



# 2017

## ANNUAL REPORT





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## LETTER FROM OUR BOARD PRESIDENT

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**Tim Stoner:** *President, CMMPA Board of Directors and General Manager Blue Earth Light and Water*

Last year was a busy and successful one, filled with important milestones and accomplishments that helped our members. During 2017, we:

- Started selling subscriptions for our community solar project, R4 Solar
- Negotiated two major new power contracts
- Procured more than \$20 million in wholesale power
- Mapped several members' distribution systems
- Developed resource plans for several members
- Assessed the financial viability of replacing a member's hydroelectric generator

Our organization, the Central Minnesota Municipal Power Agency (CMMPA), celebrated its 30th year of operations. Our utility-services agent, the Central Municipal Power Agency and Services (CMPAS), marked 19 years of service.

None of that would have been possible without the passionate and dedicated leadership of Steve Thompson, who retired from CMMPA and CMPAS at the end of the year. Steve had a distinguished 38-year career in the electricity business, including 18 at CMMPA and CMPAS, where he nurtured the organizations through their respective early growth years. We wish him well.

Under Steve's direction, CMMPA/CMPAS also participated in their first baseload coal project (Nebraska City Unit 2) and their first major transmission project (the CAPX 2020 Brookings to Twin Cities 345 kV line). Steve also guided the diversification of our power supply by executing long-term power purchases, including nuclear and wind.

As the board looks to CMMPA's and CMPAS's future, we have high confidence in the current leadership team. They inherited a strong organization, and they work hard every day to make it stronger still.

Sincerely,

**Tim Stoner**

President, CMMPA Board of Directors and  
General Manager, Blue Earth Light and Water



## ABOUT OUR AGENCY

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Central Minnesota Municipal Power Agency (CMMPA) serves as a municipal, non-profit, project-based, partial or full-requirements joint power agency. CMMPA formed a utility services agent, Central Municipal Power Agency/ Services (CMPAS), to provide energy management and consulting services to public power members and affiliates.

CMPAS provides a wide range of services including strategic management, long-term power supply planning and procurement, project development and administration, accounting, and finance. The Agency also offers Midcontinent Independent System Operator (MISO) market-related services, including daily energy scheduling and related services. CMPAS's specialized expertise in long-term power supply planning and energy markets is important for CMMPA's long-term success.

## MUNICIPAL COMPASS TO POWER

### MISSION

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**Identify strategies that** minimize wholesale power costs, manage future risks, and maintain stable and competitive rates while allowing utility boards flexibility and autonomy to customize their own electricity portfolio.

### VISION

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**Serve in a consultative** role as a municipal electricity portfolio adviser by offering specialized planning and procurement services for power supply and transmission.

### COMMITMENT

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**Deliver unbiased, independent** portfolio system solutions as a municipal utility's fiduciary and strategic adviser to best serve their municipal customers.



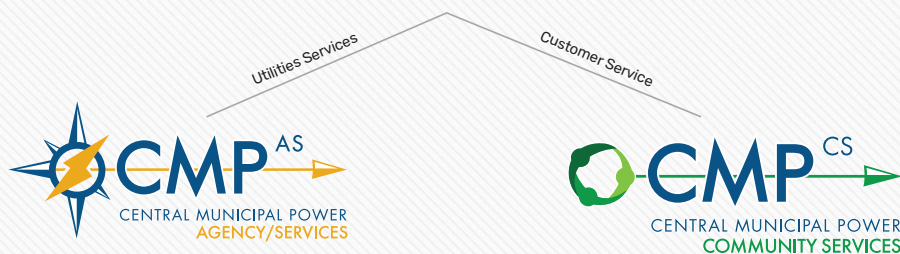
## POWERING A BRIGHTER FUTURE

In time for Central Minnesota Municipal Power Agency's (CMMPA) 30-year anniversary, its logo is being revitalized to complement the logo of its management and consulting services agent, Central Municipal Power Agency/Services (CMPAS – pronounced "compass"). The revitalized CMMPA logo and corresponding tagline represents the continuity between the utility projects handled by CMPAS and community service projects of CMMPA's recently launched consumer-services division.

CMPAS created a separate customer and community services division named Central Municipal Power Community Services (CMPCS). The parallel division concentrates on customer retail services, such as the long-standing conservation improvement/energy efficiency and green pricing programs and its recently introduced community solar program. The circle of CMPCS's logo signifies how CMPAS works "together" with CMMPA's

member utilities and their customers on retail energy services. The separation of CMPCS's customer-oriented projects from CMPAS's utility-focused services will help retail customers more easily navigate information resources from CMMPA's two divisions.

Under the new CMPCS brand, the previously known Savings Plus name and logo were changed to My Energy Savings. The change more directly describes conservation improvement and energy efficiency offerings and makes energy savings even more personal. The program offers customers efficiency rebates, consultations, and information regarding best practices to control power costs.



### BRAND STRUCTURE

Even as CMMPA/CMPAS/CMPCS improve and delineate their services through branding, the objectives remain the same – help utilities and customers minimize costs, manage risks, and maintain stable and competitive rates.







## MEET OUR BOARD

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CMPAS currently manages the portfolios of 12 member municipalities and provides power supply related services to non-member affiliates in Minnesota and Iowa. With headquarters in Blue Earth, Minnesota, the Agency is governed by a 12-member board comprised of a representative from each member city.



