

Stats at a Glance

	2016	2017	2018	
Electric	Electric Revenues - Retail	\$45,111,094	\$42,842,090	\$43,399,364
	Electric Revenues - Wholesale	\$22,367,450	\$24,198,686	\$22,570,316
	Number of Electric Customers	17,952	17,956	18,009
	Megawatt-hours Sold - Retail	535,882	524,707	537,314
	Megawatt-hours Sold - Wholesale	134,683	170,309	148,097
	Peak Electric System Demand	109	102	105
	Miles of Distribution Line	233	235	235
	Average Net Investment	\$93,555,562	\$90,105,614	\$87,575,036
	Water	Water Revenues - Retail	\$4,695,333	\$4,734,972
Water Revenues - Wholesale		\$2,126,122	\$2,027,752	\$2,031,317
Number of Water Customers		13,715	13,739	13,773
Gallons of Water Sold (X 1000) - Retail		1,673,717	1,663,902	1,626,298
Gallons of Water Sold (X 1000) - Wholesale		2,335,212	2,331,313	2,473,087
Miles of Water Main		187	187	186
Number of Hydrants		1,378	1,381	1,378
Average Net Investment		\$47,742,595	\$46,874,035	\$45,988,481

Glossary

Administrative

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

Annual Return on Investment

Operating earnings divided by Average Net Investment.

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.

Year End Net Utility Plant

The depreciated value of the utility system plus construction work in progress, at year end.

Key Accomplishments for 2018

- Upgraded the Customer Information System to the latest platform.
- Hosted an open house in celebration of Public Power Week in October.
- Participated in the Manitowoc County Youth Apprenticeship program by hiring five students to work in various areas of the utility including the power plant, water plant, electric distribution, IT and customer service.
- Completed the asbestos abatement of retired Boilers 5, 6, & 7 in preparation for their removal.
- Replaced 5900 feet of cast iron water mains on Dewey and N Water Streets.
- Replaced 3500 feet of power lines to improve system reliability.
- Replaced two subterranean transformer vaults with conventional, pad-mounted transformers.
- Upgraded eleven distribution circuit breaker protection relays to conventional, solid state relays with SCADA controls.
- Completed a comprehensive uni-directional water main flushing program to improve water quality in the distribution system.
- Received of a vessel shipment of 17,460 tons of coal at the MPU North Dock.
- Completed replacement of the 4.16kV distribution switchgear, used to control, protect and isolate electrical equipment at the Power Plant. The new switchgear greatly enhances the overall reliability and safety of distribution system.
- Completed upgrade of the Custer Combustion Turbine (CT) control system to improve overall CT reliability and bring the system up to modern standards.

2019 Planned Activities

- Start the Automated Metering Infrastructure (AMI) project to replace all electric meters in the City of Manitowoc. Rollout a new portal for customers to view their electric consumption information and provide outage / restoration time information through the new AMI system.
- Payoff the remaining electric bonds making MPU debt free.
- Complete a feasibility study for converting all street lighting to LED technology.
- Replace approximately 7,200 feet of water main on Waldo Boulevard in conjunction with WisDOT reconstruction. Replace 55 high pressure sodium street lights on Waldo with LED lights.
- Replace street lights on Rapids Rd from Broadway to Custer St to coincide with widening of Rapids Rd and installation of a multi-use trail. 20 LED street lights and 35 trail lights will be installed.
- Replace failing underground cabling including 2000 feet of ornamental street light cabling on South 59th St and West Dr (I-Tec Campus) and 300 feet of unjacketed primary in the 1100 and 1200 blocks of Viebahn St.
- Uprate power transformers at Dewey and Custer Substations from 22.4 MVA each to 25 MVA each, with cooling system modifications.
- Receive regulatory approval and replace the Continuous Microfiltration Facilities at the Water Treatment Plant. Demolition and construction to begin in 2019 with a completion date in 2020.
- Develop the concepts of an MPU innovation center to enable the active exploration, demonstration, and evaluation of emerging distributed technologies which are likely to impact the MPU system in coming years.
- Complete a feasibility study for installing electric vehicle charging stations in the MPU service territory.



