

2022

ANNUAL REPORT

2022 TIMELINE

A Timely Message from CMPAS CEO, Jay Anderson



Dear CMPAS stakeholders,

I can't say it's been less than a year since I started in the position of CEO for CMPAS anymore (as I did in last year's annual report). I also can no longer say I am from Nebraska! I am from Minnesota, as my wife and I sold our house at the end of 2021 and relocated to the Twin Cities area!

2022 has been quite a year. CMPAS continued to supply its members with affordable and reliable power, services, and support to further their missions. I truly feel that CMPAS is bringing value to its members. We have the right staff in place to assist members with their needs as we continue to move into a new energy economy.

Many of the events of 2022 challenged and amazed us. The War in Ukraine contributed to increases in the price of fuel. The Mid-Continent System Operator's (MISO) position regarding the forecasted 2022 load—and the chance it might not have enough capacity to serve load—created waves in the industry. Record capacity prices resulted from the MISO Capacity auction/capacity shortage. MISO introduced plans to invest over 10 billion dollars in the transmission grid. Continued supply chain shortages impacted markets and communities everywhere.

As the world continues to change, so does CMPAS. We welcomed two new employees this year, engaged in a variety of new software and consulting support contracts, and continue to work to make sure we have what our members need!

Throughout this annual report, you will see various examples of how CMPAS's actions in partnership with our member utilities are helping our members' customers receive the service and reliability that their customers expect and deserve!

Thank you for your continued partnership and friendship.

Jay Anderson
Chief Executive Officer, Central Municipal Power Agency/Services

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● JANUARY — TIME FOR SOMETHING NEW

Announcing A New Partnership Winthrop and Weinstine, P.A.

Public utilities are no strangers to regulation. They navigate one of the most heavily regulated sectors every single day. The ever-changing laws, policies, and regulations set by federal and state governments can put a significant strain on efficient operation, which is why it's essential to stay ahead of the complex legislative and regulatory processes.

In January, CMPAS formed a partnership with Winthrop & Weinstine, a Minneapolis-based law firm that specializes in regulated industries and government relations. This partnership will help CMPAS's members effectively monitor the fast and often volatile political environment surrounding public power. Their team of attorneys and lobbyists have served in high-level government positions and have decades of experience representing clients before the state legislature and regulatory bodies. They know the decision makers and understand the process nuances of navigating state and local government.

CMPAS's partnership with Winthrop and Weinstine will help member cities:

- Go through the process of drafting, changing, and influencing legislation.
- Maintain extensive relationships with officials in all levels of government.
- Stay up to date on changes to legislation.
- Connect with decision makers to make sure they are represented in these processes.

We look forward to working with Winthrop and Weinstine to help our members navigate the challenging energy sector regulations and policies.



● PROJECT TIME

Shining a Light on New Improvements in CMPAS Member Cities

The CMPAS team worked diligently in 2022 to coordinate, oversee, and execute new improvements and projects across all its major cities. Our team was onsite and engaged with local leaders and crew members to help them enhance their infrastructure, improve their operations, and plan and manage their resources to better service their communities.

From resource planning and annual load forecast initiatives to operations, engineering and transmission, here's what's happening with CMPAS member cities.

Blue Earth

Blue Earth had new additions that include a 69 kV/12.47 kV substation, new generators and transformers, air permits, and a Metering and Energy Package.

Delano

Turbine repairs, two new CAT generators with full automation, and an industrial expansion of potential 4 MW all led the way in Delano this year.

Fairfax

Fairfax had new engineering projects that included upgrades to existing CAT unit controls and new SEL programmable logic controllers.



● APRIL 20TH — TIMELY DISCUSSIONS

CMPAS Introduces “Power Hours” in 2022

New in 2022 was the introduction of CMPAS Power Hour, an interactive discussion series designed to engage, enlighten, and energize public power communities everywhere! These free virtual sessions, starting in April, featured notable members of the public power industry speaking on topics that matter to the community.

Some of the Power Hours in 2022 featured:

- Piper Rasmussen, R&D Specialist and Alex Hofmann, VP Technical & Operations Services at the American Public Power Association (APPA), who discussed their Demonstration of Energy & Efficiency Developments (DEED) program.
- Janell Stanton, HR and Employment Attorney and Michael DuPont, President of Wagner, Falconer, & Judd, LTD, who highlighted the challenges of the changing employment landscape and the tightening labor market.
- Peter Kelly-Detwiler, author and co-Founder of NorthBridge Energy Partners, LLC, who shared insights on the MISO capacity challenge and how to solve it.
- Karen Berry, Certified Ayurvedic Practitioner, who shared holiday wellness and stress management tips and techniques.

