

WATTS *Current*

January 2020

For Our Members

Year In Review

By *Jeremy Richert, CEO*



Jeremy Richert
CEO

As we transition into 2020 I would like to take a quick look back at some of the events that took place at your Cooperative over the last 12 months.

The year started with a bang as we were hit with the polar vortex towards the end of January. During this period of extremely cold temperatures our system experienced the highest one hour demand for energy in MVEC's history. The distribution system performed as expected and handled the energy needs of our members without much of an issue as we only experienced one outage during this frigid time period.

In June the Cooperative experienced the largest storm damage since at least 1993. This storm resulted in outages to over 7,700 members. Our crews, with some assistance from a neighboring Cooperative, worked around the clock to get service restored in a safe and timely manner. Thanks to their efforts we were able to restore service to almost all locations within a 24 hour window.

We continue to upgrade our system to enable it to handle future growth. In 2019, we built line extensions to serve over 200 new member locations while also rebuilding or upgrading services at 250 existing locations. In the Dubuque area, we upgraded one of our substations. This substation rebuild was a significant project for our crews and will help us handle future growth along the Highway 20 corridor. See page 3 for more on this project.

2019 has also been a very productive year for MVlink. We constructed just over 500 miles of fiber during the last 12 months. In addition to the mainline construction we also connected over 1,200 members to take internet and phone service from MVlink. In total, over 3,800 members have signed up to take MVlink services and the number is growing every day.

The member testimonials we get are wonderful to hear and reinforces the need our broadband project is meeting for our members. If you haven't looked into getting access to the fastest internet speeds in the area check out our website at www.mvlink.coop to learn more.

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Energy Efficiency Tip of the Month

Let the sunshine in! For additional warmth, open drapes over windows that receive sunlight during the day. Close them at night, which can reduce heat loss from a warm room up to 10%

Source: energy.gov



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In addition to meeting the broadband needs of our members, the fiber system is also benefitting the electric network. It has greatly enhanced communications on the electric side and allows us to expand our smart grid efforts as we strive to continue providing reliable and affordable energy to our members. We are currently connecting line equipment and backhauling electric system data over the fiber network for approximately 75% of our system. This tangible benefit to the electric grid, along with the additional revenue the Cooperative is provided from MVlink's internet and phone services, will benefit the Cooperative membership for many years to come.

One of the benefits of being a member owner of your Cooperative is that you build equity in the Cooperative based on the electricity you consume each month. As a not for profit entity MVEC allocates margins in excess of those needed to operate the Cooperative back to you, the member owner, on an annual basis. This patronage is then retired and paid out at a later date. In 2019, your Board of Directors allocated \$667,000 of 2018 margins back to the membership. In October the Board retired and paid \$418,000 of the patronage that was allocated in 2004 and 2005 back to our member owners. Over the last 35 years MVEC has returned \$13.2 million in patronage back to our members.

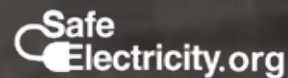
A second benefit of being a member owner is that you are allowed to participate and have a voice in how the Cooperative operates by electing the Board of Directors. At our annual meeting in August, the membership re-elected three Directors (Billie Zumbach, Ron Thielen, and Tom Stewart) to serve three year terms. Your Board of Directors works diligently to meet the needs of our membership. One of the focuses of the Board in recent months has been to ensure that we are transparent with the members on how your Cooperative is operated. We feel we do a good job in this area but there is always room for improvement. In the coming months we plan to add additional information to our website at www.mvec.com that relates to governance issues. Examples include the Articles and Bylaws of the Cooperative, information on the Director qualifications and election process, summary of board meeting topics, and details on how to contact the board with questions or concerns.

I would like to finish by thanking the employees for their efforts in 2019. It is their talent and dedication that allows MVEC to provide the high level of service you have come to expect. The Board of Directors and employees are looking forward to a successful and productive 2020 as we continue to provide you with safe, affordable, and reliable services.