**Richard A. Heinemann**  
*CMPAS General Counsel*



  
**Bob Elston**  
Sleepy Eye, MN



  
**Crystal Johnson**  
Granite Falls, MN



  
**David Meyer**  
Glencoe, MN



  
**Joel Grejtak**  
Fairfax, MN



  
**Nate Zimmerman**  
Janesville, MN



  
**Paul Twite**  
Delano, MN



  
**Randy Eggert**  
Kenyon, MN



  
**Scott Johnson**  
Springfield, MN



  
**Steve Nasby**  
Windom, MN



  
**Theresa Coleman**  
Kasson, MN



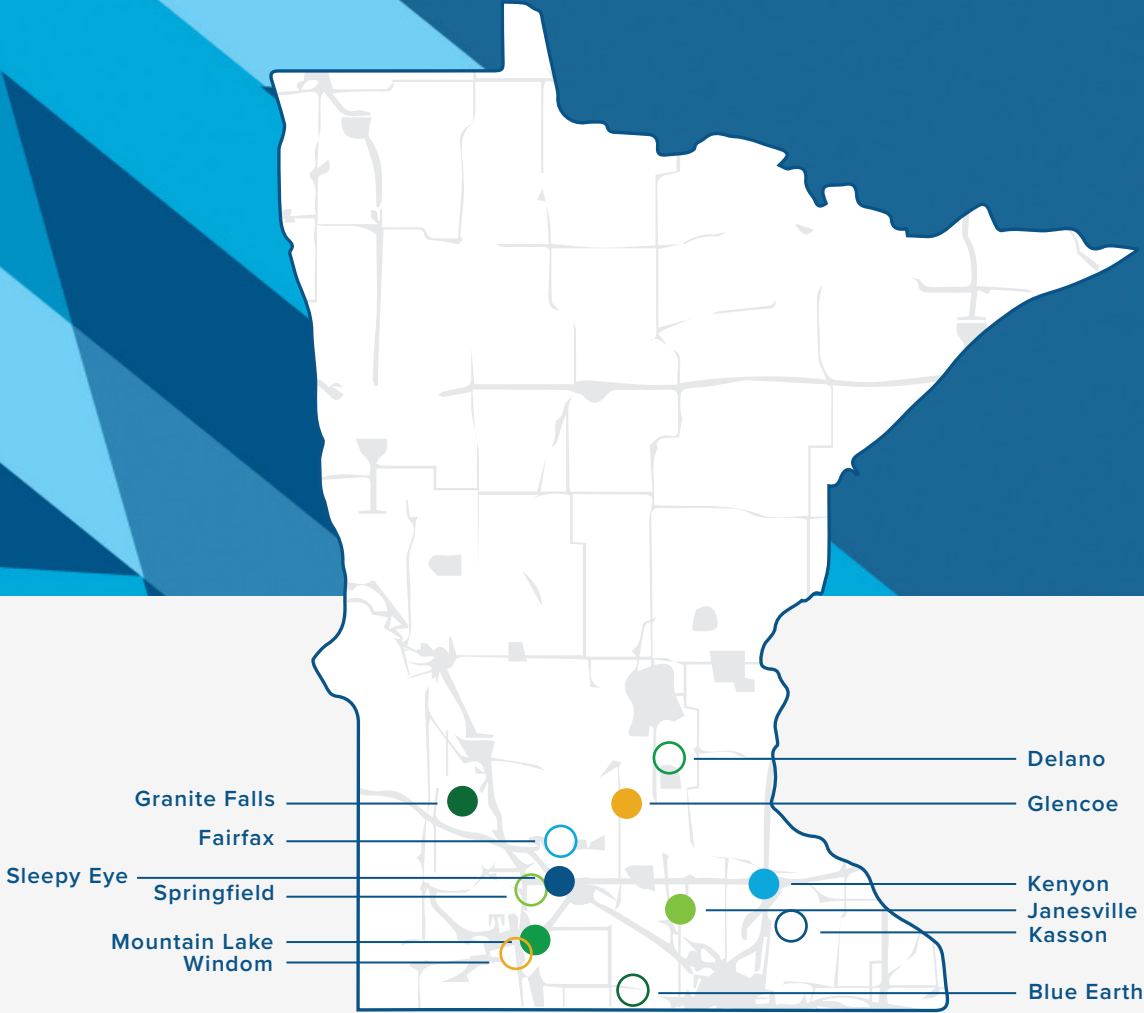
  
**Tim Stoner**  
Blue Earth, MN



  
**Wendy Meyer**  
Mountain Lake, MN



# OUR MEMBERS



## Our Affiliates:

- |                 |               |               |             |                  |
|-----------------|---------------|---------------|-------------|------------------|
| Cedar Falls, IA | Montezuma, IA | Indianola, IA | Waverly, IA | Independence, IA |
|                 | Eldridge, IA  | Elk River, MN | Willmar, MN |                  |

# EARNING PEARLS, CMMPA/CMPAS HEADS TOWARD DIAMONDS

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Lore and tradition refer to the 30th anniversary as the “Pearl Anniversary.” Upon reaching 30 years, people’s lives often demonstrate a commitment to a particular calling. Much like pearls and people, Central Minnesota Municipal Power Agency (CMMPA) celebrates 30 years of answering the call to deliver price-competitive portfolio solutions that keep public power utilities strong and durable.

Over the years, the durability and flexibility of CMMPA’s chosen project-based business model has allowed utilities to belong as a partial- or full-requirements member, or as an affiliate. As utilities retain their ownership of local resources and legacy assets, CMMPA helps each participant manage their individualized power portfolio while aggregating the needs of its 12 members and affiliates in Minnesota and Iowa.

## PERPETUATION OF MUNICIPALLY OWNED ELECTRIC SYSTEMS

Early documents show six municipal utilities joined together in 1987 to form CMMPA. Thirty years later, the Agency continues to abide by its original tenets to serve as a “partial-requirements agency with an emphasis on independence of operation, economical supply of energy for its consumer owners, and perpetuation of municipally owned electric systems in Minnesota.”

The Agency’s first matter of business involved renegotiating and managing a single power supply contract with its neighboring investor-owned utility, Northern States Power (presently known as Xcel Energy). For ten years, the agency had no permanent staff. Instead, member cities’ managers, administrators, and superintendents took charge of the day-to-day management of the power supply contract.

In 1998, before the expiration of the NSP contract, members created a second joint action agency to operate as their energy management and consulting services agent. Initially named Utilities Plus, the agent is now known as Central Municipal Power Agency/Services (CMPAS – pronounced “compass”).

Working alongside members, CMPAS conducted a 2002 planning study that identified options for generation resources and quantities that would optimize each utility’s existing portfolio. After review and evaluation, ten members

signed a CMPAS-sponsored contract for baseload power from Omaha Public Power District’s Nebraska City Unit 2 Coal Station (NC2).

Each participant holds contractual rights to specific amounts of power from NC2. As applied through the project-based model, CMPAS directly assigns cost to participants by their proportional, contractual obligation without impacting the electric rate structures of non-participating members.

Sleepy Eye Commissioner Bob Weiss praises the Agency for its ability to cater to independent-minded utilities by accommodating legacy assets, partial requirements, and local preferences. “CMMPA/CMPAS offers in-depth analysis of options, lets the utility choose what is best for the community, and then handles the rest,” said Weiss.

Over the years, CMMPA has been instrumental in helping public power utilities adapt to industry changes. For example, when utilities needed to navigate emerging wholesale power market rules in 2006, CMMPA/CMPAS hired an energy-market services team to help members and non-member affiliates schedule their energy requirements in the Midcontinent Independent System Operator (MISO) market.

## TRANSMISSION

When members began experiencing the significant increase in transmission rates over a short time before 2006, they turned to CMPAS to find solutions to mitigate the cost. The ensuing analyses showed transmission prices would double from 2006 to 2020.

In this context, CMPAS determined that municipal utilities could no longer be content to remain “renters” of the transmission system. So, CMPAS successfully built a coalition of public power partners and embarked on a 3.9 percent investment in the CAPX 2020 Project.





**FROM TOP LEFT TO RIGHT** CMPAS Board Members Dave Meyer, Glencoe; Tim Stoner, Blue Earth; Randy Eggert, Kenyon; and Wendy Meyer, Mountain Lake. The CMPAS board meets in-person or by conference call on a monthly basis to discuss the financing of portfolio projects, cost-sharing of industry expertise, the coordination of needs, and industry trends. As a power agency and utility services organization, CMPAS collaborates around a project-oriented business model that positions members and affiliates in a mutually beneficial way.

Among the first steps to move from renter to owner, the Agency needed to earn acceptance as a co-investor from incumbent transmission owners (TOs) and gain approval from the Federal Energy Regulatory Commission (FERC). As CMMPA sought to use financial cost-recovery mechanisms on the same basis as investor-owned utilities with a TO designation, it endured four different interventions by the other TOs.

After a nine-year process, the FERC approved CMMPA for transmission ownership in what is considered precedent-setting decisions for other utilities to follow.

The result of CMMPA's \$35 million transmission investment will save its members and affiliates at least \$52 million over the project's 40-year life. The 15 participants in Minnesota and Iowa will realize \$27 million in savings. Moreover, the agency's proportional share of the investment provides \$25 million in recovery that reduces its overall operating costs by nearly \$1/MWh.

To mitigate looming transmission costs, CMPAS continues to seek new transmission opportunities. Presently, CMPAS members need another investment of approximately \$60 million to more effectively hedge against future cost increases.

Along with local perseverance and fortitude from member and affiliate utilities, Wendy Meyer, CMPAS/CMMPA board member and Mountain Lake City Administrator, observed that the Agency received tremendous support from great public power partners such as the Midwest Municipal Transmission Group and others.

"We are thankful the Spiegel McDiarmid legal team, led by Robert Jablon, obtained rulings that will help municipal utilities adapt and thrive," Meyer said. "The path is now clear for other public power utilities to follow, and to this day, transmission ownership remains a long-term hedging tool to protect public-power customers."

# EARNING PEARLS, CMMPA/CMPAS HEADS TOWARD DIAMONDS

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## FROM BASELOAD CONTRACTS TO COMMUNITY SOLAR SUBSCRIPTIONS

"When an outsider looks at CMMPA members' individualized power supply portfolios, they will notice they look very different from each other, and the combined portfolios look different today compared to 30 years ago," said Christopher Kopel, CMPAS's CEO and former COO.

