Solar electricity has been around for more than 60 years, since the first solar panels were made commercially available in 1956. These solar panels were a far cry from what is available today. The evolution of panels has allowed them to be more efficient and become much more cost effective since those first panels were introduced.

As with any technology, as the efficiency increases and the cost decreases there is a rise in awareness, interest, and popularity. I get questions from customers about solar on a weekly basis. Questions range from inquiring who’s putting up the solar field near Claremont, how many rooftop solar arrays are in Owatonna, what it takes to put up rooftop solar, and if there is any community solar in Owatonna.

I want to first take the time to answer some of these common questions. At the time of this writing, there are currently 4 interconnected rooftop solar arrays in Owatonna, with the 5th in the process of inspection before it can go live. Each of these systems were eligible and received rebate funding for their installation. To install these arrays, customers worked with a solar contractor to design and install the system, OPU to get an approved interconnection agreement to ensure everything would be installed to meet the safety requirements, and the City of Owatonna to get the appropriate building permit. Finally, the array being installed near Claremont is part of the Xcel Energy Community Solar program.

You probably noticed I didn’t give you an answer yet about Community Solar in Owatonna. This question deserves a little more time to answer because there is no short answer. There is a workgroup currently investigating a number of potential solar energy projects, including the ability to offer community solar to our customers. Only about 20% of the rooftops in Southern Minnesota are ideally situated for rooftop arrays. There are also a large number of residents who are not homeowners making them incapable of installing a rooftop solar array. We also know that there are many people who are homeowners, who do have an ideally situated roof, who do not want to put the solar array on their home. This means that there are large populations who would not be able to or are not interested in putting up rooftop solar that may still want to participate in a solar energy program, which is the gap Community Solar can fill.

The workgroup is also working towards installing a small solar array at the south entrance of the OPU office. During the design, the overhead structure was designed to allow a solar array of around 10 kilowatts (kW) to be installed in the future. To put this into perspective, a 10 kW system is larger than most rooftop arrays and will provide enough electricity to power about 1.5 average homes in Owatonna.

Besides all the items I’ve already discussed, our wholesale power provider, Southern Minnesota Municipal Power Agency (SMMPA) will be purchasing the output from a 5 megawatt solar array that is nearing completion just outside of town on West Bridge Street. Once this 5 MW array goes live, the percentage of renewable energy in Owatonna will have more than 17% renewable energy coming into Owatonna.

Keep an eye on our newsletter as we continue to give you updates about the solar projects we are working on.

CONSERVATION TIP$:

Summer sunlight can heat up your home quickly, making your air conditioner work harder to keep your home comfortable. To reduce your utility cost and save energy this summer, close the shades on the south and west side of your home during the daylight hours.

Visit www.tinyurl.com/OPU-Tips for more energy savings tips from OPU.
The Summer Reading Program, Build a Better World, is underway! Kids can participate anytime throughout the summer. Here’s how:

Pick up your reading log. Read at least 20 minutes a day for 10 days before each book fair. Color in the days on your reading log, bring it to the library during the book fair and choose a book to keep. The book fairs are from 10:00 AM-6:00 PM on June 29th, July 20th and August 24th.

**Storytime** begins Tuesday, June 6th, and continues each Tuesday throughout the summer at 9:30 AM and 10:30 AM.

**Adventure Club**, presented by Steele County 4-H, is held for children ages 6-12 on Wednesdays at 1:00 PM, beginning June 14th. This program presents science in a fun and creative way.

Do you like to garden? Join Luanne in the **Community Garden** on Wednesday mornings at 9:30 AM beginning Wednesday, June 7th. Bring the whole family!

**Preschool STEM Night** (ages 2-6 with adult present). Tuesday June 27th, July 25th and August 22nd at 6:30 PM.

**Tech Tuesdays** (ages 6-13). Tuesday June 20th, July 18th, and August 15 at 6:00 PM.

**Spanish Storytime**, Tuesday, June 13th, July 18th and August 15th at 6:30 PM.

Check out these other programs throughout the summer:
- Thursday, June 8 @ 10:00 AM – **RadZoo** (all ages)
- Thursday, June 15 @ 10:00 AM – **Magical Norm** (all ages)
- Wednesday, June 22@ 10:00 AM – **Bakken Museum** (ages 5 & up)
- Thursday, July 13 @ 10:00 AM – **International Owl Center** (ages 3 & up)
- Thursday, July 27 @ 10:00 AM – **Schiffelly Puppets** (all ages)
As well as many others. Pick up the full schedule at the library.