PILLOW TALK SAFETY

Taking your cell phone to bed with you can do a lot more harm than interfere with your sleep.



For more information, visit:



Substation Receives Safety and Capacity Enhancements

Over the last decade Maquoketa Valley has upgraded several of our older substations. These upgrades typically coincide with the rebuild of the transmission lines that deliver power to our substations and result in increased reliability and capacity for MVEC's distribution system.

Members of our Technical Services team and Operations department recently completed a major upgrade to one of our substations in the Dubuque area. Engineering studies have shown that a larger substation transformer will be needed to meet the growing energy demand in the area over the coming years. In addition to the larger transformer our crews increased the substation footprint to provide better access to the equipment and improve the safety of crews working within the substation. We also upgraded our smart grid functionality to ensure we have access to real time data to assist us in monitoring and operating the distribution network.

During construction we were able to transfer members to adjacent substations to avoid interruptions of service. With the completion of this rebuild, this substation is prepared to serve members in Dubuque County for many years to come.



1



2



3



4



Before



After



Old Electronics?

If you received new electronics for Christmas, consider recycling your old ones.

Electronics are made from metals, plastics and glass that require energy and time to reproduce.

Before you donate or recycle

Can you upgrade the hardware or software on your current computer to extend its life? If the answer is no and you ultimately decide to get rid of a computer or other device, destroy all personal information from the device first. Also, remove any batteries from your electronics for separate recycling.

Where to donate or recycle

Several manufacturers and local and national retailers offer donation or recycling options. The EPA's Sustainable Materials Management (SMM) tracks and publicizes participants, and major companies include Best Buy, Dell, Sprint, Sony and Vizio. SMM participants strive to send 100 percent of used electronics they collect to certified recyclers and refurbishers.

For more information about recycling electronics, refer to EPA's website and other reputable sources.

How to remove data

There are a variety of ways to permanently erase data from your electronic devices prior to getting rid of them, and methods vary from device to device. According to the U.S. Department of Homeland Security, Earth 911, and other electronic recycling gurus, general guidelines include:

1. Back up data. Save your data to another device or second location (external hard drive or cloud).

2. Delete data. Although files appear to have been removed, data is still there, according to Homeland Security. Even if you empty the virtual trash, the deleted items can still be retrieved. Permanent data deletion requires several steps; spend some time researching how to effectively delete data for the device you are recycling.

3. Overwrite. This is when you delete sensitive information and write new binary data over it. Unless you are a computer expert you might want to consult a professional for this.

4. Destroy/take your stress out on your device. Physically destructing a device is the ultimate way to prevent someone else from retrieving your personal information. There are companies that specialize in disintegrating, burning, melting or pulverizing your computer drive and other devices.

For more information on steps 1 through 4, refer to the Department of Homeland Security's website.

RECYCLING YOUR ELECTRONICS

WAIT! Before you recycle or donate your unwanted electronics, consider these tips from the EPA. **BEFORE** you donate or recycle:

- 1 Delete and destroy all personal information from the device.
- 2 Remove batteries for separate recycling.
- 3 Check with the manufacturer or with local or major retailers for recycling options.
- 4 Consider upgrading your current computer's hardware or software instead.

Did you know? Recycling one million laptops saves the energy equivalent to the electricity used by more than 3,500 U.S. homes in a year!

For every million cell phones we recycle, we can recover...

- 35 thousand pounds of copper
- 772 pounds of silver
- 75 pounds of gold
- 33 pounds of palladium

For more information, visit SafeElectricity.org.



Why Do We Advertise?

We recently televised a Get to Know commercial and it generated a question “Why Advertise?”. With Iowa’s defined service territory law, we do have a somewhat captive audience. Yet membership surveys continually rank communication as a high priority. We attempt to meet each member where they are with our messaging, with direct mail, a monthly newsletter (mailed or emailed), periodic bill inserts, social media, websites, digital marketing, billboards and even some radio and television advertising.

