

Stats at a Glance

	2019	2020	2021	
Electric	Electric Revenues - Retail	\$41,008,980	\$37,116,359	\$37,197,036
	Electric Revenues - Wholesale	\$21,850,894	\$22,123,972	\$25,510,154
	Number of Electric Customers	18,092	18,312	18,369
	Megawatt-hours Sold - Retail	518,927	504,540	532,692
	Megawatt-hours Sold - Wholesale	133,206	141,418	241,124
	Peak Electric System Demand	100	106	107
	Miles of Distribution Line	234	236	237
	Average Net Investment	\$88,410,823	\$86,874,301	\$85,979,519
	Water	Water Revenues - Retail	\$4,643,352	\$4,707,021
Water Revenues - Wholesale		\$1,999,274	\$2,046,522	\$2,057,918
Number of Water Customers		13,776	13,808	13,881
Gallons of Water Sold (X 1000) - Retail		1,617,325	1,644,772	1,714,927
Gallons of Water Sold (X 1000) - Wholesale		2,436,517	2,437,213	2,440,864
Miles of Water Main		186	186	187
Number of Hydrants		1,394	1,400	1,401
Average Net Investment		\$45,911,126	\$46,276,204	\$46,076,713

Glossary

Administrative

Salaries and benefits paid to employees in administrative roles, along with administrative expenses such as supplies and insurance.

Customer Account

Cost of meter reading, billing, collection, and uncollectible accounts.

Depreciation

The decline in value of plant and equipment due to wear and tear of normal use and obsolescence, measured year by year through the charging of a portion of the asset's original cost against income.

Electric Distribution

Cost of distributing electricity to customers including routine and emergency maintenance of poles, wires, underground facilities, street lighting, substations, and metering.

Net Operating Income

These are the dollars available after all expenses are paid. This amount is used to finance system improvements and expansion projects.

Power Generation

Cost of energy generated at MPU power plants. Includes the cost of fuel, maintenance, and operation of the facility.

Pumping Expense

Cost of energy to operate pumps to deliver water to the distribution system and maintenance of pumping equipment.

Purchased Power

Energy purchased from other utilities.

Taxes

MPU is exempt from state and federal income tax, but other taxes are incurred. The majority of tax paid is referred to as "Payment in Lieu of Taxes" to city government, which is based on property value. MPU is the largest tax payer to city government.

Water Distribution

Cost of delivering water to consumers including routine and emergency maintenance of water mains and hydrants, storage tanks, and metering.

Water Supply

Cost of maintaining water intakes and wells.

Water Treatment

Cost of treating water delivered to the water distribution systems including operation as cost of the water treatment plant, such as energy, maintenance, chemicals, and laboratory expenses.

Average Net Investment

The beginning of year and ending year average depreciated value of the utility system plus inventory less regulatory liabilities.

Key Accomplishments for 2021

- MPU was awarded the top-level Diamond designation from the American Public Power Association's (APPA) Reliable Public Power Provider program. MPU is one of approximately 275, out of over 2,000 community-owned utilities, currently recognized with a designation of this program from APPA. This peer-evaluated system reviews the electric utility in four key disciplines: Reliability; Safety; Workforce Development; and System Improvement.
- Electric Distribution buried approximately 3,000 feet of overhead electric and fiber optic lines and installed ornamental street lighting from 900 Maritime Drive, along Memorial Drive and Johnston Drive.
- Nearly \$1 million was distributed from Wisconsin Department of Natural Resource (WDNR) funding to City of Manitowoc property owners who replaced their lead service line.
- The Wastewater Treatment Facility (WWTF) applied 9,700,000 gallons of biosolids to land. They also collected 22lbs. of mercury from Manitowoc residents and industries as part of the Mercury Pollutant Minimization Program.
- A comprehensive 5-year IT systems study was completed to define a roadmap for future investments and improvements.
- A purchase order was submitted for an electric vehicle, but it will not be delivered until 2022.

2022 Planned Activities

- MPU has been managing the City of Manitowoc's Wastewater Treatment Facility (WWTF) under contract since 2019. The initial contract was for 3 years, but instead of managing the WWTF, all of the assets and employees will be transferred to MPU by the end of 2022, subject to City Council approval. MPU is excited to welcome the WWTF, and all of the employees, into the MPU family.
- Early summer, MPU will be requesting the approval of the Public Service Commission of Wisconsin (PSCW) to adjust water rates. These rates would be effective early 2023 and inflation is the main driver for the necessary adjustment. The last full water rate was effective for 2012. Electric rates will also be reviewed and increased in mid-2023 due to increased fuel and energy costs as well as inflationary O&M increases.
- MPU will apply for, and distribute, WDNR funding to replace privately-owned lead service lines (LSLs). The application will be for 400 replacements worth \$1.2 million that will go to property owners.
- Electric Distribution will continue street light changeouts from HPS to LED. This is year 3 out of a 5-year plan.
- MPU will seek approval to install a small pilot solar facility with a residential energy storage system to gain operational experience and determine how well facility can be used to offset power supply costs. Residential customers will have an opportunity to invest in solar power via a flat rate billed monthly rather than fronting significant capital investment in roof solar panels.
- A study of a smart thermostat demand response pilot program will be completed that will evaluate the program's effectiveness and the end-user experience.



