

Solid Foundation. Strong Future.



ANNUAL REPORT
2020

MUSCATINE POWER AND WATER

A Message from the General Manager



Gage Huston
GENERAL MANAGER

It was not ‘business as usual’ in 2020.

Like the rest of the world, COVID-19 created anxiety and stress for our community and for our families. Yet, during these challenging times, our work was never so critical.

We changed the way we did business to ensure our team members and customers were safe while keeping the power on and the water and information flowing. Our community depends on MPW to provide essential services — and our dedicated staff takes this responsibility seriously.

Despite these unusual circumstances, MPW staff did what they have always done: provide extraordinary service. As in the past, MPW has been there for moments big and small — whether it’s supporting infrastructure and services so families could stay connected, providing up-to-date community pandemic information so our customers could stay safe, or providing temporary relief from disconnections.

We were also especially proud to participate in a community solution to provide internet access to families in need to ensure that every student in our service area had access to remote learning tools.



The Fiber to the Home project gained momentum and finished the year with over 96% of homes and businesses fully converted to the all-fiber system – providing our community with the most advanced communication services available. The fiber infrastructure sets Muscatine apart from other communities of similar size. It provides an edge in attracting business and industry while providing internet speeds residents have come to rely on.

Our partnership with Central Iowa Power Cooperative (CIPCO), continued on the 161-kV transmission line. This new asset will provide reliably sustained voltage for our area and like the FTTH project, is fundamental in setting Muscatine apart from other communities in supporting economic development.



Other collaborations continued via electronic meetings, phone calls and email to push community betterment projects ahead. Utility poles were removed on the riverfront, enhancing Muscatine’s greatest asset – the mighty Mississippi River; event lighting installed, the City’s West Hill Sewer Separation project continued and the 2nd St. roundabout completed. All these projects exemplify the good partnership MPW has with the City of Muscatine and the perseverance to do what’s right and what’s needed for our community.

MPW purchased its first electric vehicle (EV) and installed a Level II public charging station at our business office – signaling the beginning of a new era of programs designed to support and encourage EV

ownership. With our Electric Vehicle Stakeholder Group's guidance, MPW's EV strategy will support and ready the community as electric vehicle adoption continues to grow.

Our water tower, one of the most public-facing projects in 2020, received a 'make-over' thanks to community engagement, the Iowa Finance Authority and artist Laura Palmer. Musco Sports Lighting will be installing permanent light fixtures to showcase our unique water tower in a splash of color, adding one more icon to Muscatine's landscape.



One of the most significant projects of 2020 was the completion of a power supply study. Power supply studies help utilities plan for the future. Making changes in power production involve a great deal resources, so keeping abreast of trends and new technology allows MPW to stay in-step with industry best practices — benefiting our customers.

While the study recommendations are still being vetted, the direction is clear — MPW will expand its portfolio of renewables and has set aggressive targets for carbon emission reduction. This transition will allow for customer choice by providing increased opportunities for customers to participate in the Choose Green Muscatine program while keeping rates as low as possible for all residents. As this transition occurs, this community will continue to rely heavily on our dedicated power plant staff, who work tirelessly behind the scenes to ensure our local electric system's reliable operation.



Having a plan to guide MPW through uncertain times is essential to our success. 2020 was a powerful reminder of that reality. Our Board of Trustees and senior leadership team endeavored to deliver a blueprint to provide focus in our efforts. MPW's Strategic Plan will serve as a map to navigate the changing landscape of technologies and customer needs while creating a solid foundation for a strong future.

It cannot be understated – 2020 was an unprecedented year. We did not have a manual to help navigate the obstacles COVID-19 placed in our path. Like the rest of the world, MPW staff felt great stress and uncertainty in the face of the unknown. Yet, we rose to the challenge. Important infrastructure work did not pause; our responsibility as a trusted community partner did not cease and our vision for the future did not fade.

I could not be prouder of the work accomplished and the perseverance of MPW staff members during this extraordinary time in history. As you read through our Annual Report, I am hopeful you share in my admiration for the impressive work, dedication and commitment the MPW staff embodies.

