

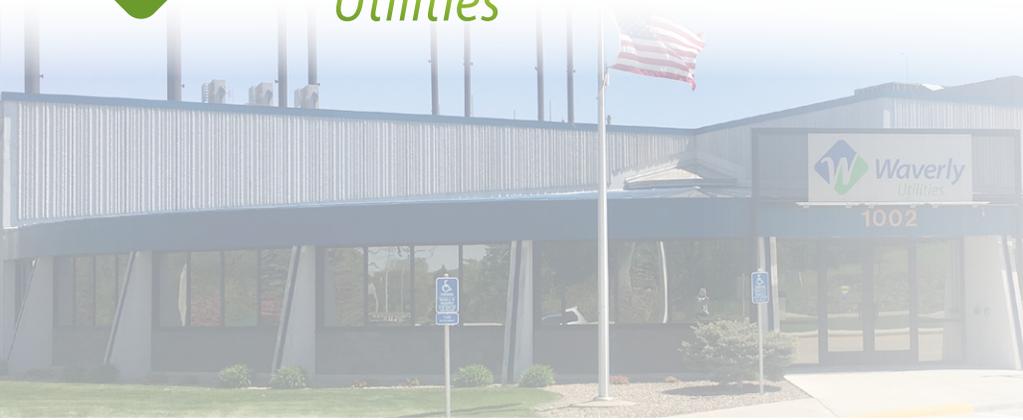


Waverly
Utilities

the Connection

Powering the color of life

2020 | Q1



At a Glance

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 - Electric Vehicles
 - Solar Garden
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Trend Report of 2020 Electric vehicles bring benefits; charging challenges

As the popularity of electric vehicles continues to rise across the country, the Waverly Utilities Board of Trustees is keeping their collective eye on the potential local impact.

“At the end of 2019, there were less than 10 fully electric vehicles registered in Bremer County,” said Darrel Wenzel, CEO of Waverly Utilities. “However, we believe this is a trend that will eventually make its way here. The Trustees approved a contract with DGR Engineering to study the impact electric vehicles would have on Waverly Utilities distribution system.”



The electric vehicle study showed that statewide, Iowa currently has about 1,000 electric vehicles registered. That does not include hybrid vehicles, which utilize a combination of electricity and gas.

In 2018, there were 1 million electric vehicles registered in the U.S. However, that number is expected to reach 18.7 million by 2030, requiring substantial

changes and investment to provide charging capabilities.

Electric vehicles with a range of 300 miles can be charged in one of three ways.

- **Level 1** – the usual 110 volt outlet found in most garages. However, this output is so small that even plugging in a car all night won't provide a full charge.
- **Level 2** - 240 volt outlets used for dryers, etc. Plugging into this would take 8-10 hours to charge a vehicle.
- **Level 3** – 480 volt charger, which only takes about 20 minutes to provide an 80% charge.

continued inside

Auto Pay Rewards

Congrats to Robert Minnaert, who won a \$25 bill credit for signing up for our Electronic Billing program! Congrats also to Randy Morris, who won a \$50 bill credit for signing up for both Electronic Billing AND Auto Pay! Want to win too? It's easy! Give us a call and we can help you get signed up. No stress, no deadlines – just set it and forget it. And each quarter in 2020, we'll be drawing lucky winners for \$25 or \$50 bill credits! Want a chance to be next quarter's winner? Visit www.waverlyutilities.com/contact-us/pay-your-bill/ today!



It's a fact!

LED bulbs are 7x more energy efficient and last 25x longer than traditional lights.



ALWAYS CALL BEFORE YOU DIG

Trend Report of 2020

continued

“As an electric utility,” said Wenzel, “we have infrastructure in place for the average home, which typically demands about a 5 kW load. If every home owner – or even if many home owners – are simultaneously charging their vehicles, Waverly Utilities must ensure the distribution system can withstand the additional load.”

For now, the Board plans to continue gathering data and studying effective methods of minimizing system impacts. One such method is a time of use rate that encourages home owners with a Level 2 charger to only charge during off peak hours. Another potential option includes installing a public Level 3 charging station, and using it as an economic development option to draw travelers into Waverly.

“We’ll be keeping an eye on the industry and working strategically on where and how to effectively manage our distribution system in the future,” said Wenzel.