Communications cover a broad range of topics ranging from our services, to safety awareness to energy efficiency and regulations. In addition to reaching our members, it is important we build name recognition for those people who are not yet members of our Cooperative; and elected officials need to be cognizant of our activities as they develop laws that may impact our costs or services.

With the expansion of our smart grid, we are entering a highly competitive environment with internet and VoIP telephone services. While this part of our advertising is focused and directed to those we are able to provide services to, you will see increased promotions to build awareness of MVlink as a service of Maquoketa Valley Electric Cooperative.

We know our members want us to control costs so all paid advertising is carefully considered. We are fortunate to have the opportunity for group-buy savings through our power supplier, Central Iowa Power Cooperative. As they work to build awareness about the value of the cooperative business model and the impact cooperatives have on their local communities, we are able to participate at a much lower cost than if we were to venture into that medium on our own.

Your board of directors and management staff consistently follow the Cooperative’s values, including being fiscally responsible and accountable to our members. We hope when you see our communications you will take note of our efforts and help share the value of the cooperative you have ownership in.

Three DIY Efficiency Projects To Tackle This Year

A New Year brings new opportunities to save energy and money. You may think energy efficiency upgrades require a great deal of time and expense, but that’s not always the case. If you’re interested in making your home more efficient but don’t want to break the bank, here are some DIY projects you can tackle to increase energy savings.

Trim Dryer Vent - Level of difficulty: easy. Supplies needed: tin snips, gloves, measuring tape and masking tape. Estimated Cost: about \$25

If your dryer vent hose is too long, your dryer is working harder than it has to, using more energy than necessary. The vent hose should be long enough for you to pull the dryer out a couple feet from the wall, but the shape of the hose should form a line it should not have a lot of slack, with twists and curves. A shorter, unobstructed vent hose increases the efficiency of your dryer, dries clothing faster and reduces lint buildup, which can create potential fire hazards.

Simply measure, mark and trim the hose to the desired length, then reattach the hose to your dryer and exterior.

Seal Air Leaks - Level of difficulty: moderate. Supplies needed: caulk and caulk gun, weather stripping, gloves, putty knife, paper towels. Estimated Cost: \$25 to \$50 depending on the materials you purchase.

Sealing air leaks in your home can help you save 10% to 20% on heating and cooling bills. Apply caulk around windows, doors, electrical wiring and plumbing to seal in conditioned air. You should also weather strip exterior doors. Types of caulking and weather stripping materials vary, but ask your local hardware or home store for assistance.

Insulate Attic Stairs Opening - Level of difficulty: moderate. You can build your own insulated cover box or purchase a pre-built box or kit from a local home improvement store for about \$60. If you decide to build your own, check out these step-by-step instructions from the Department of Energy:

<https://bit.ly/36YNCYQ>. Estimated Cost: \$50 to \$100.

A properly insulated attic is one of the best ways to optimize energy savings and comfort in your home, but many homeowners don’t consider insulating the attic stairs, or the opening to your attic space.



The Fiber Download

What's A Guest Wi-Fi Network And Why Do You Need One?

As most of us are aware, home network security is extremely important. If your Wi-Fi network is not properly secured, it leaves you vulnerable to a variety of security threats. Determined hackers can use your Internet service for free, introduce malware onto your devices, and steal your personal data. It's even possible for a hacker to hijack your Wi-Fi router and use it, along with thousands of other hacked routers, to launch a large-scale cyberattack on a company, government agency or other organization.

Fortunately, these threats can usually be addressed with some simple measures, like using the right type of Wi-Fi security (the WPA2 security protocol), setting a strong Wi-Fi password and changing it every few months.