Sincerely,

Gage Huston, General Manager

Local leadership

**Of the people.
For the people.
By the people.**

A five-member Board of Trustees, appointed by the Muscatine City Council, governs MPW, providing policy direction and oversight for the Utility.

All local, the Trustees bring diverse perspectives from their years of experience in both public and private financial, industrial, philanthropic and health companies.

When opportunities arise, their insight enables the Board to make informed decisions and act quickly.

Board of Trustees



Susan Eversmeyer
CHAIR
RIVER REHABILITATION



Kevin Fields
VICE CHAIR
KENT CORPORATION



Tracy McGinnis
TRUSTEE
CBI BANK & TRUST



Steven Bradford
TRUSTEE
HNI CORPORATION



Keith Porter
TRUSTEE
STANLEY CENTER
FOR PEACE & SECURITY

Trustees' leadership, combined with the extensive industry expertise provided by executive and management teams, focuses MPW on local priorities — the true benefit of a municipal-owned utility.

Senior Leadership Team



Erika Cox
CUSTOMER &
TECHNOLOGY EXPERIENCE



Mark Roberts
FINANCE AND
ADMINISTRATIVE SERVICES



Brandy Olson
LEGAL, REGULATORY
AND PEOPLE SERVICES



Ryan Streck
UTILITY
SERVICE DELIVERY



Doug White
POWER
PRODUCTION AND SUPPLY

Through day-to-day oversight, along with active partnerships and collaboration with other organizations, the senior leadership team drives the entire organization toward maximum benefit to our customers through outstanding reliability, careful cost control and responsive customer service.

Carrying on a tradition that has served Muscatine for over 120 years, MPW leadership ensures our customers remain the top priority and that MPW is accountable to them.

Strategic Plan: Solid Foundation. Strong Future

It's an exciting time for the Utility. We are witnessing significant changes in technology and evolving customer needs. In this time of transition, MPW's Strategic Plan provides a path to ensure your utility and communication infrastructure is sound and capable of supplying ample, consistent service for decades to come. The Plan outlines how we will continue to provide value to our community and live our mission statement.

MPW provides value to our community in ways other utility and communications providers cannot. These include local control, reliability, re-investment in infrastructure, fast response, low rates, and local, top-notch service. The strategies outlined below will ensure MPW is always ahead of the curve by keeping abreast of industry trends and anticipating customer needs.



STRATEGY 1

Establish a culture that develops great employees and leaders, leveraging tools and programs to make them most effective.

STRATEGY 2

Every experience is an opportunity to delight a customer; take the initiative to add value.



STRATEGY 3

Invest in our utility infrastructure to ensure we deliver exceptional reliability to our customers.

STRATEGY 4

Evolve our power supply to maintain reliability, reduce environmental impact, optimize cost & risk and meet customers' evolving needs.



STRATEGY 5

Pursue opportunities to expand service areas, offerings and usage in ways that add value to our customers.

Scan this QR Code to view details of the Strategic Plan's objectives and initiatives in a video from the 2020 Power Breakfast



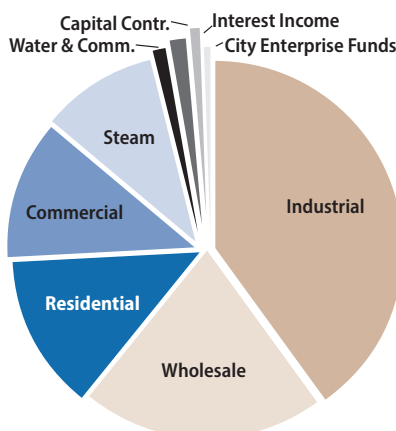
Reinvesting resources...

The Utility's net income is used to make system improvements like the ones noted in this report.