**"CMPAS has worked hard to help utilities navigate regulatory and technology changes by proactively analyzing, planning, and managing each member's portfolio. This active management has led to an Agency portfolio that is 48 percent carbon free and well-positioned against natural gas and market price volatility as well as potential carbon risks."**

During the first 15 years of its existence, the Agency managed one NSP power purchase agreement that existed alongside hydropower allocations from the Western Area Power Administration. When CMMPA/CMPAS was designated as a MISO market participant in 2006, it started an ongoing portfolio diversification process as depicted in the graphic of the Agency's wholesale power portfolios over time (See power portfolios on page 18).

The most common and oldest generation assets owned by members are internal combustion generating units fueled by diesel oil and/or natural gas. These assets meet utility capacity market requirements and can get utilities through

emergency situations. The newest addition to member utility portfolios comes in the form of community solar subscriptions, marketed as R4 Solar.

Through upstream and downstream contracts arranged and managed by CMPAS, six CMMPA members sell community solar subscriptions from local solar billboards and the Lemond Community Solar Project near Owatonna, MN. The Lemond Project is a source of great public power pride since it exists as a collaborative project between CMPAS and Southern MN Municipal Power Agency.

Presently, CMMPA/CMPAS is concluding a 2020 Power Supply Coalition effort with the goal of lowering portfolio costs and mitigating long-term risks. Long-term power supply contracts signed in 2017 means that approximately 75 percent of the utilities' portfolio costs will have long-term price certainty at favorable prices. The agency is working on a wind resource component as the final piece for the participants' long-term portfolio.





## COMMITMENT

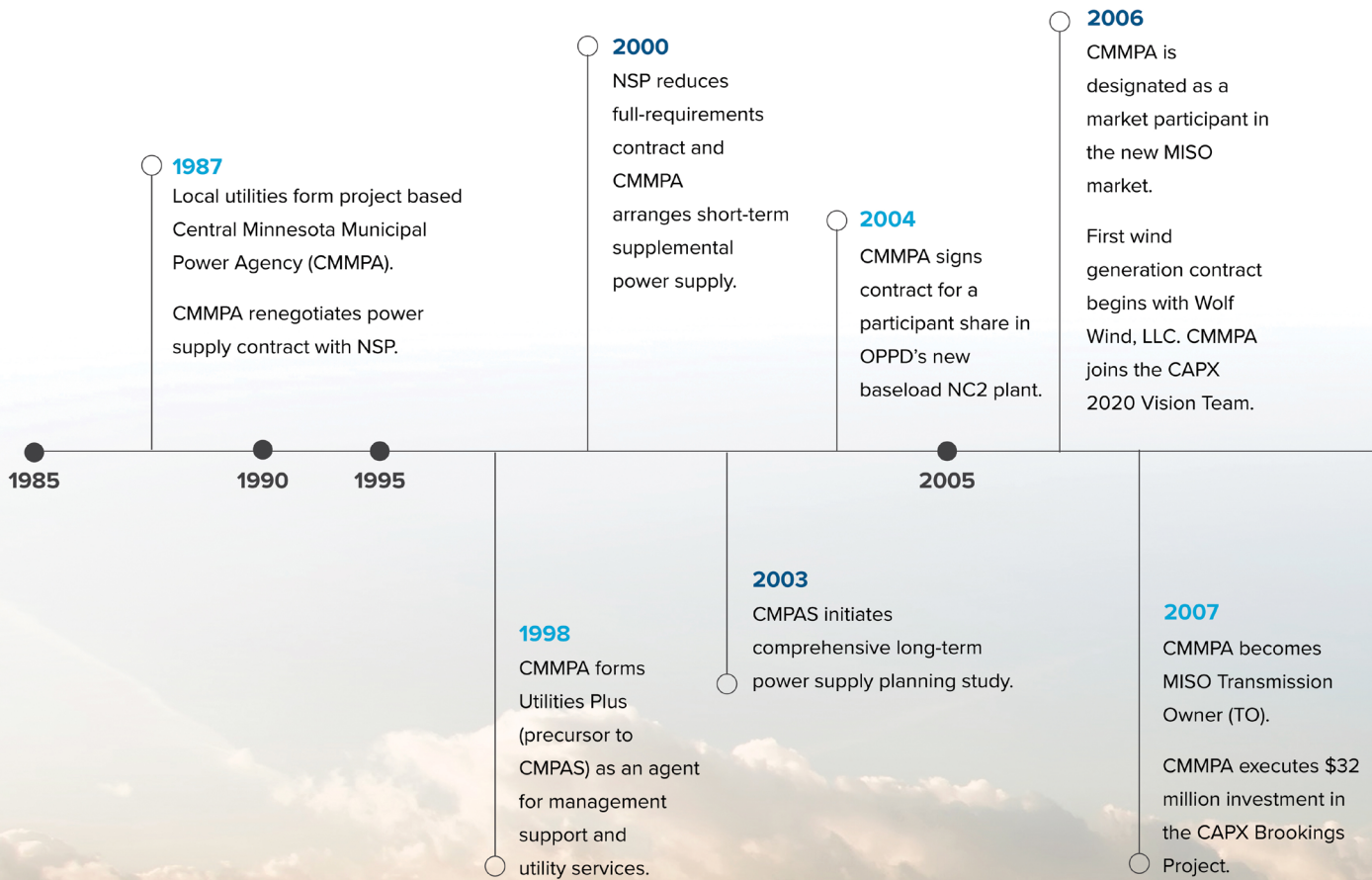
Originally registered in Glencoe, CMMPA/CMPAS eventually moved to Blue Earth and recently opened a satellite office in Eden Prairie. Although the location changed, the Agency never strayed from its project-based model and mission to identify strategies that minimize wholesale power costs, manage future risks, and maintain stable and competitive rates while allowing utility boards' flexibility and autonomy to customize their electricity portfolio.

Aligned with its mission, the team of 11 employees at CMMPA/CMPAS provides consultative advice for portfolio planning, development, and management; energy market scheduling and related services; operational and administrative support; individual and coalition power supply and transmission studies; and energy efficiency and distribution mapping programs.