MANITOWOC PUBLIC UTILITIES ANNUAL REPORT



RESILIENCE



Community Owned... Customer Focused

1303 S. 8th Street
Manitowoc, WI 54220
920-683-4600

www.mpu.org



Mission & Vision Statements

MPU is committed to be the trusted primary resource for providing customer-focused utility services.

Our vision is to be a thriving and innovative regional utility service provider that exceeds customer expectations.

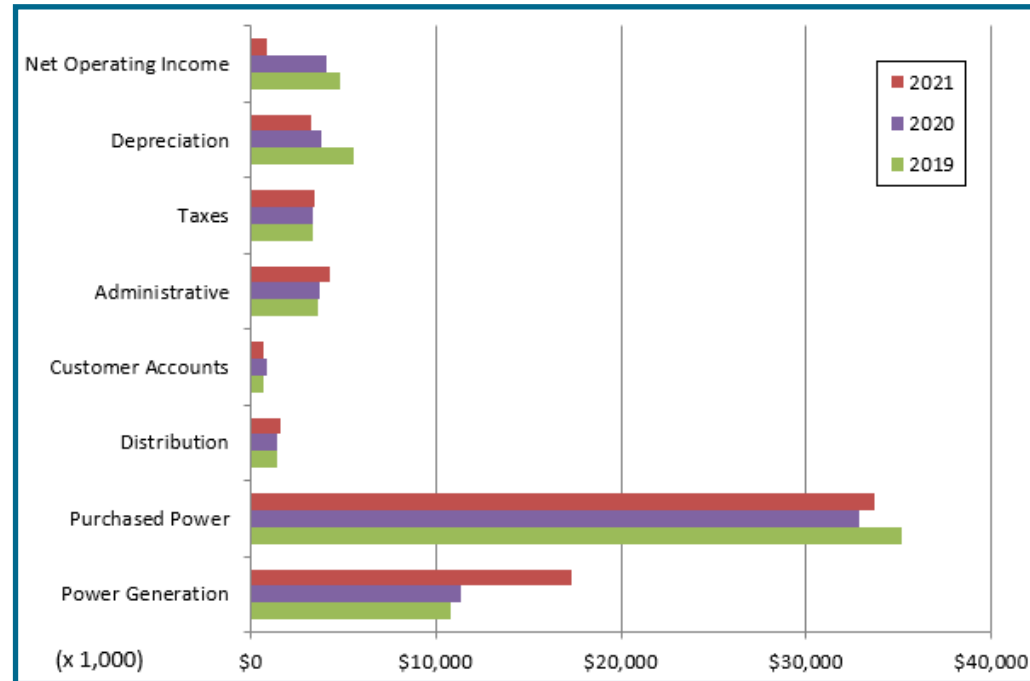
Boiler 8 Renewable Fuel Test



The year 2021 became a test year as MPU initiated the Manitowoc Refuel Renewable Project that will generate enough renewable energy to serve approximately 80% of our community's energy needs in an economical manner. MPU Boiler 8 underwent a test refueling in

June 2021 to run exclusively on Wisconsin-recognized 100% renewable biomass densified fuel pellets. The test was highly successful from both an operational and economic perspective. This validation of concept has led to exploration of long-term renewable fuel pellet supply and storage facility options. MPU Boiler 9 will undergo the same testing in 2022. This initiative provides many benefits including: maintaining local electric grid resiliency; providing dispatchable renewable baseload energy that enables grid additions of non-dispatchable and intermittent renewable generation (wind and solar); diverting 18,000 tons per month of non-recyclable industrial paper and plastic waste from local landfills, eliminating methane emissions from decomposition; saving local jobs; and maintaining \$2 million in Payment In Lieu of Taxes to the City of Manitowoc. This initiative positions MPU, as well as the community, for a bright future.

