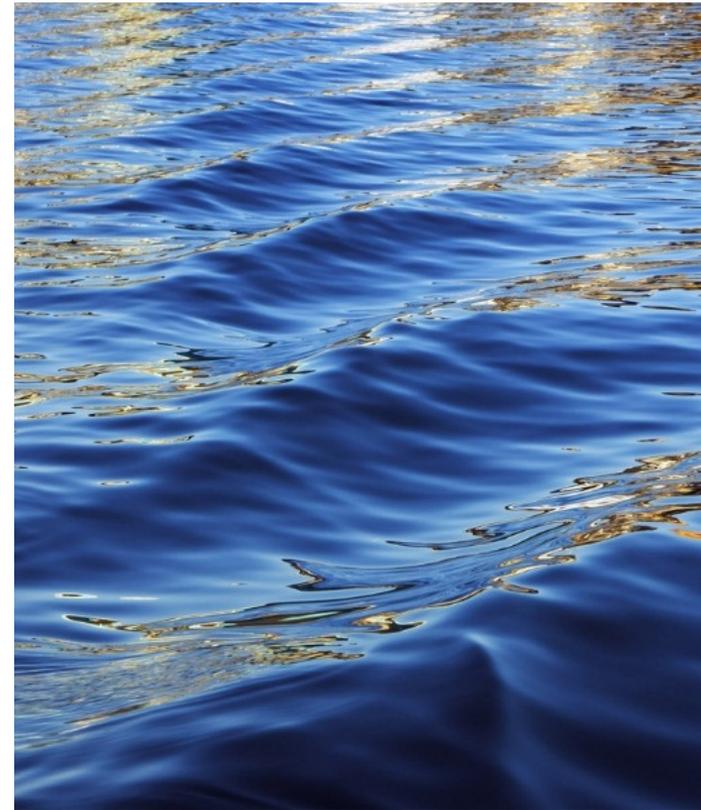


Clean Energy Journey

Lansing Board of Water & Light
Committee of the Whole
November 5, 2019



Agenda

- Sustaining the environment and natural resources is foundational to the BWL
- The BWL's clean energy journey began long before it was required by law
- The commitment to the planet and a cleaner energy future continues



Mission Statement

The BWL's mission statement explains the purpose and priorities of the company. The mission statement also helps direct the work of the BWL Board and employees, provides guidance, and makes a commitment to exemplary customer service.

Today: What we do (Products & Services), Who we do it for (Customers & Owners), and Why we do it (Purpose)

*The mission of the BWL is to provide safe, reliable, and affordable utility products and services to the Greater Lansing Region. Together, the BWL's Board, management, and employees will plan for sustainable growth, be **responsible environmental stewards**, and be active participants in the Lansing Community's economic and cultural initiatives.*

Vision Statement

An aspirational description of what the BWL would like to achieve or accomplish over the long term.

Tomorrow: Ultimate Product & Services, Core Competencies, Idea Culture & Desired Workforce

The Vision of the Lansing Board of Water & Light is to be the only utility our customers will accept. We will secure the loyalty of our customer-partners by providing reliable service, low rates, and demonstrating a genuine concern for our community. Our vision also includes a commitment to all employees of the Board of Water & Light. We are committed to providing a work environment that is safe and that attracts and rewards employees who are innovative and self-motivated.

Working as a team, we will:

- Provide exceptional customer service. We will continuously update our understanding of our customers' needs and consistently exceed their expectations.*
- Be a partner with the Lansing area community. We will continue to be active participants in community activities with special emphasis on safety, the environment and economic development.*
- Partner with all employees by inviting each person to contribute to the benefit of the whole and be accountable for the results. We will continually offer training to meet the challenges of the future and provide opportunities for career development. We will develop a successful team whose members take ownership and embrace organizational change.*
- Be environmentally responsible by being recognized as a leader in environmental stewardship in the interests of our customers, our employees, and the communities in which we serve.*
- Sensibly pursue growth, diversity and alliances that will be valuable to our customers, develop all our employees to their full potential and thereby ensure the continuing success of our company.*