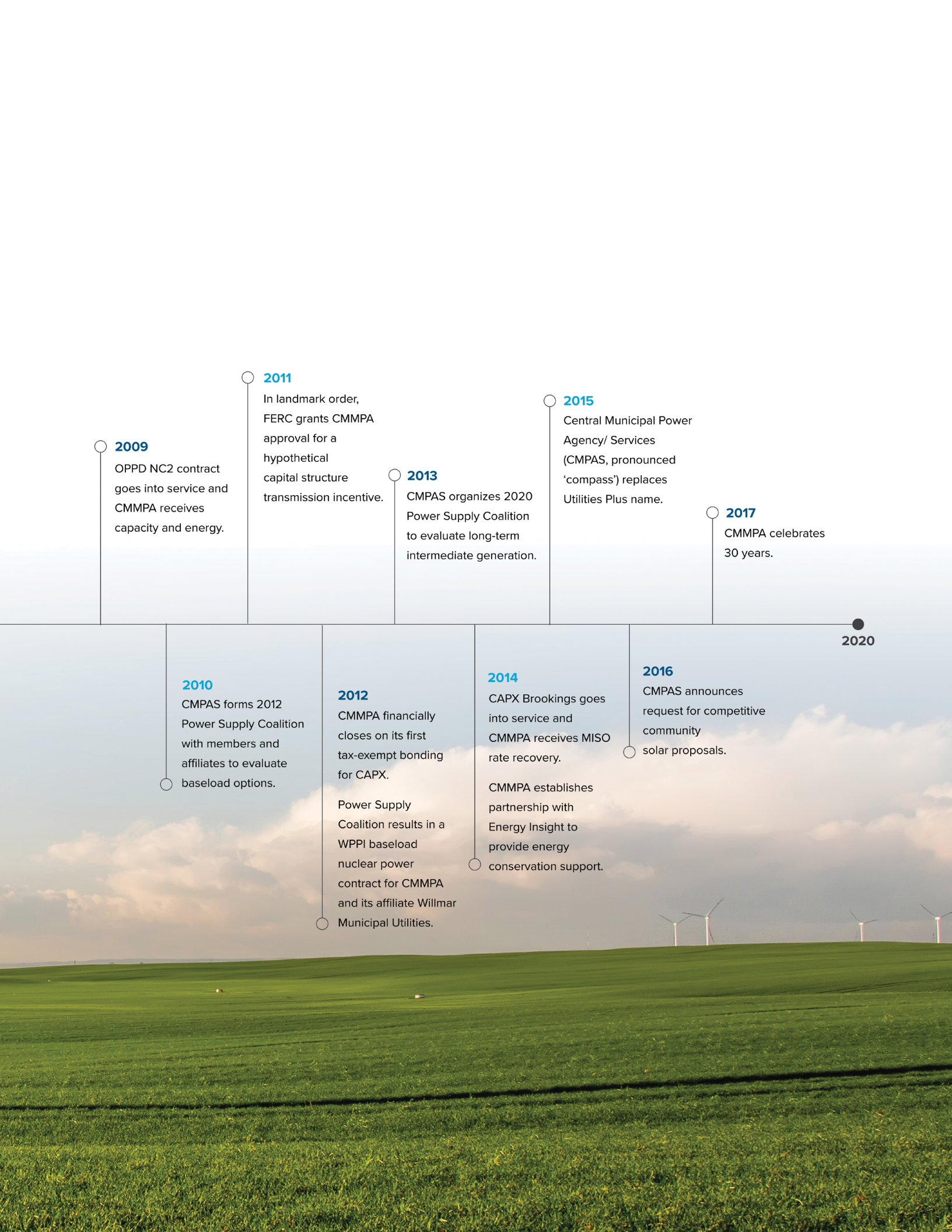
With the passage of 30 years, CMMPA has worked hard to live up to its calling as a strategic and fiduciary advisor that delivers unbiased, independent portfolio system solutions that best serve the customers of municipal utility members. With that commitment in mind, CMMPA heads toward its 50-year diamond anniversary by powering a brighter future for the perpetuation of strong public power utilities.

## AGENCY TIMELINE

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**2009**

OPPD NC2 contract goes into service and CMMPA receives capacity and energy.

**2011**

In landmark order, FERC grants CMMPA approval for a hypothetical capital structure transmission incentive.

**2013**

CMPAS organizes 2020 Power Supply Coalition to evaluate long-term intermediate generation.

**2015**

Central Municipal Power Agency/ Services (CMPAS, pronounced 'compass') replaces Utilities Plus name.

**2017**

CMMPA celebrates 30 years.

**2020**

**2010**

CMPAS forms 2012 Power Supply Coalition with members and affiliates to evaluate baseload options.

**2012**

CMMPA financially closes on its first tax-exempt bonding for CAPX.  
  
Power Supply Coalition results in a WPPI baseload nuclear power contract for CMMPA and its affiliate Willmar Municipal Utilities.

**2014**

CAPX Brookings goes into service and CMMPA receives MISO rate recovery.  
  
CMMPA establishes partnership with Energy Insight to provide energy conservation support.

**2016**

CMPAS announces request for competitive community solar proposals.



## HIGHLIGHTS OF 2017 FOR CMMPA/CMPAS

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### PLANNING AND DEVELOPMENT

#### Power Supply

As a result of strategic alliances and planning, CMPAS closed on a fixed-price seasonal power purchase in the fourth quarter of 2017. Over a four-year period, 30 utilities in 3 states participated in a CMPAS 2020 Power Supply Coalition. Beginning in 2021, approximately, 71,000 MWh will be supplied annually to 10 public power participants bringing more price certainty to their individual portfolios.

#### R4 Solar

Six members offered the R4 Solar Program to their customers. In its first year, this community solar program developed by CMPAS sold 211 subscriptions or panels to 64 customers in 6 cities. For customers, R4 Solar represents a price-competitive, hassle-free, and environmentally sound alternative to installing rooftop solar panels on homes and businesses.

#### Transmission

In the quest to continue neutrally investing in transmission projects, the Agency is exploring new transmission projects.

#### My Energy Savings

The ten members participating in the conservation and energy efficiency program branded My Energy Savings helped residential and commercial/industrial customers achieve 1.85 percent in energy savings equaling 5.7 million kWh. Those same members made efficiency improvements to their local utility systems that account for 3.15 percent in energy savings or nearly 10 million kWh. Altogether, energy efficiency initiatives in the ten cities achieved more than 15 million kWh in energy savings.





## ACCOUNTING AND FINANCE

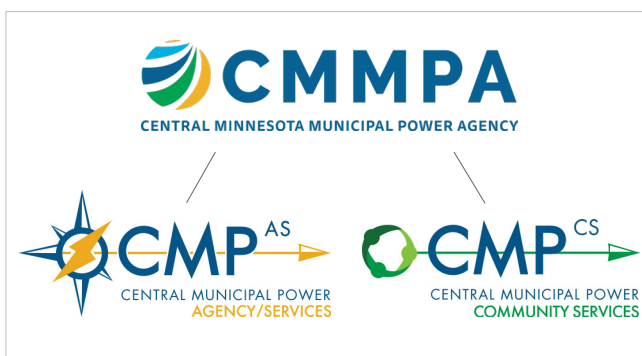
CMPMA began a new relationship with Baker Tilly Virchow Krause, LLP (Baker Tilly), a nationally recognized accounting and advisory firm, to conduct its 2017 financial audit.

### Transmission

As a result of CMPMA investing in the CAPX 2020 Brookings project on behalf of agency members and a half dozen affiliate public power utilities, the Agency annually submits an Attachment O to the Midcontinent Independent System Operator (MISO). The Attachment O provides the formula rate for recovery of a utility's transmission revenue requirements. CMPAS also files an Attachment O for member and affiliate transmission assets.