Electric Utility Expense Tracking



Letter from Management

For generations, MPU has locally generated power and steam for our community. Currently, MPU owns two fossil fuel fired Circulating Fluidized Bed (CFB) boilers with electric generators located at MPU's power plant on the lakefront. In addition, MPU owns a natural gas fired Combustion Turbine (CT) generator which is located at MPU's Custer Energy Center adjacent to I43. Although owned by MPU, these units are scheduled to run by the Midcontinent Independent System Operator (MISO), the electric transmission grid coordinator for our region.

As fossil fuel fired units, MPU's generation has a higher run cost compared to other generation on the grid. Historically, however, MISO has required MPU to run these units to provide local voltage support regardless of their operating cost; and when MISO requires MPU's units to run for voltage support, MISO pays MPU our cost to run even when it is higher than the market price. This makes MPU whole. More recently, these units have been dispatched by MISO for voltage support while the local transmission owner, American Transmission Company (ATC), upgrade their service lines serving Manitowoc and surrounding communities. When those upgrades are complete, the local grid will be robust enough to import lower cost energy. Basically, under MPU's current operating and fossil fuel mix scenario, it is unlikely that the MPU CFB units would be called to run in the future. This would negatively impact Manitowoc in a number of ways: loss of local generation for resiliency, loss of make-whole payments from MISO, elimination of local jobs, and loss of Payment in Lieu of Taxes (PILOT) to the City of Manitowoc.

In light of the weather event that took place in Texas during March 2021, electric grid resiliency is a primary focus. Our community, our customers, our businesses, our owners, have invested in MPU for generations. And it is MPU's intent to be there for our community providing life essential utility services whether it be during a weather event or just your average Wednesday. To maintain local electric grid resiliency, we need to maintain local electric generation. To maintain local generation, we need to lower operating costs. The variable to address is the fossil fuel being used...the coal pile.

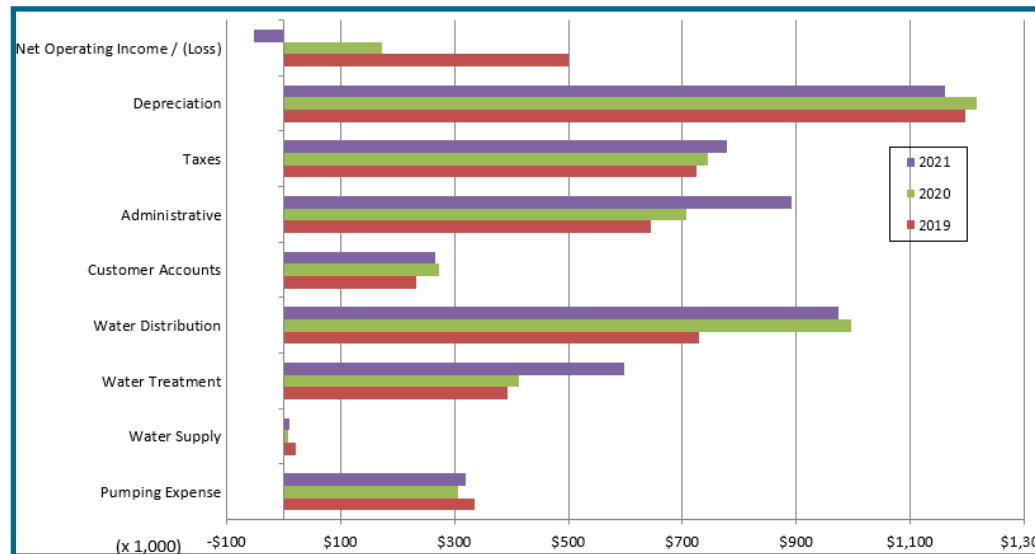
In 2021, MPU completed strategic planning to address this very obstacle and have implemented the initiative Manitowoc Refuel Renewable Project. This initiative explored the opportunity to refuel our two existing CFB power plants to run exclusively on Wisconsin-recognized 100% renewable biomass densified fuel pellets. These pellets are made from local non-economically-recyclable industrial paper and plastic waste that would otherwise be landfill-bound. This project will not only reduce these units' greenhouse gas emissions from electricity generation by 55% (2005 baseline), it will improve their operating costs positioning them to be economically dispatched by MISO for generation on the grid. This could effectively extend the life of these community-owned assets for generations to come as baseload renewable energy generation and a bridge to future technology.

MPU is committed to having local generation resiliency for the City of Manitowoc while also focusing on a renewable future for the power plant. We are resilient as a community. We are resilient as a community-owned utility.

Troy Adams, P.E.
General Manager

David Luckow
President

Water Utility Expense Tracking *



*Excludes Wholesale Revenues and Expenses from the Central Brown County Water Authority (CBCWA)