Electric: The Electric Utility had a net income of \$4.1M and capital expenditures of \$10.2M

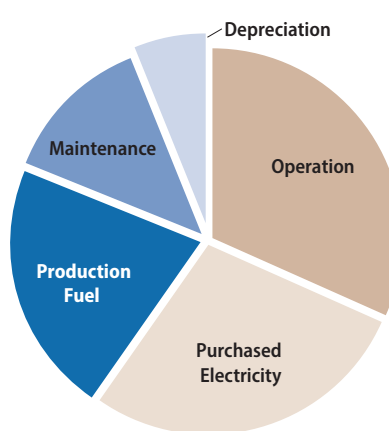
ELECTRIC - REVENUE (in 000's)

Industrial	35,129	40.1%
Wholesale	18,228	20.8%
Residential	11,749	13.4%
Commercial	10,449	11.9%
Steam	8,694	9.9%
Water & Communications	1,150	1.3%
Capital Contributions & Other	1,096	1.3%
Interest Income	619	0.7%
City Enterprise Funds	444	0.5%
Total Revenue	87,557	100.0%



ELECTRIC - EXPENSES (in 000's)

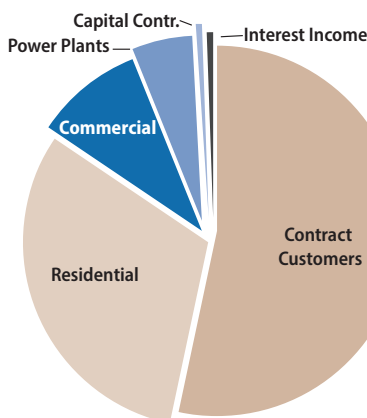
Operation	26,458	31.7%
Purchased Electricity	23,328	28.0%
Production Fuel	18,050	21.6%
Maintenance	10,542	12.6%
Depreciation	5,033	6.0%
Interest Expense	20	0.0%
Total Expense	83,431	100.0%



Water: The Water Utility had a net income of \$0.8M and capital expenditures of \$2.0M

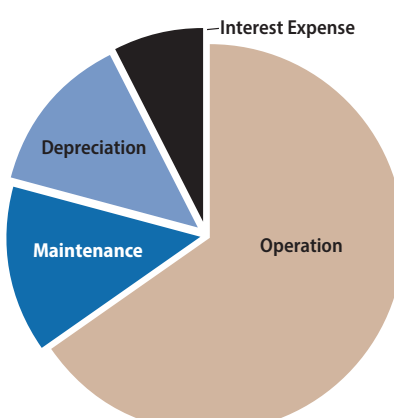
WATER - REVENUE (in 000's)

Contract Customers	3,831	53.4%
Residential	2,239	31.2%
Commercial	665	9.3%
Power Plants	378	5.3%
Capital Contributions & Other	32	0.4%
Interest Income	29	0.4%
Total Revenue	7,173	100.0%



WATER - EXPENSES (in 000's)

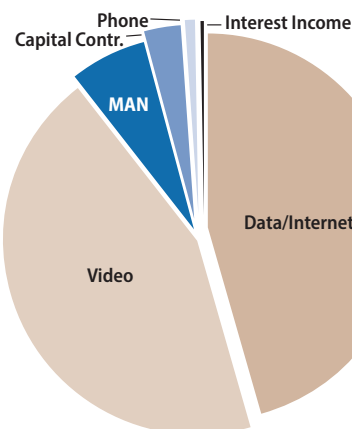
Operation	4,168	65.5%
Maintenance	872	13.7%
Depreciation	861	13.5%
Interest Expense	463	7.3%
Total Expense	6,364	100.0%



Communications: The Communications Utility had a net income of \$1.1M and capital expenditures of \$5.6M

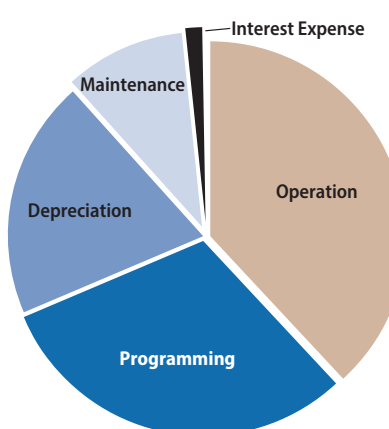
COMMUNICATIONS - REVENUE (in 000's)

