

POWER REPORT

WINTER 2016

WPPI Energy's Renewable Energy Efforts: A Retrospective

As announced earlier this year, WPPI Energy is currently evaluating proposals for adding 100+ megawatts (MW) of renewable energy to its power supply portfolio. WPPI Energy's focus on renewable energy isn't new, however. Our members have offered renewable energy options to their customers for nearly 20 years.

Early Days

WPPI Energy's members first started offering renewable energy options in response to customer feedback. In the late 90s, market research indicated that approximately 75% of customers wanted options for supporting renewable energy and many were willing to pay extra to receive some or all of their electricity from renewable resources. At the same time, many customers were also concerned with keeping rates low.

Members listened and responded with options that would allow those who want to support renewable energy to do so on a voluntary basis. They developed a renewable energy program in which business and residential customers of WPPI Energy member utilities can purchase 150 kilowatt-hour (kWh) blocks of renewable energy. Proceeds go directly toward programs such as solar photovoltaic (PV) and wind turbine demonstration projects; a buyback tariff for customers who generate solar energy on their property; community solar gardens; and renewable energy grants. The energy from these programs is above and beyond the 35% of carbon-free resources that are part of WPPI Energy's overall power supply portfolio.

Comprise Soular Carden Manual Navagina Manual

New Richmond residents gather for a groundbreaking ceremony featuring entertainment from a choir and brass band

Renewable Portfolio Standards

In both Wisconsin and Michigan, current renewable portfolio standards have required utilities to generate 10% of their electricity from renewable resources beginning in 2015. WPPI Energy members have led by example in this area, meeting these requirements six years early.

Since 2006, WPPI Energy and its members have provided incentives for the installation of 61 customer-sited renewable energy projects in 43 communities.

Today, our power supply portfolio consists of 14% renewable energy from resources including wind, hydro, solar and biogas. The most recent addition came in 2014, when we began purchasing electricity generated by a new one-megawatt solar farm in the WPPI Energy member community of Jefferson, Wis.

Community Solar Gardens

Recently, members have built on these earlier achievements with additional program offerings. In October of 2015, New Richmond Utilities and River Falls Municipal Utilities opened

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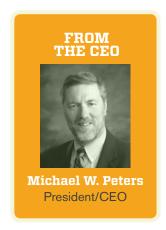
River Falls residents break ground on the city's community solar garden

The State of WPPI in 2016

WPPI Energy has many shared strengths: financial health; strong credit ratings; high member satisfaction; a diverse, flexible, cost-effective power supply portfolio; a comprehensive array of services; and an effective voice for advocacy. These position us well for a future in which the electric industry will continue to change rapidly, most notably in the areas of electricity generation, technology and customer expectations.

Electricity Generation

While the ultimate fate of the U.S. Environmental Protection Agency's Clean Power Plan is not yet clear, we anticipate future regulatory limits—in one form or another—on power plant greenhouse gas (GHG) emissions. WPPI Energy has already significantly reduced our GHG emissions over the past 10



years. Going forward, we will continue to do so by encouraging energy efficiency and demand response, as well as adding to the renewable energy and natural gas resources in our energy portfolio. We will also work with other utilities, stakeholders and policy makers to advocate for reasonable environmental policies.

Customer Expectations

For many decades, customers interacted with their utility in person or over the telephone, and analog meters measured their electricity use. Today, many customers are used to doing business online. They expect to have more access to utility staff, timely notifications of outages and other events, and more control over their energy consumption. In order for our member utilities to continue the long tradition of providing above-and-beyond local service, our business strategy will continue to focus on technological advancement.

Technology

It's important for WPPI Energy members to leverage technology in order to meet changing customer expectations. Together, WPPI Energy members have devoted significant time and effort to implementing cost-effective advanced meters and meter data management and customer information tools.

The changing electric industry presents challenges and opportunities for WPPI Energy and the industry as a whole. How we respond together will make all the difference. I'm confident that we'll continue to succeed, because I've seen time and time again how much our members accomplish when they work together. As 51 communities committed to the benefit of those they serve, WPPI Energy's members are strong and well-positioned for what's to come.



