MPW

25 YEARS COMMUNICATIONS

100 YEARS ELECTRIC POWER

AND WATER SINCE 1900

DISCOVER MUSCATINE

Powering Muscatine for 100 Years

An MPW Retrospective

TOP 9 THINGS THAT MAKE A PUBLIC UTILITY SPECIAL

1 COMMUNITY OWNERSHIP

A municipal utility is owned by the customers it serves. It exists to provide a public service to the citizens, businesses, and industries of the community. Service, not profit, is the utility's mission.

2 LONG-TERM COMMUNITY GOAL

The emphasis for municipal utilities is helping to achieve the long-term goals of the community. The primary mission of providing the lowest-cost and most reliable service over maximizing profit ensures that these goals are always in sight.

3 LOCAL CONTROL

Because of local control, cities like Muscatine with municipal utilities determine how utility services are provided within their community. This includes the design and aesthetics of electric distribution systems, water treatment plants and water towers, wastewater treatment plants, and communications infrastructure. Local control means matching local resources to local needs and offering special programs (energy efficiency and conservation, economic development incentives, etc.) to benefit citizens.

4 LOCAL PRESENCE

Municipal utilities are located in the community and are readily available to customers. If a customer has a complaint, they don't have to take it to a state agency or a corporate headquarters in another city. The customer can discuss the problem locally, with another member of the community, and be assured that the problem will be addressed.

5 RELIABILITY

With electric, water, and communications crews located in the community, the community benefits from a quick and effective local response to emergency situations and outages.

6 THE PUBLIC INTEREST

A municipal utility is operated in the public interest, for the benefit of the residents of the community. They are not operated for the benefit of stockholders who may live hundreds of miles away and have little interest in the community.

7 KEEPING DOLLARS IN THE COMMUNITY

Local ownership means that customers' utility dollars stay in the community, creating jobs, and supporting the local economy. Municipal utilities serve as an engine for economic development. Local flexibility, reliability, and quality service offered by municipal utilities are a major advantage for the community in attracting and retaining commercial and industrial customers.

8 COMMUNITY VALUES

Decisions about the operation of a municipal utility are made locally, by members of the community, at open, public meetings. Because all decisions are made locally, a municipal utility is uniquely able to respond to the community's needs, build on the community's strengths, and reflect and advance the community's values.

9 INTEGRATED UTILITY SYSTEMS

In most cases, municipal utilities like MPW are integrated across many services. The efficiency of local utilities are enhanced through the sharing of personnel, equipment, and supplies across numerous utilities.

Your Reliable Neighbor. We've all heard it. I've called Muscatine my home for my entire life but admittedly, I didn't really get it. I've been lucky enough to have great neighbors throughout my life – those who borrow the cup of sugar, help with the lawn and snow, sit next to you in the tough times and celebrate with you in the best times kind of people.

Way back in 1979, there was a team of people I'll never know making sure Muscatine General Hospital absolutely had the power and water to make sure my arrival went smoothly. Throughout my younger years, that same team made sure Kent-Stein Park had lights for me to play baseball. They were there at my graduation, my first jobs, and when I started my family. They're also the same ones now teaching my son about electrical safety and connecting all of us and our devices to the rest of the world.

The scope of what it takes to provide that level of service is both breathtaking and easily taken for granted. It's taken generations of our Muscatine neighbors to make this happen. Over 100 years ago, the community had the insight to form a public utility with one overarching purpose – serve the people with clean, reliable water. 100 years ago, the community trusted them with electrifying Muscatine. 25 years ago, MPW opened the digital world with the communication utility.

Muscatine could never have done this with a private utility. Leadership is here. Operations is here. Customer service is here. When I call the help desk, I often talk to an elementary school friend. That means a lot in today's world where it is easy to disconnect. When there's a problem, there's no phone calls to a corporate headquarters two time zones away. There's a team of dedicated professionals, that may live right next door to you, working on the problem not just for a paycheck, but because their families live here too and we're all in this together.

100 years of success doesn't happen without a plan. It doesn't happen without

creating that plan with deep understanding of what the community is and what it will need to thrive in the future. It doesn't happen without creating a work environment that promotes mentorship, safety and caring for your neighbor.

I've been lucky enough to see further behind the curtain than most at MPW. I've been able to see not just the final results of a plan to power our future, but the tip of the iceberg of what it took to create that plan. Teams of people we all know deliberating on how to best serve Muscatine for the next 100 years, creating not just a plan, but a structure to make decisions in everyone's best interest. Reliability, affordability, flexibility and sustainability – what more could you want from those making sure your lights turn on every morning?

So, to all my reliable neighbors at MPW on behalf of the entire Muscatine community, thank you. You truly have been that neighbor you set out to be and Muscatine needs. I can only hope that we've been that same neighbor for you. Cheers to all of you and 100 more years.

Chris Anderson
President at Pearl City Media
Publisher of Discover Muscatine Newspaper

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IN THE BEGINNING

Originally founded in 1836 as Bloomington, IA, Muscatine's early years were inextricably linked to its abundant freshwater resources — the mighty Mississippi and the aquifer underlying the young community. Unknown to citizens at the time, the management of these resources would create the model for municipal utilities serving the city for years to come.

Early citizens of Muscatine took their water supply directly from the river. It wasn't until 1875, however, that a company was organized for the specific purpose of supplying Muscatine with water. The Muscatine Water Works Company, with **George W. Dillaway** as president, began operating on a 25-year franchise agreement from the city in the spring of 1876.

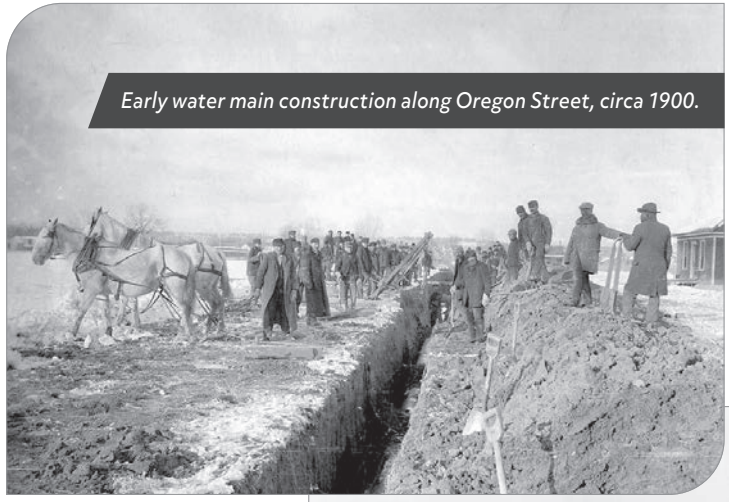
The expiration of the Muscatine Water Works Company's 25-year franchise in 1900 presented the city with a prickly problem. Consisting of 11 miles of mains, 125 hydrants, and a pumping station located on the waterfront just west of Chestnut Street, the company had never been a money maker. In addition to not being profitable, the steam engine at the pumping station sucked water directly out of the river without the benefit of a filtration system. Consequently, "disease and sickness held Muscatine in a dread grip," an early newspaper article reported. "There was little question but that impure water taken directly from the river without filtration was at least a large factor in the presence of sickness in the community."

> **"It was becoming clear that the city would have to look away from the Mississippi for its water supply."**

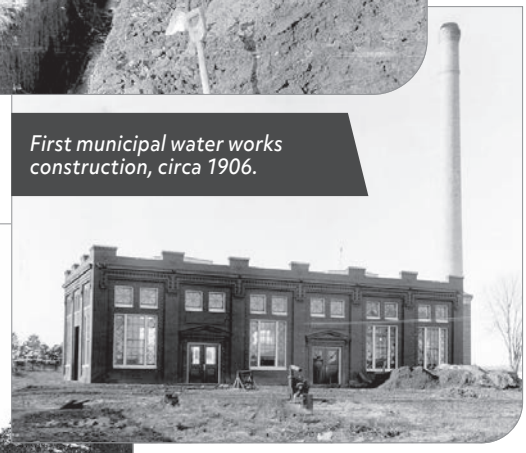
That June, the Muscatine City Council agreed to buy the water works from the private company for the sum of $100,000 at the end of 1900, pending a special election. The result was anticlimactic. The measure won hands down, 1,202 to 258. Men voted for the proposition 4-1; women were for the measure by nearly a 6-1 measure.

The mayor and council moved quickly to appoint a three-person board of trustees to oversee the operation of the water works. **William L. Roach**, **Sam Cohn**, and **T.R. Fitzgerald** held an organizational meeting on September 19, 1900 in preparation for the formal transfer of the property in December.

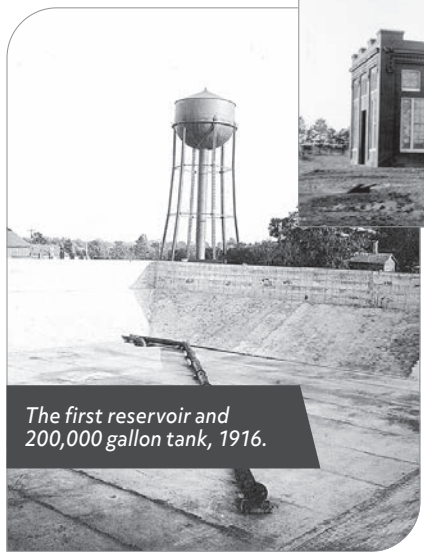
Roach, Fitzgerald, and Cohn were all well-known in the Muscatine business community. William LeRoy Roach, the first president of the board of trustees, was a 38-year-old native of Muscatine and in 1900 was president and general manager of the Roach and Musser Sash and Door Company. Thomas Rodney Fitzgerald was a prominent attorney and real estate investor in Muscatine. Samuel Cohn rounded out the trio. With his brother, **Lewis Cohn**, he ran one of the city's most prominent mercantile establishments, and had experience with the waterworks, having served on the board of directors of the private company for a number of years prior to the 1900 municipalization.



Early water main construction along Oregon Street, circa 1900.