## COMMUNICATIONS

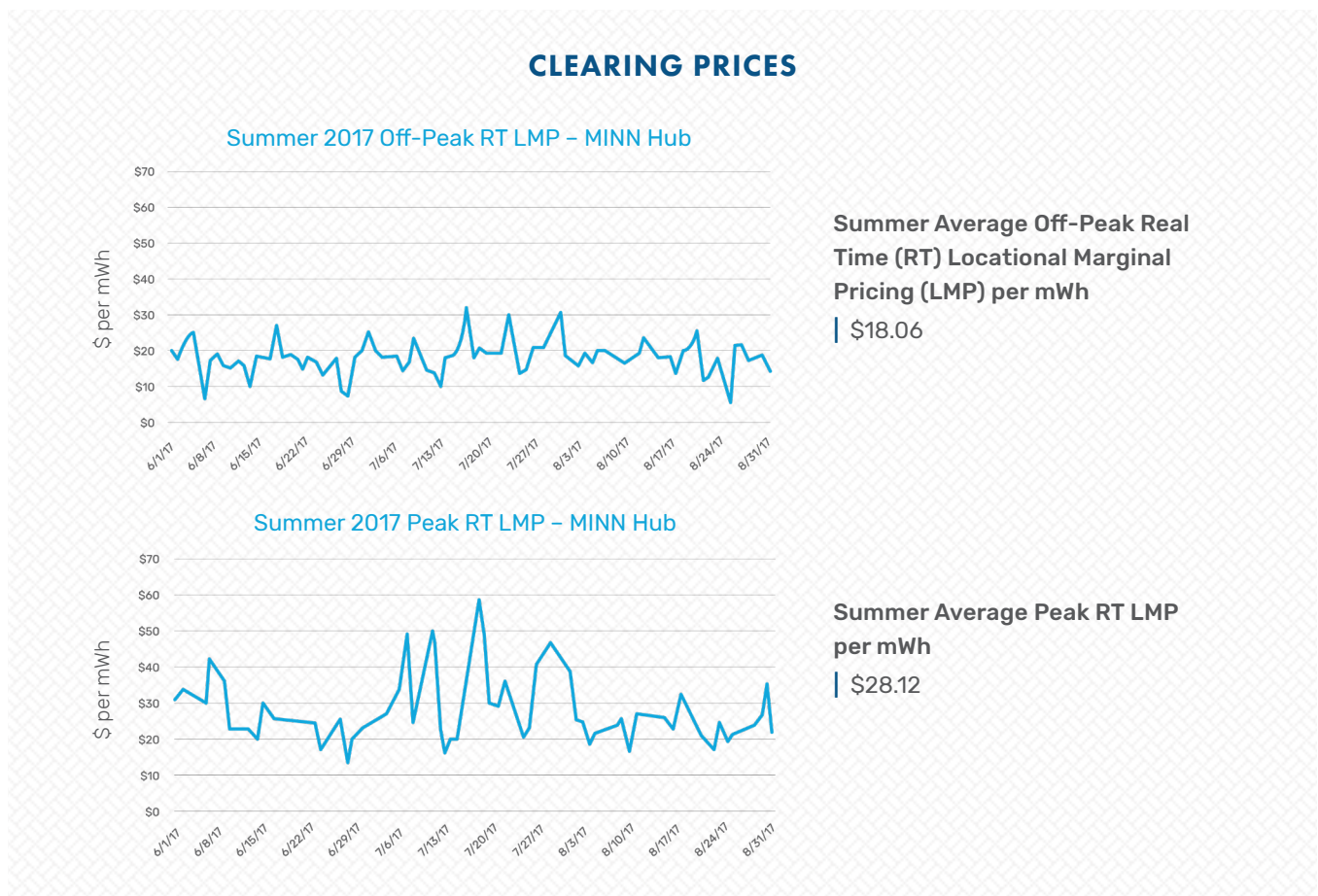
In time for Central Minnesota Municipal Power Agency's (CMPMA) 30-year anniversary, logos were revitalized to complement the logo of its management and consulting services agent, Central Municipal Power Agency/Services (CMPAS – pronounced "compass"). We hope that you agree that the new family of logos convey the consistent quality that the agency works to achieve every day.



## OPTIMIZING MEMBER PORTFOLIOS

Wholesale power accounts for about 60 percent of the retail price of electricity delivered by CMPMPA members. If we can shave \$1 or \$2 off the price of each unit of wholesale power, that is a meaningful savings that will be reflected in the bills our members send to their customers.

Although brief periods of sharp price volatility occurred in 2017, such as when a generator or transmission line went down unexpectedly, power prices in our regional power market, the Midcontinent Independent System Operator (MISO), were fairly stable last year.



In recent years, the power market has been shifting, driven by the closure of coal-fired generation and the construction of new wind and gas-fired generation. New transmission projects also have come online, remapping power pathways in our state and region. New regulations, shifting economics, and fresh cyberthreats all shape the power business these days.

Today's power market is very different from what it was when CMPMPA and CMPAS began operating.

Many of these changes play to CMPAS's expertise in long-term power-supply planning and energy markets. Last year, we signed a decade-long wholesale power-supply contract at an attractive price for about 20 megawatts (MW) of power that will flow to members for 16 hours a day during weekdays (known as a 5 x 16 contract).





Those power contracts, along with additional customized power-supply contracts for two members for summer dispatch, will help keep members supplied with stable, low-cost, reliable, wholesale power for years to come. These long-term contracts support our members' efforts to keep retail electric prices as low as possible.

Acting as agent for our members, CMPAS is active in MISO every day, searching for low-cost, reliable power options. If we are successful, our members are successful. We design and maintain a generation portfolio that mitigates risks and manages around turbulence in the market. Last year, we procured about 400,000 megawatt-hours (mWh) of wholesale power, valued at about \$22 million, for our members.

**"Our mantra is, 'low cost, low risk, and low volatility,'"** said Chad Hanson, Supervisor of Operations and Analytics. **"We conduct a lot of evaluations and analyses of loads and prices to find the sweet spot of low cost, low risk, and low volatility."**

## OPTIMIZING MEMBER PORTFOLIOS

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Members require stable, low-cost power, and Chad and his team respond to that need. Thanks to their diligence and market savvy, our wholesale power costs compare favorably to other agencies in MISO. While wholesale power costs for other agencies are rising, ours are lower than they were ten years ago (See Wholesale Power Costs figure).

**Our members also feel strongly about choice and optionality. They don't want to be locked into inflexible long-term contracts where they are required to take power whether they need it or not.**

That's why CMMPA and its management agent, CMPAS, constitute "project-based agencies," where each member has a unique power-supply portfolio and autonomy over the composition of their portfolios. We provide members with information and power-supply options, and they choose what works best for them.

At yearend 2017, CMPAS's power portfolio was about 48 percent carbon-free, which provides an important hedge against market volatility, particularly for natural gas, as well as insulates our members from potential carbon risks.

Beyond generation, transmission is another driver of the price our members pay for power.

The Upper Midwest has seen a lot of transmission construction in recent years, and we have been active in that buildout.

Our 3.9 percent ownership of the CAPX 2020 transmission project, made for \$35 million, will save our members at least \$52 million over the project's 40-year lifetime. Owning transmission brings revenue to offset transmission rates that utilities would otherwise pay as renters. Since transmission rates have increased faster than the rate of inflation (6 percent transmission rate increase compared to 2 percent inflation), transmission ownership is proving to be a wise choice that will help our members hold down their retail electric prices.

Wholesale power, whatever its cost, has no value if you can't bring it to where it is needed. As the power pathways in the Upper Midwest continue to be remapped, we expect further upward pressure on transmission prices. In 2017, we began investigating potential new transmission investments, to increase efficiencies and further lower costs.

In our region, the place where value is created is shifting incrementally toward transmission. We are racing to get there before our rivals, so we can strike better deals on our members' behalf.

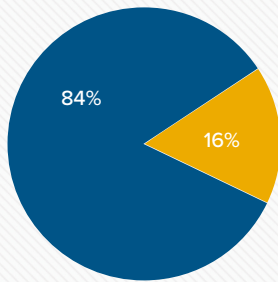


## WHOLESALE POWER PORTFOLIOS

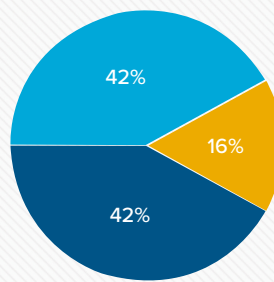
### Energy Information

- WAPA Hydropower
- Coal
- Market
- Nuclear
- Short-term Fixed Price 5x16 PPA
- Renewable

