

Transmission Ownership Benefits Communities

New Badger Coulee line adds reliability, offsets costs

Locally owned utilities own their distribution systems – the poles, wires, substations and other equipment needed – to deliver power directly to homes and businesses.

To get the electricity from where it is generated to where it is needed, whether dozens or hundreds of miles, utilities rely upon the transmission system's network of long-distance, high-voltage wires.

Together, WPPI Energy members have jointly invested in a portfolio of transmission assets. The rate of return on these assets helps to offset transmission costs for members year after year. Currently, transmission costs represent about 10% of members' retail rates.

“Expanding our access to the transmission system was a crucial challenge for WPPI Energy, one that proved our resolve and provided many benefits,” said WPPI Energy President & CEO Mike Peters.

Moving Toward Ownership

In the 1980s, the utilities that owned transmission assets charged WPPI Energy members pancaked transmission rates – that is, stacked fees for each utility's system through which the electricity passed.

These fees made it challenging when WPPI Energy wanted to purchase an ownership in the Boswell power plant in northern

Minnesota. However, WPPI Energy and member utilities were successful in getting federal regulators to approve rates that were more reasonable so that WPPI Energy could become an owner of the resource, and later, in drafting and getting legislation passed that changed the rules on transmission ownership.

Wisconsin's Reliability 2000 Energy Plan provided incentives for the state's major transmission owners to divest their transmission facilities to a new transmission company and granted WPPI Energy the right to participate as an owner in the newly formed American Transmission Company (ATC). It was the nation's first multi-state transmission only utility.

Today ATC owns and operates more than 9,000 miles of transmission lines and more than 500 substations. WPPI Energy owns 6.7% of the company and participates, with other utilities, in projects that benefit the membership. WPPI Energy's investment in ATC now exceeds \$100 million, and Peters serves on the board of directors.

In addition to participating in ATC projects, WPPI Energy is also one of 11 utilities working together to expand the regional transmission grid through CapX2020. Most recently, members opted to invest in a 3% ownership of the CapX2020 Hampton-Rochester-La Crosse line. This project in particular brings WPPI Energy one step closer to its goal of owning its pro-rata share of transmission in the Northern States Power service area.

Continued on page 7

Clean Power Plan: Keeping the Focus on Customers

In the year since the U.S. Environmental Protection Agency (EPA) proposed the Clean Power Plan for cutting carbon dioxide emissions from existing power plants, WPPI Energy members and staff have extensively analyzed what the new rule will mean for public power utilities and their customers, and then advocated on their behalf.

Over the past few months, we've made the most of opportunities to make our voice heard before drafting of the final rule, expected to be released this summer. We're fortunate that Andy Kellen, our vice president – power supply resources, has become prominent nationally on the topic of the Clean Power Plan. Here's a summary of our recent involvement on the issue:

- As a member of the Midwestern Power Sector Collaborative, Kellen traveled to Washington, D.C., last December to **meet with officials at the White House and EPA**, and again in April to meet with senior staff at EPA.
- In May, Kellen **gave a presentation at a symposium in D.C.** that was organized by the International Emissions Trading Association and included participation by White House personnel. In the meantime, we remained involved in the dialogue in other ways. The EPA rule was the focus of conversation as member utility managers and local officials **met with policy makers in Washington, D.C.**, during the American Public Power Association (APPA) Legislative Rally in March and again during **meetings with state legislators** at the Municipal Electric Utilities of Wisconsin (MEUW) Lobby Day in April.
- I served on a **panel at a Federal Energy Regulatory Commission technical conference** in St. Louis to talk about the Clean Power Plan's potential impact on energy markets and, consequently, reliability.
- At the same time, WPPI Energy **coordinated the submittal of a joint letter from all of Wisconsin's major utilities to Wisconsin's congressional delegation** to share our key concerns with the rule as drafted. U.S. Sen. Tammy Baldwin responded with a letter in early April, followed by a letter

signed by U.S. Reps. Sensenbrenner, Kind, Ryan, Moore, Duffy, Ribble and Grothman, in mid-April, to EPA Administrator Gina McCarthy.

- In mid-April, Kellen led a **joint utility conference call with EPA assistant administrator Janet McCabe and her principal deputy Joe Goffman** that U.S. Rep. Ron Kind arranged.

In Wisconsin alone, utilities and customers have spent approximately \$11 billion since 2000 to reduce their carbon dioxide emissions, add environmental controls, and upgrade infrastructure to improve reliability. From 2005 to 2014, WPPI Energy reduced its system-wide carbon dioxide emission rate by more than 20%.