Data/Internet	7,032	45.8%
Video	6,733	43.8%
MAN	961	6.3%
Capital Contributions & Other	465	3.0%
Phone	144	0.9%
Interest Income	31	0.2%
Total Revenue	15,365	100.0%



COMMUNICATIONS - EXPENSES (in 000's)

Operation	5,464	38.2%
Programming	4,387	30.7%
Depreciation	2,817	19.7%
Maintenance	1,409	9.9%
Interest Expense	230	1.6%
Total Expense	14,307	100.0%

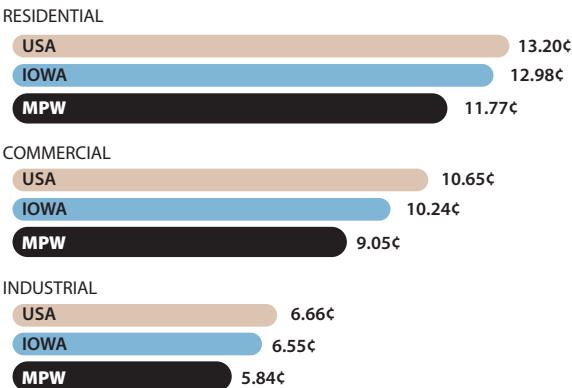


**Unaudited financial data. Full audited 2020 financials are available at mpw.org/AnnualReport*

while keeping rates low

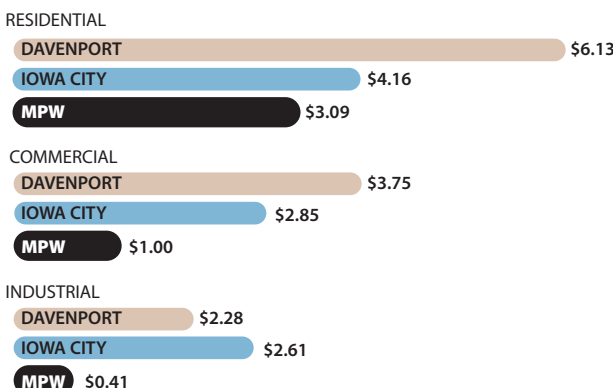
MPW wants to help our customer-owners keep money in their pockets! One way we do that is by providing rates below the national and state averages.

Compare electric rate per kWh



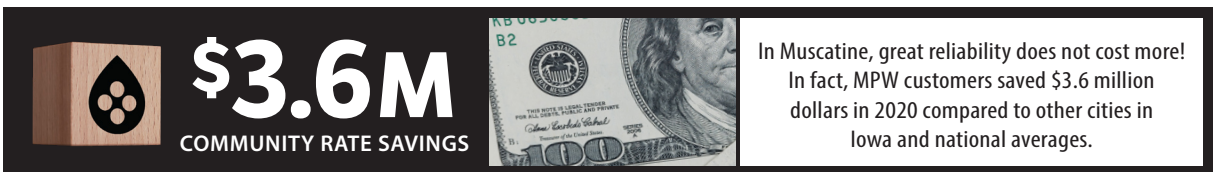
USA and Iowa rates per Annual Electric Power Industry 2020 EIA 861 Report (www.eia.gov)