New discussions are in the works for 2023. Join us to listen, learn, and take part in meaningful discussions with your peers!

Scan the QR code to the right to watch all this year’s Power Hour presentations.



● PROJECT TIME

Glencoe

Glencoe’s Bit49 Data Center is in midst of adding incremental server units and load should achieve 12-14 MW by Spring of 2023.

Granite Falls

Unit #3 at the Granite Falls Hydro Generation Facility is now operational after seven years of being out of service.

● FEBRUARY & JULY — FIRST TIMERS

CMPAS Hires New Talent to Expand its Capabilities

CMPAS was pleased to introduce two new hires this year: Warren Hess and Samuel Allison. While they may be “first timers” at CMPAS, their industry experience solidified our decision to bring them aboard.

Meet the New CMPAS Team Members

Warren Hess (February)—Transmission Policy Manager

Warren is a transmission policy manager who previously served as a senior engineer at MISO. He participates in the MISO Transmission Owners Committee (TOC) to ensure the changes in rules, treatments, and policies for the MISO transmission system are accurate and espouse fair treatment for CMPAS Transmission Ownership and other business areas.

His varied role has him finding replacement transformers for towns with failed units, coordinating with city transmission providers to improve electric reliability, helping CMPAS administer its existing transmission ownership, and assisting in opportunities for new investments in transmission.

Over the next few years, he expects to:

- Create libraries of one-line diagrams and Transmission Interconnection contracts for member cities.
- Participate in the MISO LRTP Tranche 2 transmission facility development plans, with some emphasis on the relatively new concepts of advanced flow-control devices.
- Aid the Grid North Partners on quick-fix transmission congestion remedies and adding second circuits to lines.
- Follow possible load-growth developments for cities from bitcoin and similar incremental loads.
- Advocate for higher reliability and transmission-cost certainty, and lower electric rates.

In the future, Warren sees the public power industry moving to more renewable energy sources for their generation supplies, creating a need for public power to invest in transmission to enable those sources of generation to be delivered. He believes public power load profiles will change as electric vehicles, consumer-owned batteries, and distributed energy resources make their way into public power utilities.



Samuel Allison (December)—Drafter

Samuel is a new drafter for CMPAS who previously served in the United States Marine Corps as a Marine Artillery Cannon Crewman from 2014 to 2018, eventually reaching the rank of Corporal. After his service, he attended Dakota County Technical College, where he studied Architectural Design and Drafting.

Samuel joins the CMPAS engineering team as a drafter, where he works with engineers to create and manage all drawings and keeps records of installation across CMPAS members. Samuel will be working in 2023 to convert hardcopy drawings dating back to the 1950’s into digital AutoCAD drawings. His drawings will assist engineers with the installation of new equipment as CMPAS and its members seek to update aging infrastructure. His work will allow CMPAS members to wire in new equipment as well as make it much easier to troubleshoot existing equipment when issues arise.

Help us welcome Warren and Sam to the CMPAS team.



● PROJECT TIME

Janesville

CMPAS worked with Janesville to provide support for major substation upgrades. Support will continue as improvements are made to the current infrastructure.

● JULY 27TH — ALL-TIME HIGH

MISO Capacity Prices Hit New Highs in 2022

Upticks in projected energy use, combined with dips in supply, sent MISO capacity prices to new highs in the central and northern regions, triggering a fear of temporary blackouts throughout the summer. With concerns of power demand outstripping supply, and a 3.4-GW to 13.9-GW surplus that transformed into a 1,230-MW shortfall by the summer of 2022, clearing prices from the 2022–2023 MISO Planning Resource Auction (PRA) created a \$236.66/MW-day Cost Of New Entry or CONE price, despite MISO importing over 3,000 MW of external energy from other zones. Capacity in MISO North and Central fell by 3.2 GW by April of 2022.

Rising Capacity Concerns in 2022

It’s no secret to the public power industry that capacity was a major concern in 2022. One of the defining moments of the year was the announcement by MISO that shortages may force emergency measures to be taken regarding the regional grid. Summer demand and expected heat waves were threatening tight conditions that could result in electricity shortages and blackouts.