Once we've had a chance to analyze the final rule, we'll continue our role as a stakeholder in the process of developing state plans for the implementation of the Clean Power Plan in the states in which we do business. Of these states, Minnesota has already initiated its state plan development process. Given our ownership stake in Boswell Unit 4 in northern Minnesota, Kellen has been participating as a member of the stakeholder group that is working with the Minnesota Pollution Control Agency to develop its plan.

At the national level, I'll continue talking with other utilities as a member of the APPA CEO Climate Change Task Force.

Many WPPI Energy members deserve credit for reaching out to their elected officials during this time. We'll need grassroots support going forward, too.

Clearly, our work on the Clean Power Plan is just beginning. We will need to continue to speak loudly and effectively on behalf of public power customers.



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: Plymouth, Wisconsin



Many historic buildings still stand in downtown Plymouth, whose history is celebrated in 25 colorful murals. A group of traveling artists called the Walldogs painted the murals over three days in June 2011 with assistance from many area residents.

Twenty-five brightly colored murals decorate the outer brick walls of buildings in downtown Plymouth, Wisconsin, paying homage to the city’s history and the businesses that have helped the community grow and prosper.

All of the city’s homes and businesses have been, and continue to be, powered by Plymouth Utilities, which began in 1895 when Plymouth Refrigerator, Water, Light and Power Co. a privately owned company, began generating electricity for a few people from a water-powered mill.

Today the utility – locally owned and not-for-profit since 1901, with 26 employees – provides electric service to more than 7,800 homes and businesses in the city and in parts of 10 surrounding townships. Those within the city also get water and wastewater services.

Plymouth is best known for its world-class cheese makers, supported by the small and large dairy farms that surround the city. It’s the former home of the National Cheese Exchange, which later moved to Green Bay and now is part of the Chicago Merchantile Exchange.

“Originally we were the Wall Street of Cheese,” said City Administrator/Utilities

Manager Brian Yerges. Plymouth recently acquired the official rights to use the trademark Cheese Capital of the World™ in its marketing efforts.

“Our city and utility staff takes pride in knowing that we have close partnerships with local industry,” Yerges said. “We provide the water and the power to these national and world brands.”

Modernizing the Utility

Modernizing spaces – while not losing traditional principles – has been a theme for the city, and notably, the utility in recent years.

Dedicated in 2013, the Plymouth Utilities Operations Center replaced a 100-year-old building. The new building features geothermal, in-floor radiant heating; LED exterior lighting; and two 2.9-kilowatt (kW) dual axis solar arrays to generate electricity. In the past two years, the city has added its first new water reservoir since 1941 and first new well since 1986.

At the same time, Plymouth Utilities upgraded its existing digester at the wastewater treatment plant, for which it received more than \$300,000 in grants. The facility uses high-strength waste from local cheese companies, creating methane

Continued on page 4...



PLYMOUTH FAST FACTS

County: Sheboygan

Number of electric customers:
7,864

Member website:
www.plymouthutilities.com

Did you know?

- Originally known by early Native Americans as Quit Qui Oc, or “crooked river,” Plymouth has a rich history beginning in 1845.
- Plymouth is known as “Hub City” first because of a 19th century manufacturer known for wagons, hubs, and spokes, but also because of its location between Milwaukee, Sheboygan, Fond du Lac and Green Bay.
- Antoinette the cow, a statue weighing over 1,000 pounds, has been a local landmark since the city’s centennial celebration in 1977.

gas that powers two new 65-kW micro turbines, generating 80% of the plant's energy needs.

Soon, the 75-year-old City Hall will have rooftop solar panels to offset part of the building's energy usage, funded in part with a \$25,000 grant from WPPI Energy's Renewable Energy for Non-Profits RFP program.

More changes are coming. The city will convert to LED street lighting, with about 700 fixtures scheduled for replacement over the next three years. Another significant project will be making the switch to advanced metering infrastructure, or AMI, in the years ahead to enable two-way interaction between the utility and customers.

From an operations standpoint, the utility recently updated its bills to a more user-friendly graphic format through the WPPI Energy Outsourced Retail Billing Service and upgraded its accounting software.

Throughout the past few years, the city has continually sought to streamline functions with its One Plymouth initiative, "with the vision of creating one seamless efficient government organization by sharing people, resources and expertise throughout city departments," according to the utility's winter/spring report to customers.

One example is Yerges' position, which is shared 50/50 between the city and the utility.

"We're no longer looked at as two separate entities or organizations," Yerges said. "The city can't really be successful without the utility, and the utility can't be successful without the city."