Compare water rate per CCF



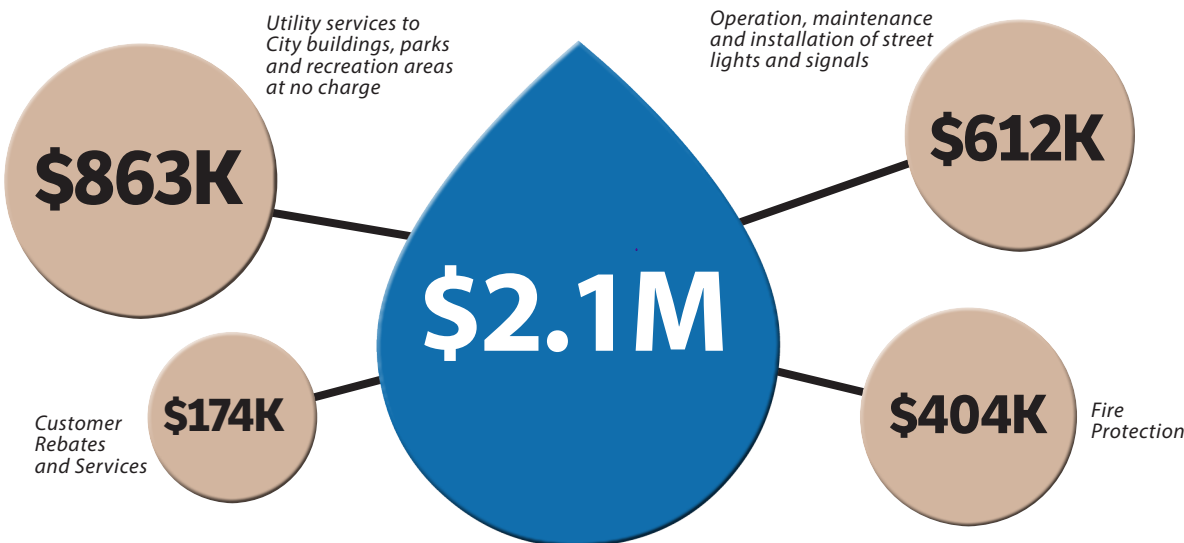
CCF= 100 Cubic feet

On average, Muscatine customers each save \$330 per year



Plus a direct benefit to the Muscatine Community of \$2.1M

Besides the \$3.6 million cost-benefit citizens receive due to MPW's lower than state/national average rates, the Utility directly provides services to the city's public buildings and spaces that would otherwise be paid by taxes.

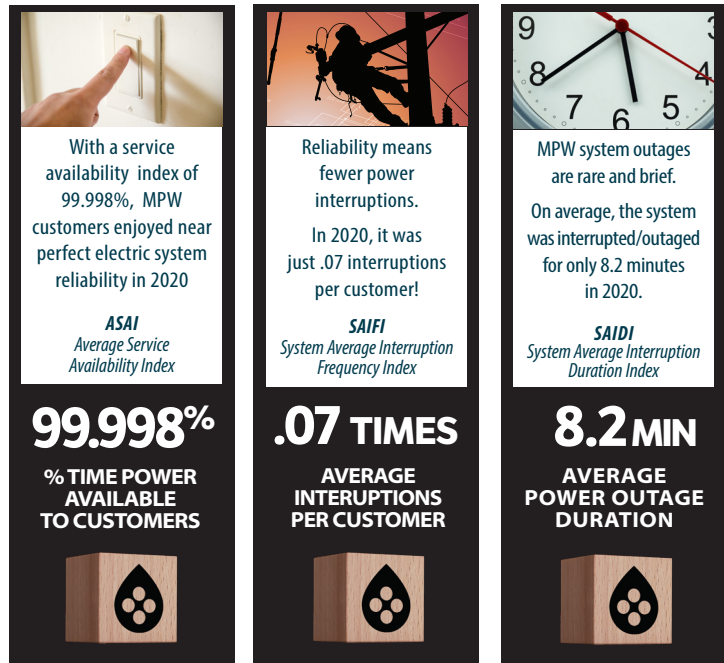


Planning Completed for New 161kV Transmission Line

Maintaining our award-winning reliability, despite continued changes in how power is generated and transmitted across the grid, is no accident. MPW partnered with Central Iowa Power Cooperative (CIPCO) in 2020 to jointly develop a new 161kV transmission line.

This new asset is a critical addition to our electric system. It provides a new path to the grid from the north, adding transmission redundancy.

Construction is set to begin in fall 2021 with anticipated completion in 2022. The new transmission line ensures reliability and voltage support for our area — for customers of both MPW and CIPCO.



