commercial	Industrial	Total
2024	5,991	740	117	6,848
2023	5,971	744	114	6,829
2022	5,955	723	115	6,793
2021	5,934	725	115	6,774
2020	5,825	667	155	6,647



# Power Supply Basics

## Energy

Electricity that is produced and consumed over a period of time, measured in units of kilowatt-hours (kWh) or megawatt-hours (MWh).

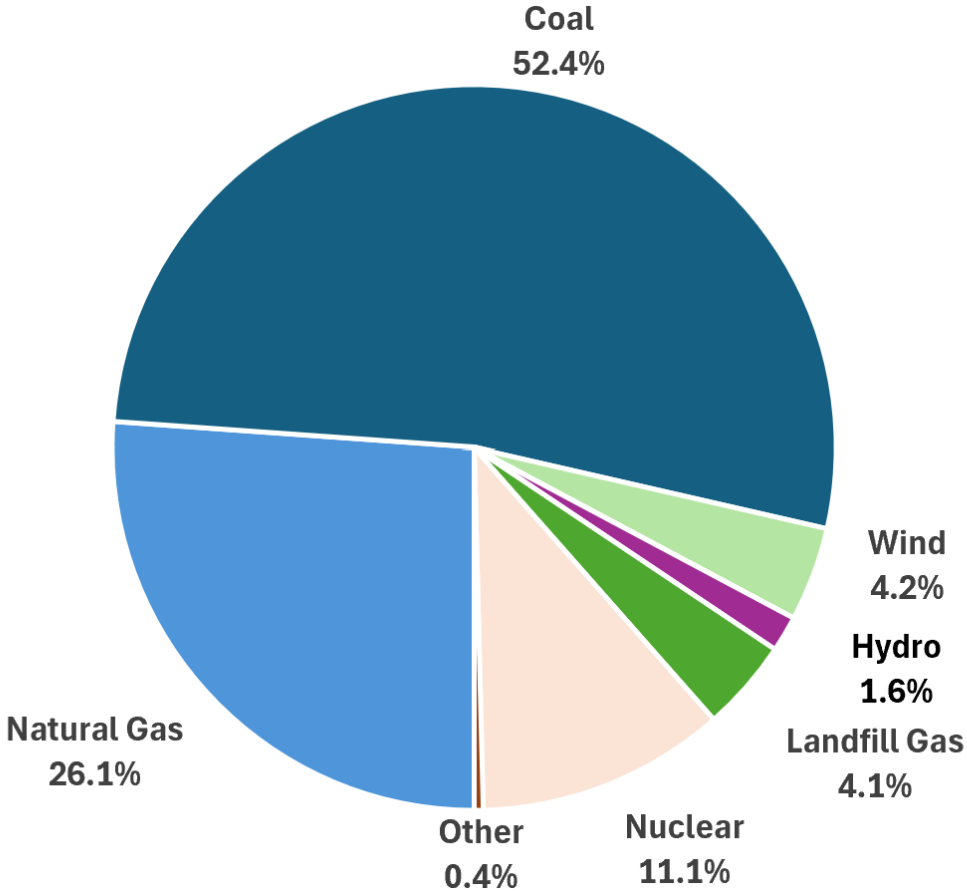
## Capacity

The rated output of an electric generator, typically measured in megawatts (MW).