Your house guests may pose a threat to your home network

There is another type of threat to your home network you may not be aware of: your house guests. If your network is not set up correctly, visitors who access your Wi-Fi network pose a potential security risk to your devices and data. Here's how. Let's say that you have two laptops, four smart phones and a tablet in your home, any of which could be connected to your Wi-Fi network at any given time. Let's say you also have several smart home devices connected to Wi-Fi, and you have a portable USB hard drive plugged into your Wi-Fi router to share files with other family members. Whenever a guest logs into your primary Wi-Fi network, they will also have access to every one of these devices. While it's unlikely any of your friends would intentionally sabotage your network, there's a chance that the device they are using to connect to your network is infected with some sort of malware. If so, there's a possibility that this malware could be spread to other devices connected to your network

Why you need a guest Wi-Fi network

Fortunately, there's a simple way to address this particular threat. Most Wi-Fi routers give you the ability to create what's called a "guest Wi-Fi" network. Unlike your regular Wi-Fi network that you and your family members use, the guest Wi-Fi network restricts what your guests can do in your network. Specifically, it gives visitors access to your Internet connection and nothing else. They can't see any of your devices on the network and they don't have the ability to access them. Most importantly, they can't accidentally introduce malware or compromise your devices or data in any other way.

How does a guest Wi-Fi network work?

Here's how a guest Wi-Fi network works. Anyone looking to connect to your Wi-Fi will see your primary Wi-Fi network name as well as your guest network name. For example, if your primary network is called "MyWiFi" your guest network might be called "MyWiFi-guest". Each of these networks has a separate strong password: one you share with guests and the other that you only share with family members. When a guest asks you for your Wi-Fi password, you simply give them the guest Wi-Fi password and ask them to connect to "MyWiFi-guest". Once they're connected, they can use the Internet and you don't have to worry about any security threats.

How to set up a guest Wi-Fi network

To set up your guest Wi-Fi network, you need to access the web interface for your Wi-Fi router. You log into the network, and follow the instructions provided by your router manufacturer to create and set up the guest Wi-Fi network.

Share your guest password with your visitors

Keep a record of your guest Wi-Fi password and make sure it's the password you share with visitors to your home, rather than your primary Wi-Fi password. Don't forget to change your primary and guest Wi-Fi passwords every few months.

Sites to See

Watch this section for new or popular internet sites you may want to explore.

- <https://www.kaspersky.com/blog/guest-wifi/23843/>
We explain what a guest Wi-Fi network is, how to set one up, and what video game consoles and other IoT devices have to do with it.
- www.dummies.com/education/internet-basics/10-fun-things-you-can-do-on-the-internet/
Here are a few things you can do on the web if you are just looking for a fun way to spend your afternoon.

Connection Speeds Glossary of Terms

Network: A home network is simply a method of allowing computers to communicate with one another. If you have two or more computers in your home, a network can let them share files and documents.

Malware: is short for "malicious software" - computer programs designed to infiltrate and damage computers without the users consent. "Malware" is the general term covering all the different types of threats to your computer safety such as viruses, spyware, worms, trojans and so on.

Password: A password is a string of characters used to verify the identity of a user during the authentication process. Passwords are typically used in conjunction with a username; they are designed to be known only to the user and allow that user to gain access to a device, application or website.



ADVANCED POWER STRIPS

Which one is right for me?



I want to stop **WASTING ENERGY** in my ...