Customer Benefits

As in many communities, the utility is the largest contributor to the city's budget, with a payment in lieu of taxes of more than \$450,000.

Without a locally owned utility, taxpayers would have to make up the difference in higher property taxes, points out Mayor Don Pohlman. "Plymouth Utilities offers our customers low rates, personal



Plymouth City Hall is installing rooftop solar panels to offset part of the building's energy usage.

service and high reliability," he said. "Our employees live here and take pride in their community."

In addition to promoting local programs such as Tree Power and the AC Tune Up Rebate, Plymouth Utilities offers residential customers Focus on Energy rebates and the ENERGY STAR® Partners program.

"We give incentives for the purchase of ENERGY STAR-rated TVs, dehumidifiers, freezers, air conditioners, washers and other appliances," explained Energy Services Representative Frank Barth. "Why do we give an incentive for a television? Well, 20 years ago, you had one TV in your house. Today you've got five, so it's important that the equipment is energy efficient."

At Mill Street Days in July, Barth handed out prizes to those who could power a series of incandescent lights on the Pedal Power bike to promote energy efficiency. During Public Power Week in October, utility customers can exchange an old set of incandescent holiday lights or a non-perishable food item for a new string of LED holiday lights or an LED bulb.

Barth meets regularly with commercial and industrial customers to promote utility programs and services, most

recently to introduce MyMeter, which, once available throughout the WPPI Energy membership, will provide valuable energy usage data.

Among the utility's program offerings for C&I customers is a Farm Rewiring Program to assist with the upfront costs of improving farm electrical systems.

Local Control Still Important

Yerges posted to the city's blog and Facebook page a speech from a former Plymouth Utilities manager, thought to be written in the 1960s or '70s. "The themes of local ownership, local control, and responsiveness still ring true today," he wrote.

The utility, governed by the eight-person Common Council, has experienced firsthand the benefits of local decision-making with all the projects completed over the past few years, Yerges said.

"When we make decisions on projects, it's not about trying to get a greater rate of return, it's about projects that are needed in the community. Our motivation is: How do we provide safe, secure, stable, long-term service at the most affordable cost possible?" Yerges said. "A lot of municipal utilities have stood the test of time so far because our motivation is aligned with that of our citizens."

MEMBER NEWS

Individuals Earn National Awards

Joe Pickart, utility superintendent for the City of Norway, Mich., received the American Public Power Association's Larry Hobart Seven Hats Award at the APPA National Conference in Minneapolis. The award recognizes managers of small utilities serving fewer than 2,500 meters.

Jim Coutts, commissioner for Cedarburg Light & Water Utility in Cedarburg, Wis., received the APPA Spence Vanderlinden Public Official Award. This award recognizes elected or appointed local officials who have contributed to the goals of the association.

Utilities Named Safety Leaders

Eight member utilities and WPPI Energy have earned the American Public Power Association's Safety Award of Excellence for safe operating practices in 2014. Earning first-place awards in their respective categories, with no work-related reportable injuries or illnesses

over the past year, were: Brodhead Water & Light, Kaukauna Utilities, Lodi Utilities, Muscoda Utilities, City Utilities of Richland Center, Sturgeon Bay Utilities, Waupun Utilities and Whitehall Electric Utility.

Renewables Recognition for River Falls, Waterloo

The locally owned electric utilities in Waterloo and River Falls are once again on national top 10 lists for their customers' voluntary participation in renewable energy programs.

The U.S. Department of Energy's National Renewable Energy Laboratory (NREL) recognized Waterloo Utilities as no. 1 on its Green Power Sales list, with 23.8% of its energy sales as renewable energy. River Falls Municipal Utilities was on the same list, with 8.14% of sales as renewable energy. River Falls also had one of the highest customer participation rates in the country, at 5.88%.



Staff from Kaukauna Utilities competed in the 15th Annual Public Power Lineworkers Rodeo in May in Sacramento, Calif. Pictured is Logan Lynch, apprentice lineman.

STATE UPDATES

IOWA

New IUB Chair Named

Geri Huser, a former Iowa Finance Authority official, was appointed by Gov. Terry Branstad on May 1 to chair the three-person Iowa Utilities Board. Elizabeth "Libby" Jacobs and Nick Wagner continue to serve staggered six-year terms on the board.