MANITOWOC PUBLIC UTILITIES

ANNUAL REPORT 2018

Purpose of this Report

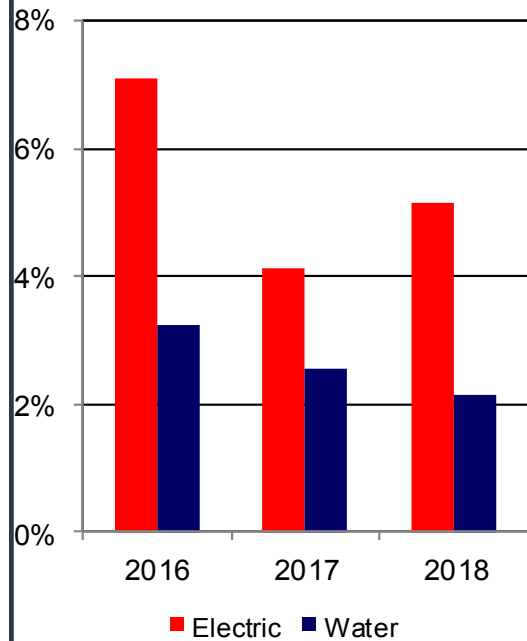
The purpose of this report is to help you understand where and how your utility payments are used. This annual report details MPU's revenue and expenses, as well as our key accomplishments from 2018, and our plans for 2019.

If you have any questions concerning this report or operation of your electric and water utility, please call our customer service office at 683-4600.

Mission Statement

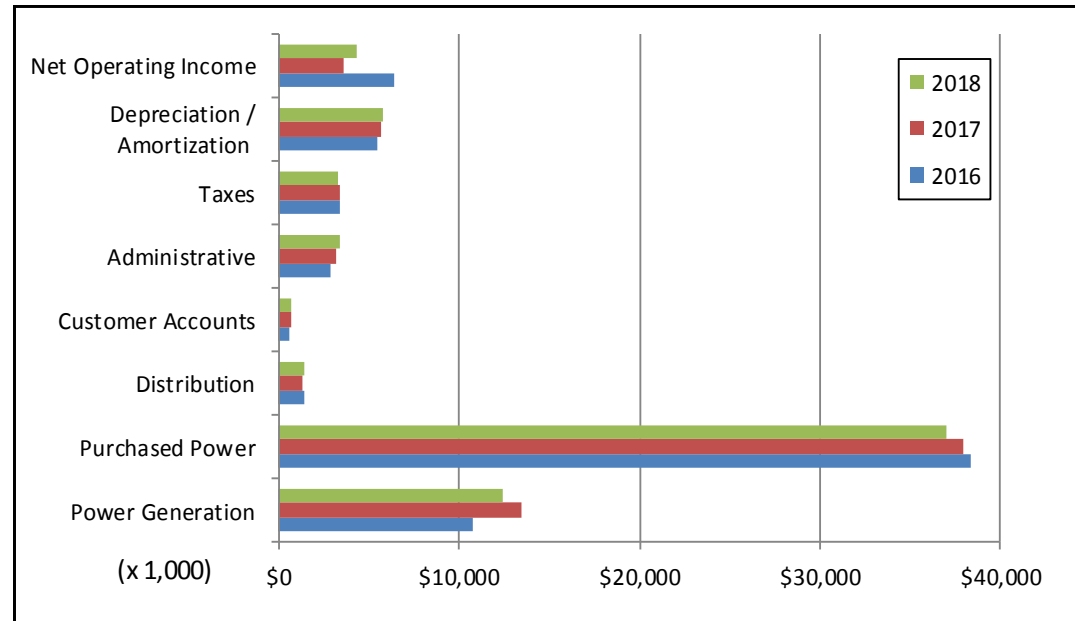
MPU is committed to be the trusted primary resource for providing customer focused utility services.

