

Stats at a Glance

	2020	2021	2022	
Electric	Electric Revenues - Retail	\$37,116,359	\$37,197,036	\$40,488,117
	Electric Revenues - Wholesale	\$22,123,972	\$25,510,154	\$27,037,246
	Number of Electric Customers	18,312	18,369	18,473
	Megawatt-hours Sold - Retail	504,540	532,692	524,467
	Megawatt-hours Sold - Wholesale	141,418	241,124	298,248
	Peak Electric System Demand	106	107	103
	Miles of Distribution Line	236	237	238
	Average Net Investment	\$86,874,301	\$85,979,519	\$85,130,437
	Water	Water Revenues - Retail	\$4,707,021	\$4,814,347
Water Revenues - Wholesale		\$2,046,522	\$2,057,918	\$2,069,951
Number of Water Customers		13,808	13,881	13,962
Gallons of Water Sold (X 1000) - Retail		1,644,772	1,714,927	1,657,263
Gallons of Water Sold (X 1000) - Wholesale		2,437,213	2,440,864	2,482,482
Miles of Water Main		186	187	192
Number of Hydrants		1,400	1,401	1,345
Average Net Investment		\$46,276,204	\$46,076,713	\$45,307,564

Key Accomplishments for 2022

- MPU filed applications with the Public Service Commission to adjust both water and electric rates. These rates are expected to be effective in 2023.
- Successfully operated power plant boiler 8 entirely on renewable fuel pellets. Trial runs began on boiler 9 as well as reviewing large-scale renewable fuel options.
- The power plant provided regional reliability support during the American Transmission Company (ATC) transmission upgrades.
- Over 50 percent of street lights have been converted to LED fixtures. About 1,050 were converted in 2022.
- Batteries were replaced in the Custer and Dewey substations.
- New watermain was installed on North Rapids Road.
- Assisted with over 150 private lead service line replacements after applying for, and receiving, Wisconsin Department of Natural Resource funding worth over \$450,000 for property owners.
- The WWTF commenced a facility-wide automation project.
- The engineering and design of a 4 megawatt diesel generator at the power plant and installation of an express line from the Custer CT to the plant was begun.
- The Public Service Commission approved a tariff for a new Community Solar Garden project.
- Installed a small pilot solar facility with a residential energy storage system to gain operational experience.

2023 Planned Activities

- MPU will complete a full redesign of our website, including the addition of a chatbot.
- Various metering data management platforms, and Outage Management Systems (OMS), will be evaluated which will lay the groundwork for a future OMS implementation.
- The power plant will be evaluating efficient fuel pellet handling options for full generation capacity. They will continue with renewable fuel trial runs and research.
- Electric distribution will be working with engineering to update the Electrical Distribution System Study to reflect load changes and system modifications that have been made since 2017. They will also be developing purchase specifications for a plant tie transformer replacement.
- Watermain will be replaced on North 2nd St. and North 3rd St. as part of the City's reconstruction of Reed Ave. Watermain will also be replaced on Division St. during reconstruction as well.
- Wisconsin Department of Natural Resource funding will be applied for to help property owners replace lead service lines; funding is anticipated to be available in 2024.
- Portions of the WWTF will be automated due to current software aging and no longer being supported by their respected developers. Automation will eliminate the third employee shift.
- Payments and early construction costs will be procured for a multi-year electric system resiliency project.

WWTF Transfer & Branding



On January 1, 2023, the City of Manitowoc Wastewater Treatment Facility (WWTF) was officially transferred to MPU. This transfer encompassed 15 employees and a wide range of treatment assets. MPU has been managing the WWTF since 2019. The community saw some changes with this transition on their utility bills. *Wastewater collection* and *wastewater treatment* are now separate. In order to separate the funds, MPU had to create new sewer billing rates.



As part of welcoming the WWTF into the MPU family, MPU completed a rebranding to be able to visually show the community the three core services we provide: electric, water, and wastewater. Although there are many different services nestled under those three, these are our enterprise funds represented by color in the logo: red for electric, blue for water, and green for wastewater. These specific colors directly correlate with the color of the locating flags associated with each service. This rebranding will be a slow rollout, so customers may still see both logos on documents, or vehicles, while we transition. We are proud to be the essential services provider in our community.



ANNUAL REPORT 2022



EVOLUTION

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

Refuel Renewable Project

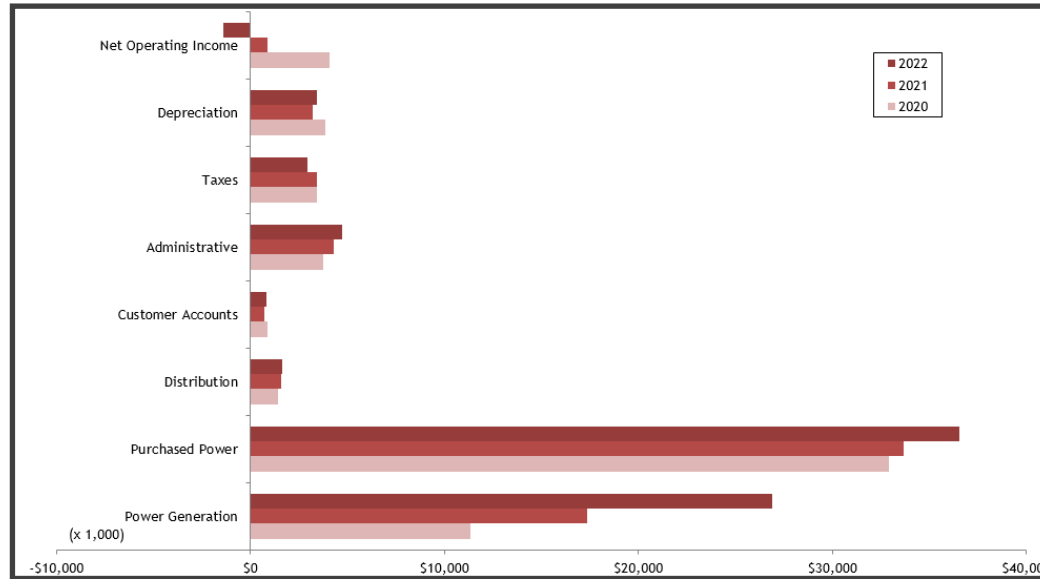
MPU is celebrating one year of success on our power plant boiler refueling project. This project began in 2021 and entails refueling our two primarily fossil fuel-fired boilers to run exclusively on Wisconsin-recognized 100% renewable densified fuel pellets. These pellets are made from local non-economically-recyclable industrial paper and plastic waste that would otherwise be landfill-bound.