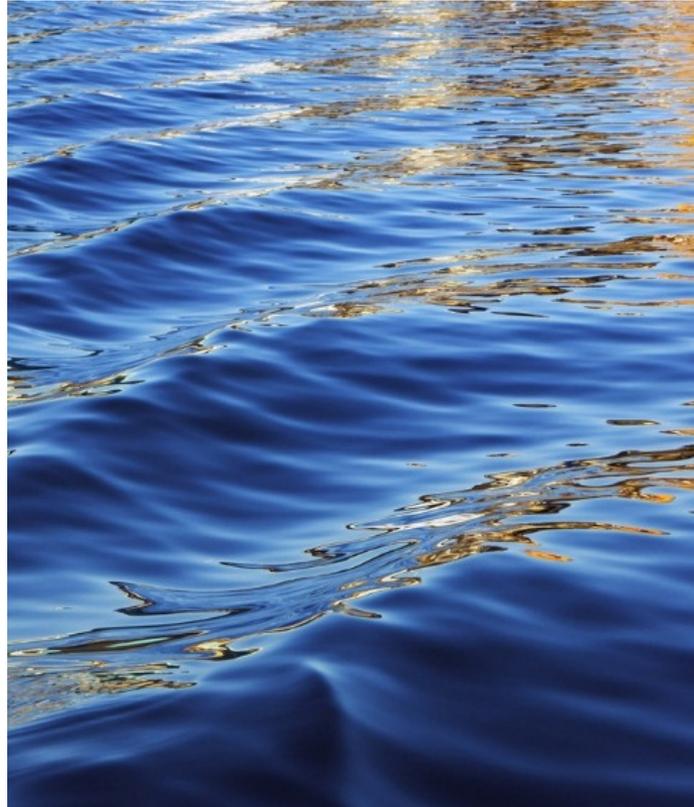
Value Statements

These are the guiding principles to which its employees adhere in the conduct of the BWL's business. They express the shared beliefs and behaviors that guide interactions with, customers, the community and each other.

- The BWL's values are the guiding principles to which its employees adhere in the conduct of the BWL's business. They express the shared beliefs and behaviors that guide interactions with, customers, the community and each other.
- **Exceptional Service:** *The BWL is dedicated to providing exemplary and reliable utility products and services.*
- **Competitive Rates:** *As a publicly owned utility, providing competitive and affordable rates is integral to the economic well-being of the Lansing region.*
- **Safety:** *The safety of employees and customers is a priority.*
- **Community Commitment:** *The BWL is committed to active corporate citizenship that advances the community's economic and cultural well-being.*
- **Integrity:** *The BWL will instill community trust by conducting business in a manner that is open, honest, and fair.*
- **Inclusion and Equity:** *The BWL values and respects the individuality and diversity of our customers and employees, considers these an asset of the BWL and the community, and will strive to reflect that diversity in our workforce.*
- **Environmental Stewardship:** *BWL practices and policies will demonstrate our commitment to a healthy and sustainable environment.*



Programs & Commitments



Our History



2001

- Offer customers opportunity to invest in renewable energy options

2007

- Adopted Michigan's first renewable energy standard with plans for energy efficiency

2010

- Adopted net metering programs providing incentives for customers installing renewable energy options

2016

- Established future clean energy goals of 30% by 2020 & 40% by 2030

2018

- Announced that it will be the 1st Major utility to retire its coal fired power plants by 2025

Our Commitments

- BWL contracted for capacity and energy from landfill gas

2007



- BWL constructed Cedar Street solar array (Michigan's largest at the time)

2008



- 2014 BWL contracted for approximately 20 MW of wind energy and expanded its Cedar Street Solar array to 150KW

2014



Our Commitments Cont....



- BWL led development of 300KW community solar project allowing customers to directly invest

2015



- BWL contracted for 24MW of solar power, the state's largest tracking solar array

2016



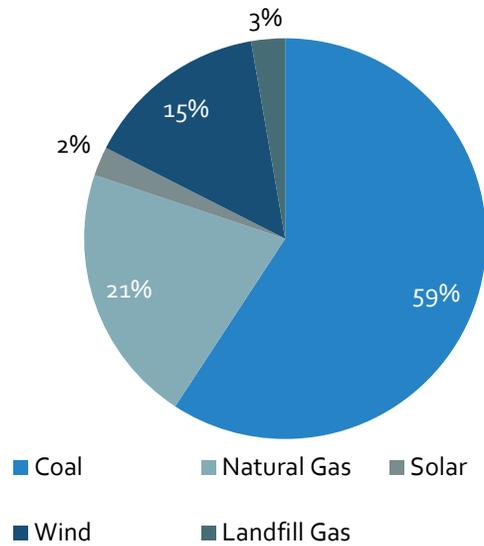
- BWL contracted for 89 MW of wind energy