WPPI Energy is a regional, not-for-profit power company serving 51 locally owned electric utilities. Through WPPI Energy, these public power utilities share resources and own generation facilities to provide reliable, affordable electricity to 200,000 homes and businesses in Wisconsin, Upper Michigan and Iowa.

Member Spotlight: Waupun, Wisconsin

A Hometown Utility

By the time we leave our lunch interview at the Brittain House, a cozy supper club in Waupun, Wis., Randy Posthuma, general manager of Waupun Utilities (WU), has already exchanged greetings with several people. Posthuma, a friendly and easy going person, is clearly well-known in the community.

"I think it's important as a representative of the utility to interact with customers face-to-face outside of the utility office," he says.

He's always considered this area of Wisconsin home. Born and raised near Randolph, he moved to Waupun after marrying his high school sweetheart. He and his family have been here ever since. He started as a lineman at Waupun Utilities in 1990, and though he's been general manager since 2013, he still takes care of some of the electrical operations duties.

WU Staff: Hire for the Personality, Train for the Position

WU has accomplished much over the years, and Posthuma is quick to credit his staff for the utility's successes. He visibly beams when he talks about them.

"I've had the opportunity to build a strong staff, and I enjoy helping all of my employees advance in their careers and grow," he says. "My theory has always been, 'hire for the personality, train for the position...You can teach someone skills for the job. You can't change someone's personality."

Rising to the Challenge of AMI

The employees at the utility are passionate about the work they do and maintain a positive attitude, even when faced with new challenges. In 2013, WU



The Pioneers, a sculture by local artists Clarence Shaler, was donated to the city in 1940. Photo courtesy of Waupun Tourism Office

replaced outdated meters and equipment with advanced metering infrastructure (AMI). WU was one of the first WPPI Energy members to pioneer the effort to move to AMI. Although completely overhauling equipment, software and processes is a daunting process, the team's eagerness to learn and adapt made the transition a success.

"Randy Bentley and Steve Brooks who work out in the field were eager to learn the technology inside and out," says Posthuma. "Jen Benson, our billing clerk, dove full force into learning the new billing procedure. She was really up for the challenge."

Jared Oosterhouse, WU's finance director, led the effort to streamline reports and processes to simplify collection and billing procedures. He continues to work closely with the utility's customer information software to fine tune metering and reads. Oosterhouse recently



WAUPUNFAST FACTS

County: Dodge, Fond du Lac Electric customers: 4,292 Member website:

www.waupunutilities.com

Did you know?

- The city was originally intended to be named "Waubun," Ojibwe for "Dawn of Day." State of Wisconsin staff made a spelling error when recording the name, and Waupun officials decided not to change it.
- Waupun has three prisons within its city limits Waupun Correctional Institution, Dodge Correctional Institution and the John C. Burke Correctional Center.
 Waupun was chosen as the site for building these facilities, because of its natural abundance of limestone.
- The city has one of the highest concentrations of public art per capita in the US. It's called the "City of Sculpture" thanks to several sculptures gifted to the city by Waupun-born sculptor Clarence Shaler.
- WPPI Energy member since 1980

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received WPPI Energy's Shining Star Award, which recognizes utility managers or employees who have shown notable growth and leadership over the past year.

The knowledge that WU employees acquired not only helped them meet the challenges of moving to AMI, but allowed them to help other WPPI Energy members plan their own AMI projects.

"We wanted to help our fellow utilities, because we want AMI to be successful for everybody. We know it's not just about Waupun," says Posthuma, who was recently elected to the Executive Committee of the WPPI Energy Board of Directors. "Working with other utilities allows us to build from the experiences of others and vice versa. It's one of the best ways for everyone to move forward."

The utility's adoption of AMI has made a number of operation procedures simpler and more efficient and helps the utility provide customers with automated billing services, more detailed information about their energy use and faster notification and resolution of power outages.

"AMI has completely changed our processes, says Posthuma. "We're able to conduct and control disconnects, automate billing, and integrate advanced meter data into the customer information system. AMI facilitates an interactive experience for both staff and customers."