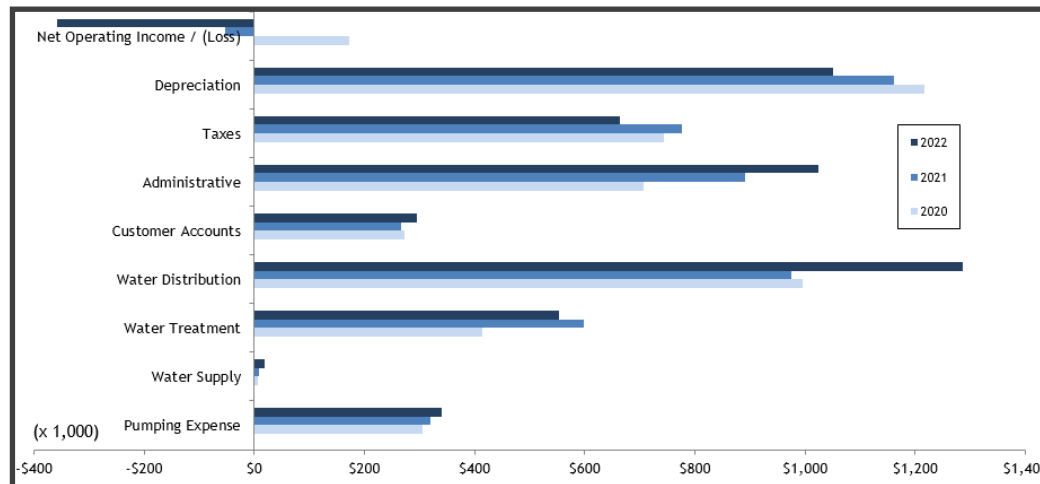
Boiler 8 ran successfully on 100% renewable densified fuel pellets this past year. Our second boiler, Boiler 9, is burning up to 40% pellets and that percentage is expected to rise. While we've been making this shift in our boilers, we've been concurrently working on increasing the supply of densified fuel pellets that MPU is able to secure.

Why is this project important? Refueling to burn 100% renewable densified fuel pellets is beneficial to our community for several reasons. Primarily, this refueling is an effort to mitigate risk in an extremely volatile fuel market, but we also recognize efficiencies and benefits in other areas including: cost control, sustainability, local control, and grid resiliency. To learn more about this project, visit our project page at www.manitowocrefuelrenewable.org.

Electric Utility Expense Tracking



Water Utility Expense Tracking *



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

Letter from Management

During 2022, Manitowoc Public Utilities experienced significant changes; an evolution of what we do and where we are heading.

After four years of contract management, the City of Manitowoc transferred the Wastewater Treatment Facility (WWTF) to MPU effective January 1, 2023. The decision to move forward was made in 2021, with 2022 being the year of transition planning and logistics. The transition focused on the separation of wastewater collections (the pipes in the street) from the wastewater treatment (the plant on the lakefront with the bobber). Physically, this separation was relatively straightforward. The separation of the business was more complex, which involved splitting the wastewater rates, reserves, and assets between collections and treatment. The separation is intended to increase efficiency and improve services through the synergies that treatment has with utility operations.

In 2022, the Public Service Commission of Wisconsin approved a project that consisted of the City of Manitowoc, and MPU, extending water service to areas south of the city. The extension provides access to safe drinking water for those affected by groundwater contamination. Construction was completed and the affected township residents were allowed to connect. The project costs are not socialized by existing MPU customers and are recovered through the related water sales, as well as from the City of Manitowoc.

The Manitowoc Refuel Renewable Project successfully reached a major milestone during 2022. The smaller of MPU's two Circulating Fluidized Bed (CFB) boilers operated the entire year 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. The refueling for the boiler resulted in a 6% increase in generation capacity bringing the units generation to over 23MWs. Additionally, refueling resulted in a 50% reduction in average production cost (\$/MWh) and was regularly dispatched into the market based on economics. This is something to celebrate and affirms the path that MPU is on; an evolution. This past year MPU also successfully completed a test run with these pellets on the second, larger CFB (63MW). Planning continued throughout the year working towards the goal of refueling both CFBs to pellets. In addition to downward pressure on costs, the refueling project will provide many benefits to our community including reducing greenhouse gas emissions by 55% (2005 baseline), diverting up to 18,000 tons per month of waste from the landfill and eliminating approximately 5,000 tons per month of landfilled ash, and preserving over \$2 million in Payment in Lieu of Taxes (PILOT) to the City of Manitowoc.

Manitowoc Public Utilities commits to be the trusted primary resource to our community for providing customer-focused utility services. We are successful in this through intentional change that positions MPU to be a thriving, innovative regional utility service provider that exceeds customer expectations...EVOLUTION.

Troy Adams, P.E.
General Manager