Owatonna Public Library • 105 North Elm Ave. • Owatonna, MN 55060  
www.owatonna.info • (507) 444-2460

Library Hours:  
Monday -Tuesday-Thursday  9:00 AM – 9:00 PM  
Wednesday - Friday - Saturday  9:00 AM – 5:00 PM
As you drive around our area you may have seen vast fields of solar panels. Solar is growing rapidly in Minnesota. Near the end of 2016 Minnesota had 43 megawatts of solar installed. A megawatt is one million watts, the power it takes to light 10,000 100 watt light bulbs. It’s expected that hundreds of megawatts will be installed in Minnesota in 2017. The total solar investment in the state now stands at $534.57 million of which $414.09 million was invested in 2016 alone. The Solar Energy Industries Association projects that 1,242 megawatts of solar will be built over the next five years which would place Minnesota 17th among all 50 states.

In the US the residential market grew 50 percent from 2014 to 2015; the nonresidential market grew 21 percent. Utility procurements grew 40 percent year over year and continue to be the largest source of megawatts in the solar industry.

What’s driving all this activity? The cost of equipment, particularly solar panels, has been on a steep decline with the average price of solar 60% lower than in 2010. Meanwhile solar panel efficiency has increased with standard panels now generating 325 watts in the same frame space as 250 watt panels just a few years ago. The 30% federal tax credit, now extended through 2019, is a key driver in the economics. Another reason for the new growth is that investor-owned utilities in Minnesota are required by state law to have 1.5% of their energy be derived from solar by 2020.

Although municipal utilities are not required to build solar, our wholesale electricity supplier, Southern Minnesota Municipal Power Agency (SMMPA) is forging ahead with solar projects that will benefit OPU customers. SMMPA has a 20-year Power Purchase Agreement (PPA) to buy all energy generated from the Lemond Solar Center that is currently being built at 4043 SW 8th St. in Owatonna.

The five megawatt facility, comprised of 18,000 solar panels covering 35 acres, will produce enough energy to supply the annual needs of approximately 775 homes. Commercial operation will be on or before June 30, 2017 and the public is invited to an open house planned for July 13 from 4:00 PM to 5:00 PM.

SMMPA has also designed a community solar program available for its member utilities’ customers to participate in solar. A three megawatt solar installation will be built when the program participation rate hits 25%.

SMMPA has just begun its initiatives in solar but it’s been heavily involved in renewables for a long time. SMMPA installed its first two wind turbines in 2003 — four years before the Legislature passed the Renewable Energy Standard — and then added four more, larger turbines in 2004 and 2005. In 2008, SMMPA entered into an agreement to purchase all output from the 67 wind turbines on the 100.5 megawatt Wapsipinicon Wind Project near Dexter that helps SMMPA and its Members meet the state’s Renewable Energy Standard. SMMPA has 109 megawatts of wind and is negotiating for 100 megawatts more to be online in late 2020.

A 1.6 megawatt generator at a landfill near Mora has been turning methane gas into electricity since April 2012. Under a 20-year agreement with the East Central Solid Waste Commission, the biomass-to-energy project produces low-cost energy and methane gas from decomposing waste no longer burns as an open-air flare.

On the biomass front, SMMPA purchases a portion of 8.6 megawatts fueled by municipal solid waste from the Olmsted Waste-toEnergy Facility in Rochester.

Working together, OPU and SMMPA are on course to deliver clean, renewable energy to OPU customers.
EQUIPMENT SERIES

If you live north of Broadway Street and east of North Grove Avenue, you may have noticed some construction activity over the last few weeks. The digging taking place in east-central Owatonna is part of OPU’s plan to underground its power lines, to reduce power outages and improve customer service.

OPU has about 5,600 wood utility poles, most of which began life as western red cedar trees in Wisconsin. We use poles made from those trees because those poles last a long time — 40 to 60 years, on average. For decades, OPU has replaced between 50 and 60 of those poles each year, at an all-in cost of about $1,800 per pole. Those poles are sturdy, but weather extremes, accidents and animals take a toll on them.