Thankfully, these predictions never came to fruition, but they sent a shockwave throughout the industry that resulted in many utilities worrying that their infrastructure wouldn’t be able to handle the increased demand. Every market was dealing with the same issues, and many were investigating potential solutions that included innovative ways to leverage renewable energy, fortifying their infrastructure with new technologies, calling for communities to conserve energy, and philosophical changes in how power is managed.

Continued Capacity Concerns for 2023

The annual survey from OMS (Organization of MISO States) and MISO have predicted a 2.6-GW capacity shortfall in the summer of 2023, which could increase to 10.9 GW by 2027. However, with capacity prices increasing and a maximum of 1.9 GW being imported from MISO

South, this shortfall has the potential to reverse course and transform into a 2.4 GW surplus capacity for 2023. CMPAS will continue to monitor capacity in MISO regions as we enter the peak season.

The Causes of MISO Capacity Issues

Last year, CMPAS hosted Peter Kelly-Detwiler, author and co-Founder of NorthBridge Energy Partners, LLC., during a Power Hour that focused on MISO capacity challenges and the potential solutions for them. During his presentation, he noted that capacity issues are a mixture of many variables, including:

- **Supply retirements:** dispatchable assets like coal that can be turned on and off or cycled up and down to respond to demand changes.
- **Supply additions:** intermittent renewables that bring new planning challenges and issues, cannot quickly respond to changes in demand.
- **Load growth and changing loads:** electric vehicles, air conditioners, and other end use devices are creating more demand.
- **Climate:** high temperatures and climate-related weather events are causing more strain on capacity.

For more information scan the QR code below to watch Peter’s presentation during our Power Hour.

Sources

MISO 2022/2023 Planning Resource Auction (PRA) Results. April 14, 2022.
2022 OMS-MISO Survey Results. June 10, 2022.