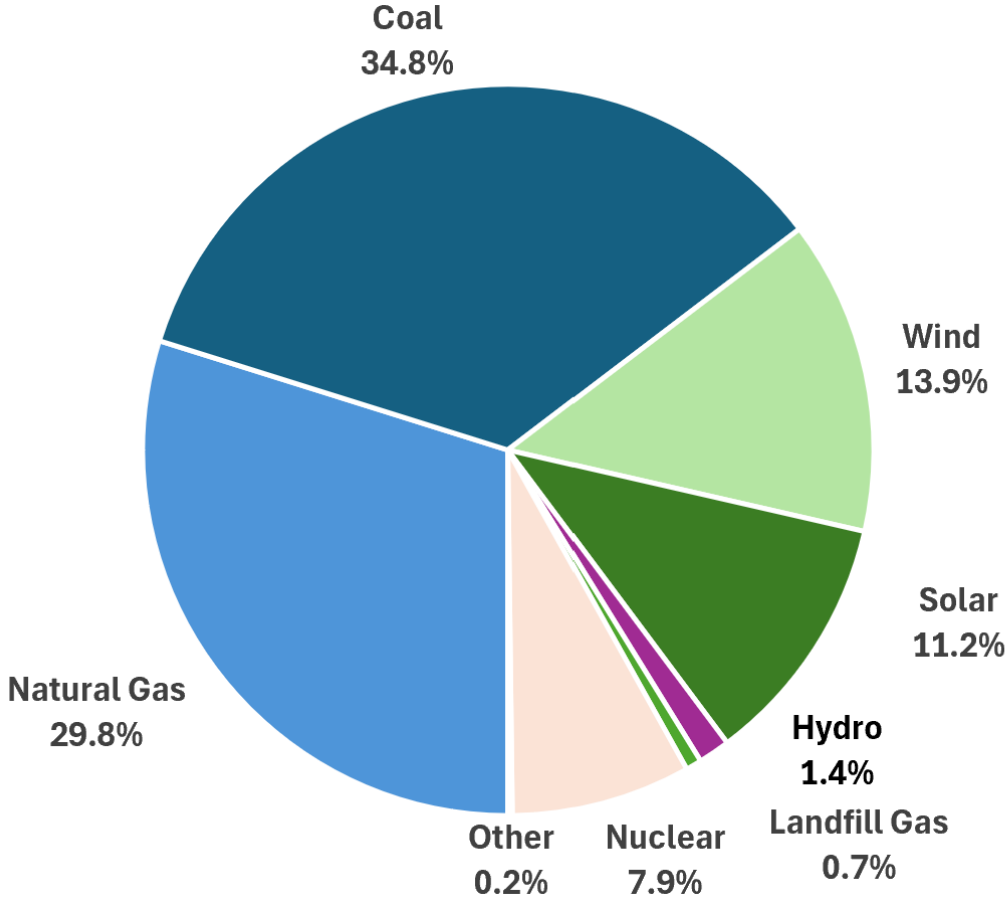
- To meet **Midcontinent Independent System Operator (MISO) Resource Adequacy** requirements, utilities must own or have rights to sufficient generating capacity to meet their projected peak demand plus an established reserve margin, a value referred to as the **Planning Reserve Margin Requirement (PRMR)**.
- MISO requires utilities have sufficient capacity to meet their annual PRMR.
- Michigan requires utilities to have 95% of their forecasted PRMR secured four years in advance.



# Power Supply Portfolio



**FY 2019 Energy (All Sources, incl. MISO Market)**



**FY 2024 Energy (All Sources, incl. MISO Market)**



# Power Supply: On-System Generation

## Washington Ave. Generation Facility

- Seven (7) R.I.C.E. Units (*1.0 MW – 6.0 MW Units*)
- Natural Gas / Diesel Fired
- 22.2 MW Total

## Riley Generation Facility

- Five (5) R.I.C.E. Units (*2.0 MW each*)
- Natural Gas Fired
- 10.0 MW Total

## West Washington Generation Facility

- Two (2) R.I.C.E. Units (*1.0 MW each*)
- Natural Gas Fired
- 2.0 MW Total

*R.I.C.E.: Reciprocating Internal Combustion Engines*



# Power Supply: Jointly-Owned Generation

## DTE Energy's Belle River Power Plant

- Zeeland BPW Share: 11.58 MW (MPPA Project)
- 2 Units; Converting from Coal to Natural Gas
  - Unit 1: Fall 2025
  - Unit 2: Fall 2026
- Date of Commercial Service: 1984 & 1985
- St. Clair County, MI