Annual Return on Rate Base

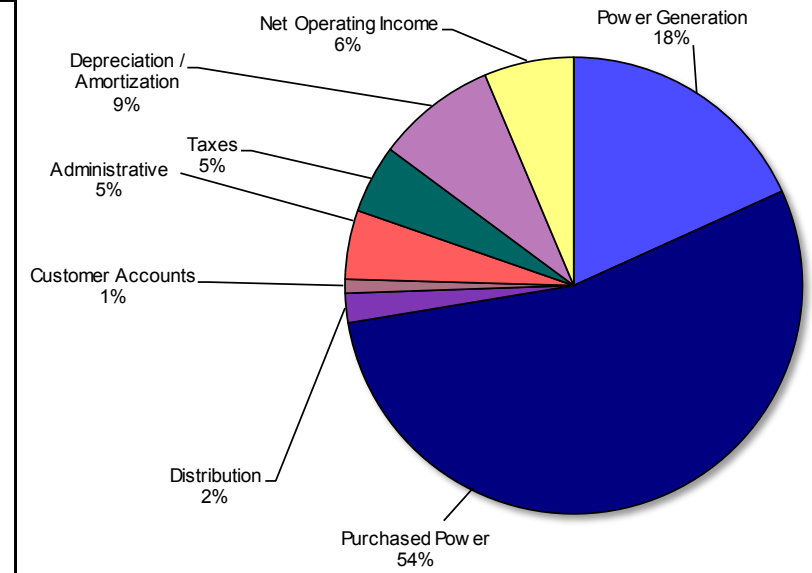


*Excludes Wholesale Revenues and Expenses from the Central Brown County Water Authority (CBCWA)

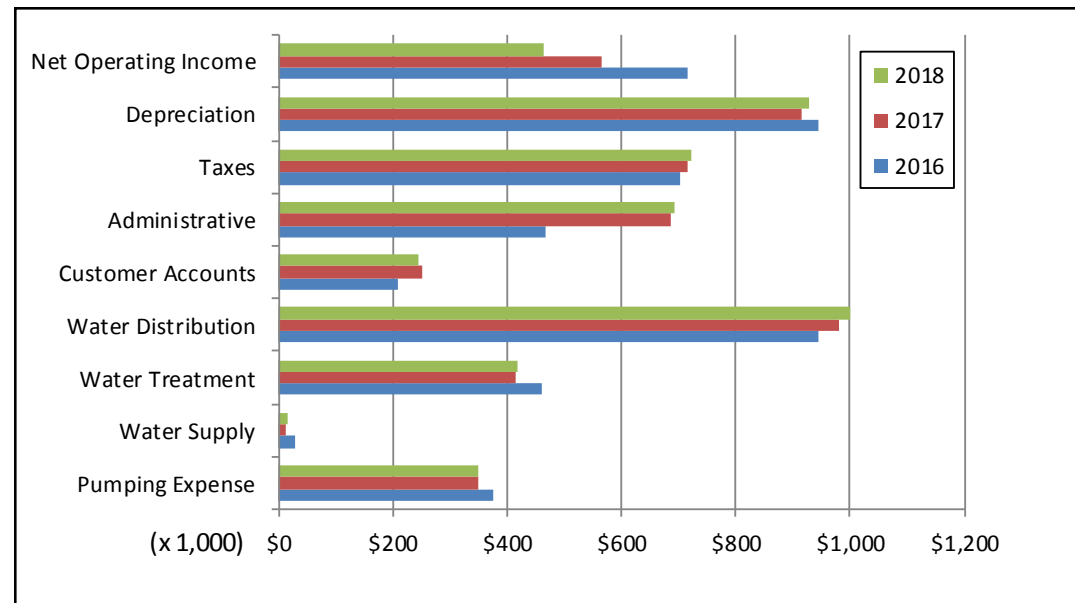
Electric Utility Expense Tracking



Electric Revenue Distribution- 2018



Water Utility Expense Tracking *



Water Revenue Distribution- 2018