Solar Tax Credits Expanded

The governor has signed into law a bill that allows municipal utilities to be considered an "eligible renewable energy facility" and thus eligible for a renewable energy tax credit that can be extended to either the municipal utility or the utility's customers. The bill should allow customers of municipally owned utilities who purchase shares of community solar gardens to receive a solar energy tax credit of 1.5 cents per kilowatt-hour produced.

MICHIGAN

State Agency Takes Shape

Valerie Brader leads the newly created Michigan Agency for Energy, which opened its doors in May to advise Gov. Rick Snyder and state agencies on energy policy and to support meeting the state's energy priorities.

WISCONSIN

MARC Regulators Convene

State regulators from as far away as Louisiana met at the Mid-American Regulatory Conference (MARC) Annual Meeting in Milwaukee in June. Commissioner Phil Montgomery of the Wisconsin Public Service Commission serves as MARC's current president. Speaking at the conference, U.S. Environmental Protection Agency Administrator Janet McCabe provided a preview of the EPA's final Clean Power Plan. Commissioner Colette Honorable, head of the Federal Energy Regulatory Commission, encouraged the industry to take the needed steps to avoid non-compliance with the EPA plan.

WPPI Energy's Jake Oelke was among the panelists for a discussion on utility-backed renewables, along with representatives from Madison Gas and Electric, Xcel Energy, Alliant Energy and Arizona Public Service. The majority of customers want additional energy options – such as the opportunity to participate in a community solar project like WPPI Energy and members New Richmond and River Falls are piloting – but utilities must balance that with customers' expectation that electricity be delivered at the lowest cost possible, Oelke said.

Lower Demand Equals Greater Savings

Customers' actions benefit entire system

Locally owned, not-for-profit utilities' primary purpose is to provide safe, reliable electric service at rates that keep local businesses competitive.

WPPI Energy member utilities include price signals in their rates – on-peak demand and energy charges – that reflect the cost of power at peak times. Customers that have the ability to shift some of their operations to off-peak times see significant savings.

Expera Specialty Solutions, a paper manufacturer served by Kaukauna Utilities (KU), managed its internal generating resources to reduce its demand by 3 megawatts during peak times – a move that's reflected in lower demand charges on the company's energy bill.

WPPI Energy's 2014 system-wide peak of 959 MW occurred on July 22, and the all-time peak of 1,048 MW was on July 17, 2012.

When Expera and other KU customers reduce demand during peak times, the utility cuts back on the capacity it buys from WPPI Energy. Likewise, WPPI Energy needs less capacity to serve member communities. That helps hold the line on costs for all customers.

Demand reduction and energy savings can be achieved by shifting energy-intensive operations to take advantage of lower off-peak rates; upgrading to more efficient equipment; or installing a demand-control system.

Manager of Key Accounts Peggy Jesion and each WPPI Energy member utility's Energy Services Representative are available to help business customers identify ways to reduce both demand and energy usage.

"Reducing demand and energy costs fits with Expera's sustainability goals," said Richard Petersen, superintendent of technical services & reliability for the company. "As part of those goals, we're committed to reducing our energy intensity and our carbon emissions through the Department of Energy's Save Energy Now LEADER Program."

Survey Will Help Utilities Meet Business Needs

To continue providing excellent service and communicating effectively with customers, public power utilities must stay informed about what customers think.

All 51 WPPI Energy member utilities conducted surveys in 2014 with both residential and commercial & industrial (C&I) customers to gather valuable feedback.

The C&I customer survey found that overall, member utilities rank above average compared to other utilities for customer satisfaction. The utilities rank highest for performance attributes such as reliability, being trustworthy and being active in the community.

"We're appreciative of the time that customers took to respond to the survey," said Vice President-Energy Services Jake Oelke. "As a result of what business customers told us they want, our members are already exploring ways to improve their customer communications, particularly through online business capabilities and emergency communication options."

WPPI ENERGY NEWS IN BRIEF

Members Celebrate 35 Years

The WPPI Energy Annual Meeting on Sept. 17 at the Blue Harbor Resort in Sheboygan will be an opportunity to celebrate members' proven joint action successes over the past 35 years and to highlight important industry issues.

Featured topics include:

- State of WPPI Energy in 2015
- In-depth look at WPPI Energy's community solar pilot
- Battery storage: a game-changer for the industry?
- Changing customer expectations and opportunities for a top-notch experience
- EPA's Clean Power Plan and the future

Ross Bernstein, author of more than 50 sports-related books, will give the keynote, "The Champion's Code: Life Lessons from the Sports World to the Business World." His book "The Code" inspired the 2013 movie "The Last Gladiators."

The Wave Runners will provide evening entertainment with covers from Jimmy Buffett, The Beach Boys, The Safaris, The Ventures, Harry Belafonte and more.