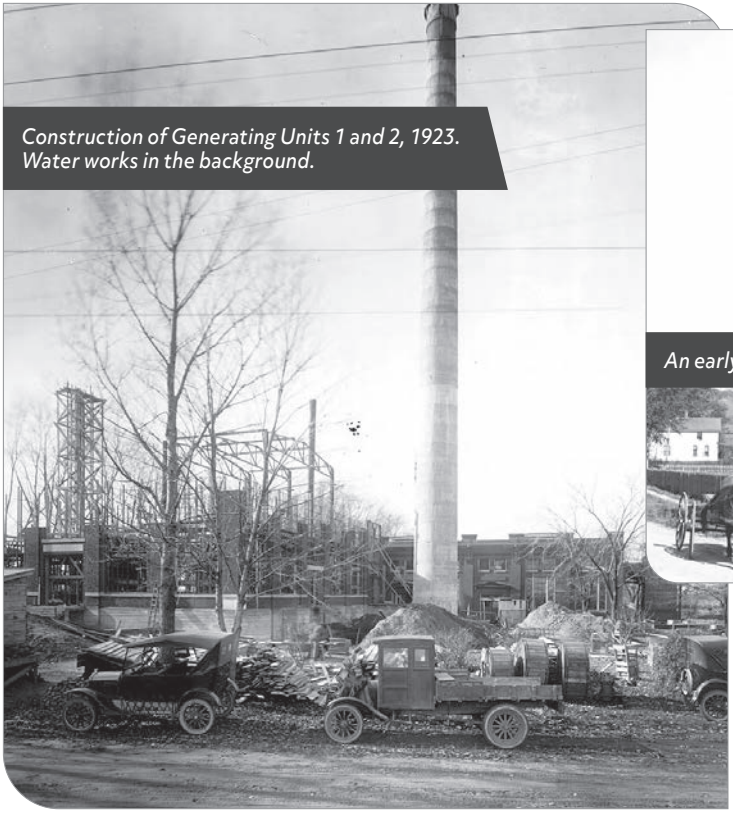


First municipal water works construction, circa 1906.

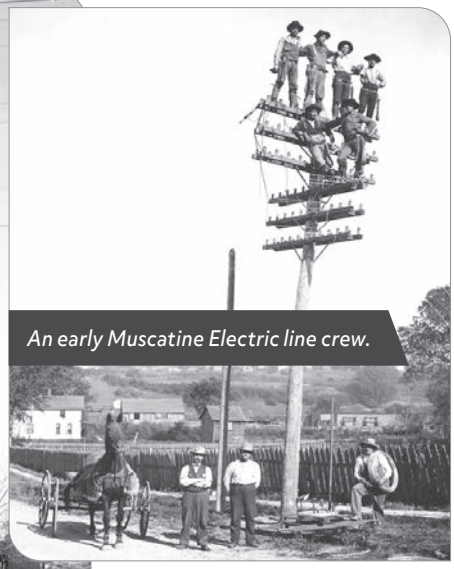


The first reservoir and 200,000 gallon tank, 1916.

The three trustees faced their first crisis in December 1901 when Muscatine County advertised the water works for sale for unpaid taxes. City attorney **J.F. Devitt** advised that the county could try to collect back taxes from the former stockholders of the Muscatine Water Works Company, but that, "is a matter with which, as city officials, we have nothing to do." The matter of back taxes was settled amicably, but the problem of a safe, potable water supply remained. It was becoming clear that the city would have to look away from the Mississippi for its water supply. After much research, the board of trustees voted in 1904 to create a wellfield on Muscatine Island and build a new pumping station. After a bond measure passed overwhelmingly, work on the new wellfield and pumping station began almost immediately. Almost two years later, the board of trustees dedicated the new pumping station, ushering in a new era of municipal water service for Muscatine and creating a model for the future. ●



Construction of Generating Units 1 and 2, 1923. Water works in the background.



An early Muscatine Electric line crew.

FROM WATER TO ELECTRICITY

In 15 years' time, Muscatine's municipal waterworks had paid for itself. The $100,00 bond issued in 1900 was retired, leaving only $25,000 owed on the 1904 water works building. The water franchise was valued at approximately $500,000, five times what it was worth in 1905. The water system has provided the citizens of Muscatine with good quality water since its inception.

In 1911, the Board of Public Works bought six acres north of Lucas Street between Cook Street and Kindler Avenue. The following year, they erected a 200,000 gallon steel tower and tank on the site. The 1916 improvements to the public works department included two miles of new pipe and placing fire hydrants in alleys throughout the town. The plan was to place additional fountains along the streets and another horse trough downtown.

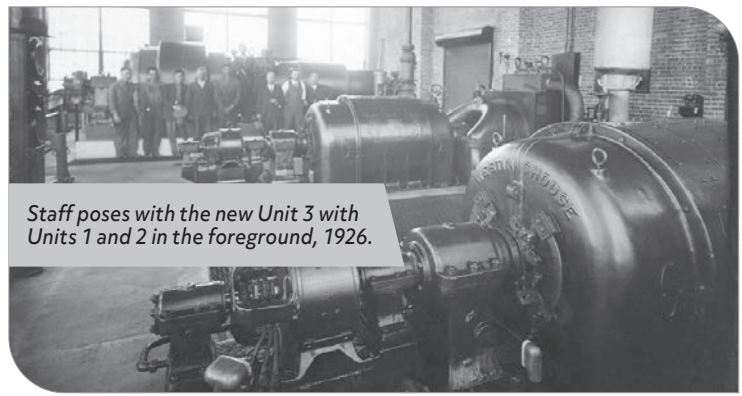
The Citizens' Electric Company of Muscatine had started in the city in the summer of 1890. The company installed an electrical power plant on Front Street and had begun supplying electric lights to residences and businesses in the central district by June. The Citizens' Electric Co. was owned locally but controlled by private shareholders in the Quad Cities. By the time of WWI, Citizens' had undergone a number of ownership and name changes and was then known as the Muscatine Lighting Company. It was a subsidiary under United Light & Power Company, an Eastern Iowa Utility holdings company, servicing residential, commercial, and industrial load in Muscatine. Iowa Electric, a Cedar Rapids -based utility holdings company, controlled the electrical grid in Des Moines. Its lines ran to the north edge of Muscatine.

By early in the century, Iowa was solidly in the municipal utility camp. Poor service and concern about ownership of utilities typically led to a call for a municipal election. Fairfield became the first Iowa town to municipalize its electric services in 1882. By 1900, some 800 towns nationwide had municipal electric utilities, three-fourths of them in Iowa. By 1922, there were over 3,000 municipally owned utilities in the US.

Early in 1922, Muscatine voters, by a 2-1 margin, made their wishes known that Muscatine, too, would be better served by a city-owned light and power plant. **Arthur L. Mulgren** of Kansas City, Missouri designed the first municipal lighting plant. The adopted proposal included building the plant in the rear of Water Works Park on Muscatine Island. Construction of Units 1 and 2 began in March 1923 and continued throughout the summer and fall of 1923 and into the winter of 1924.

On June 1, 1924, the Board of Electric Trustee's announced that they would begin providing electricity to the city of Muscatine. The first customer to receive electricity was **Joseph B. Miller**, who received meter number one.

In December 1925, the board proposed an additional bond issue to add Unit 3 — a third generator with a capacity of 1,500 kilowatts (kW) — double the output of the original two 750 kW generators. The bond issue passed by a wide margin, highlighting Muscatine residents' happiness with their municipal utility operations. ●



Staff poses with the new Unit 3 with Units 1 and 2 in the foreground, 1926.

Offices at 3rd and Sycamore, Christmas 1930.

Electric line crew, 1938.

Water & Light sold appliances all through the Depression and for many years thereafter.

DEALING WITH THE DEPRESSION

In 1928, United Light & Power sold its distribution system to the then Muscatine Electric Light Board. Before 1929, the Muscatine water and electric utilities operated as separate entities. That year, the Iowa legislature passed legislation allowing the two utilities to merge as Muscatine Water and Light under a five-member board of light and water trustees.

> **Forward thinking even in the worst of times...**

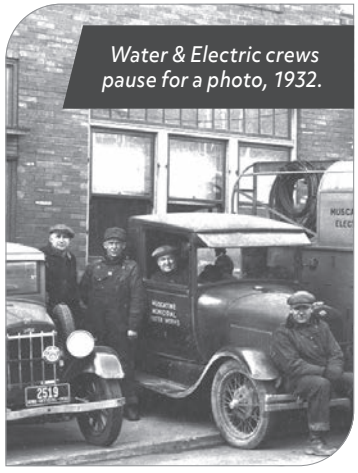
Despite the Great Depression ravaging Iowa and the nation, Muscatine Water and Light continued to develop solid financial performances during the 1930s. Receipts stayed healthy throughout the period. An irony of the electric power business during the Great Depression is that electric power consumption continued to grow. Those industries remaining in business converted to electricity for their manufacturing processes, and people with jobs bought electric stoves, refrigerators, and washing machines.

From 1930 to 1933, electric light and power income averaged $250,000 a year and generated an average of 11.5 million kilowatt hours (kWh) per year. The trustees saw to it that the money was invested back into the community. In November 1935, the board agreed to transfer $42,000 from its surplus to retire principal and interest on the 1929 sewer bonds, on which the city was perilously close to defaulting. Throughout the period, the municipal utility provided free street lighting and maintenance to the city.

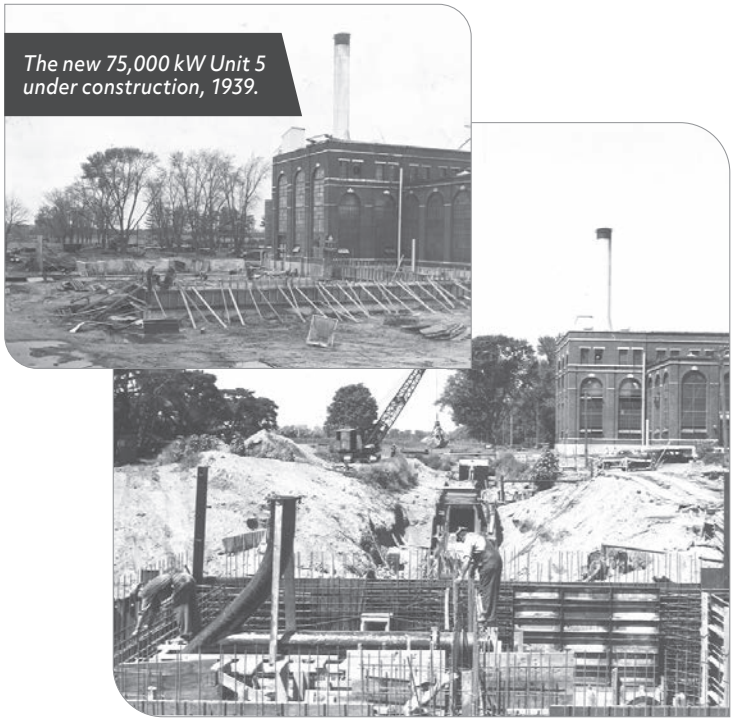
The utility was able to finance the construction of Unit 4 — a 5,000 kW addition to its power plant — in 1930 without raising rates. Understanding the Depression's impact on customers, the board lowered rates by an average of 15% in 1931. Five years later, the rates dropped again, this time to six cents per kWh for the first 25 kWh and two cents per kWh for electricity consumed above the minimum.

