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## **IRP Process**



# Integrated Resource Plan (IRP) Overview

### What is the Integrated Resource Plan (IRP)?

BWL's Integrated Resource Plan is a long-term electric generation plan that provides direction on how BWL can best meet its customers' future electricity needs while incorporating a variety of goals. The IRP provides a broad, 20-year direction for the BWL that supports the Board of Commissioners' strategic planning process and future electric generating resource choices.

# What is the purpose of the IRP?

The purpose of the IRP is to evaluate a variety of demand (customer) and supply side (utility) energy resources that best meet the energy needs of the BWL and its customers, while reflecting community goals and managing future uncertainty.

# Why is an IRP important?

An IRP is important to help the BWL meet the community's goals in a changing energy landscape by providing a framework for balancing resource costs, operating characteristics and future uncertainty. For example, the 2016 IRP provided guidance to the BWL for a more efficient and cleaner energy future by including the retirement of the BWL's coal units and a 30 percent clean energy goal in 2025 and 40 percent in 2030.

### What goals are considered in the IRP?

The goals considered in the IRP center around providing safe, reliable energy at the lowest possible cost while promoting environmental stewardship and economic development in the greater Lansing region. The goals are the product of broad community input, including customers, local governments, business leaders and other organizations; development of these goals emphasize the BWL's connection to the greater Lansing community.

### How does the IRP process work?

Together with stakeholder feedback, the IRP process uses a modeling software to examine a variety of energy supply

Strategies against Uncertainties through the use of Scenarios. With complex computer modeling, these strategies are analyzed to select resource portfolios that best balance costs, risks and reflect the goals of the community subject to economic, regulatory and market-driven Uncertainties.

### What are IRP Strategies?

IRP Strategies are based on different resource portfolios, each with the ability to meet the BWL's operating and reliability constraints. For example, one strategy might be continuation of the BWL's 2016 IRP's 30 percent and 40 percent clean energy goals for 2025 and 2030 respectively. Another strategy might be to adjust the renewable energy goal by 2025.

Other strategies will be developed through customer and stakeholder feedback that reflect various community goals, such as "local generation", "least-cost", or "carbon free".

#### What are IRP Portfolios?

IRP Portfolios are a collection of energy resources - supply and demand side - that meet the energy needs of the BWL. BWL will be analyzing several portfolios to understand the affordability, reliability, and environmental attributes of each potential path forward under various future scenarios. A portfolio will be presented to the Board of Commissioners at the end of this process to include in the next Strategic Plan.

# What are IRP Uncertainties?

IRP Uncertainties are future conditions beyond BWL's control that could impact costs or performance of energy resources Since these are not within BWL's control, uncertainties will be modeled to test the financial risk of each portfolio.

Uncertainties include the rise and fall of electric demand from customers, market power prices, natural gas prices, solar prices, energy storage prices, regulations such as CO2 regulation/price, rooftop solar adoption, energy efficiency adoption and regional economic outlook.

#### What are IRP Scenarios?

IRP Scenarios represent future conditions that are different

from the base modeling assumptions and can have a material impact on the cost and performance of resource portfolios. An example of a future scenario would be a carbon surcharge. Although there is no carbon surcharge today, it would be useful to know the impact of a carbon surcharge on each resource portfolio, since each may be impacted differently.

# How will a Portfolio be selected to be presented to the Board of Commissioners?

After careful review of the modeling results and customer and stakeholder feedback, BWL will present a Portfolio that best meets the energy needs and goals of BWL and its customers. The portfolio functions as a tool for the Board of Commissioners to utilize as they evaluate and develop the BWL Strategic Plan for its long- and short-term goal setting.

# How will the IRP impact people with limited incomes?

As a leader in the community, BWL understands the importance of making decisions with all our customers in mind. IRPs are least-cost planning while considering a variety of goals and constraints. As BWL develops its future energy resource mix, it is important to understand how each resource impacts all customers, especially non-participating customers and customers with limited incomes.

# Will the BWL consider Distributed Energy Resources (DERs) in the IRP?

Yes, BWL will include DERs in the IRP.

# What is meant by DERs?

Distributed Energy Resources (DERs) are resources connected throughout the BWL's electric system. DERs include small scale renewable energy, energy storage, combined heat and power, demand response, and energy efficiency.

