



## Customers, not mandates, behind Willmar's growing renewables portfolio

Willmar Municipal Utilities installed two wind turbines in 2009 to increase the amount of clean power in its electricity supply. (Picture by Willmar Municipal Utilities)

**W**illmar Municipal Utilities (WMU) in central Minnesota is building a power supply that parallels the state's renewable portfolio standard of 25 percent renewables by 2025, even though the standard only applies to power generators.

The small (9,600 meters), independent distribution utility is acquiring renewables because consumers are concerned about the environment, said WMU General Manager John Harren. "It is becoming the expectation of our customers," he stated in an interview with a local newspaper.

The renewable share of Willmar Municipal's power supply is currently at 22 percent. The town's own wind

turbines generate 2 percent, WAPA hydropower represents 13 percent and a mix of contracts with multiple generators makes up the balance. Because the Minnesota RPS only allows hydropower from facilities under 100 megawatts (MW), the WAPA allocation would not count toward the 25-percent goal if WMU was subject to the law.

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# Sustainability commitment leads BHSU to many 'firsts'

**B**lack Hills State University (BHSU) in Spearfish, South Dakota, is joining other higher education leaders in renewable energy and sustainable operations by becoming the first university with extensive use of solar power.

The institutional WAPA customer is investigating installing solar panels on four campus buildings to serve those facilities' energy needs and reduce electricity costs. The solar generation would replace supplemental power from Black Hills Energy and save BHSU an estimated \$10,000 in the first year, according to information from the South Dakota Board of Regents.

## Dedicated to sustainability

Cost savings—and a hedge against fuel prices—is a great reason for any business to install a renewable energy system, but for BHSU it is not the only one. The university was the first in South Dakota to join the American College and University Presidents Climate Commitment, and under the Carbon Commitment program, has set a goal to reach carbon neutrality by 2050.

The process began with a Climate Action Plan, and includes participation in the Sustainability Tracking, Assessment and Rating System (STARS). The voluntary self-reporting system helps colleges and universities to assess progress in meeting sustainability goals and sustainability leadership. STARS ratings are based on three main categories: education and research; operation and planning; administration and engagement. On Earth Day 2014, BHSU received a STARS Silver rating, making it the first South Dakota university to achieve that international rating.

Among the "green" initiatives that helped BHSU earn its rating are

strong building efficiency standards, a robust recycling program and a campus community garden. Campus dining facilities The Hive and The Buzz Shack both achieved Green Restaurant Certification in 2014, the first university-attached restaurants in the state to do so.

The university has already made small forays into the use of renewables, installing solar-powered lighting at campus entrances and a 1.8-kilowatt wind turbine in front of the student union. "It puts a small amount of generation back onto the grid and provides an introduction to renewable energy for students and visitors," said Corinne Hansen, BHSU director of university and community relations.

## Everyone involved

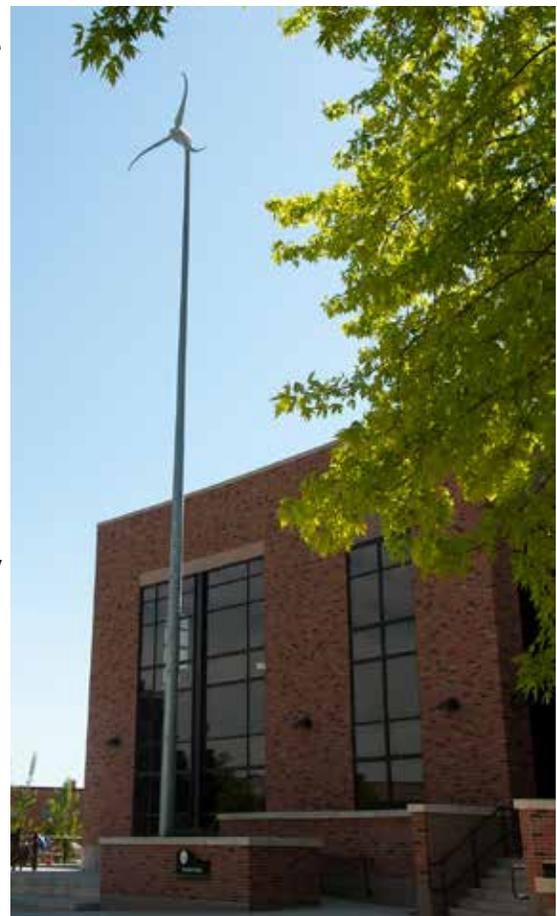
BHSU students, faculty and staff serve on the Sustainability Committee, which recommends strategies to advance BHSU's climate goals. This committee meets every semester to plan activities that promote sustainability efforts on campus, and to educate the campus community on sustainability issues.

Successful strategies include faculty carpool and bike leasing programs to cut down on emissions from commutes around town and

between Spearfish and the BHSU Rapid City campus. Landscaping with a stormwater management system slows and diverts runoff.