Forward thinking even in the worst of times, Muscatine Water and Light erected two 1.5-million-gallon reservoirs at its West Hill site in 1935 and named them in honor of **William Molis**, the long-time water superintendent. Electric superintendent **Jake Tuttle** resigned that year, and the board hired **W.R. Thorson** of Kansas City, Missouri. Thorson had worked on Muscatine's power plant construction in 1925 and, 10 years later, was charged with undergrounding electric lines in the downtown area and building a new substation at Second and Pine.

Toward the end of the decade, Muscatine Water and Light had come through the Depression with flying colors. The challenges, however, were far from over. ●



Water & Electric crews pause for a photo, 1932.



The new 75,000 kW Unit 5 under construction, 1939.

Carpenters frame the foundation for Unit 5.

WWII: THE BIG WAR

In 1940, Muscatine Water and Light doubled the capacity of its electric plant with the addition of a new boiler and generator — Unit 5. It was the third time the utility had doubled its output in less than 15 years. The brick and steel addition to house the new equipment measured 128 by 87 feet, and its roofline was equivalent to a seven-story building! The Public Works Administration, a Depression-era agency designed to get the nation back on its feet, subsidized 45% of the cost of the new addition. Another Roosevelt-era economic development agency, the Works Project Administration, footed the entire $14,000 cost of building a new water pump housed at the Lucas Street reservoir.

Through the Depression and in the years leading up to World War II, Muscatine Water and Light did not have work for all its employees, but rather than laying anyone off, it served as a clearinghouse for employment information.

Although the utility had doubled capacity at its electric plant twice before, the situation in 1940 was different. During World War II, the need for electrical energy increased by leaps and bounds. In July 1939, the electric utility served a peak load of 3,724 kilowatts (kW). The maximum load reached in 1941 was 6,472 kw, and on one afternoon in 1942, it was 7,049 kW.

Electric power production was an essential part of the nation's defense plans. In September 1940, Muscatine Water and Light was asked to send delegates to the National Power Policy Committee meeting. The purpose of the meeting was to ensure an, "adequate and dependable supply of energy for national defense."

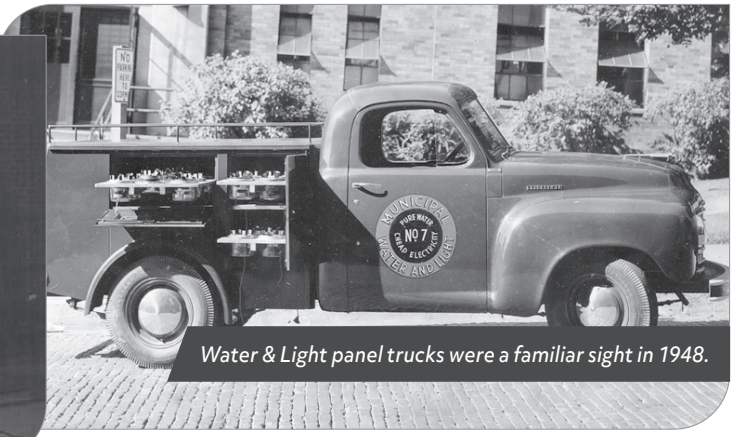
Encountering another legacy of the New Deal, in 1941, workers at Water and Light petitioned to organize a labor union. Local 240 of the International Brotherhood of Electrical Workers negotiated with the board of water and light. Most of the employees received 10% pay increases. Vacation and sick leave issues were settled, and a contract was signed in October. The attack on Pearl Harbor on December 7, 1941 prompted utilities across the nation to be on alert. The board asked the plant operator to keep doors locked and install floodlighting. In January 1942, a full-time guard was hired for the power plant. Manpower was in short supply; lineman **Seward Hathaway** was "loaned out" to work on the construction of a US Army hospital, and substation operators **Robert Moore** and **Ralph Zybarth** left for the US Army and US Navy respectively. Replacements were hard to find; vacations were curtailed.

By 1942, copper was almost impossible to find and wooden poles hard to locate. Fuel rationing meant meter reading and service work were sometimes hampered.

Kilowatt-hour (kWh) sales rose dramatically since the late 1930s. One of the main reasons for the increase was the establishment of defense industries in Muscatine. However, a planned generation expansion would have to be put off until after the war. The war years were a time of "make-do" for Muscatine Water and Light.

The regular meeting of the board of water and light trustees on August 14, 1945, was shorter than expected. The war was over. There was a celebration to attend and work to do! ●

The boiler room crew, circa 1947.



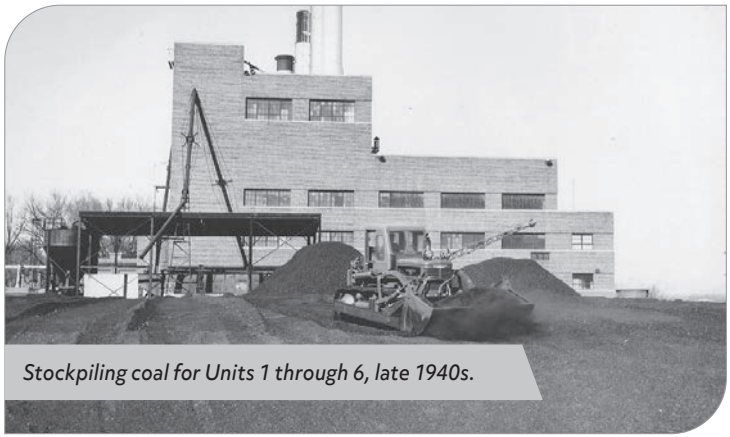
Water & Light panel trucks were a familiar sight in 1948.

THE POST WAR BOOM

Returning veterans were greeted with good news in the fall of 1945. After discussing the matter in October and November, the board of water and light trustees voted unanimously to establish a pension and annuity retirement system and a health insurance plan for municipal utility employees. Although hard-pressed for workforce and materials, the utility had come through the war years in good shape.

Muscatine Water and Light reported record sales for the period. The electric department rapidly outstripped the more stable sales of the water department during the war years. In 1941, Water and Light had reported sales of just under $400,000 for electric power; four years later, the annual electric sales figure had climbed to $575,000. The utility could afford to be generous.

During the war, it had adopted a policy of forgiving the December bills of all customers as a Christmas refund. In 1945, the board transferred nearly $31,000 to the city's general fund for the purchase of two new fire engines and continued its free electric service for streetlights, public buildings, and traffic controls.



Stockpiling coal for Units 1 through 6, late 1940s.

Other than current accounts, Muscatine Water and Light had no debt to speak of at war's end. A large cash balance and portfolio of government bonds had been amassed for financing significant improvements, and improvements needed to be made.

> **A large cash balance and portfolio of government bonds had been amassed for financing significant improvements.**

The difficulty of acquiring iron pipes during the war necessitated halting the upgrading of the water system on the city's west side. In October 1945, the board authorized the construction of a 16-inch main tying together the Muscatine Island Wellfield and the West Hill Reservoir. In addition, two new 20-inch wells were completed in 1946.

Pent-up demand for electric service created a boom in kilowatt-hour (kWh) sales in the post-war period. The grain alcohol plant on Muscatine Island adjacent to the utility's power plant continued to expand during the postwar years. By 1947, the renamed Grain Processing Corporation was well on the way to becoming Muscatine Water and Light's largest single customer. Kilowatt-hour sales remained strong following the war, as industries converted to a civilian economy, and returning veterans, flush with accumulated savings, started families and businesses and bought homes and cars. On February 1, 1946, the board contracted to purchase a new boiler. By October, the board was able to order a new 12,500-kilowatt (kW) turbine generator for the plant. Water and Light costs for the new turbine generator were estimated at $345,000. Net earnings above $30,000 for the third straight year from the water works only added to the cash surplus. In 1948, Muscatine Water and Light issued $1 million in revenue bonds to pay for its post-war improvement program.

The new high-pressure boiler and turbine generator, Unit 6, went online in the fall of 1949, alleviating the critical shortage of electric power that had threatened to develop in Muscatine. One of the people who had worked hardest to make the new unit a reality wasn't around to witness his handiwork. Vernon Lear, Water and Light's first general manager for water and electric operations, left Muscatine in 1948. ●

THE FABULOUS FIFTIES

Muscatine Water and Light began the 1950s with a celebration of sorts. 1950 marked the utility's half-century mark in water service, and it was just 25 years since Water and Light had begun generating electric power from its first two small generators at the power plant on Muscatine Island.

Significant improvements would be made to the water system during this decade, including two new 1.5 million gallon reservoirs and an almost continuous project of replacing aging water mains and fire hydrants. Muscatine's electric system started the decade in good shape. The addition of 12,500 kilowatts (kW) of generation in late 1949 gave the utility a total peak capacity of 27,250 kW, which made the Muscatine power plant one of the largest in the state of Iowa. By 1952, the plant was generating 63.1 million kWh, a 225% increase in just 12 years.