A Strong Utility for a Strong Community

The people of WU think it's important to have a good relationship with the community they serve.

"We respect the customer," says Posthuma, "even if it's something as simple as a lineman taking off his dark

"We want to see the community succeed, and I think a strong utility is the foundation of the success of the community," says Posthuma.



Waupun's City Hall. Photo courtesy of Waupun Tourism Office

"I'm concerned that there's a stereotype that the capabilities of little, municipal utilities are less than those of the large investorowned utilities. I love to prove that stereotype wrong."

sunglasses when he talks to a customer so he can look that customer in the eye and engage with him or her." Put simply, "We want our customers to feel like they are treated the best by us."

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On the Horizon

WU employees plan to do a city-wide voltage conversion from 4,160 to over 12,000 volts in the next five years. This will provide more robust capacity and result in fewer outages and more reliable power.

They also want to continue to provide logistical and financial support to help large industrial customers make their facilities more energy efficient.

Finally, they want to continue expanding AMI functionality to include outage management and a customer billing information portal. These changes will give customers more control over their energy spending, more insight into how they use energy throughout the day, and increased ability to do business with the utility online.

Says Posthuma, "I have a passion for the success of the utility and community, and I think I can play a role through that passion...I'm concerned that there's a stereotype that the capabilities of little, municipal utilities are less than those of the large investor-owned utilities. I love to prove that stereotype wrong."

MEMBER NEWS

Menasha Representatives Meet with Senator Roth: Menasha Utilities' General Manager Melanie Krause, Customer Service Manager Paula Maurer, City of Menasha Mayor Don Merkes and WPPI Energy Manager of Government Relations Joseph Owen met with State Senator Roger Roth at the Menasha Utilities office in August. The group thanked Sen. Roth, who chaired a Senate committee that oversees energy and utility-related legislation, for supporting locally owned, not-for-profit utilities. Sen. Roth was recently elected to serve as Wisconsin Senate President for the 2017-2018 legislative session.

Members Recognized at Annual Meeting

WPPI Energy hosted an awards banquet at its annual meeting. Jim Stawicki, general manager of Sturgeon Bay Utilities, presented the awards. They are as follows:



Pictured from left: City of Menasha Mayor Don Merkes, Melanie Krause, Sen. Roger Roth, Paula Maurer

Community Service Award

Awarded to public officials and member utility managers who go above and beyond to contribute to the success of the utility and its image in the community

Jerry Ewert (Black River Falls)
Jim Patenaude (Oconto Falls)
John Moore (Kaukauna)

Shining Star Award

 $Awarded\ to\ utility\ managers\ or\ employees$

who have shown notable growth and leadership over the past year

Brian Hoops (Stoughton)

Jared Oosterhouse (Waupun)

Individual Achievement Award

Awarded to a utility manager or employee who has made a significant contribution to the success of WPPI Energy through work on committees, task forces, and advisory groups

Pat Drone (Prairie du Sac)
Tom Bushman (Two Rivers)

Utility Leadership Award

Awarded to a member utility that has displayed excellence in advancing WPPI Energy membership strategic initiatives, providing benefits to the membership, providing a model for other utilities to follow, and supporting public power and joint action

River Falls Municipal Utilities

STATE ENERGY POLICY UPDATES

Michigan

Election Updates: Republican Jack Bergman will represent Michigan's First Congressional District after besting Democrat Lon Johnson. WPPI Energy members in the 1st Congressional District include: Alger Delta, Baraga, Crystal Falls, Gladstone, L'Anse, Negaunee and Norway. In the Michigan State House, the GOP will retain control 63-47. Republican Beau LaFave won the open 108th district race. LaFave will represent Alger Delta, Gladstone and Norway. No members of the GOP-controlled Michigan State Senate were up for re-election.

Wisconsin

Stone Named Executive Director of Municipal Electric Utilities of Wisconsin (MEUW): MEUW recently announced Jeff Stone as the new executive director. Stone comes to MEUW from the Public Service Commission of Wisconsin, where he served as division administrator of water compliance and consumer affairs. He also served for several years on the Wisconsin State Assembly and was a city councilman for Greenfield, Wis.

