LANSING BWL

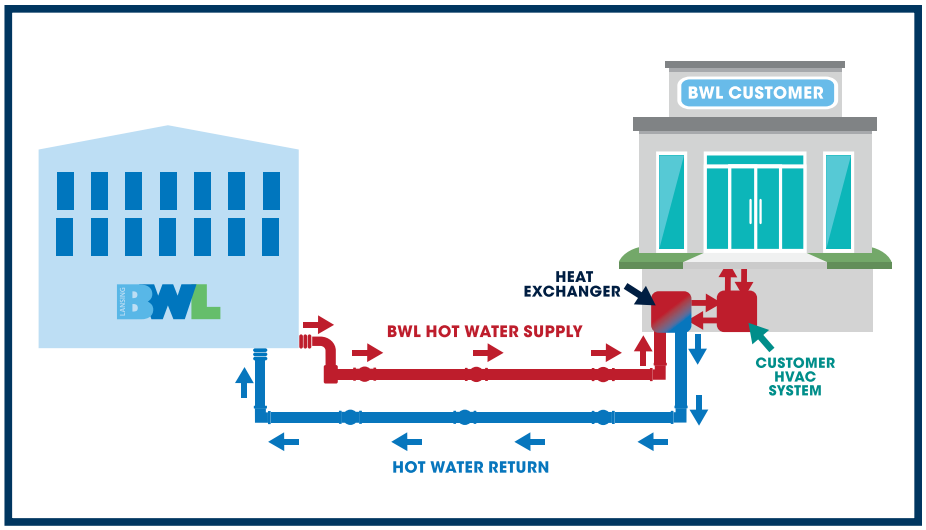
Hometown People. Hometown Power.

STEAM to Hot Water

Transforming the Future of Lansing's Heating System

Modern Energy Solutions for Downtown Lansing Customers

The Lansing Board of Water & Light (BWL) is enhancing system reliability and efficiency by converting its downtown Lansing steam system to a closed loop hot water network, resulting in higher efficiency gains to customers. Planning for the project began in 2024 and will be phased over the next 15 years. The conversion will cost $120 million and was partially supported by a grant from the State of Michigan.



Customer Benefits

Operating the hot water system at lower temperatures saves energy, enhances efficiency and conserves resources. Each phase of the conversion is projected to save water and energy while reducing customer's energy consumption. The new infrastructure resets and extends system longevity by 50 years, lowers maintenance costs and improves pedestrian safety by eliminating steam vent stacks from Lansing streets.

System Redundancy
New redundancy measures including mobile boiler connections and an advanced leak detection system, enabling faster recovery from unplanned outages and limiting customer downtime.

Saves Space
Efficient use of space since the building does not need on-site production equipment.

Resource Efficiency
Transitioning to hot water saves both energy and water by using a closed loop system - reducing energy loss and recovering energy by returning warm water to the BWL to be reheated and recirculated.

Simplified Operations
Eliminates the need for steam traps and steam conversion station management, reducing building maintenance requirements.