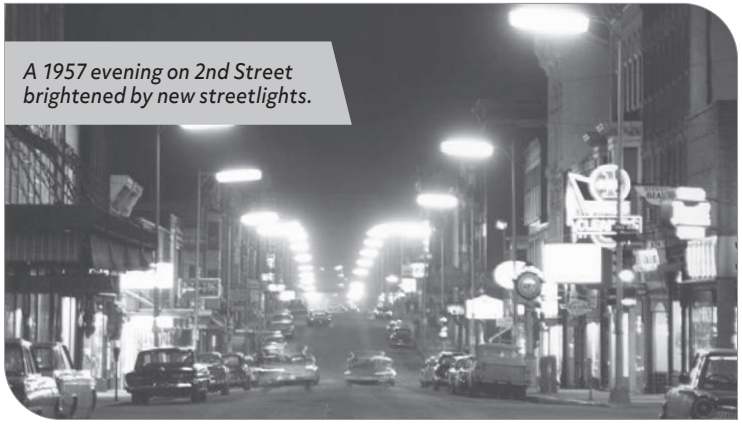
> **...which made the Muscatine power plant one of the largest in the state of Iowa.**

The board of trustees warned that the substation and transmission lines were again loaded to capacity. One idea that was taking hold among utility people in Iowa and the Midwest was the concept of interconnecting electric systems for economies of scale and reliability.

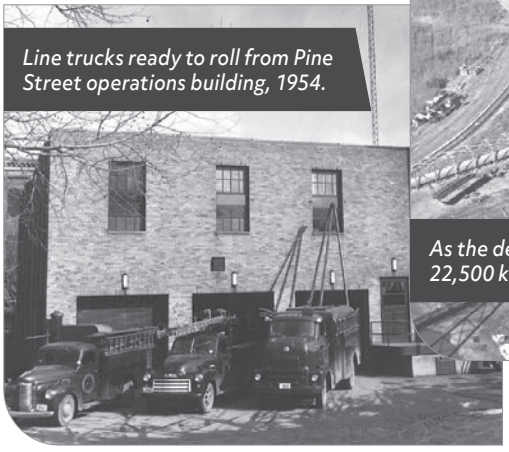
Muscatine Water and Light had been connected with the Eastern Iowa Light and Power Cooperative, its rural electric neighbor, since 1940. The Power shortage of the war years had forced Water and Light to cut back on its power supply sales to Eastern Iowa, but it later became feasible again. In the mid-1950s, Muscatine Water and Light signed an interchange agreement with Iowa-Illinois Gas and Electric Company, and later, Iowa utilities formed the Iowa Pool to interchange power among themselves. Late in the decade, Muscatine Water and Light embarked upon an ambitious program of expanding and upgrading its electric system. It contracted for its seventh generating unit in 1957, ordering a 25,000 kW unit, boiler, condenser, and coal handling equipment. With four other units still in operation in 1959, the new Unit 7 would nearly double the capacity of the Muscatine station. The groundwork for much of the physical expansion of the 1950s was laid by **J.W. "Andy" Andersen**, Water and Light's general manager from 1948 to 1958. A genial Nebraskan, he had come to Muscatine from a public power district in Columbus, Nebraska. In June 1958, the trustees issued $4.25 million revenue bonds to pay for the new unit and other improvements. All but $100,000 of previous bond issues had been retired when the new bond issue was floated, a measure of Muscatine Water and Light's continuing financial strength through the decade.

Other improvements planned for the late 1950s included new substations to relieve the overload on the system's primary substation at Second and Pine Streets. One substation would take care of growing demands on the distribution system in the West Hill and North Mulberry areas, and another would be located on Ninth Street and Fillmore to accommodate the growing electric demands in the East Hill neighborhood.

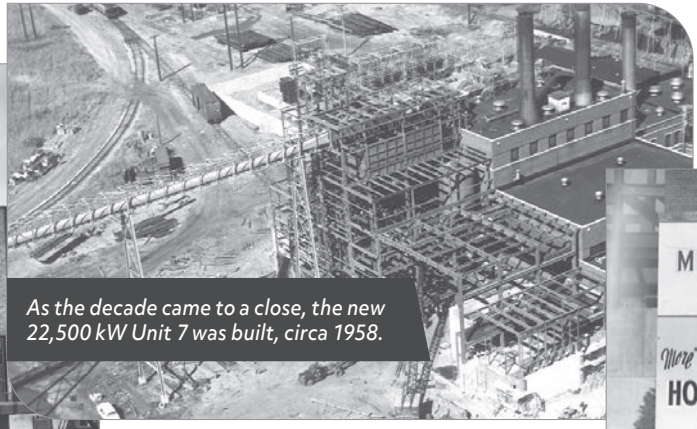
One final project was undertaken in the 1950s. In 1959 and 1960, Water and Light paid close to $500,000 to replace obsolete boulevard streetlights and traffic lights in the central business district and to install 400-watt (W) mercury vapor streetlights on the city's highway thoroughfares. Muscatine Water and Light was lighting the way for its hometown. ●



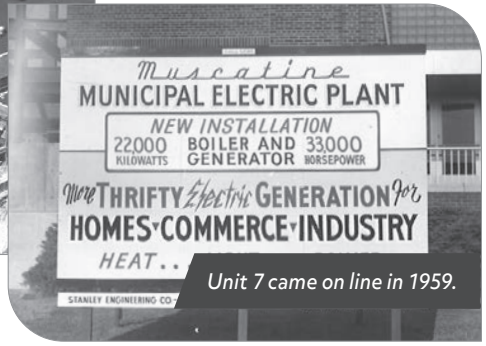
A 1957 evening on 2nd Street brightened by new streetlights.



Line trucks ready to roll from Pine Street operations building, 1954.



As the decade came to a close, the new 22,500 kW Unit 7 was built, circa 1958.



Unit 7 came on line in 1959.

IN THE FIELD. BEHIND THE SCENES. AROUND THE CLOCK.

Making the steam that drives the turbine that turns the generator. Unit 8 boiler, 2002.

Operator tends to generation Unit 7, 2004.

Teardown of the grating track in Unit's 8 boiler, 2006.

And this is what Unit 9 looks like on the inside, 2009.

Generation crew removes the steam turbine shaft during Unit 9 teardown in 2011.

Before he was general manager, Gage Huston autographs a blade for MPW's first wind turbine, 2015.

Operating a power generator takes constant attention. Operator takes meter readings at Unit 9, 2016.

Generation staff assemble for a rare group photo in the unit 9 Control Room, 2018.

"Big Blue" against a blue sky. Typically running 24/7 – a rare shot of Unit 9 at rest.

Since our beginning, MPW has provided essential services to the city and its citizens 24/7/365. Great reliability is no accident. Our well-trained and dedicated men and women work every day to ensure that your power, water and communications services are available for you.

Getting ready to receive TV signals for the new MPW Cable, 1998.

Water distribution operators preparing a site for a water main repair.

Water crew installs a new valve in a water main.

Twice a year, MPW flushes all 1400 of our fire hydrants to clear the mains and maintain fire protection.

MPW linemen work to restore power after a tornado that swept through Muscatine in May 2017.

Installing MPW's 100% fiber-optic network , 2017.

Line crews in full climbing gear, 2018.

After a storm, crews remove broken trunks and limbs to restore power.

Ryan Streck (left) and Gage Huston (right) give perspective to the size of one of the steel poles carrying Transmission Line 106, 2021.

POWERING THE FUTURE

OUR STRATEGY FOR A CLEANER FUTURE

For decades, Muscatine Power and Water (MPW) has provided reliable energy to power our community's growth and prosperity. We are as committed today as we were 100 years ago to meeting the needs and expectations of our customers.

Our record of dedicated service extends beyond providing essential services. It is also reflected in the responsible and respectful treatment of our local natural resources. As we look to our future, MPW's promise to customers continues to be reliable, cost-effective, and environmentally responsible services for the direct benefit of our community. In our Strategic Plan, **MPW has set goals to reduce carbon emissions associated with local electric generation by at least 25% before 2024 and 65% by 2030** through the expansion of renewable energy sources and other changes in it's power supply mix.

These bold targets are not the easy path. But, at MPW, we strive to do what is needed for our community – no matter how difficult the task.

Reliability

- MPW's award winning reliability must continue
- An expectation on which our customers have come to rely

Affordability

- Long history of rates below state and national averages
- Rates directly impact households and business operations

Flexibility

- Electric industry undergoing significant changes
- A flexible supply will be vital in adapting to these changes

Sustainability

- MPW considers the impact our operation has on the environment
- Air quality, water usage, and climate impacts are factors

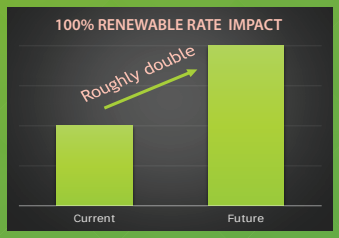
✓ **Powering the Future is slated to reduce carbon emissions by 65% by 2028 through a diverse means of production, including renewable sources and natural gas-generation**

✓ **Powering the Future was strategically designed to serve a community of Muscatine's size and stature**

✓ **Powering the Future will continue MPW's 100-year tradition of reliable, affordable, and efficient service for all customers**

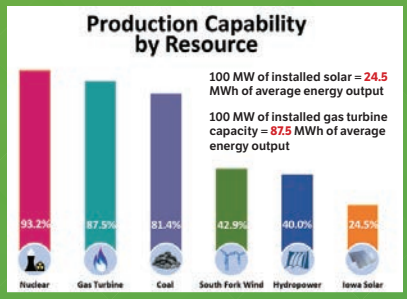
A BALANCED APPROACH

Why not 100% renewable?



SOLAR RESOURCES CAPABLE OF HANDLING DAILY LOAD PLUS BATTERIES SUFFICIENT FOR 14 HOURS WOULD COST **OVER $1.5 BILLION AND RAISE RATES ROUGHLY TWOFOLD!**

Not all megawatts are the same!



DIVERSIFICATION: the key to wise power planning

The benefits are in the balance

Reliability

- Maintain a local, dispatchable resource
- Replace final coal-fired unit with smaller, highly efficient combined heat and power (CHP) unit

Affordability

- Transition with modest annual rate adjustments

Flexibility

- Preserve options for ongoing portfolio diversification
- Support customer-owned renewable adoption

Sustainability

- Grow renewables with local solar
- Reduce carbon and air emissions and reduce water usage.