Customers First! Coalition Announces New Executive Director: Sarah Barry was recently named executive director

for the Customers First! Coalition, an advocacy organization for reliable and affordable electricity in Wisconsin. Barry has held leadership roles for four state senators and has worked as a non-partisan policy analyst and consultant.

Election Updates: Republican Mike Gallagher will represent Wisconsin's Eighth Congressional District after beating Democratic challenger Tom Nelson. Members in the 8th Congressional District include: Algoma, Kaukauna, New Holstein, New London, Oconto Falls and Sturgeon Bay. In the Wisconsin State Senate, the GOP gained one seat and retained control of the Senate 20-13. The GOP also gained a seat in the State Assembly and controls that house 64-35.

lowa

Election Updates: The GOP took control of the Iowa State Senate by a 29-21 margin. Republican Craig Johnson beat incumbent Democrat Brian Schoenjahn and will represent WPPI Energy member Independence. In the Iowa State House, the GOP added two seats to its margin of control and now has a 59-41 advantage. Republican Andy McKean won the open 58th district seat, representing members Maquoketa and Preston.

Lighting Upgrades Equal Big Savings for Local Municipal Organizations and Businesses

WPPI Energy members are committed to bettering the communities they serve. One way they do this is by helping municipal organizations and local businesses save on energy costs. Upgrading to Light Emitting Diode (LED) lighting is a great way to save energy, and therefore cut down on energy costs. LED light bulbs are the most energy efficient bulbs currently on the market. They use up to 80% less energy than traditional incandescent bulbs, and can last up to 25 times longer.

City of Plymouth, Wis.

Many WPPI Energy members have helped upgrade some or all of their community's street lights to LEDs. One of these members is Plymouth Utilities, which is currently in the middle of an LED street lighting project. City officials plan to replace 600 100-watt HPS heads with 45-watt LED heads over a three year period (2015-2017). The upgrade is estimated to save the city approximately 221,900 kilowatt-hours (kWh)



The city of Plymouth plans to upgrade 600 city street lights to LEDs by the end of 2017.



New Holstein True Value will save an estimated \$3,000 per year after updating to LED T8 tube lighting.

of electricity annually, for an estimated cost savings of about \$14,000 per year. Plymouth Utilities, through WPPI Energy's Utility and Municipal Building Efficiency program, is providing financial assistance, as is the state's Focus on Energy program.

New Holstein True Value

WPPI Energy members also provide several types of financial and logistical assistance to help local businesses upgrade to LEDs. Along with helping businesses be financially strong, this assistance encourages more local jobs, resources for residents and money staying in the community.

One example is True Value hardware store in New Holstein, Wis. The store, which is open 7 days a week, used to be lit by 488 T8 fluorescent tubes. In November of 2015, employees from New Holstein Utilities (NHU) helped True Value owner Melissa Reese and employee Jeff Dietz identify direct install LED T8 tubes as a possible option to upgrade to more energy efficient lighting.

Reese and Dietz installed four 16.5 watt LED T8 tubes provided by NHU and were impressed with the amount and quality of the light they generated...so impressed that they decided to re-lamp the entire store.

Their new LED T8 tubes use approximately 40% less energy than the old fluorescent tubes, and can last up to 50,000 hours. They also carry a five-year warranty, produce less heat than fluorescents, don't contain mercury, don't emit UV rays or infrared radiation, and won't shatter on impact. They're designed to work with existing T8 fluorescent instant start ballasts, so Reese and Dietz didn't have to do any re-wiring.

New Holstein True Value will save an estimated 29,000 kWh of energy for a cost savings of \$3,000 per year. Focus on Energy provided \$1,974 towards the project, and the remaining cost was funded through a loan from NHU and WPPI Energy.

There are countless other examples of WPPI Energy members bettering their community through energy efficiency. Since our member utilities are locally owned and not-for-profit, their main goal is to support and strengthen the local community. Helping municipal organizations and local businesses save on energy costs is just one way they're doing that.