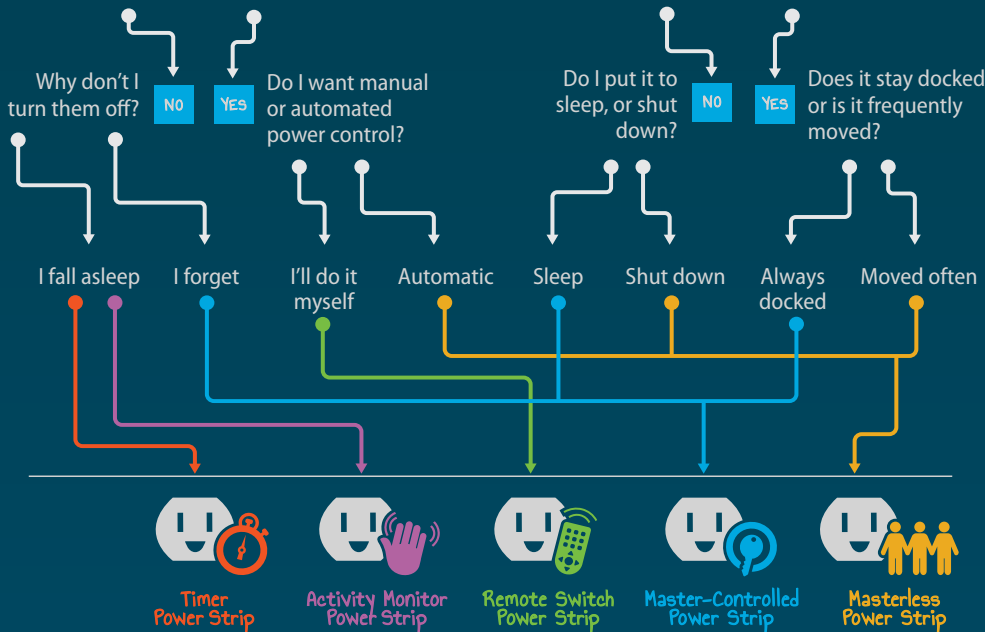
ENTERTAINMENT CENTER

I always turn off my electronics when done



HOME OFFICE

Is the computer a laptop or tablet?



COST

FEATURES

POSSIBLE DRAWBACKS

WHAT TO LOOK FOR

Power strip automatically turns off outlets based on a pre-set schedule.	Power strip looks for signs of activity in the room, and turns off outlets if none is detected.	Power strip can be turned off by the user via a remote switch.	When a primary device (such as a computer or TV) power strip automatically outlets where the peripheral devices (such as the printer or game console) are plugged in.	When all of the controlled devices are turned off, the power strip turns off power to those outlets completely, eliminating all of the vampire loads.
You have to set up the timer and stick to your schedule for maximum energy savings.	Motion sensors don't always work perfectly.	To save any energy, you have to remember to turn off the power strip each time.	It can be tricky to select which appliance should be your "master" device.	Turning off one high-powered appliance could turn off the entire power strip
Digital or dial timer.	Motion sensor or an infrared "eye" that detects remote control use around the TV or stereo.	A tethered switch or a remote switch.	One outlet is labeled as the "master".	No "master" outlet. Description may include "automatic switching" or "power detection."

Watts The Answer?

1. In addition to meeting the _____ needs of our members, the fiber system is also benefitting the electric network.

2. There are a variety of ways to _____ erase data from your electronic devices prior to getting rid of them, and methods vary from device to device.

3. There is another type of threat to your home network you may not be aware of: your _____.

Mail your answers in with your energy bill, or email them to efletcher@mvec.coop

Two winners will each receive a \$10.00 credit on their energy bills.

Please complete the following:

Name _____

Address _____

November winners:

Chelsey Zenner, Sherrill

Clarence Kennicker, Holy Cross



90% of deciduous trees can be pruned in the winter once the trees have gone into dormancy.

Stay clear and safe around all electric lines



research collected from the Chicago Botanic Garden



Maquoketa Valley
Electric Cooperative
109 North Huber Street
Anamosa, Iowa 52205

PRSRT STD
U.S. POSTAGE
PAID
Cedar Rapids, IA
Permit 174

“Please be patient when the power goes out. Workers need to efficiently and safely restore power.”



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If you would prefer to have the Watts Current emailed to you, please sign up by emailing efletcher@mvec.coop

Understanding Your Electric Bill

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Off-Peak hours are Midnight - 4 p.m. and 9 p.m. - Midnight

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