Our balance of gas-fired local generation, our own renewables, and market purchases will ensure the flexibility and efficiency to maintain reliability without drastic increases in rates

SCAN THE QR CODE TO LEARN MORE

mpw.org/powering-the-future
Detailed information, videos, FAQ and more

NEIGHBORS SERVING NEIGHBORS

It's part of growing up in Muscatine. Each year Muskie 4th graders learn about energy efficiency and conservation and participate in an MPW poster contest that shows what they learned. They also get to take their first power plant tour and learn how power is made safely. One of the favorite stops on the tour is one of our massive bulldozers.

Each year, MPW linemen bring holiday spirit with downtown Christmas decorations.

Mr. Sparky (the little guy on the end of the stick) helps kids learn about electric safety, Y Block Party, 2013.

Flag raising at Walnut and Second during the filming of Fireball Run, 2017.

Staff volunteers pause for a moment just before the arrival of hundreds of visitors at Customer Appreciation Day, 2022.

Utility employees are active volunteers in organizations throughout the community and contribute to its betterment and quality of life. In everything we do, MPW is working to make Muscatine the best place to live, play, work, and stay.

Kent Stein Baseball and Soccer Complex looking west, 2005.

Aerial photo of MPW's Administration/ Operations building and grounds.

Mississippi Drive shines with period-style streetlights and a backlit downtown district marker.

MPW Truck at the Muscatine 4th of July Parade at instersection of 2nd and Walnut, 2018.

Muscatine's famous "Clammer" looks on at the lit up downtown area, July 4, 2019.

The Norbert Beckey Bridge is illuminate nightly due to a joint effort by MPW and Musco Lighting.

A crew installs solar panels on the front lawn of MPW headquarters.

MPW's Administration/Operations building, 2019.

MPW's lighted truck was one of the favorite stops for attendees of the Jingle and Mingle holiday stroll, 2021.

POWERING PROGRESS: THE BUILDING OF UNIT 8

Even though consumers were enjoying low rates, demand kept increasing. A 1962 long-range plan commissioned by the utility estimated that Muscatine Water and Light would need to make additional improvements in transmission lines, substations, and distribution equipment during the 1960s at an estimated cost of more than $2 million.

Two things were driving the increase in demand during the 1960s. Summer electric peaks, in particular, continued to grow during the 1950s and 1960s, driven in part by the growth of home and business air conditioning. The second reason for the rapid increase in electric power demand in the 1960s had to do with the continuing economic diversification in Muscatine. What had been a sleepy river town in the years before World War II, dreaming of its once vibrant pearl button industry, had become an industrial dynamo by the mid-1960s.

In 1964, for the first time in its history, the utility reported half of its operating revenues came from the primary power category–in essence, sales to industrial electric customers. Typical of the industrial resurgence in Muscatine was the rapid growth of HON Industries. Started in an abandoned pearl button factory as the Home-O-Nize Corporation at the end of World War II, HON originally started designing and making kitchen cabinets. By the late 1960s, the firm had become one of the primary manufacturers of steel office furniture in the United States. Other new and expanding major industrial customers included Grain Processing Corporation and its subsidiaries, Kent Feeds Inc. and Americana Seeds Inc., Bandag Inc., Monsanto, Heinz USA/StarKist, and Prime Mover.

> **In 1964...half of its operating revenues came from...sales to industrial electric customers.**

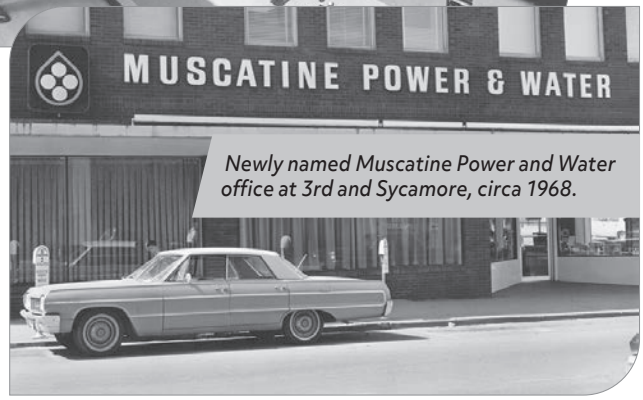
By mid-decade, it was becoming obvious that the 1962 10-year study had underestimated the growth in electric power demand. In 1967, the board of trustees approved the construction of what would become known as Unit 8.

The new 66,000-kilowatt (kW) turbo-generator doubled capacity of the Muscatine plant for the sixth time in the utility's history, and from the time that the first contracts were signed until Unit 8 went online in December 1969, little more than three years elapsed.

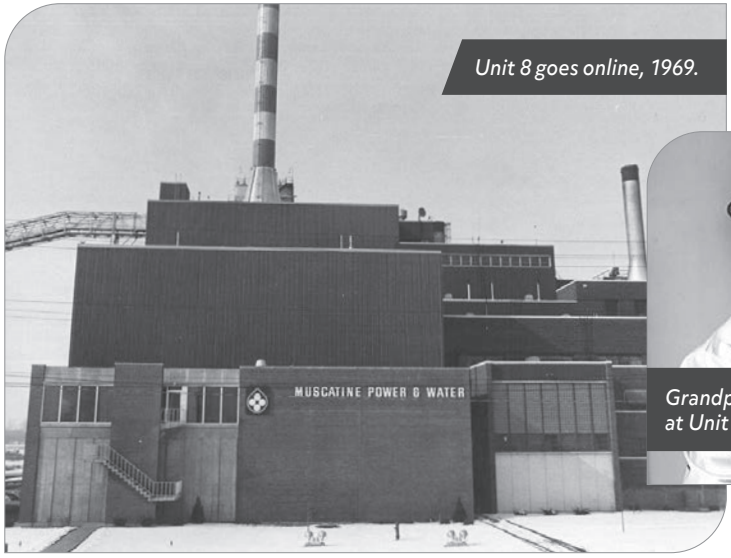
By the time the new plant went online, the utility also had a new name. It was changed to Muscatine Power and Water (MPW) in 1967.

The power plant expansion was accompanied by a real strengthening of MPW's transmission system. Included in the plans was construction of a 161,000-volt (V) transmission line to connect with Iowa-Illinois Gas and Electric Company at Kilpeck Landing. The utility also increased its power interchange capability with its old neighbor, the Eastern Iowa Light and Power Cooperative. ●

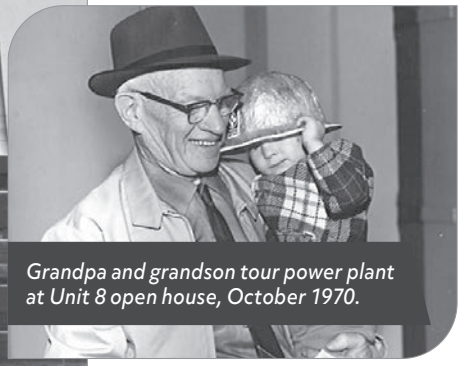
System operator in Unit 7 Control Room, 1960s.



Newly named Muscatine Power and Water office at 3rd and Sycamore, circa 1968.



Unit 8 goes online, 1969.



Grandpa and grandson tour power plant at Unit 8 open house, October 1970.

The November 25, 1973 fire accelerated the Utility's move to Cedar Street.

Aerial of the new Administration/ Operations (AO) building, circa 1975.

THE HARD YEARS OF THE 1970s

For Muscatine Power and Water (MPW), the 1970s began with a gala celebration, open house, and dedication of its Unit 8 during the first week of October 1970. The festivities masked one important aspect that would mark the 1970s for electric utility management; electricity was becoming more expensive to produce.

Four factors were at work in 1970 that would greatly affect the cost of electric power in the decade ahead. Interest rates had reached a cyclical peak by the early 1970s. Then, too, inflation was on the rise. In December 1970, general manager Jim Fuller informed the board that he had concluded negotiations with IBEW Local 240. Fuller asked the board to ratify a retroactive 8.1% wage increase for the union for the year. A third factor was the cost of fuel. Coal prices had been increasing steadily since the mid-1960s, accelerating in 1968 and 1969. Finally, environmental considerations were driving costs up. Passage of the National Environmental Policy Act of 1970 and the Water Pollution Control Act of 1972 all mandated strict new requirements for utilities and their coal-fired steam electric generating stations.

Fuel costs, interest rates, and inflation forced the board of water and light trustees to take the unprecedented step of raising electric rates in 1971. For nearly 50 years, since the city had built its first two generating units back in 1924, the cost of electric power had been declining in Muscatine. Still, even with the rate increase, MPW pointed out that the average annual kilowatt-hour (kWh) cost to a residential customer in the city was well below the national average.

On the water side, the utility used a lull in water consumption in 1970 and 1971 (caused primarily by lagging industrial sales) to beef up its water distribution system. MPW installed two new wells in its Progress Park field. Utility crews completed a 27,000-foot, 30-inch main from Progress Park into the city and also erected a new water treatment building at the Muscatine Island wellfield.

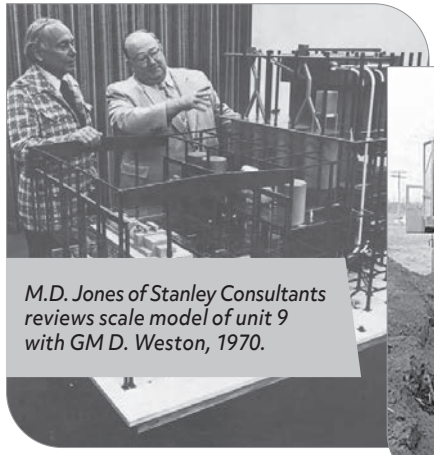
As early as 1972, utility officials met with their counterparts at the Muscatine engineering firm of Stanley Consultants to map out compliance with the growing body of environmental regulations. The plan ultimately called for the installation of an electrostatic precipitator on Unit 7, mechanical dust collectors for Units 5 and 6, and the erection of a new, 220-foot-high stack to serve the older three units still in service.

On November 25, 1973, a spectacular fire gutted the utility's general office building at Third and Sycamore. Plans were already in the works for a move to a new administrative and operations building on Cedar Street, but the fire accelerated the process. Initially built to house 70 employees, the new administration and operations center was designed to handle the utility's expansion for a five-year period.