2017

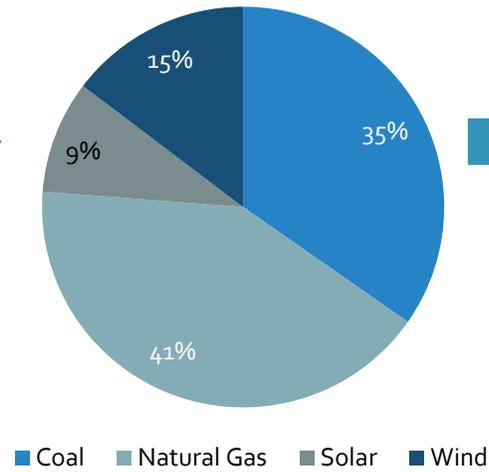


Resource Portfolio: Moving Away from Coal

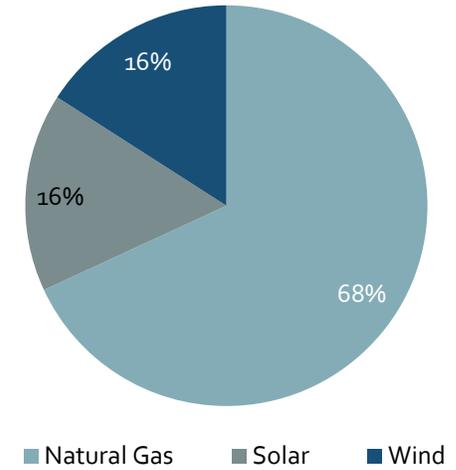
Energy Resource Type
(2020)

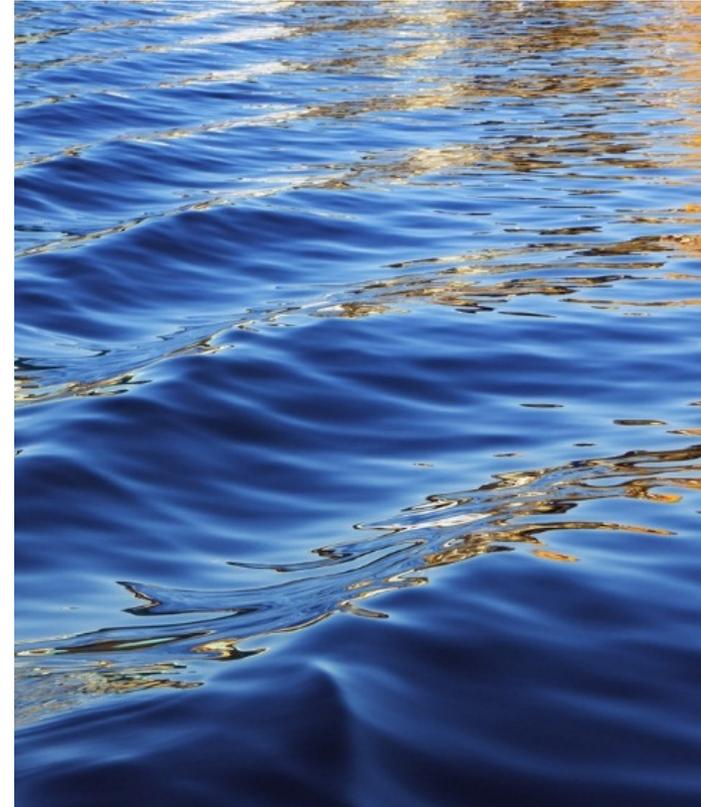


Energy Resource Type
(2021)



Energy Resource Type
(2030)



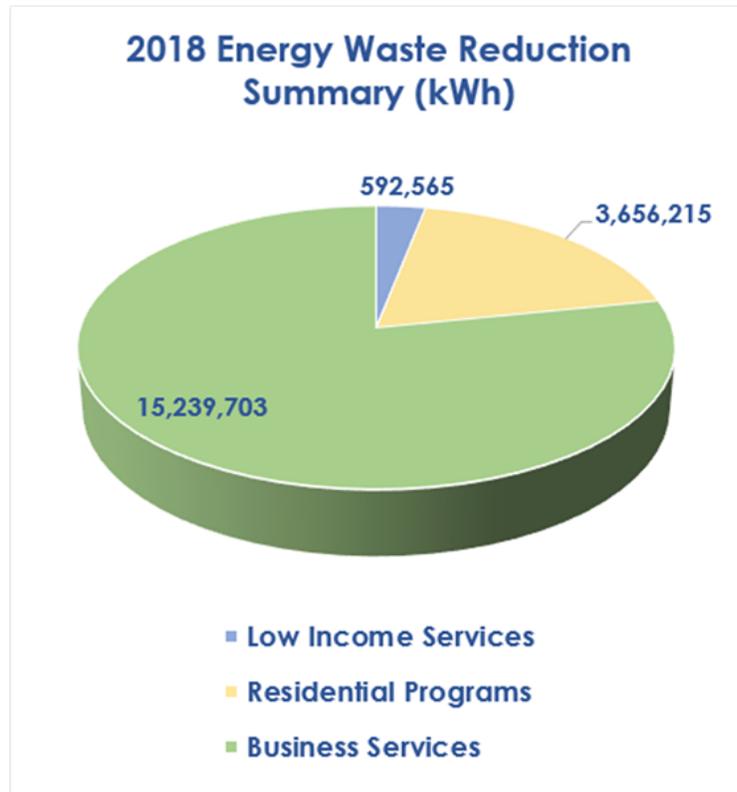


Energy Waste Reduction

aka Energy Efficiency

Energy Waste Reduction/Energy Efficiency

A Cleaner Future



- **Energy Waste Reduction (Energy Efficiency Target 1% per year)**
- **LBWL has completed more than 250 energy assessments for low income households**
- **More than 13,000 energy efficient items were installed, including refrigerators and air conditioners**