The board of Directors will hold its business meeting the following morning, Sept. 18.

Transmission ownership

New Project: Badger Coulee

The latest addition to WPPI Energy's transmission asset portfolio – unanimously approved at WPPI Energy's Board of Directors meeting in May – is a small ownership share in the Badger Coulee line. It's a move that fits with one of the organization's top business plan priorities: developing and implementing a comprehensive approach to transmission investment. This project is one of MISO's multi-value projects (MVPs), which are paid for by all MISO members.

Badger Coulee, an ATC/Xcel-led project, will tie into the CapX2020 Hampton-Rochester-La Crosse line. Both 345-kV lines will reduce congestion, which helps to lower costs and improve reliability. They also expand the infrastructure needed to support greater use of renewables from the west.



Crews set a structure near Holmen, Wis., on the CapX2020 345-kV transmission line. Courtesy of CapX2020.

WPPI Energy will own 1.5% of the portion of the line that will run from the Briggs Road Substation near Holmen, Wis., to the North Madison substation. The project is expected to be in service by 2018.

As WPPI Energy celebrates its 35th year, the opportunity for locally owned utilities to own transmission assets continues to be one of the key benefits of joint action. It's an investment that fits with the public power business model of providing reliable, affordable energy to the 200,000 customers that members serve.

Datebook: Summer and Fall

WPPI Energy and its 51 members in Wisconsin, Upper Michigan and Iowa sponsor and provide support for energy education conferences and technical workshops benefiting commercial and industrial utility customers.

Seventhwave (formerly Energy Center of Wisconsin)

E-learning Courses

www.seventhwave.org/education/events

- Incorporating energy modeling into the design process
- Demand control ventilation: maximize savings with practical approaches
- Hit the right note: task tuning for commercial lighting
- Energy efficiency in grocery and convenience stores
- Supercharge sustainability with employee engagement and games

Michigan Energy Providers Conference

Michigan Electric & Gas Association | www.gomega.org

July 29-31, Mackinac Island, Mich.

Building Operator Certification: Level 1 Training Series

August 11-October 28, Iowa City, Iowa | www.boccentral.org/training-iowa

Energy Efficiency in Small to Medium Wastewater Treatment Facilities: Part 2

August 19, Plymouth, Wis. | www.seventhwave.org

Best Lighting Retrofit Solutions

September 17, Middleton, Wis. | www.seventhwave.org

Energy Utility Basics

Wisconsin Public Utility Institute | www.wpui.wisc.edu

October 5-9, Madison, Wis.

Compressed Air: Identifying, Analyzing, and Implementing Energy Reduction Opportunities

Date TBD, Marquette, Mich. | www.seventhwave.org

2015 Iowa Energy Summit

Iowa Association for Energy Efficiency | www.iowaenergycenter.org

November 3-4, Altoona, Iowa

2015 Energy Conference

Iowa Association of Municipal Utilities (IAMU) | www.iamu.org

November 4, Des Moines, Iowa

Stronger Together: Power Supply Resources

Jointly owning generation resources allows WPPI Energy members to have an ownership stake in larger generating units including Boswell Unit 4 in northern Minnesota and Elm Road Generating Station near Milwaukee.

After working through some typical new plant startup issues, Elm Road, one of the most modern coal plants in the nation, has become an efficient and reliable resource in WPPI's portfolio. The plant's economics will be significantly improved by an ongoing fuel flexibility project. At the same time, an expansion project will allow the plant to unload coal trains more quickly.

An environmental retrofit project will wrap up this fall at Boswell Unit 4, which will ensure that the plant complies with all applicable environmental regulations.

The team responsible for the resources' strong performance is led by Vice President – Power Supply Resources Andy Kellen, known in the industry for his expertise on environmental regulation.

Director of Generation Steve Frey is responsible for the operation and maintenance of WPPI Energy's owned power plants. He represents the membership when meeting with co-owners, prepares department budgets, coordinates with operations staff on the efficient dispatch of the plants in the Midcontinent Independent System Operator (MISO) market, and oversees compliance.

Generation Engineer Erich Hartwig is responsible for day-to-day operation and maintenance activities – primarily at Island Street Peaking Plant in Kaukauna,



From left, Erich Hartwig, Steve Frey and Andy Kellen, pictured at the Boswell power plant.

Wis., as WPPI Energy is the plant's sole owner. His work includes conducting plant testing, preparing environmental and performance reports, and performing analysis to maximize plant reliability and minimize costs.