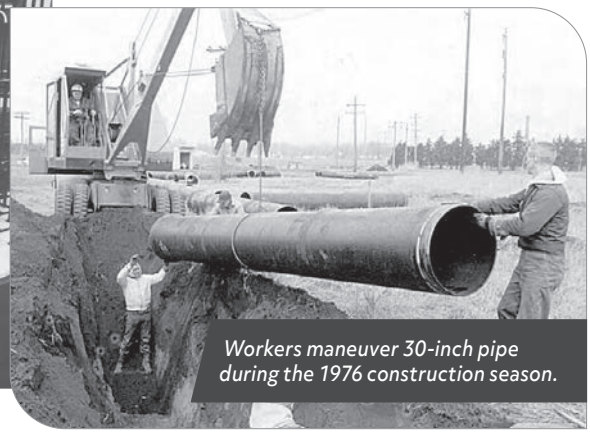
Another unexpected cost continued to be the sharp rise in the price of delivered coal. The utility eventually negotiated a price of $21.80 a ton for the period, some 250% higher than the cost of coal in 1970. Electric rates increased 10% in 1974 and another 7% in 1980.

Water rates, too, had to go up. The improvements made to the water system early in the 1970s were the beginning of a decade-long overhaul of the water system, including construction of a 30-inch water main from Highway 61 to the West Hill Reservoir and the pumping station, construction of a new water treatment building, and extension of a 12-inch main from Monroe Street to Weed Park Tower and on to Clay and Colorado Streets.

Even though the early 1970s had ushered in a painful period for many utilities, MPW continued to grow and prosper. it operated the largest municipal electric plant in Iowa, and both demand and energy sales had shown healthy increases in 1975. That continued growth would drive the biggest expansion in MPW's history. ●



M.D. Jones of Stanley Consultants reviews scale model of unit 9 with GM D. Weston, 1970.



Workers maneuver 30-inch pipe during the 1976 construction season.

INTO THE 80s: THE CONSTRUCTION OF UNIT 9

In 1974, Muscatine Power and Water's (MPW) long awaited power supply survey was released. Compiled by Stanley Consultants, the utility's longtime engineering firm, the survey projected a summer peak of 132,000 kilowatts (kW) by 1982, double the 67,000 kW peak reached in 1974. With a reserve margin of 15%, MPW would have to plan to have 152,000 kW at its disposal by 1982. Worse yet, the Stanley Consultants planners estimated MPW's peak would double again by 1992 to nearly 300,000 kW of demand and reserve margin.

Stanley presented the board with two options. MPW could build a 150,000-kW coal-fired unit addition at its power station by 1982, and then fill in with the construction of small, 25,000-kW gas turbine units in 1980, 1987, and 1992, or it could join utilities in the Iowa Pool in construction of a joint-owned nuclear generating station and fill in the gaps in demand with the construction of gas-turbine units.

Utilities from the Iowa Pool eventually built the Duane Arnold Nuclear Station under the management of Iowa Electric Light and Power, and MPW chose not to participate. With 125,000 kW of generation at the Muscatine Station, MPW felt more comfortable with adding generation.

Before the board had a chance to vote on the two options, however, it was presented with another alternative. Iowa-Illinois Gas and Electric announced its plans to build a joint venture, 650,000 kW, coal-fired stream electric station on the Mississippi River in Louisa County just south of Muscatine. The $417 million plant was expected to come online in 1983, and MPW was offered a 60,000-kW participation.

After further study of the matter, the MPW trustees elected to go ahead with construction of a 160,000 kW turbine generator at Muscatine Island. The new generator, which was immediately dubbed Unit 9, would more than double capacity at the 53-year-old power plant site. Estimated costs for the plant addition, transmission lines, substation additions, and system control operations were $165 million, and the plant was scheduled to begin construction in 1979 and be completed three years later. Key to the utility's plan was a 10-year contract for the sale of excess capacity to Iowa Electric.

> **Unit 9, would more than double capacity at the 53-year-old power plant site.**

MPW's generation and transmission capabilities qualified the utility for membership in the Mid-Continent Area Power Pool (MAPP). Formed in 1972, MAPP allowed upper Midwest utilities the opportunity to exchange power in an interconnected grid of transmission lines.

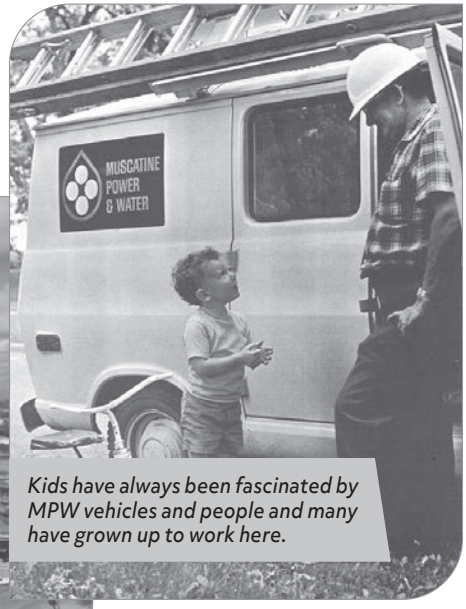
The economic reality of clean air laws dictated the new unit would have the most sophisticated pollution control equipment yet. MPW utilized Midwestern coal in its boilers, and the fuel had a comparatively high sulfur content of around 3%. The utility opted to include a flue gas desulfurization unit, commonly called a "scrubber," on Unit 9.

For a while in 1982, it appeared that the trustees of the MPW board had sadly miscalculated. Unit 9 was well along its way toward completion, but the 150,000 kW of electric power the new unit would provide didn't appear to be quite as necessary as they had just five years before. Demand began to drop off in the second half of 1981, and the slippage accelerated through 1982. Iowa and the Midwest were in the grip of one of the most severe recessions since World War II, and sales to MPW's industrial customers dropped 18 million kilowatt hours (kWh) during 1982. Water usage of five billion gallons was the lowest annual mark since the mid 1970s.

The recession evaporated as suddenly as it had come on. By May of 1983, when Unit 9 officially came online, business already had begun to rapidly recover. MPW's record peak of 112,400 kw in August was up 8.9% over the peak of the year before; nearly all the gain was attributed to large power sales.

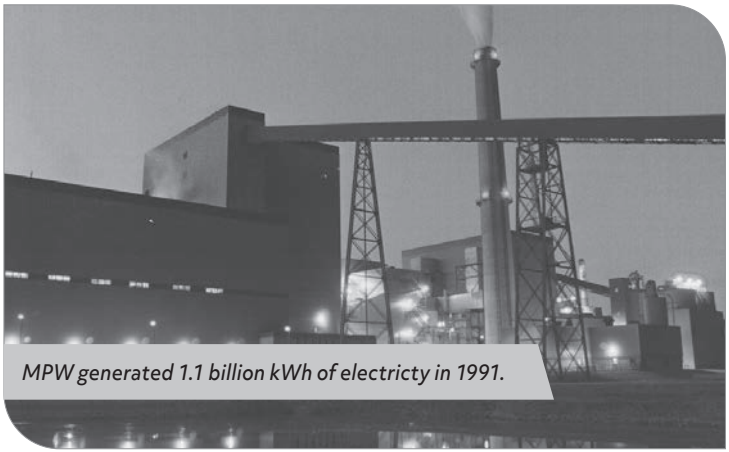
When it became apparent that the 300,000 kw figure for 1992 peak demand that had been the basis for building Unit 9 was unlikely to occur, MPW began developing its own planning process for the future. In 1987, the utility identified seven broad objectives, including human resources, financials, physical resources, communications and public relations, research and development, social responsibility, and productivity as the basis for its planning efforts. ●

Unit 9 under costruction, circa 1983.



Kids have always been fascinated by MPW vehicles and people and many have grown up to work here.

LAYING THE GROUNDWORK FOR A SUCCESSFUL NEW CENTURY



MPW generated 1.1 billion kWh of electricty in 1991.

Following the major undertaking of bringing Unit 9 online early in the 1980s, Muscatine Power and Water (MPW) remained hard at work updating its infrastructure to meet and exceed customer demands. To reduce sulfur dioxide emissions and comply with the Clean Air Act, set to come into effect in 2000, MPW transitioned all of its generating units off of southern Illinois coal and onto lower sulfur coal from Wyoming's Powder River Basin. Along with making the necessary modifications to the units and coal handling equipment, MPW took the innovative step of purchasing its own sets of railcars in 1994 and 1998 to ensure the coal they needed would arrive on time without interruptions.

Western Coal came at a significant cost savings, but that did not stop MPW from finding even more ways to improve both the economic efficiency and the reliability of the electric utility. By selling many of the byproducts of coal combustion for diverse uses such as drywall, roofing granules, additives for concrete and Portland Cement, snow and ice management, just to name a few, MPW brought in money to help keep rates low from what some plants would have considered waste and prevented it from going into their landfill. Throughout the decade, MPW also worked to convert its transmission system to 13.8 kilovolts (kV) from 4 kV, markedly improving reliability.

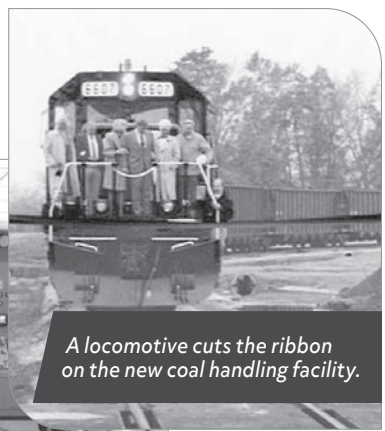
The water utility diligently worked throughout the 1990s to keep its water mains in good shape, routinely upgrading older mains to more efficient 12- and 24-inch sizes. In 1999, MPW built its iconic water tower along the Highway 61 Bypass, giving it storage capacity for up to 500,000 gallons of water. Following the completion of a study of the Muscatine Island Aquifer, which provides Muscatine with its potable water, MPW started developing strategies for protecting its water supply from potential contamination from groundwater runoff. It also took pride in knowing that its sound policies for managing the aquifer would allow it to continue providing high quality water to Muscatine residents for many generations to come.

In 1996, MPW took a bold step towards the future. With many Muscatine businesses and residents frustrated with the internet and cable options available to them, business and community leaders approached MPW about the feasibility of starting a municipal telecommunications utility to better meet these needs and to continue providing outstanding services for their customers into the 21st century.