Those 5,600 poles not only carry about 200 miles of electrical wire, they also carry telephone and cable wires. That’s why we call them, “utility poles,” because they carry the lines for several utilities.

To reduce power outages and improve reliability, OPU has been placing its lines underground to keep them away from severe weather, accidents and squirrels. Windstorms blow tree branches onto our lines, but squirrels really are Public Enemy #1. Each year, squirrels cause the lights to go out when they come in contact with electrical equipment.

OPU will place about five miles of its overhead lines underground this year. Undergrounding power lines costs about three to four times what it costs to run them overhead. It costs OPU about $11 for each foot of power line we put underground — about the cost of two McDonald’s Happy Meal. Something to think about the next time you turn on a light — or buy your kids a Happy Meal.

ENERGY HERO

Help save the community from higher energy costs by becoming an Energy Hero. You have the power to help your community keep power costs under control.

Over half of the wholesale power bill paid by OPU is “demand” charges determined by the highest peak usage of the previous summer. OPU’s annual peak has a huge impact on costs for the entire year. If every customer helps reduce the load by just one kilowatt during a high usage time, the entire community benefits with lower energy costs.

Sign up to be an Energy Hero and receive Peak Alert notifications to your email! Visit OwatonnaUtilities.com to get signed up today.

www.owatonnautilities.com 5
A fresh pine scent just doesn’t attract the same attention as the smell of rotten eggs. That’s why before OPU delivers natural gas to your home or business, we first inject it with a strong odor. This provides an unmistakable warning that something’s wrong, such as a gas leak, and immediate attention is necessary.

If you smell natural gas, call us at 507-451-1616 and we will dispatch a technician to investigate at no charge to you. For additional safety information, please visit our website at www.owatonnautilities.com.

Chloride in wastewater discharge flows from homes and businesses that use water softeners. Treatment facilities are designed to remove physical particles such as sand, grit, and debris, and to biologically degrade organic waste such as food and human waste. Once chloride is dissolved in water, it cannot be removed through settling or biological degradation by standard treatment practice.

Wastewater treatment facilities began testing for chloride and related parameters in 2009. The MPCA examined the data and found approximately 100 facilities have potential to contribute to local levels of chloride much higher than the accepted standard.

The technology to remove chloride is available, but it becomes very costly to tax payers. It often involves microfiltration and reverse osmosis. The same process used to create pure water used in laboratories and bottled drinking water.

Chloride has negative impacts on groundwater, drinking water, fish and aquatic life, pets, wildlife, plants, soil, and our infrastructure.

What You Can Do:
- Learn about your own water softener and understand how it works
- Only apply as much salt as needed, per manufacturers specification
- Avoid softening if it is not an absolute necessity

Bradley D. Rademacher, Water Quality/Stormwater Specialist, (507)-774-7300 or Bradley.rademacher@ci.owatonna.mn.us
There’s an easier way to save on cooling costs...

- Room air conditioners: up to $40
- Central A/C; Ductless mini split: $100–$500 or more!
- Geothermal: starting at $200 per ton

Solar powered savings...

- Solar electric rebates: $0.50 per watt
- Solar hot water rebates: $15 per sq ft NET aperture

Visit www.owatonnautilities.com to learn more and download rebate applications with complete terms and conditions.
OFFICE HOURS:
Monday-Wednesday: 
8:00 a.m. - 5:00 p.m.
Thursday: 
8:00 a.m. - 6:00 p.m.
Friday: 
8:00 a.m. - 4:00 p.m.
Saturday & Sunday: 
Closed

Payment Options
- Online at www.owatonnautilities.com
- Automatic Withdrawal; bank account or credit card
- Drive-up drop box located in the parking lot south of building
- Drop box locations at Cash Wise Grocery Store and HyVee Food Store
- Mail
- At Owatonna Public Utilities; cash, credit card, check or money order

Moving?
Remember to contact the Customer Service Department ONE WEEK prior to moving, 451-2480.

From the Editors
We welcome your comments and suggestions for future issues. Feel free to give us a call at 451-2480 or send an email to schmollt@owatonnautilities.com.