Calculated per Institute of Electrical and Electronics Engineers (IEEE) formulas.

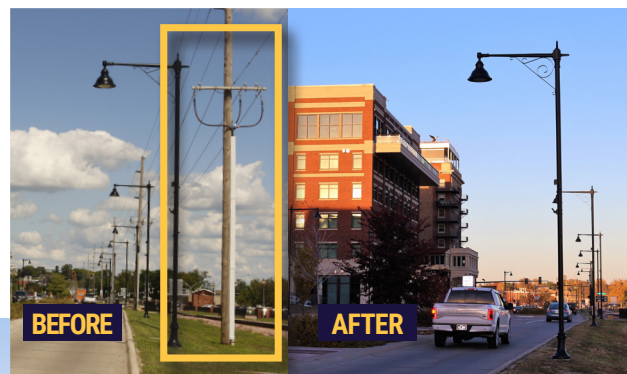
Collaborative Efforts Lead to Real Progress

MPW continued to push community betterment projects ahead in 2020.

The following projects exemplify MPW’s strong partnership with the City of Muscatine and our commitment to the betterment of our community. Although COVID-19 precautions turned many of our collaborations into electronic meetings, phone calls and emails, our perseverance led to successful completions.

Mississippi Drive Corridor Project –

In the final phase of this multi-year collaboration with the City of Muscatine, transmission/distribution lines and poles were removed along the riverfront, providing unobstructed views. With power and communications infrastructure securely underground, 11 poles were removed, enhancing the river views and aesthetics of the area.



MPW also participated in the successful completion of the Mulberry & 2nd Street roundabout; undergrounding more utility infrastructure, and joined in a community effort with Musco Sports Lighting to install event lighting, supporting riverfront activities.

Norbert Beckey Bridge Lighting — Musco also developed and installed a new lighting system for the Beckey bridge to replace the original system damaged during the bridge repainting. As before, MPW programs the light shows and takes public requests for specific themed displays.

Our community’s unique lighted features truly make Muscatine a ‘must-see’. MPW is proud to provide the power and to collaborate with the City and citizens.



PHOTO BY: MARK WASHBURN



West Hill Sewer Separation – This multi-year collaboration with the City of Muscatine provides MPW an opportunity to evaluate and replace aging valves, hydrants, and water mains as needed, while the streets are excavated for sewer work. Lead or galvanized service lines are also replaced as needed.

Derecho: Expecting the Unexpected

We learned a new word in 2020 — Derecho, but regardless of its name, MPW was prepared.

No stranger to storm response, Utility crews restored power to over 3,600 customers affected by downed lines, uprooted trees and high winds.

Preparedness is the keystone of reliable utility service delivery and all the advanced planning and training along with our team members’ skill and commitment, led to quick restoration within hours, not days.



The Electric Vehicle Era Begins

Leading by example, the Utility added its first electric vehicle, a Chevy Bolt, dubbed EV-1 or ‘Evie’, to the fleet. The purchase signaled the beginning of a new era of programs designed to support and encourage EV ownership and ready the community as electric vehicle adoption continues to grow. Mid-year, a Level II public charging station was installed at the MPW offices at 3205 Cedar Street. MPW’s EV strategy was developed with the guidance of our Electric Vehicle Stakeholder Group which helped develop an EV rebate program including a \$1,500 Early Adopter rebate for new Electric Vehicles.



LEARN MORE ONLINE

Scan QR Code to view MPW’s EV Playlist including episodes 1, 2 & 3 of EV Riders and Fireside Chat Ep. 20-01 on the topic of Electric Vehicles.





A Towering Achievement

In 2019, Muscatine and friends worldwide helped MPW win the “It’s in the Water” hometown pride contest, sponsored by the Iowa Finance Authority (IFA). The first prize of the contest provided funds to place a unique design on the water tower by artist, Laura Palmer.