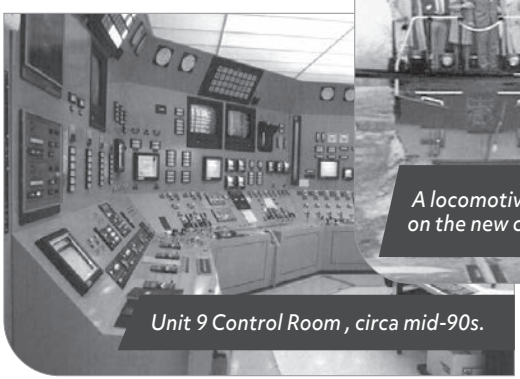
Commissioning an external review, the feasibility study indicated adding a communications utility could prove viable. MPW took the plan to local voters for a referendum in 1997. 94% of voters approved of adding the new utility, a higher margin than either the water or electric utilities received in their respective referenda. The Utility's board of trustees approved the new utility shortly afterwards.

MPW tapped **Sal LoBianco**, its engineer who previously worked the Unit 9 construction and was currently managing the engineering department, to lead the development of the telecommunications utility. In 1998, MPW took the first concrete steps towards forming the communications utility, creating a satellite farm outside their newly renovated and expanded administration center that would allow it to serve its first cable television customers in 1999.

With so much internal growth going on, MPW still found ways to help the wider community as well. In preparation for major improvements along the riverfront in the beginning of the 2000s, the Utility gave a grant of $300,000 to help reroute a railroad switch yard from the riverfront to its current location adjacent to Progress Park. MPW also helped light the newly created Muscatine Soccer Complex, as well as Kent-Stein Park. ●



A locomotive cuts the ribbon on the new coal handling facility.



Unit 9 Control Room , circa mid-90s.

Interesting to note, this customer information system on this mainframe is being replaced this year (2022).

Cable tech loading up for the day in 1998. He still works here today!

COMING ONLINE: COMMUNICATIONS INTRODUCED

As Muscatine Power and Water (MPW) entered the new millennium, its youngest utility, communications, came into its own.

In 2000, not long after the introduction of MPW Cable and MachLink Internet, the Federal Communications Commission (FCC) highlighted the innovativeness of the communications utility in their case study "Deployment of Advanced Telecommunications Capability." The FCC highlighted how Muscatine, along with four other cities throughout the country, used new technologies effectively. The report highlighted how, despite Muscatine's smaller size, it had MPW in addition to other commercial telecommunications options, creating healthy market competition and increasing interest in adopting these new technologies.

With more people connecting with MachLink internet, MPW helped nonprofit organizations and curious local residents enter the digital age with their Neighborhood Link program. A free service, Neighborhood Link helped participants get their own websites up and running with professional assistance, something that would have proven costly to do individually.

MPW also worked with the City of Muscatine and Muscatine County to debut the Muscatine Area Geographical Information Services, or MAGIC. Begun in 2000, this ambitious collaboration brought together complete photo maps of Muscatine County with overlays sharing historical information about properties, utilities data, and roadway information to help inform both city and county leaders as well as private citizens.

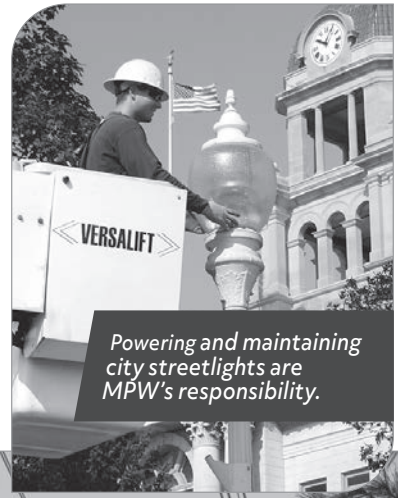
By 2005, MPW had already started upgrading existing services. Cable TV subscribers could purchase MPW Cable HD and experience high -definition television for the first time. They could also add DVR services, making it possible to record shows and watch them later without the use of videotapes.

100 years after opening, MPW's first venture, the water utility, had matured in ways its founders would never even have dreamed of. From a modest utility with a single pumping station, 11 miles of watermains, and 125 fire hydrants, MPW has grown to own and maintain 26 wells along the Muscatine Island Aquifer, 158 miles of water mains, and more than 1,400 fire hydrants.

Innovation continued at the electric utility, which now held the title of the municipal utility with the largest generation capacity in the state of Iowa. In response to new environmental regulations, MPW increased monitoring of mercury, nitrogen oxide, and sulfur dioxide and began to determine what steps they would need to take to make sure their emissions fell in the target range.

MPW also debuted its first sustainability programs. Energize Muscatine, started in 2001, educated businesses and individuals about ways to save energy, provided energy audits to give more specific energy saving suggestions, and offered rebates for transitioning to more energy efficient lighting. SOLAR Muscatine, started in 2004, allowed customers to help defray the cost of installing solar panels in front of MPW's Business Office, allowing the utility to save 5.3 tons of greenhouse gas emissions each year.

Through it all, MPW continued its tradition of giving back to the community. Across the decade, the utility erected the String of Pearls lighting along the riverfront, installed more historic looking street lighting in the downtown district, and donated additional free labor to help improve the trail system, launched the Aquatic Center, and supported the start of work on the Environmental Learning Center. ●



Powering and maintaining city streetlights are MPW's responsibility.


Securing fiber strands for future drops, 2017.

Water distribution operator leans into a main and valve replacement, 2015.

A new auto-transformer is delivered to MPW's new North Substation for the Line 106 project, 2021.

New custom water tower wrap, designed by Laura Palmer, 2021.

INNOVATIONS FOR CONTEMPORARY TIMES

In the second decade of the 21st century, Muscatine Power and Water (MPW) continued its long tradition of innovating to maintain reliability, flexibility, sustainability, and affordability across its utilities. Though the landscape for utilities had changed dramatically, MPW nimbly responded to the challenges at hand.

Known for its reliability and commitment to safety, the electric utility received several notable awards. In 2011, MPW received the Powder River Basin Coal Plant of the Year Award in the small plant category. The award recognized MPW's work over the course of several years to increase fire protection measures in their generation station's coal storage area and inside the plant itself. In 2017, they received the American Public Power Association's Diamond Level Reliable Public Power Provider (RP3) designation for a third time in commendation for their low number of outages and their short average outage times.

> **Though the utilities landscape changed dramatically, Muscatine Power and Water nimbly responded to the challenges at hand.**

A study conducted in 2016 led to further gains in reliability as well, with MPW constructing its first new transmission line in 40 years. Line 106, completed in 2022, provided a major transmission line in a different part of the city than the Utility's two other lines, helping ensure that electricity can come into the city even if a severe storm impacts the other lines. Beyond reliability, the line also promotes the buying and selling of electricity on the grid, which helps keep costs low for Muscatine consumers.

As the emphasis on making environmentally sound decisions continues, MPW started looking for opportunities to diversify its generating resources. In 2016, **Gage Huston** negotiated an agreement for MPW to enter into a power purchase agreement and started receiving a portion of its energy from the South Fork Windfarm. To give consumers and businesses the chance to lend more support to renewable energy, the Utility introduced their Choose Green Muscatine program, which allows them to have part or all of their electrical needs met by renewable energy. Looking to the future, MPW announced plans in 2021 to start the process of replacing part, and eventually all, of its coal fired units with the combination of a local utility-scale solar development, and a natural gas plant.

As the City of Muscatine's West Hill Sewer Separation Project began separating the last portions of the city's combined sanitary and storm water sewers, MPW took advantage of having access to watermains to make improvements. By replacing aged, in some cases original, watermains with newer, larger mains, MPW reduced the potential of disruptive water main breaks and replaced individual lead service lines reducing lead exposure for those homes.

Anticipating water consumption to grow in the next two decades, MPW once again took proactive measures to ensure they can keep up with that demand. In 2016, the water utility purchased a second wellfield adjacent to the Grandview Wellfield and by 2017 had already constructed two new wells, with the possibility of drilling up to nine more in the future.

In a celebration of Muscatine's excellent water supply and its local artistic talent, Muscatine won the statewide "It's in the Water" contest to get a new custom design for the water tower. **Laura Palmer**, a Muscatine native, created the artwork featured on the newly refurbished water tower, celebrating some of the historical and current sights of Muscatine that make the city stand out. The new design was completed in 2020 and new LED interactive lighting for the tower, generously provided by Musco, went online in 2021.

It's hard to imagine but MPW's MachLink Internet launched with dial-up service of 512 kilobits per second. Due to steady demand speeds grew to 1, 10, 50 and 100 megabits per second and raced into the future with the Fiber to the Home project. Originally approved in 2014, work from 2016 through 2020 eventually converted every MPW communications connected residence and business to fiber internet. With the capability to provide gigabit internet speeds (or 1,000 megabits), the communications utility, along with all of MPW's other services, continued to provide the services customers sought while laying a strong foundation for the innovations of tomorrow. ●

Electric Vehicles

We're investing in EV technology. Learn how an EV might benefit you!

THE ELECTRIC VEHICLE ADVANTAGE

Our EV1 has hit the road and is on a mission to educate the public on the benefits and advantages of electric vehicles (EVs)! The demand for electric vehicles continues to grow throughout the country and in our local area, as interest in clean technology grows and we want to ensure you have some good information about EVs to help you decide if investing in an EV is right for you.

MPW is investing in EV technology not only because interest in it continues to grow but also because it's a cleaner technology that reduces emissions, will save the Utility money on fuel purchases, and nationally, helps our country have a greater diversity of fuel choices, reduces emissions, which contribute to climate change and reduces ecological damage. If any of these things are important to you, we encourage you to read on!

SAVE MONEY ON TRANSPORTATION

Did you know that EVs can save you money on fuel costs? They offer lower costs on "fueling" than the average conventional vehicles by using electricity to charge (fuel) the special battery that the car operates on instead of gas.

The average U.S. household spends nearly 1/5th of its total family expenses on transportation. EVs are much more efficient than gas-powered vehicles because electricity, which is generally more stable in price, is less expensive than gas. On average, the cost is about half as much to drive an electric vehicle compared to a vehicle that runs on gasoline.