### Will BWL set new goals for clean energy?

Yes, one major objective of this IRP is to determine whether the BWL should adopt new clean energy goal. Clean energy (renewable energy and energy efficiency) will be vital in BWL's future energy mix and the BWL will model portfolios with more renewable energy and energy efficiency options. The 2016 Strategic Plan increased the goal for BWL to 30 percent clean energy in 2020 and 40 percent clean energy in 2030.

Will BWL consider rooftop solar in its DER evaluation? Yes, BWL will continue to look at DERs that can create the best value to all ratepayers, including rooftop solar. BWL will evaluate traditional generating resources and DER resources by looking at the cost, value and impact of these resources. The trajectory and timing of solar additions will depend on pricing, performance and integration costs.

Where do electric vehicles and associated charging infrastructure fall within the IRP?

In general, this falls under electrification programs that increase demand for electricity, but specific locations for charging infrastructure will not be an outcome of the IRP.

What additional resources will the BWL include in the IRP? The BWL will be analyze energy storage and load management options in the IRP. Load management options will include pricing options, load interruptionand standby generation options.

# **IRP Timing and Timeline**

If the IRP evaluates BWL's power needs for the next 20 years, why is a new IRP developed every four years?

The IRP evaluates BWL's power needs for the next 20 years because utility projects are capital-intensive and are paid for over an extended period. The long-range planning helps ensure that BWL makes the best decisions possible. The IRP is updated about every four years to ensure it's on track with the latest trends, technologies and cost drivers.

The most recent IRP was released in 2016. Why is BWL starting a new update now?

BWL is beginning this work to inform the company's next strategic plan and to proactively address the changing utility

landscape. BWL needs to ensure its plans evolve with the industry to continue providing reliable, clean power at the lowest cost feasible. Pending the finalization of the 2020 IRP, BWL will continue to be guided by the 2016 IRP.

# What is the timeline for developing the IRP?

The estimated timeline for the IRP process includes:

•	Transmission System Study	May - Jul 2019
•	Integrated Demand Side Management Study	May - Oct 2019
•	Stakeholder and Customer Engagement	Mar - Dec 2019
•	Portfolio Modeling	Aug - Dec 2019
•	Public Open Houses	Nov 2019
•	Presentation to Board of Commissioners	2020

# **Environmental Impacts**

### Will BWL consider environmental impacts of the IRP?

Yes. As part of the study, BWL will assess the environmental impacts associated with implementation of the updated IRP, including carbon emissions.

# What will happen during the IRP process to get comments on environmental impacts?

Through the IRP process, BWL will solicit and prioritize the values and concerns of stakeholders; evaluate and compare alternative portfolios of energy resource options; provide opportunities for public review and comment; and identify issues, trends, events and trade-offs affecting BWL's policies and decisions.

# **Collaboration with Stakeholders**

### Who are the BWL's stakeholders?

The BWL's stakeholders include all residential and business customers, local governments and other organizations.

#### Does BWL solicit input from outside the organization?

Yes, the BWL encourages community participation in the IRP process and provides a number of ways for individuals and organizations to participate.

First, through small group meetings with various individuals and organizations to gather input on goals and direction.

Second, the BWL will be conducting public meetings beginning mid fall and through the early winter of 2019. The meetings will cover the IRP process, information relied upon by the BWL, and modeling results. The meetings will offer an opportunity for attendees to ask questions and make comments and suggestions.

Third, the BWL will communicate important aspects of its IRP process through social media and the news media and will accept comments and questions on social media and its website.

# How will comments during the comment phase of the IRP process be used?

Comments received during the public presentations help BWL address issues that are important to the public and help lay the foundation for development of the recommendation to the Board of Commissioners. Public input received will be described in a report that BWL will present to the Board of Commissioners in 2020 and will be posted on its website early next year.

# Does BWL benchmark the resource planning processes and modeling used by other utilities across the country? How does that impact the IRP process?

Yes. BWL reviews other utility plans and collaborates with utility industry peers and partners to benchmark their resource planning modeling processes. For example, BWL evaluates how other utilities achieve flexibility and how they use distributed energy resources, and it considers those practices during the IRP process.