After 20+ years of service, the water tower was scheduled for refurbishing in 2020 to extend its useful life. All spring and summer, citizens and passersby on the US 61 bypass watched the daily progress as the tower was first sandblasted, then repainted inside and out.

Palmer’s design added the finishing touch and State officials joined local dignitaries for the official dedication in August. Still to come, our friends at Musco will add color LED lighting to make one of Muscatine’s most iconic structures visible around the clock.

	<h1>10.4B</h1> <p>GALLONS OF WATER ANNUALLY</p>		<p>MPW water has been plentiful, reliable and great-tasting for over 120 years.</p> <p>At the rate of 28.5 million gallons per day, 2020’s total was 10.4 billion gallons.</p>
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Powering the Future

One of the most significant projects of 2020 was the completion of a power supply study. Such studies help utilities plan for the future and stay in-step with industry best practices — benefiting our customers.



While the study recommendations are still being vetted, the direction is clear – MPW will expand its portfolio of renewables and has set aggressive targets for carbon emission reduction. A 30 MW, utility-scale solar farm is currently being investigated. We will evaluate the economics of a new gas-fired Combined Heat & Power (CHP) resource and begin planning the retirement of coal-fired Units 7, 8 and 8A in 2023, and Unit 9 by the end of the decade.



This transition will allow for customer choice, by providing increased opportunities to participate in the Choose Green Muscatine program, while keeping rates as low as possible for all residents.

Super Sub Gets Some TLC

Oregon St. Substation, which carries 25.2% of MPW’s annual electric load went through a major replacement of breakers and switches back near the beginning of the pandemic. Using social distancing when possible and PPE, the project went as planned with no incidents or power interruptions.





MISSION

We will competitively meet the needs and expectations of our customers with an environmentally responsible and unique mix of services for the direct benefit of our community.

Fiber Conversions Hit 96% by EOY

Fiber optics have been part of MPW's communications infrastructure for 20+ years. By the end of 2020, nearly every home and businesses served was connected via fiber from our Network Operations Center all the way to their individual address.

Connectivity leads to growth, development and quality of life. With Fiber to the Home, our customers' options are virtually unlimited with a scalable network ready to serve their needs for the next generation.



Keeping Up with Bandwidth Demand

Internet bandwidth demands have shown steady growth for years. In February 2020, MPW added a 4th bandwidth path to provide more reliability and increase overall bandwidth from 30 GB to 40 GB.

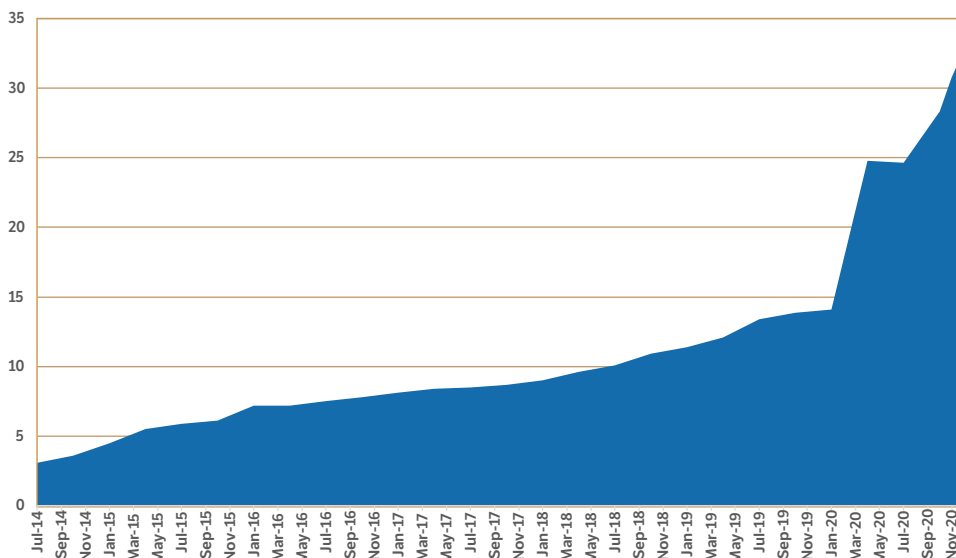
Server infrastructure was upgraded, adding more capacity for our corporate and ISP networks.