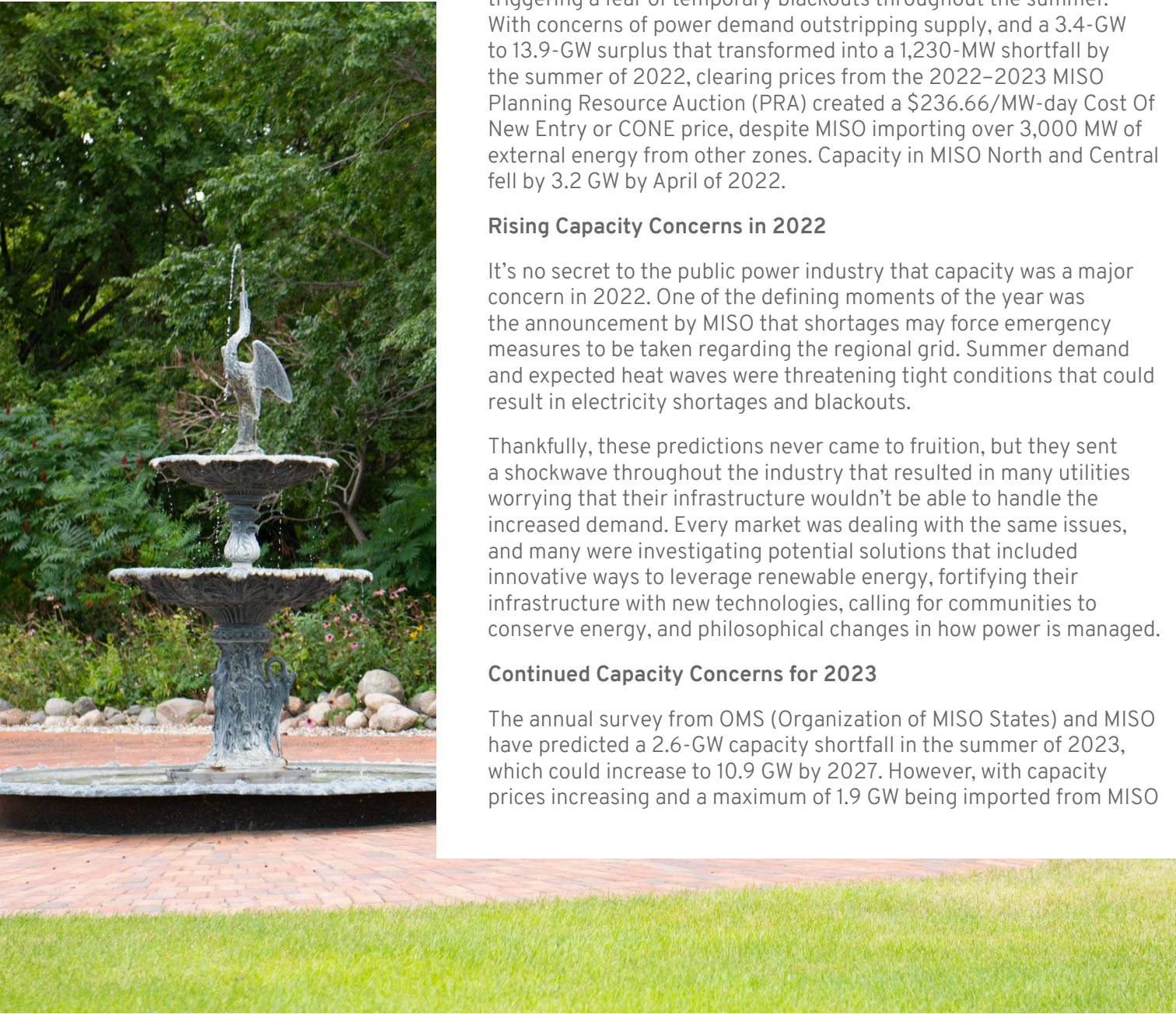
● PROJECT TIME

Kenyon

Engineering and support at Kenyon have allowed for new automation of infrastructure to be implemented.

Mountain Lake

Mountain Lake projects included generator replacement and management, and electrical cost models to determine the correct path to take in purchasing new generators.



A TIME TO INVEST

CMPAS Helps Members Invest More than \$475,000 for Energy Efficiency Updates

As energy capacity constraints and rising utility costs impact public power communities across the country, CMPAS has worked hard to help member cities invest in more sustainable, efficient solutions that reduce energy use and costs. In 2022, CMPAS teamed up with the consultants at Frontier Energy to facilitate the investment of nearly \$475,000 in funds to assist utilities in updating ageing and inefficient infrastructure.

Working closely with Frontier Energy, who provide day-to-day support and updates on available funding opportunities, CMPAS has facilitated infrastructure improvement projects that incorporate:

- Longer lasting, energy efficient LED lighting
- High-efficiency HVAC systems
- Energy Star certified appliances
- Variable frequency drives
- Compressed air upgrades and leak studies
- High-efficiency refrigeration systems
- Many others

When infrastructure and systems reach the end of their life, they become less efficient and more costly to operate and maintain. Customers who invest in newer and more efficient solutions reap the financial benefits and cost savings, all while reducing their carbon footprint.

Making infrastructure improvements and replacing inefficient products create long-term energy solutions that:

- Decrease energy bills
- Reduce operation and maintenance costs
- Directly impact the bottom line of local businesses
- Provide better quality lighting and comfort in spaces
- Ease capacity constraints on municipal power stations
- Help customers qualify for rebates



CMPAS to Help Secure Rebates for Member Communities in the Future

In addition to partnering with Frontier Energy to facilitate investments in energy efficiency updates, CMPAS is also working to secure funds from the Infrastructure Investment and Jobs Act (IIJA) for its members. As a part of the IIJA, the federal government has authorized billions of dollars in funding opportunities for energy-related infrastructure. These opportunities include:

- Grid modernization
- New electric transmission
- Energy system resiliency and reliability updates
- Electric vehicle charging infrastructure
- Improvement to the energy efficiency of buildings
- Smart manufacturing
- Carbon capture and carbon utilization projects
- Renewable energy technologies
- Demonstration projects

We will continue to help our members invest in energy efficient technology that reduces costs, capacity, and carbon emissions, and push to secure IIJA funds for new and innovative initiatives throughout 2023 and beyond.



PROJECT TIME

Sleepy Eye

Sleepy Eye now has a new automation system for all Caterpillar generators, enabling CMPAS to monitor and troubleshoot them remotely.

● SEPTEMBER 14TH — GREAT TIMES

The 2022 CMPAS Annual Meeting



CMPAS was overjoyed to host its members, associates, and friends at the Chankaska Creek Winery and Distillery in Kasota, MN. The sprawling vineyards and beautiful ranch of Minnesota’s second largest winery provided the perfect backdrop for a pleasant and eventful September evening. Ideal weather, pallet-pleasing wine, and a scenic sunset were the perfect complement to a night we hope everyone will remember.

The highlight of the evening was Eric Thoms, Senior Manager of Resource Adequacy at MISO, who gave a keynote speech detailing how MISO and CMPAS work together to provide transmission investments and capacity planning for member cities and their communities.