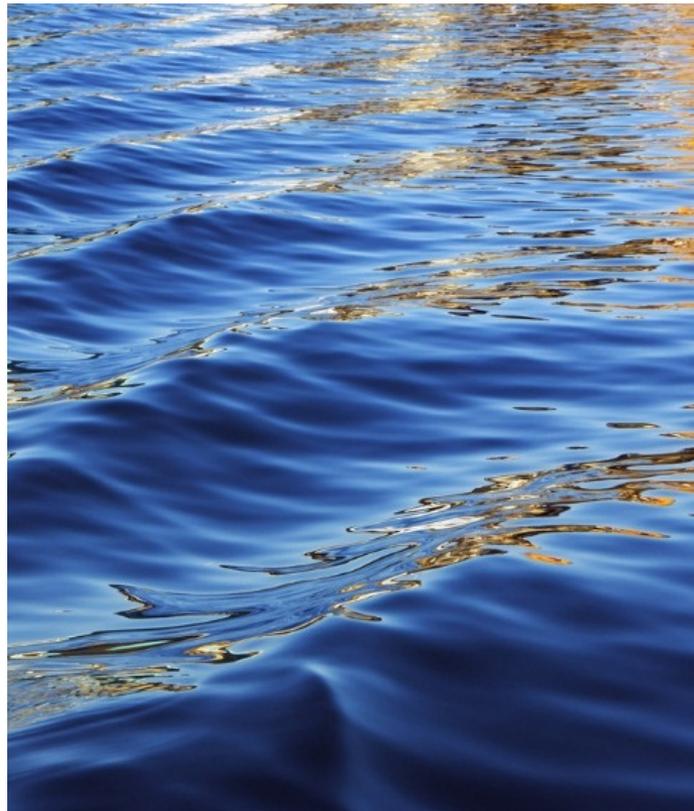
Energy Waste Reduction/Energy Efficiency

<u>Year</u>	<u>Actual Efficiency Savings as % of Retail Energy Sales</u>
2009	0.35
2010	0.54
2011	0.81
2012	1.08
2013	1.25
2014	1.09
2015	1.42
2016	1.03
2017	1.31
2018	1.03



Today

Journey continues





INTEGRATED RESOURCE PLAN

March 2019-January 2020

- Due diligence to ensure investments are reasonable and valuable
- Provides transparency to customers, which includes a demonstration the LBWL is moving away from fossil fuels in a reasonable and affordable manner to its customers
- Addresses the risks and uncertainties inherent in the industry
- Evaluated every 4-5 years
- Historically focused on Electric utility

Integrated Resource Planning: Public Open House

Dates

Nov. 6, 4:30-7 p.m., Wednesday, BWL REO Depot, 1201 S. Washington Ave., Lansing

Nov. 7, 4:30-7 p.m., Thursday, East Lansing Public Library (large meeting room), 950 Abbot Road, East Lansing

Nov. 13, 4:30-7 p.m., Wednesday, Delta Township District Library (Elmwood Room), 5130 Davenport Drive, Lansing

Nov. 14, 4:30-7 p.m., Thursday, Alfreda Schmidt Center (Community Room), 5825 Wise Road, Lansing

Nov. 19, 9 a.m. to noon, Tuesday, BWL REO Depot, 1201 S. Washington Ave., Lansing



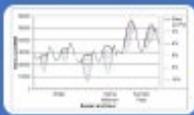
Welcome Station: Purpose Overview

- What is Integrated Resource Planning (IRP)
- IRP Process
- FAQ's



Station 1: Energy Planning: 101

- Environmental
- Affordability
- Reliability



Station 2: Modeling—Energy Options

- Describes Modeling
- What modeling results are currently revealing



Station 3: Current Energy Initiatives

- Greenwise Program
- Smart Meter Technology
- Community Sustainability



Station 4: Our Past and Our Future

- Existing BWL Collateral
- Past & Future Journey



Station 5: Feedback Survey

- Webform submission
- EPIC-MRA Customer Survey



**Integrated Resource Planning
Public Open House**