## AMP Freemont Energy Center (AFEC)

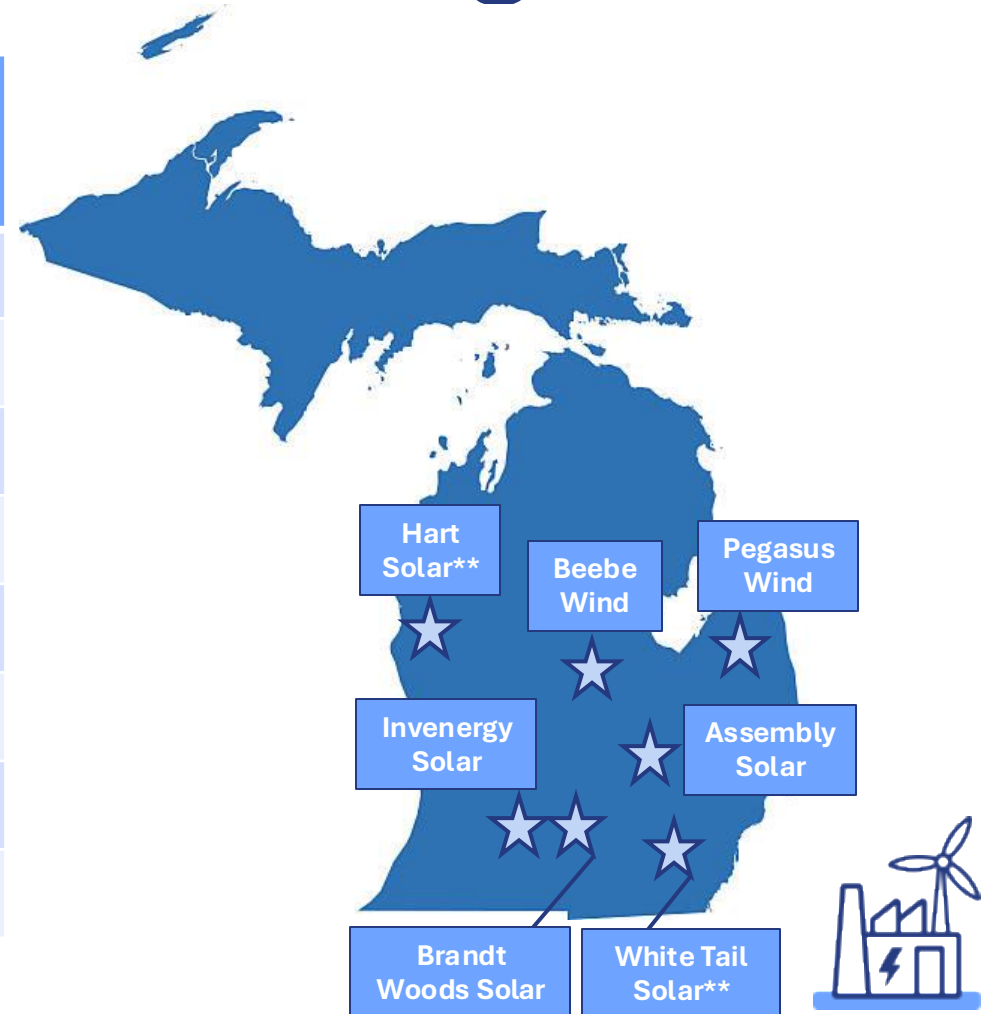
- Zeeland BPW Share: 7.06 MW (MPPA Project)
- 2 Units, Natural Gas (Combined Cycle)
- Date of Commercial Service: 2012
- Freemont, OH (Located in PJM RTO)



# Power Supply: Purchase Power Agreements

Project	Location	Zeeland BPW Share (Nameplate MW)	Expiration Date
Beebe Wind	Ithaca, MI	2.3	Dec-34
Pegasus Wind	Caro, MI	12.2	Dec-39
Assembly Solar (Ph 1)	Shiawassee County, MI	6.4	Dec-45
Assembly Solar (Ph 2)	Shiawassee County, MI	7.8	Dec-46
Invenergy Solar	Calhoun County, MI	8.0	Apr-48
Brandt Woods Solar	Calhoun County, MI	2.9	May-45
White Tail Solar**	Washtenaw County, MI	2.8	Sep-45
Hart Solar**	Oceana County, MI	5.6	Dec-46