Cloudy with a chance of solar

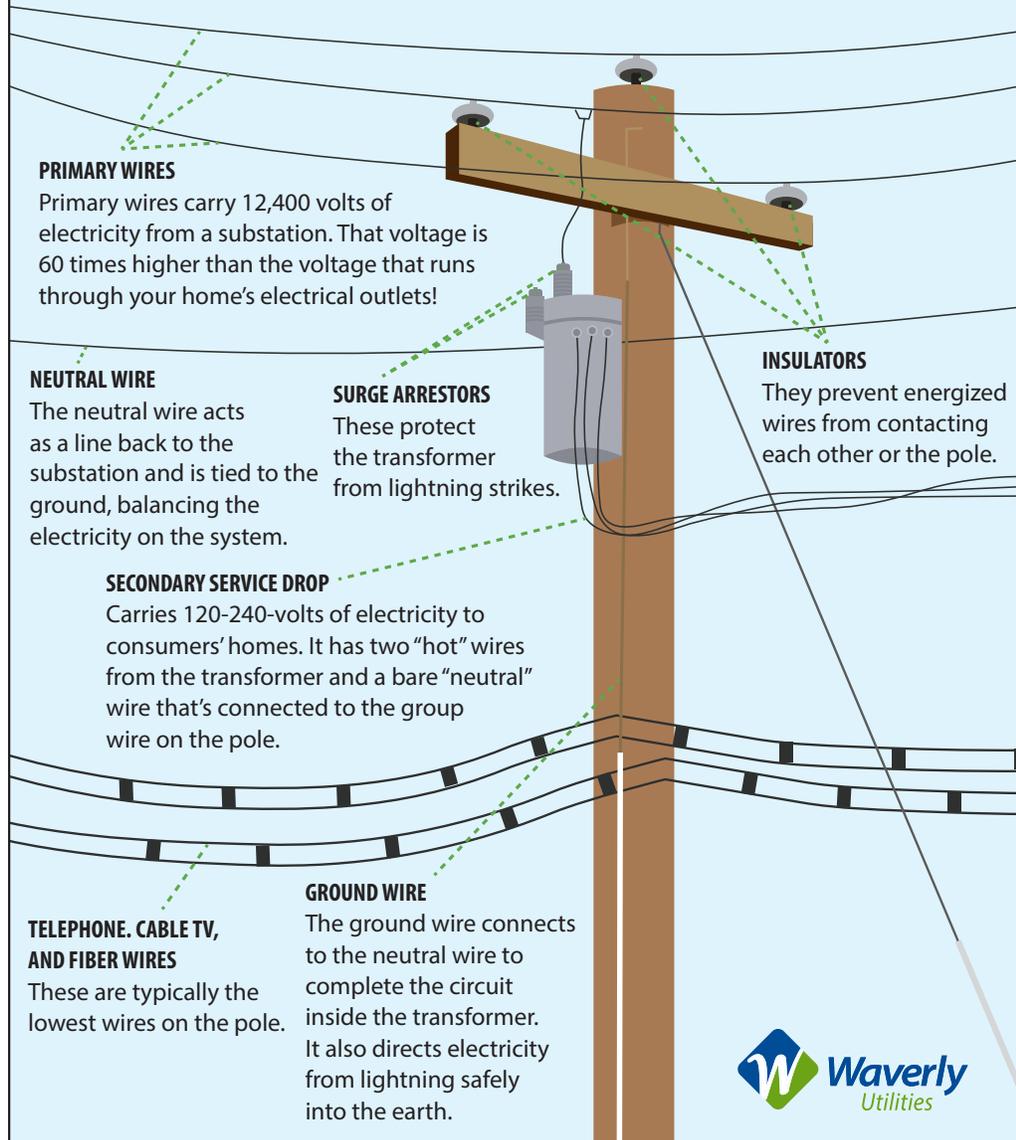
In 2018, WU started down the path of creating a community solar garden. However, faced with expensive tariffs and regulatory uncertainty, the project was soon shelved.

Now, as tariffs begin to expire and legislation is introduced that could help even the playing field, the potential of a solar garden is peeking back through the clouds.

“In the past, companies could apply for a PTC – production tax credit – that basically paid for 30% of the solar production,” said Wenzel. “Unfortunately, as a non-profit municipal entity, we were not eligible for those credits. But now there is potential

WHAT'S ON A POLE?

The graphic shows the basic equipment found on electric utility poles. The equipment can vary according to your location!



legislation at the federal level that would open up those credits and possibly allow us to apply.”

With the original solar garden planning completed, WU has laid a solid foundation

for any future endeavors. Waverly Utilities remains dedicated to exploring clean energy alternatives and will continue to monitor solar costs to see if the project becomes viable in the future.



The Connection Challenge

How many devices are connected to your internet right now?

Two? Five? Off-hand, most people think of their phones and laptops. The real answer is between 8 to 10 networked devices per person. Not per home – per person! By 2022, that number is expected to be 13.6 devices per person.

So for a family of four, you could easily have 30+ devices all pulling from your Wi-Fi at the same time. Seem impossible? Connectivity goes far beyond just cell phones these days. Start counting and you may be surprised at how many connected devices you have.