If you were unable to attend, here are some key points from his speech:

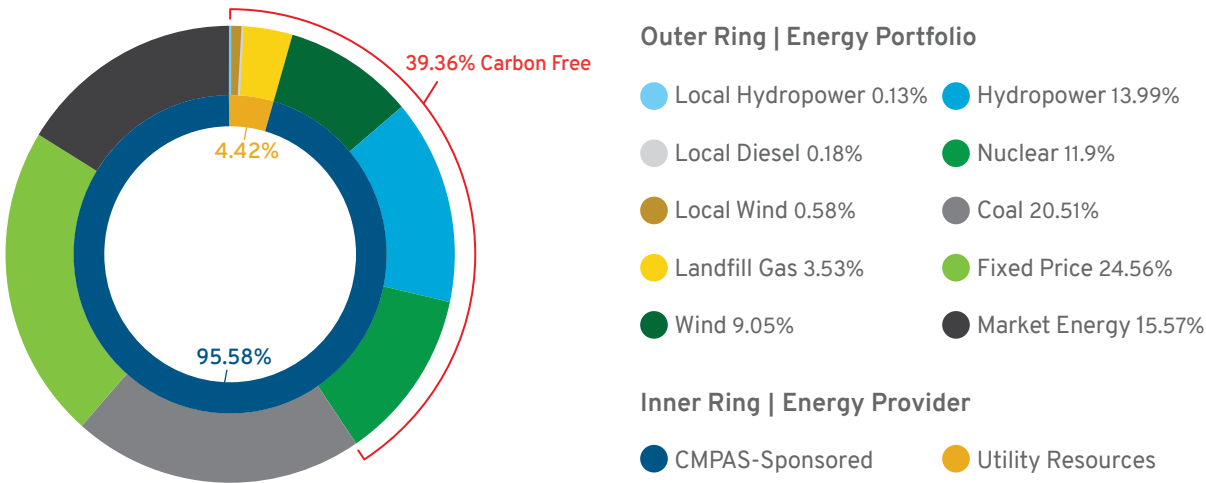
- 42 million people depend on MISO to manage a grid that contains 72,000 miles of transmission lines and a generation capacity of 205,177 MW.
- MISO’s ongoing transmission planning efforts include 18 new projects with an investment cost of about \$10.3 billion.
- CMPAS has enough capacity to serve the load of its member cities (approximately 123.8 MW), plus 15% (14.2 MW) of reserve power.
- The average MN household uses 713 kWh per month.
- The total energy usage of CMPAS towns in 2021 was 489,978 MWH (enough energy for about 57,250 households).
- CMPAS continues to work with MISO and its members to estimate energy capacity requirements even as prices for capacity continue to rise.

A special thanks to everyone who could attend. We look forward to seeing you next year.