\*\* Under Construction



# Utility Industry Challenges

## Projected Load Growth

- The community continues to thrive with significant load growth projected
- Aging on-system generation assets and the need for additional resources

## Capacity Market Constraints

- The capacity market is constrained and expected to tighten, elevating pricing
  - Retirement of large baseload resources
  - Increased demand (electrification, data centers, artificial intelligence, etc.)
- Zeeland anticipates additional capacity will be needed beginning around 2030

## The Energy Transition & Intermittent Resources

- Solar, wind, and short-duration Battery Energy Storage Systems (BESS) are replacing conventional generation and do not provide the same level of accredited capacity



# Utility Industry Challenges *(continued)*

## Generation Development Barriers

- Electric generation capacity is increasingly difficult to build
- Wholesale grid-connected generation projects in particular

## Evolving Markets & Customer Expectations

- Increasing transmission costs
- Customer driven decarbonization & sustainability goals
- Electrification: Buildings, EV proliferation, vehicle-to-grid, etc.

## Regulatory Requirements

- Recent changes at the State level (PA235 of 2023)
  - MI Renewable Energy Standard Requirements
  - MI Clean Energy Standard Requirements





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# Overview of an IRP and IRP Process

**Brad Kushner**

Project Manager

nFront Consulting LLC



# What is an IRP?

## Integrated Resource Plans, or IRPs:

- Evaluate how an electric utility may meet the projected loads of its customers in a cost-effective and reliable manner
- Balance multiple objectives including:
  - System Reliability
  - Environmental Responsibility and Compliance with Statewide Requirements
  - Cost Impacts
  - Risks



# IRP Key Components



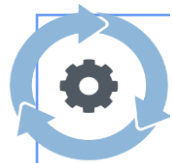
## Long-term view

- Forward looking
- Long-lived assets
- Time to develop



## Impartial evaluation of resources

- Traditional and advanced technologies
- Supply-side and demand-side
- Cost to serve load
- Environmental impacts