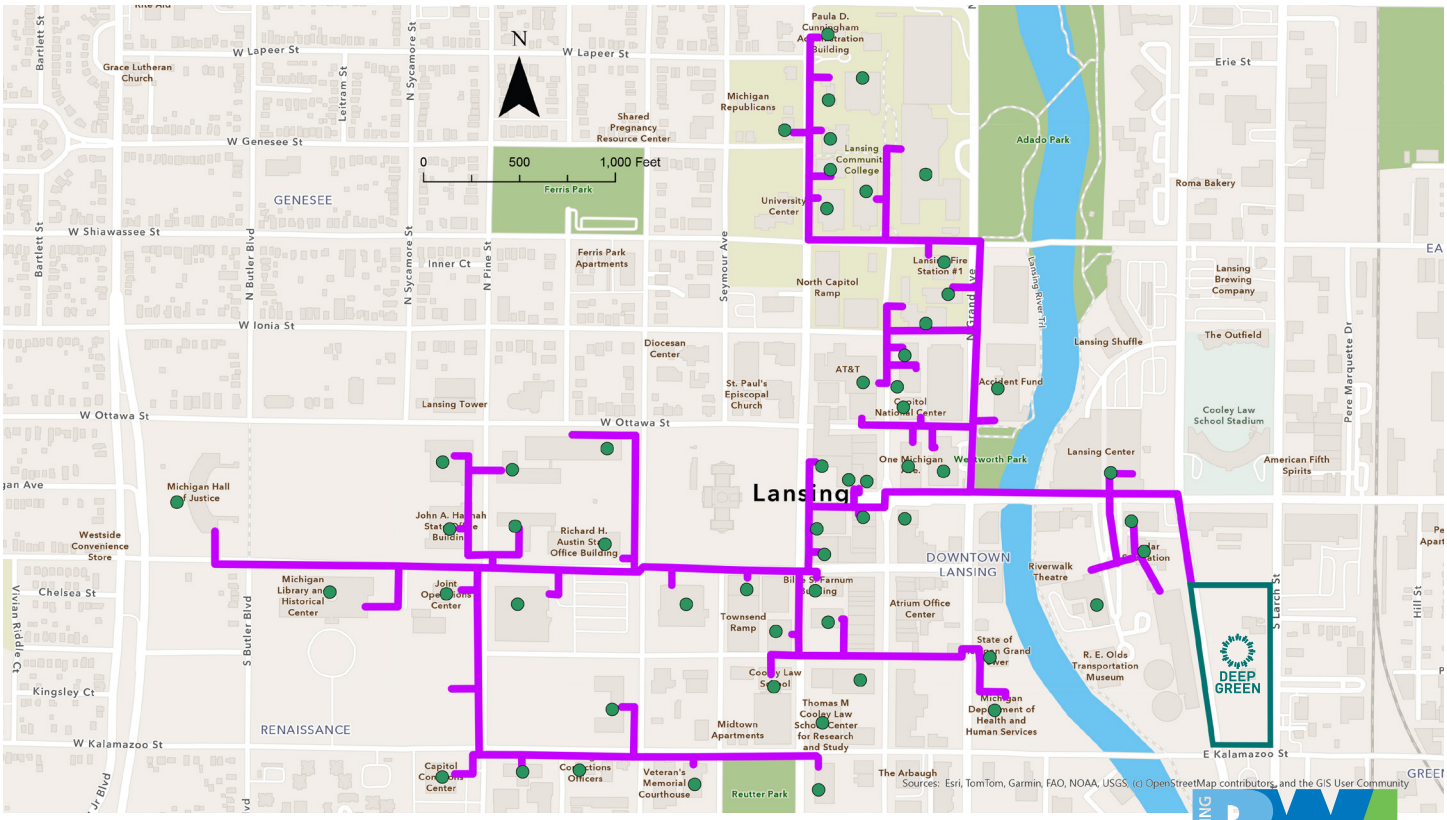
Cost Savings
Increased energy efficiency translates to lower service costs for customers.

ON-SITE ENERGY GENERATION		BWL HOT WATER SERVICE
CAPITAL	→	OFF-SITE OPERATIONS ENERGY EXPERTISE 24-HOUR OVERSIGHT ENERGY GENERATION & DELIVERY MAINTENANCE & REPAIR EQUIPMENT REDUNDANCY
OPERATIONS & MANAGEMENT	→	
COMMODITY COSTS	→	COMMODITY COSTS

How It Works

Hot water systems are designed for efficiency. BWL will produce hot water for customers to use to heat their interior spaces, domestic hot water (faucets, showers, appliances), and for industrial processes.

Hot water will be pumped through a network of insulated, underground pipes to customer buildings. Once the hot water reaches the customer building, it flows through a hot water heat exchanger that transfers heat to the building's HVAC system. The building's hot water flows through the building's loop to terminal units (i.e. air handlers, fan coil units, radiators, etc.) for space heating. The hot water can also be used to generate domestic hot water at faucets and appliances. BWL water goes through the heat exchanger and, as energy is exchanged to the building loop, the temperature is lowered and the cooler water is returned to the BWL to be reheated and recirculated, continuing the closed-loop system.



For questions or to learn more about how the new energy system benefits you, visit lbwl.com/steamhotwater.

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