Then, COVID hit. As you can see, we experienced a 66% increase in bandwidth usage in 2nd quarter when workers and students went remote.

Throughout the year, our team worked on balancing the load on our internal network and planning for an increase in external bandwidth.

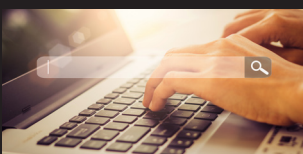
In Q1 2021, another 100 GB bandwidth path will be added in anticipation of ever-increasing demand.

Average Bandwidth Usage (Gb)



99.959%

TIME INTERNET
AVAILABLE TO CUSTOMERS



With system availability of 99.959%, MPW customers enjoyed near perfect Internet connectivity in 2020. The TV system was similarly reliable.



BE CUSTOMER-DRIVEN
CUSTOMER SERVICE

BE ABLE & ACCOUNTABLE
EMPLOYEES

BE PROACTIVE & ENGAGED
ENVIRONMENTAL STEWARDSHIP

BE EFFICIENT & STABLE
FINANCIAL STABILITY

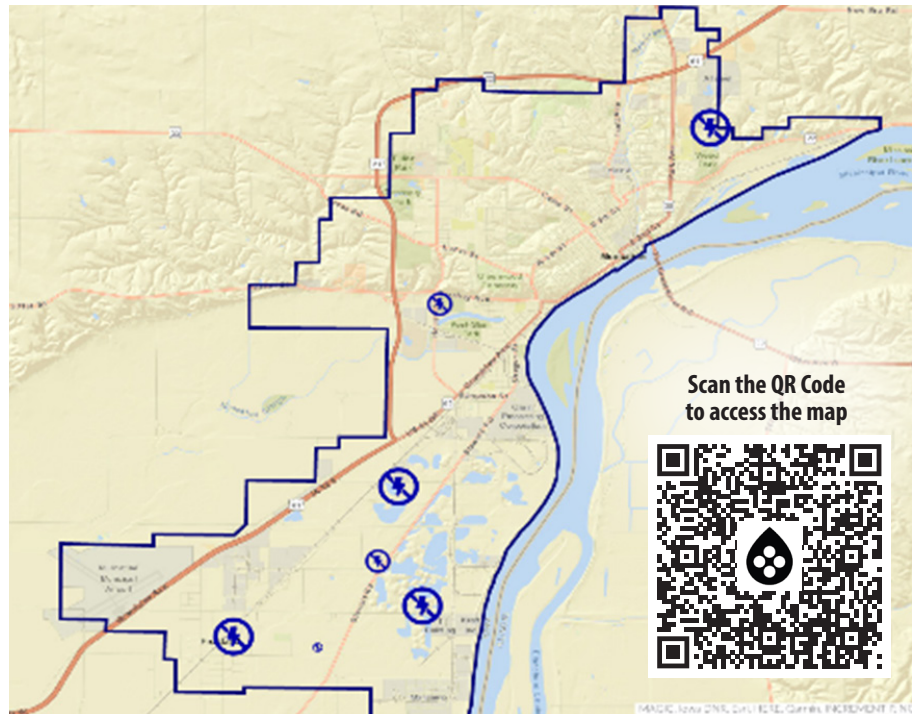
BE RELIABLE & PREPARED
RELIABILITY

BE COMMITTED TO SAFETY
SAFETY

New Interactive Map

In late 2020, MPW launched an improved public-facing electric outage map on mpw.org, giving customers real-time access to see if there is a power outage and how widespread it is.

Enhanced functionality allows customers to drill-down to street level to see the status of their neighborhood. Using the map may save customers time reporting outages MPW already knows about and frees phone lines for urgent calls like down or sparking lines. Customers may also report incidents directly from the page or by calling 263-2631.



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Strong Future.**



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Muscatine Power and Water
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