## Continuous planning process

- Flexible plans
- Adjust and improve as conditions change



## Uncertainty and risks

- Load growth
- Fuel prices
- Environmental regulations



## Transparency of process

- Engage with stakeholders
- Inform decision-makers
- Confidence in decisions

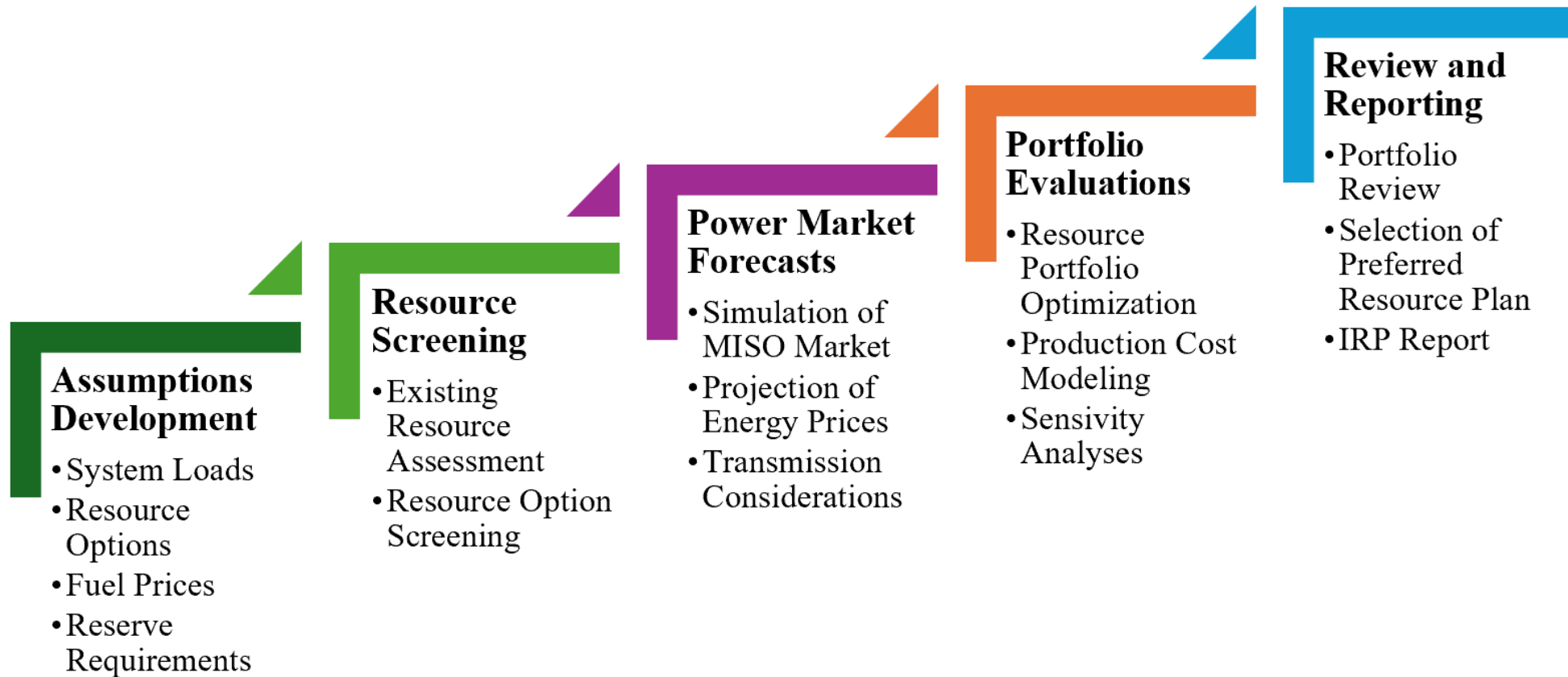


## Analytics

- Identify resource needs
- Market and economic inputs
- Resource characteristics
- Simulation of portfolio costs and risks