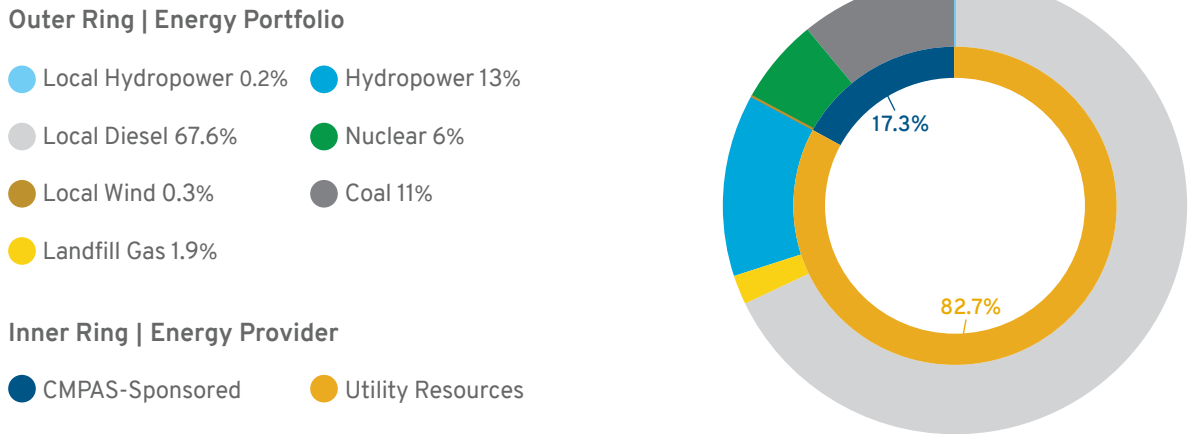
● NOVEMBER — TIME TO CRUNCH NUMBERS

Time to Crunch the Numbers

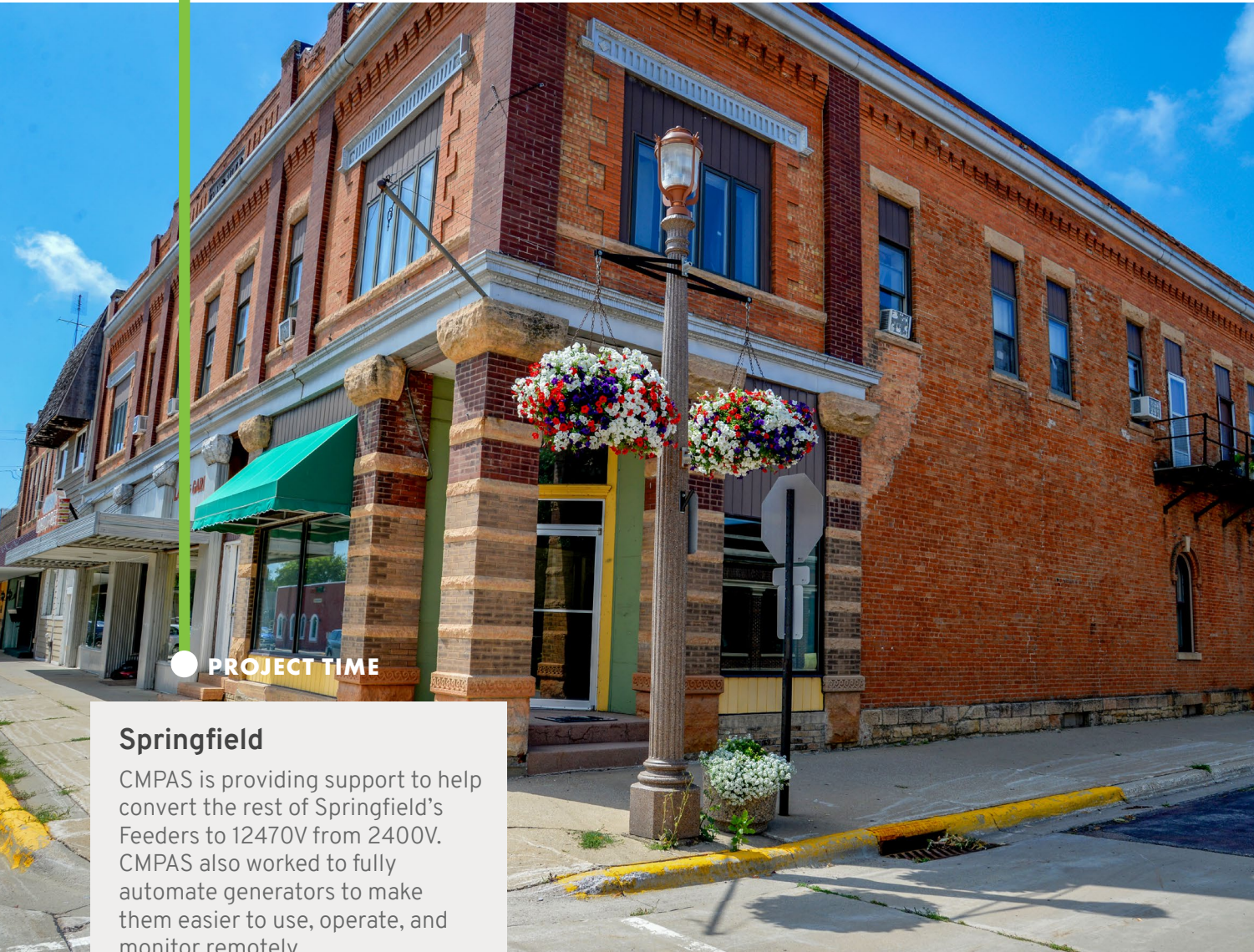
2022 CMPAS Member Energy Resources



2022 CMPAS Member Capacity Resources



2022 TIMELINE



PROJECT TIME

Springfield

CMPAS is providing support to help convert the rest of Springfield's Feeders to 12470V from 2400V. CMPAS also worked to fully automate generators to make them easier to use, operate, and monitor remotely.

Windom

CMPAS helped install new automation for Windom's existing Caterpillar units and are prepared to install the same automation on two new generators.

It was a pleasure to work with our members to help them better serve their communities throughout 2022!

Thank You!



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