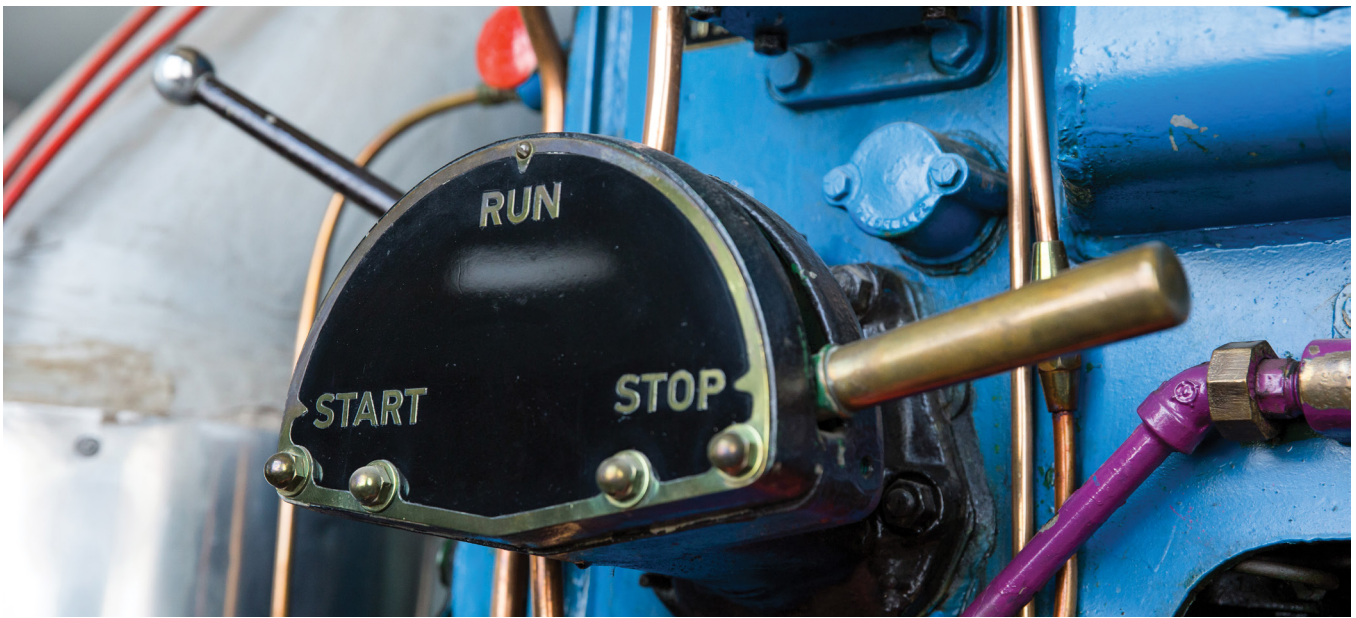
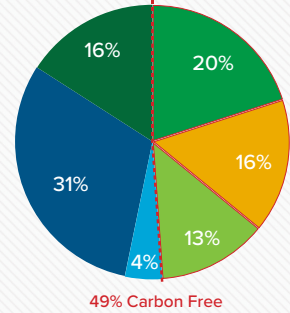
Pre 2003 Energy



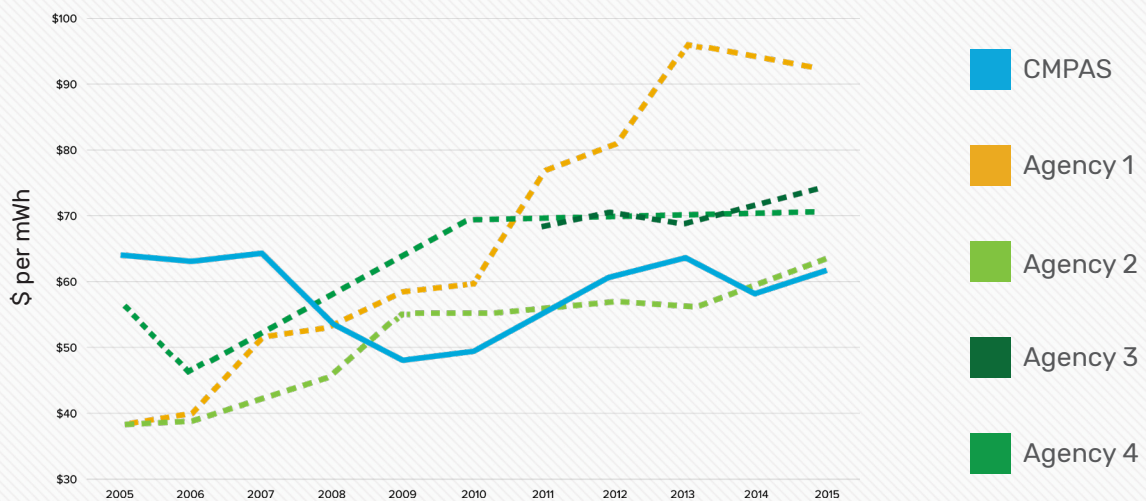
Post 2003 Energy



2017 Energy



## WHOLESALE POWER COSTS



# COMMUNITY SPOTLIGHT

## R4 SOLAR PROGRAM PROVIDES EMISSION-FREE ELECTRICITY

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In the power business, when you say, “resources,” several adjectives about generating and delivering electricity come to mind: reliable, cost competitive, and environmentally sound.

To help members meet and exceed environmental expectations, we developed a community solar subscription program for their customers. We analyzed the costs and benefits of building our own project or participating in a community solar project with our public power neighbor, the Southern Minnesota Municipal Power Agency (SMMPA). Eventually, six CMPAS members decided to offer their customers an opportunity to participate in that program, for aggregate electric demand of about 280 kilowatts (kW).

We launched that community solar program, called R4 Solar. CMPAS members participating in R4 Solar are: Blue Earth Light and Water; Granite Falls Municipal Utilities; Janesville Municipal Utilities; Kasson Public Utilities; Kenyon Municipal Utilities; and Sleepy Eye Public Utilities.

R4 Solar demonstrates the difference between a project-based joint action agency (JAA), like CMPAS, and other JAAs, which obligate all members to a proportional share of all projects that are undertaken.

We don’t approach members with a pre-baked plan and try to convince them to participate. Rather, we start by talking to members to make sure we understand their needs, wants, and expectations. What we hear drives the action plans we create.

The four Rs in the R4 Solar program’s name stand for Renew, Reduce, Respect, and Repeat. When you consider the values that cause members and customers to support emission-free electricity, those four Rs really summarize the story.

Community-based solar projects like R4 Solar play an important role in meeting member and customer expectations. Some customers want to purchase clean, renewable solar power, but for one reason or another can’t. Perhaps the cost of a rooftop-solar array was too high. Maybe there were restrictions on what could be attached to a home’s roof. Or their roofs might not face the right direction for optimal solar generation.

A community solar project removes all of those impediments and lets our members’ customers fulfill their goals — electric service the way they want it.

“R4 Solar is a good alternative to rooftop solar, which is very expensive and not practical for some customers,” said Theresa Coleman, a CMPAS board member and the administrator for the City of Kasson. “Whether you participate in R4 Solar or not, we all benefit from electricity that is emission-free.”

Nate Zimmerman, general manager of Janesville Utilities, agreed. **“R4 Solar is a fabulous program that fits well with a utility of our size. Some of our customers have a strong interest in solar power, and they are okay paying a premium for it. But not everyone feels the same way, and we didn’t want to force it on our customers.”**







## MAPPING AND PLANNING MEMBERS' DISTRIBUTION SYSTEMS

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If you don't have a map, it can be difficult to get from Point A to Point B effectively. That's certainly true for summer car trips with the family. However, it's even truer when it comes to electric distribution systems.

**"A few years ago, when our system was bumping up against the limits of our transformer capacity, our consulting engineer recommended building a new substation at the cost of about \$2 million,"** recalled Tim Stoner of Blue Earth Light and Water. **"We called Vignesh at CMPAS to see if he had a better idea."**

He did, and his recommendation deferred a \$2 million capital cost for Blue Earth and its customers.

Instead of building a new substation, Vignesh Subramanian, CMPAS's systems engineer, mapped and planned Blue Earth's electric distribution system, creating the essential foundation for system improvements that could increase efficiencies, prevent construction of a new substation, and save the utility and its customers money.

Rather than building a \$2 million new substation, Blue Earth built capacitor banks and made system improvements. The substation alternative cut line losses by 50 percent, increased large commercial customers' power factors by almost 40 percent, and saved everyone money. These benefits happened as a result of Vignesh's mapping and planning.







These moves also helped the environment: increasing the efficiency of the electric network lowered carbon dioxide emissions by about 1,348 tons, according to a calculator maintained by the U.S. Environmental Protection Agency.

We provide these distribution mapping and planning services as a member benefit, at no additional cost. If members had to contract with a third-party electrical firm, they could have been charged between \$70,000 and \$200,000 for those services.