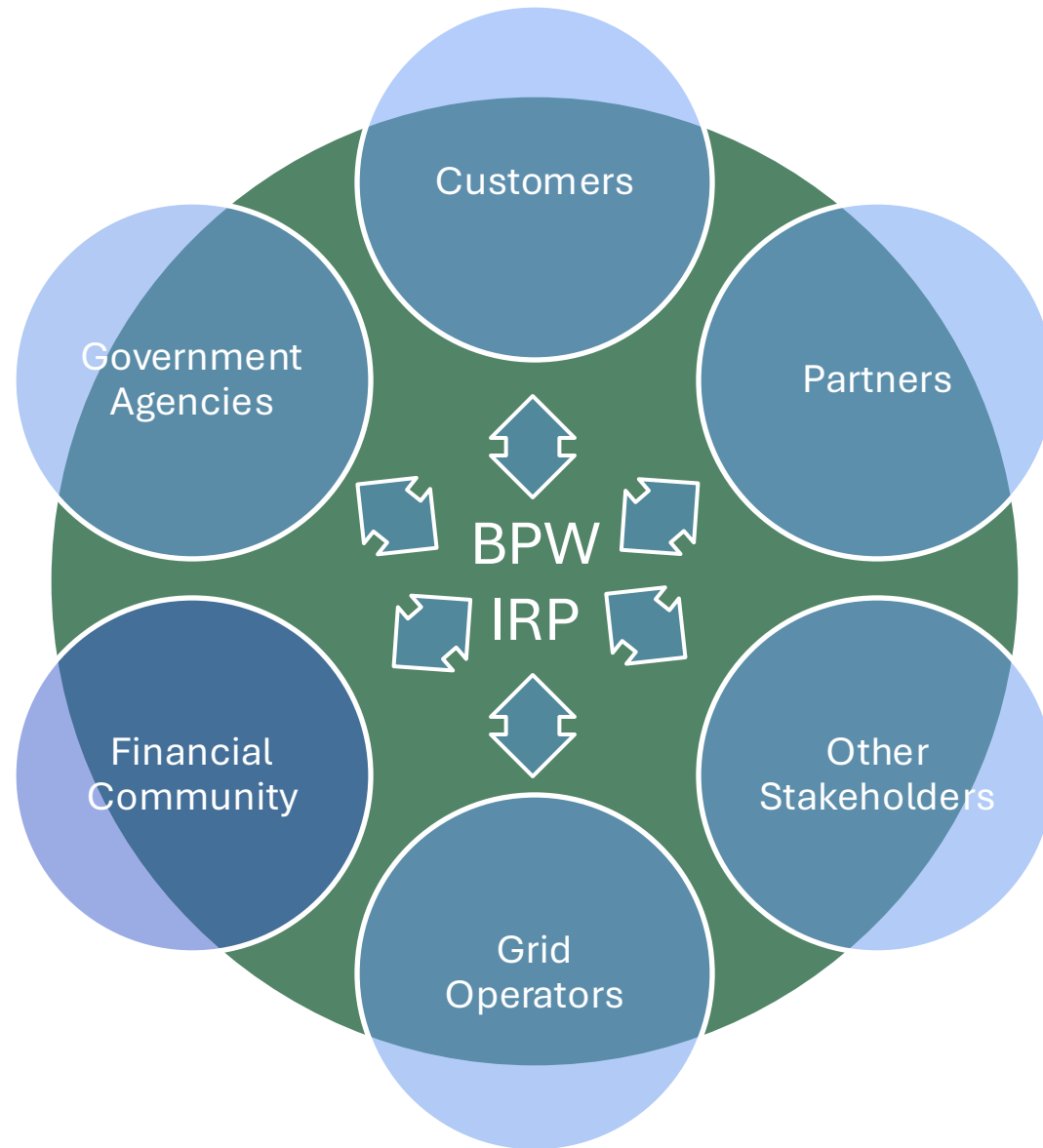


# IRP Process



# IRP Impacts

The Zeeland BPW IRP is integral to decisions and interactions with others



# IRP Goals

## What is a Preferred Plan or Portfolio?

*Preferred plan or portfolio* means the utility's set of resources to serve customer requirements, including the addition of new resources and changes to existing resources.

The goal is a portfolio that represents the “most reasonable and prudent” means that safely, reliably, efficiently, and cost-effectively meets the electric system demand in environmentally responsible manner, taking cost, risk, and uncertainty into consideration.



# IRP Goals *(continued)*

## An IRP Should Satisfy the Following Criteria:

1. Resource adequacy and capacity to serve anticipated peak electrical load, and applicable planning reserve margins
2. Consumer affordability and least cost
3. Compliance with applicable state and federal environmental regulations
4. Power supply reliability
5. Commodity price risks
6. Diversity of generation supply





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# Next Steps

**Stewart Ramsay**

Meeting Facilitator

nFront Consulting LLC



# 2026 IRP Stakeholder Meetings



## Moving Forward - Stakeholder Expectations

- Review meeting material
- Raise questions or concerns regarding the analysis
- Bring insights and suggestions to the discussions

If interested in learning more about becoming part of the Stakeholder Working Group, please contact Zeeland BPW

- See next slide for contact information

Meeting content and dates may be adjusted to reflect further discussions needed with stakeholders. The outline above is our starting point.

Today's sessions provided background on Zeeland BPW and what an IRP is...the Stakeholder process will provide transparency throughout the IRP process and allow Zeeland to learn what is important to our customers



# In Closing...

Questions and comments can be sent to:

**irp@zeelandbpw.com**

Meeting summary and other materials will be posted and made available at:

**<https://zeelandbpw.com/power-plan/>**



**Any questions we haven't answered today?**





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**We would like to hear from you about your experience at this session.**