A sample list of connected devices:

- Robot vacuum
- Garage door opener
- Video doorbell
- Smart lights
- Universal TV remote
- Smart shower
- Refrigerator
- Washer and dryer
- Hot water heater
- Water detection sensors
- Lights
- Smart watch/Fit bit
- TV
- Alexa devices
- Game controllers
- Kindle/e-readers
- Fire stick
- Roku
- Tablet
- Routers
- Modems
- Cell phone
- Laptop
- Thermostat
- Baby monitor
- Camera
- Printer
- Music speakers
- Gaming systems/Xbox, Wii, Playstation

Peak internet demand for Waverly Communications Utility customers is between 8 and 9 p.m. every day. Gaming updates often spike the curve. When new gaming updates are distributed, internet usage spikes. Waverly Utilities monitors usage and has capacity to handle these spikes without any contention.

As an industry, internet usage is expected to increase 50% annually. WU is already planning ahead with new generation technology to provide additional bandwidth with 10Gb capacity. Installation is expected over the next 1-3 years.

What is Wi-Fi 6? Do I need to upgrade?

Wi-Fi 6 is the next generation of Wi-Fi technology that will soon be included in new phones, laptops, etc. It's actual hardware, not a software update, so it will only come via new devices. Full implementation will take several years.

In a nutshell, Wi-Fi 5 allowed your home router to talk to a few devices at a time. So if someone in your house was streaming a movie on Netflix, someone was playing online with friends, someone else was chatting on FaceTime and your smart gadgets all

checked in (thermometers, light switch, water sensors) – your router had to take the time to work through each device separately, slowing down the overall speed.

Wi-Fi 6 is designed to handle multiple communications simultaneously, keeping all the devices running more effectively. However, the average user will not notice a substantial difference on any one device at this time. In the next few years, as more connected devices are added to your home, a Wi-Fi 6 router may make a meaningful difference.



Scholarship Winner

Congratulations to our 2020 scholarship winner, Luke Bloker! Soon to be attending Wartburg College, Luke will be majoring in mathematics. Best of luck, Luke!

Add a "PS" TO HELP A NEIGHBOR

"PS" is Project Share – a program that assists needy households in paying their winter energy bills. You can help this effort by adding a regular **Project Share** contribution to your utility payment, or by making a direct donation to Project Share. These funds are distributed to your neighbors in need.

Northeast Iowa Community Action carefully identifies those residents who qualify, and a local committee oversees Project Share to guarantee that all contributions are handled equitably and efficiently.

Adding a "PS" – a **Project Share** contribution to your utility payment each month is a simple way to share some warmth with those who need it.

PS

Project Share

✪

Mail this form to:
Project Share
P.O. Box 616
Waverly, IA 50677

Yes, I'd like to help a neighbor with a tax-deductible contribution to Project Share.

Name _____

Address _____

City _____ Phone _____

I will contribute \$ _____ per month to Project Share. I understand this amount will be billed to my monthly.

I have enclosed \$ _____ donation to Project Share.

319-559-2000
waverlyutilities.com

Behind the Scenes

Chris Schaedig, Production & Substation Mechanic

What is your hometown?

I would call Waverly my hometown, but Shell Rock is home.

How long have you worked at Waverly Utilities?

I have worked at Waverly Utilities 10 years this August. I started out in property maintenance and moved to generation in 2012.



Tell us what your job entails. What do you like most?

My job involves the maintenance and repairs on generators, wind turbines and hydro units. The variety of work is what I enjoy.

Share a little about yourself outside work.

Raising 6 kids and trying to keep track of the schedule of activities can be demanding, but we try our best to fit in some family trips and events. We are active with the area foster family group, 4-H, church events and unwind with some sort of outdoor activity.

1002 Adams Parkway
Waverly, Iowa 50677



Our standard speeds now start at **250 Mbps!**



In 2016, Waverly Utilities started our Internet speeds at 100 Mbps, one of the fastest speeds in Iowa. Today, all residential 100 Mbps customers have been upgraded to 250 Mbps at no additional cost! In addition, all 250 Mbps customers are upgraded to 500 Mbps!

You might be wondering, "What's the catch?" There is none. This doesn't depend on your location or a signed contract. It doesn't come

with any sneaky fine print. What it does come with is the peace of mind you get when you do business with a LOCAL provider who actually CARES.

We know the world of tech is evolving rapidly and it's our goal to provide a connection that doesn't just keep up, but future-proofs you for all that's to come.

There's no need to call in to request the upgrade. If you're a 100 Mbps residential customer, this free upgrade has already been applied to your Waverly Utilities account.

So sit back and enjoy the convenience of a faster, fiber connection with Waverly Utilities, at no additional cost!

Board of Trustees

Chairman, Bob Buckingham
Vice Chair, Emily Neuendorf
Trustee, Bob Brunkhorst
Trustee, Gaylan Brunssen
Trustee, Jes Kettleon

Board meetings are held the second Tuesday of each month at 1:00 p.m. at Waverly Utilities, but may be subject to change. Please call ahead to verify schedules. They are open to the public and all are welcome.