Blue Earth was our first member to take advantage of these services. That distribution planning and mapping project, completed in 2015, provided the basis for installation of capacitor banks on its system and

behind its large commercial customers' meters, which took place last year. The utility realized a net benefit of about \$25,000, and the project recovered its investment in nine months.

Our ultimate goal would be to map all of our members' distribution systems, then conduct engineering planning work on those systems to identify where and how we could improve those systems.

# COMMUNITY SPOTLIGHT

## FIRST THINGS FIRST: DISTRIBUTION MAPPING SERVICES

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Members were generous in their praise for the distribution mapping and planning work Vignesh performed in 2017.

"I can't say enough about how Vignesh has supported us," said Blue Earth's Tim Stoner. "His work was extremely helpful. He took us from paper-based maps of our distribution system to a dynamic, digital visualization of our system. He really helped us get into the 21st century."

Added Nate Zimmerman of Janesville: "We have been relying on paper maps and rough computer-assisted design (CAD) maps, but honestly, what we had wasn't great. CMPAS put something in front of me that I had been seeking. They took the big picture out of my head and mapped it so I could sequence the work."

"CMPAS really shines because they help us on a customized, individual basis. For example, Blue Earth has an overhead system, and capacitor banks can make a huge difference there. But Janesville's system is almost entirely underground. Capacitor banks are less important to me than conducting a fuse coordination study and designing and placing fault indicators so we can shorten power-restoration times when we have an outage."

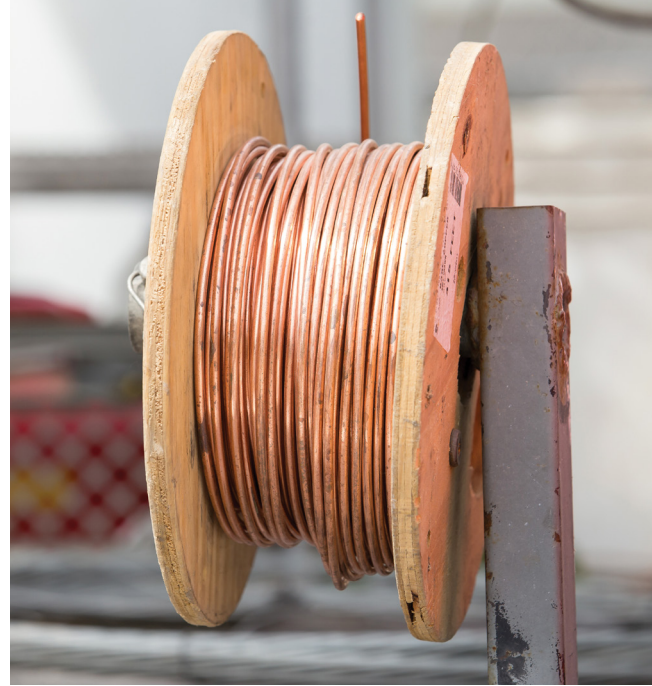
**"CMPAS has 12 utility members with 12 different legacies and 12 sets of unique needs,"** Nate continued. **"There's no cookie-cutter approach to their work, and that makes all of us stronger together."**

A few years ago, CMPAS began offering distribution mapping and planning to its members, to help them transition away from static, paper-based distribution maps to dynamic, electronic maps. Electronic maps allow members to visualize in real-time the operation of their distribution systems so they can see how well their systems are operating.

Distribution mapping and planning is necessary for any member than wants to upgrade its network to reduce line losses and increase power factors, both of which can bring meaningful operational and financial benefits.

We're delighted that word is getting around. In 2017, other members, including Sleepy Eye, Windom, and Mountain Lake, saw how Blue Earth's system operations improved with the distribution mapping. They signed on to have their systems mapped. Two other members, Kasson and Springfield, also began the mapping process last year.







## PROVIDING PERSONALIZED SERVICES

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Since our founding 30 years ago, members told us they wanted and needed a partner that would provide them with customized services. Our members were wary of being locked into inflexible, “one size fits all” contracts with an all-requirements joint action agency.

“Providing personalized services” has been our watchword since the beginning. In 2017, we delivered on that promise in several ways:

- Managed cost-of-service studies for four members to help them understand their actual costs in case they needed to adjust their prices.
- Assessed the costs and payback for a proposed refurbishment of a hydroelectric generator at Granite Falls.
- Developed resource plans for ten members so they could select their portfolio of generating and non-generating resources to meet their communities’ needs and expectations.
- Solicited competitive bids and analyzed request for proposals (RFPs) for our community solar program, and helped members market the program as R4 Solar.

By working individually with each member, we can gain a better understanding of their specific needs, wants, and preferences. Some communities feel it is important to maximize the amount of carbon-free electricity they provide. Others opt for the lowest-cost option.

The electricity business today is more dynamic than it has ever been. A decade ago, baseload, coal-fired power plants were commonplace in the Upper Midwest. Today, those units are being replaced with smaller, gas-fired units. Large windfarms have sprouted up, generating carbon-free electricity at an increasingly competitive price.

The old rules of the game no longer apply. Today, being nimble has replaced being big as a determinant of success.



**“As the cost of renewables continues to decline, and electricity storage projects start to pencil out, we’re going to see a lot more changes in the business,”** said Kyle Haemig, CMPAS’s economist and resource planner. **“Electric vehicles could become not only a means of transportation but also a type of electricity storage.”**

That’s why Kyle and his colleagues are deeply involved in power procurement and power economics. The days of “set it and forget it” are gone. CMPAS works hard to help utility managers, commissions, and councils make the best decisions possible for their cities.





# COMMUNITY SPOTLIGHT

## IF WE DIDN'T HAVE CMPAS...

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Theresa Coleman thought for a moment. **"If we didn't have CMPAS, we'd either have to hire one or more full-time staffers or take our chances with a less-flexible, full-requirements contract with another joint action agency. Or we could buy power from an investor-owned utility or an electric cooperative."**

**"But we're not interested any of those options. That's why we're members of CMPAS,"** she continued.

Theresa is the administrator for the City of Kasson. She also sits on the CMPAS board. She brings a unique perspective to her work: she is a former public utilities commissioner in Lanesboro, where she oversaw that city's utility.

"Small cities are stretched so thin," she said. "We need to partner with others to attain a critical mass so we can compete with larger entities. If being part of a larger group like CMPAS helps us better serve our customers, then why wouldn't we be members of CMPAS?"

The City of Kasson, which serves about 2,600 customers, went a decade without performing a cost-of-service study, Theresa recalled. "We just kept adding new assumptions to last year's assumptions. You do that for a decade, and you can lose sight of your actual costs. Are you charging customers too much? Too little? You can't tell without a cost-of-service study, which could cost \$10,000 or more."

Theresa asked if CMPAS could arrange for a cost-of-service study. That study, completed last year as a CMPAS member benefit, with no additional cost, allowed the City of Kasson to lower its electricity prices by 5.5 percent to large commercial customers and one percent to residential customers.

"That might not sound like a lot, but in my community, every dollar helps," Theresa said. "The price reductions are one way we are demonstrating value to our customer-owners. Being part of CMPAS helps us do that."







## HELPING OTHERS

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There's service ethos in people who work for locally owned utilities, a willingness to go the extra mile to help others in need. Shining a light on people who have this tireless commitment to service reminds all of us why we work for municipal utilities.

Here are two such stories of service.

### DETERMINED PURSUIT PAYS OFF FOR DELANO MUNICIPAL UTILITY

Paul Twite, general manager of Delano Municipal Utilities, is a creative fellow and embodies his town's slogan, "Spirit of Community." Painted in 10-foot high letters on Delano's water tower, it's also etched in his heart.

"Minnesota law requires us to achieve 1.5 percent energy savings annually and carves out a spending requirement for 0.2 percent of gross sales revenue on energy-efficiency programs to benefit income-qualified customers," he said recently. "But spending that money isn't as easy as you might think."