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250-kilowatt solar PV "gardens" in their communities. Customers there can purchase a subscription for a solar panel in the garden and receive a credit on their bill for the energy it generates.

Renewable Energy Grants for **Non-Profits**

Another newer addition is Renewable Energy Grants for Non-Profits, a competitive bid program that helps non-profit organizations afford renewable energy projects. So far, this program has resulted in seven solar PV projects that are up and running or in progress at local churches, schools, city buildings and community buildings.

Renewable energy will continue to play an important role in WPPI Energy members' efforts to achieve customer satisfaction, improve the diversity and cost-effectiveness of their power supply portfolio, and reduce greenhouse gas emissions.

Upcoming Technical Training Courses

Seventhwave Training | seventhwave.org/education/events

Better Buildings: Better Business Conference

March 1-3, 2017 • Wisconsin Dells, Wis.

Conferences

Midwest Energy Solutions Conference

February 22-24, 2017 • Chicago, Ill. www.mwalliance.org/conference

Sustainability Summit and Exposition

www.sustainability-summit.us

WPPI ENERGY NEWS

WPPI Energy Board of Directors Elects Executive **Committee Representatives:** The Board of Directors voted for Executive Committee (EC) members at WPPI Energy's annual meeting in September. Randy Posthuma (Waupun) was newly-elected, and Bob Friberg (Florence), Randy Jaeckels (New Holstein) and Lisa Christensen (Oconto Falls) were re-elected. All received a vote of the majority of the Board to serve a three-year EC term.

WPPI Energy Little Free Library

WPPI Energy now has its own Little Free Library (LFL). The library, decorated with the theme "Here Comes the Sun," is located along a walking/bike path on Wilburn Road in Sun Prairie, Wis., near the WPPI Energy sign and solar panels. Five employees are volunteer library stewards. LFLs, which are intended to be community resources for promoting recycling and literacy, contain books that are free for anyone to take. People are also encouraged to donate loved books.



WPPI Energy's Little Free Library Stewards. Pictured from left: Carrie Nesson, Tammy Freeman, Mallory Kleven, Katy Vike. Not pictured: Grace David



1425 Corporate Center Drive Sun Prairie, WI 53590-9109 Ph: (608) 834-4500

www.wppienergy.org

Stronger Together: Shared Meter Technician Service

The Shared Meter Technician Service. started in 2015, is one of many energy distribution services offered through WPPI Energy. Member utilities that use this service share access to a team of expert meter technicians who travel on-site to provide support.

Since variables such as community size, number of employees, needs and challenges are unique to each member utility, so are the meter technicians' services.

"We basically provide any support the member might need," said Travis Gatza, Manager of Metering Services.

That can include helping utility employees transition to new technology, such as advanced metering infrastructure (AMI); testing meters in the field; verifying metering installations; running diagnostics and troubleshooting; and performing required standard testing.

The program benefits people at all stages of the billing cycle - utility staff to industrial customers to residents.

"Meters are the 'cash register' of the utility, because metering accuracy is directly related to billing accuracy. Having a second set of eyes checking meters is invaluable," said Chris Chartier, Director of Distribution Services. "Customers want and deserve an accurate bill, and utilities want to provide that for them." he said.

Metering technology has changed significantly from the electromechanical meters of the past. Advanced meters provide detailed data that's collected every 15 minutes. Working with this new technology requires different training and skills, but it can be cost-prohibitive for utilities to hire staff solely dedicated to metering. By sharing a team of meter

technicians, WPPI Energy member utilities have access to the manpower and expertise of highly skilled employees at a more affordable rate.

L'Anse, Mich. is one of 20 member communities that use the service. According to Village Manager Bob LaFave, "It has helped us identify meters in need of replacement, helped to avoid corrections due to meter errors, and added to our customers' confidence that their billings are correct."



The WPPI Energy Metering Department. Pictured from left: John Dault, Chris Chartier, Deb Adams, Mike Dolinac, Lindsay Chrisler, Tim Schmidt, Travis Gatza