CHARGE AND GO – EASY WAYS TO CHARGE AN EV

Charging an EV is convenient! Rather than standing at a pump filling up with gas or diesel, charging an EV often takes place while sleeping, not to mention that you'll no longer have to breath in toxic fumes from pumping gas/diesel. Understanding the different levels of charging an EV can help you evaluate whether an EV will be suitable for your driving needs. There are three main EV charger categories that are based on the maximum power the charger outputs to the battery:

- **Level 1** (the household outlet way to charge) – does not require installation of additional charging equipment, using a 120 V AC household plug. On average, delivers 2-5 miles of range per hour charged.
- **Level 2** (more common use for frequent drivers) – a 240 V (residential) or 208 V (commercial) plug is required along with additional charging equipment at this level. On average, delivers 10-20 miles of range per hour charged. This type of charger is generally used in homes, workplaces and at public charging stations.
- **DC Fast Charge** (used most often in public charging stations) – this type of 480 V AC charger requires specialized, high-powered equipment and special equipment installed in the vehicle (be sure to ask a dealer about this before purchasing an EV if you're interested in installing this type of charger at your home or business). On average, this type of charger delivers 60-80 miles of range per 20-minute charge.

MUSCATINE EV CHARGING STATIONS

Current Muscatine EV Charging Locations by Address:

***MPW**	3205 Cedar St, Muscatine, IA 52761
Muscatine Mall	1903 Park Ave, Muscatine, IA 52761 *(near Harrison)*
***Musser Public Library**	408 E 2nd St, Muscatine, IA 52761
***The Merrill Hotel**	119 W Mississippi Dr, Muscatine, IA 52761 *(west-side parking lot)*
HNI	600 E 2nd St, Muscatine, IA 52761 *(2 available for 4 cars)*
Allsteel	2210 2nd Ave, Muscatine, IA 52761 *(2 available for 4 cars)*

First hour is free, courtesy of MPW at **MPW, **Musser Library** and **The Merrill Hotel***

Choose Green

Renewable Energy from MPW's Choose Green Muscatine program

BE A RENEWABLE ENERGY LEADER

With Muscatine Power and Water's Choose Green Muscatine, you have the ability to choose a Green-e® Energy Certified* renewable energy program. When you participate in Choose Green Muscatine, you increase the demand for renewable energy. You can single-handedly make a difference in securing a greener future. The best part……it's very low cost to participate and there are absolutely no upfront costs! For just 1 penny per kWh of usage, you can become a progressive, renewable energy leader and reduce the demand for non-renewable forms of energy.

HOW IT WORKS

For every 1,000 kWh of renewable energy produced by our South Fork Wind Farm, one Renewable Energy Certificate (REC) is issued to MPW. Each REC is serialized, independently recorded and tracked through the Midwest Renewable Energy Tracking System (M-RETS). To avoid double counting, RECs are "retired" in M-RETS as soon as they are purchased; never to be used again.

Each month, MPW will retire an equivalent number of RECs based on the participation of our customers in the Choose Green Muscatine program.

HOW TO GET STARTED

Choose Green Muscatine is easy!

- Simply complete the enrollment form through the website listed below
- Pick the amount of your home's usage you want covered by renewable energy purchases – your Green Choice amount.

Your Green choice can be as low as 25% or 50% of your usage or you can fully commit 100% of your usage to be covered by clean, renewable wind energy.

After your enrollment, you'll receive a welcome letter from MPW confirming your enrollment. Then once a year, we'll send you a certificate recognizing the annual amount of energy you designated to be covered by renewable energy.

SCAN THE QR CODE TO SIGN UP TODAY

mpw.org/electric/renewable-energy/choose-green-renewable-energy/

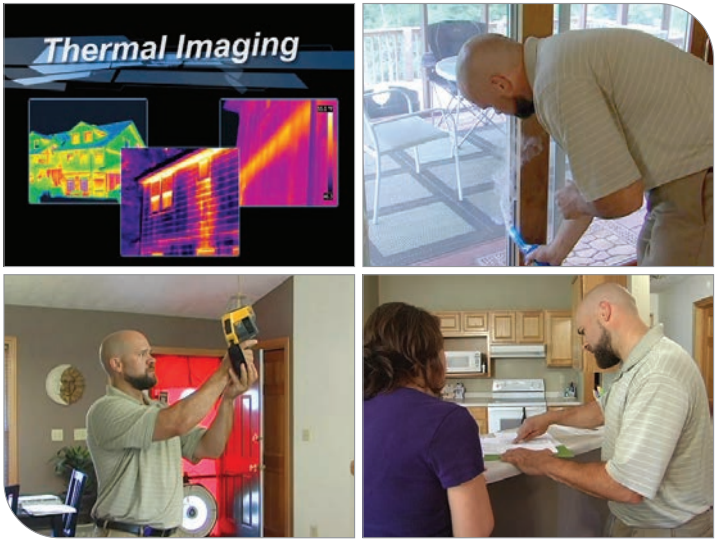
Choose Green Muscatine is a Renewable Energy Certificate (REC) product and does not contain electricity. A REC represents the environmental benefits of 1 megawatt hour (MWh) of renewable energy that can be paired with electricity. For more information, see **www.green-e.org/rec.*

To learn more about any of these programs visit **mpw.org/energy-smarts**

Energy Inspections

Save energy, save money. Get a **FREE** residential energy inspection!

Let MPW give you tips on how to save on your utility bill with a FREE residential energy inspection. Our energy services specialist will discuss your home's insulations levels, windows, doors and electrical usage and make recommendations to make your home more energy efficient – saving you money.



To learn more call

563.262.3423

or send an email to

energyservices@mpw.org

Muscatine Branching Out

Conserving energy, enhancing the environment

Trees are terrific! Besides being beautiful, trees are also helpful. They support the environment by absorbing carbon dioxide, improving soil and water conservation and providing wildlife habitat. Trees also provide shade and can serve as a windbreak— which helps reduce energy costs.

Because of all of the benefits trees provide, MPW proudly sponsors Muscatine Branching Out, a local chapter of non-profit, Trees Forever, an Iowa-based environmental organization committed to supporting groups engage in locally-led projects that care for and plant trees. They've provided over 10 million dollars in funding and assistance to local volunteers and landowners since the organization began in 1989.

Locally, Muscatine Branching Out plants trees throughout Muscatine and organizes an annual shade tree sale open to all in our community. MPW's partnership with and annual monetary contribution to Muscatine Branching Out is just one example of our commitment to energy efficiency and saving.

ORDERING TREES

When an annual sale is occurring, more information is placed on our website, generally in the Spring and in the Fall, with details and a form you can download to order. The maximum order limit is 2 trees per household. When ordering, all checks should be made payable to Muscatine Branching Out. Cash and checks are accepted and notifications of your order are sent from Muscatine Branching Out prior to your pickup date.

Beyond beautification and energy savings, it's also important to remember how trees, their branches and root systems interact with overhead and underground infrastructure as well as neighboring properties and structures.

MPW has put together a helpful guide to the placement of trees for the maximum energy efficiency benefit as well as safety. Download our tree guide by scanning the QR code below with your phone.

SCAN FOR YOUR COPY OF

Tree Placement

A guide to planting for maximum benefit and safety

To learn more about any of these programs visit **mpw.org/energy-smarts**

FROM MPW CUSTOMERS...

My positive experience with MPW was dealing with a facet of any company that is very important to me: Customer Service. There have been several occasions in which I have needed assistance and every time, without fail, their Help Desk employees were extremely polite and helpful and made me feel like my admittedly minor problems were real and important to them. Good customer service is very important to me and MPW has always made me feel valued as a customer. Thank you for your continuous excellent service!

—Matt Wilson

I would like to express my appreciation for the service MPWs Help Desk provides us. Good customer care is hard to find anymore but the staff at MPW provide customer help all day and late into the evening . I have called the Help Desk numerous times for help in resolving problems I've had, most of which were self-inflicted. The staff has always been eager to help me and they are friendly, knowledgeable, and extremely patient while giving me help. We are very fortunate to the Help Desk to turn to when we have questions or need some help assistance.

—Michael Lawrence

The staff at MPW is always so awesome!!! They are all so caring about their job and always have a smile on their faces. From the people I've had installing the internet to the drive thru to the front desk to the people I talk to with over the phone. I appreciate all of you thank you.

—Sonia Ruvalcaba

We had been having lots of problems with pixeling on almost all of our stations and had tried to resolve the issues but nothing seemed to work. I called the office to schedule an appointment to have a technician come to the house and was asked if I wanted them to stop in on Saturday. I didn't schedule the Saturday appointment but rather scheduled for the next week.

On Saturday morning, we received a call from the help desk staff and was told that someone could stop in within the next 15 minutes if we wanted... I said that would be great. Within about five minutes, two techs were at our door. I took them down to our family room television and within minutes they knew exactly where our problem was focused, replaced the bad piece and the TV was working perfectly!! The guys were awesome and so pleasant and cordial. Amazing!!!

The MPW staff are awesome and amazing to work with. We are so pleased with all of our experiences! Thank you for all you do.

—Sheila Howell

I had to have a fuse box replaced to a circuit breaker on an older house we purchased, and while there, the staff of MPW realized we had an underground fence for our dogs and promptly scheduled an appointment to update our water meter and electric meter so the reading could be automated. So, technicians and meter readers wouldn't have to worry about our dogs. Great team work and care for their employees and customers. The best darn utility!

—James Huff

Reliable neighbors indeed! I'm continuously impressed with MPW's service to our community. In my nine years of living in Muscatine, we've only gone without power three times for a total of 60 minutes! That's incredible when you think about other communities that go days without power following things like storms, etc. Keep up the great work, MPW team!

—Tony "Tony Tone" Loconsole

We recently called about some issues we were having with our internet. Not only did the gentleman on the phone fix our problem, but he also corrected another issue that was slowing our speed that we were unaware of. If that wasn't awesome enough, we got an updated router swapped out as well that is REALLY nice! We love MPW! As an as active duty Navy family, we have moved around plenty, and have had our share of different utility companies. We absolutely mean it when we say you won't find better customer service anywhere else! Every time you call, for whatever reason, you are treated so kindly by the MPW reps AND they are so knowledgeable.

—Meagan Koehler

If you have never used anyone else for ISP, then you really don't know how good we have it here in town with MPW. I have also never seen same day/next day service for ISP either. Other companies might take weeks to get to you where MPW has come out same day or even the next day for tech support. Thank you to all of you at MPW for all that you do!

—Ryan Schmidt