A few years back, Paul approached the local Boy Scout troop, the high school football team, and students on the high school dean's list with an innovative service project: Go door-to-door in the community to distribute a free kit of six compact fluorescent bulbs, which would lower electric use and, hopefully, customer's bills.

Since the program was not targeted enough to low-income customers, Paul refined the idea: Recruit high-school students to direct-install high-efficiency refrigerators for income-qualified customers. He thought it was the perfect mix of high-tech and high-touch, but after one year, the school district cautioned against the project because it exposed the district to potential liability since it was not a school-sanctioned activity.





Undeterred, Paul asked two economics professors at the University of St. Thomas, “Can we put together a semester-long project analyzing energy efficiency upgrades to Delano’s streetlights?” The answer, this time, was a resounding “Yes!”

The college course coupled classroom learning in two classes, public-sector economics and managerial decision making, with hands-on accounting that included counting the city’s streetlight fixtures and calculating benefits of switching to light-emitting diode (LED) streetlight fixtures. LED fixtures last for as long as 20 years compared to an average of about five years for conventional streetlight fixtures, and they produce much brighter lighting while using far less electricity.

In addition to helping Paul meet his 1.5 percent energy savings requirement, the two professors received their school’s Curricular Innovation in Sustainability Award. Moreover, the students got some real-life experience applying concepts taught in the classroom.

The City of Delano accepted the recommendations from the students and professors, who projected the city could save \$854,000 over ten years by replacing all its streetlights with light-emitting diodes (LEDs).

One student involved with the project, Anna Kate Nolan, said, “This project has allowed us to analyze real-world

data, collaborate with classmates, and present solutions to problems that affect real communities. We are applying skills we cultivated in the classroom to projects that advance the common good.”

That’s what public power is all about. Looking out for the common good. Making efficient use of all available resources — electrical, intellectual, community, personal, and financial. Selfless service. Local control.

Because Delano Municipal Utilities is owned by those it serves, it keeps its money on Main Street, ready to invest in energy-efficiency upgrades. It doesn’t send its money to investors on Wall Street. Thanks to Paul’s determination, the streetlights are brighter in Delano. And that’s good for everyone.



## HELPING OTHERS

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### SLEEPY EYE LINEMEN JOIN CARAVAN TO RESTORE FLORIDIANS' POWER

On a Thursday afternoon last September, linemen Jeff Meyer and Jose Saenz were nearing the end of their shift at Sleepy Eye Public Utilities when an urgent call came in. Hurricane Irma, a Category-Four hurricane, was bearing down on Florida. Widespread destruction and power outages were expected. Utilities there needed all available linemen, troublemen and other skilled field personnel to help rebuild what Irma was expected to destroy.

Irma was as destructive as feared: It turned out the lights for about 6.7 million Floridians, including about 827,000 who were served by public power utilities like Sleepy Eye.

Thirty-six hours after getting the call, Jeff and Jose were part of a caravan of about 30 workers from other locally-owned utilities in Minnesota driving across the country to help their utility brethren in Florida. In all, over 2,000 workers from 19 states traveled to Florida to help rebuild the electric system and restore power.

Rendering mutual aid is a time-honored tradition among all electric utilities, whether they are municipals, cooperatives, or shareholder-owned. When an extreme event like a tornado, hurricane, wildfire, or earthquake hits a region,

utility field workers from outside that region travel to the affected areas to help restore power and rebuild the damaged electric networks.

It wasn't like Sleepy Eye had a lot of extra linemen sitting around with nothing to do. Their five-man crew already was down one, as a member was home with a newborn baby. Sending 50 percent of the remaining field workers to help out-of-state utilities posed a certain risk: What if an outage hit Sleepy Eye?

"Going to Florida was Jeff and Jose's decision," said Bob Elston, public works director for Sleepy Eye. "The reason we help others when they need it is that we hope people would return the favor if we need it."







Departing Rochester, Minnesota, at 9 AM on Saturday, September 9, Jeff and Jose drove for two days, staying in Paducah, Kentucky, and Cartersville, Georgia, on their way to Florida. But they had to wait until Irma passed through Florida. “It wasn’t all bad,” said Jose. “We got to watch the Vikings beat the Saints on Monday Night Football.”

“Once we crossed into Florida, there were so many vehicles coming into the state that the four-lane highway we were on was a parking lot,” recalled Jeff. “Even though we left Cartersville, Georgia, at 3 AM, it looked like a lot of other people had the same idea — ‘let’s start driving early so we can beat the traffic!’ ”

Mutual aid is hard and dangerous work, even for those accustomed to taxing physical labor. Workers are operating in unfamiliar surroundings. Not all utilities follow exactly the same protocol in designing their networks of wires and transformers. One false move can be life-threatening.

Jose, Jeff, and the other mutual aid workers got up each morning at 5 AM, and by 6:30 they were on their way to their assigned job sites, where they remained for about 14 hours, clearing trees, changing transformers, setting poles, and reattaching lines.

Jose and Jeff worked for about 1.5 days in the Central Florida city of Kissimmee, helping KUA crews, then spent a week in the City of Lake Worth. Lake Worth was more heavily damaged than Kissimmee, and there were fewer crews there, so Jose and Jeff stayed there longer.

“It’s all about service,” said Jose. “We’ve got each other’s back. We volunteered, we didn’t wait to be appointed, because that’s how we roll.”

Jose continued: “I still remember how good it felt when we got to one neighborhood and people in the street said, ‘Hey, the Minnesota people are here — we’re going to get our power on today!’ People were bringing us Gatorade and water because it is really hot and humid in Florida in September, and they were so grateful people had come to help restore power.”

This was the first mutual aid callout for Jeff and Jose, but they said they’d go again if there was a need. “Sure, we get a little extra in our paycheck, but this isn’t about the money,” Jeff said. “It’s about helping brothers and sisters who need us.”

Sleepy Eye Public Utilities, with 1,800 customers and a staff of 11, was the smallest Minnesota public power utility to send a mutual aid crew to Florida. Among public power utility employees, Jeff and Jose traveled the farthest, an estimated 1,570 miles, to help restore power in Florida.

While they had some good stories about their road trip, both agreed their mutual aid experience left an indelible mark on them. “Next time we get a mutual aid call to help another utility, we’re on it!” said Jose.

## LOOKING AHEAD

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With Steve's retirement in January, the board of directors followed its succession plan and immediately appointed the Agency's Chief Operating Officer, Christopher Kopel, to interim chief executive officer (CEO). On June 6, the board appointed Chris as CEO.

Chris brings more than 25 years of power industry experience and continued stability through his tenure at CMPAS. In 2013, he joined the Agency as Chief Operating Officer (COO) and directed transmission, wholesale power supply, strategic planning and human resources. As CEO, Chris will continue providing strategic leadership.

As fiscal 2018 unfolds, CMPAS continues to focus on its core planning and management functions to help utilities optimize their power portfolios for the benefit of local customers. Our staff works closely with each utility manager and their team to create economies of scale; leverage purchasing power, and navigate through the increasing complexities of the energy market and the electric grid.

### Some projects for 2018 include:

- updating our energy market reports so utilities can view their position at a glance and use other tools,
- analyzing hedging opportunities to stabilize price swings within utility portfolios,
- providing expertise and information to help utilities by negotiating better energy and capacity contract rates,
- working with our board to update bylaws and governance policies,
- exploring transmission opportunities, and
- helping utilities determine next steps for their distribution mapping and planning goals.

Through collaboration and comprehensive planning and analysis, CMPAS delivers strategic projects and services that translate to lower rates for customers. As CMPAS enters our 31st year, we are well-positioned to carry on our tradition of serving as a municipal compass to power.





## **CMPA's Contact Information**

### **MAIN OFFICE**

459 South Grove Street  
Blue Earth, Minnesota 56013

### **TWIN CITIES LOCATION**

6870 Washington Ave S  
Eden Prairie, MN 55344

### **PHONE**

888-970-8267

### **WEBSITE**

[www.cmpasgroup.org](http://www.cmpasgroup.org)