Sustainability concepts have been incorporated into lesson plans and even art projects, including an exhibit at the student union of sculptures made from recycled materials. The school received a national grant to fund a research project on solar cell materials and students have developed business plans for an innovative mobile recycling business.

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**This 1.8-kilowatt wind turbine in front of BHSU's LEED Gold-certified student union puts generates a small amount of electricity and raises awareness about renewable energy. (Photo by Black Hills State University)**

### Building for future

As part of the Climate Action Plan, all new buildings and major renovations at BHSU are built to LEED (Leadership in Energy and Environmental Design) Silver or higher standards. The David B. Miller Yellow Jacket Student Union was the first state building to earn this standard, earning LEED Gold after its 2009 renovation.

The LEED Silver Life Science Laboratory has been chosen as one of the four sites for the solar arrays. Features that earned the building its LEED rating include a design that maximizes daylighting; the incorporation of recycled and local materials during construction; low-flow plumbing fixtures and low emitting carpet, paint, adhesives and sealants.

The other three buildings identified for the solar project include the Young Center, Woodburn Hall and the library, with the Young Center to be the first.

“All four buildings have new roofs and good solar exposure,” explained Hansen. “The Young Center has the biggest roof by square feet.”

Lighting retrofits have helped to reduce the electrical loads in the Young Center and the library.

### More to come

The university expects installation of the solar panels to be completed this summer, but sustainability is more than just clean energy. BHSU aims to decrease its waste stream by 25 percent from 2014 to 2018 by expanding recycling initiatives and introducing a user-friendly, desk-side disposal system. Going beyond recycling, a plan to discourage the use of disposable water bottles was launched in 2014 with the installation of filtered water bottle-filling stations across campus. Facilities Services will continue to replace traditional water fountains with water bottle-refill stations as needed.

Building upgrades will continue to increase campus energy efficiency, especially areas where electricity or heating demands can be significantly reduced. A complete upgrade of the building automation system is planned for 2018. Also in the next year, BHSU is planning an energy savings performance contract covering all campus academic buildings.

Ultimately, these projects and new ones that will arise as BHSU moves toward climate neutrality are as much about the future of the students as the future of the planet. Renewable energy systems, energy efficiency and recycling will reduce the university's operating costs over the long term, and the savings can be channeled into improving education. More importantly, embracing sustainability principles prepares students for a rapidly changing world in which they will have many opportunities to achieve their own “firsts.” ■

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### Willmar's growing renewables portfolio *from Page 1*

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#### Started with wind

Willmar Municipal took its first steps toward expanding its renewable supply beyond hydropower in 2009 by building two wind turbines, each with a 2-MW capacity. The estimated payback on the \$10-million project is 10 to 15 years.

Initially, the turbine manufacturer DeWind Company of Texas was responsible for service and repairs. However, Willmar Municipal took over operation in August of 2014, training seven of its own employees to climb the turbines and perform maintenance. Local control resulted in more timely service and increased generation in 2015.

Power Supply Manager Chris Carlson said, “We’re making a good faith objective to build up our renewable portfolio.”

The rest of the utility's power comes

from the traditional sources of gas, coal and nuclear. “Even if we had a full fleet of renewables, there will always be a need for some sort of fuel supply for backup sources,” Carlson observed, “for times when there's no wind or sunshine.”

#### Proceeding with caution

Pursuing clean energy for its consumers, rather than mandates, gives Willmar Municipal the time to carefully consider the advantages and drawbacks of each opportunity. Contracts with power suppliers have been instrumental in adding renewables, primarily wind and renewable energy certificates. As WMU procures additional purchased power agreements, emphasis will be placed on renewables.

Solar generation is growing more

slowly in the Upper Great Plains than in sunnier parts of WAPA's territory, due to the region's low utility rates and less robust resource. So far, there is only one customer-owned solar array on Willmar Municipal's system. However, WMU will consider including a solar garden on a new municipal facility it hopes to build, Carlson noted. “Adding solar will increase our costs, so we want to make sure we have a handle on our power supply before we move forward,” she explained.

Carlson expects the percentage of renewables to continue to grow, even as the city's load remains stable. “If gas prices go through the roof 10 years from now due to the retirement of fossil fuel plants, we could still hedge our costs with renewables that have zero fuel costs,” she pointed out. “That's one of the reasons why we aim for a diversified portfolio,” Carlson added. ■

## Requested

# Your ideas for UEF Pre-Forum Workshop topics

**T**he 37th annual Utility Energy Forum is just around the corner, and with it, the Pre-Forum Workshop for utility and government attendees. This exclusive session is a candid roundtable discussion about pressing issues facing power providers and the government agencies that support them. The program committee is inviting attendees from those sectors to share their greatest concerns in an online survey by Feb. 8. The topics that get the most votes will be included on the workshop agenda.

This year's theme, "Change is the Only Constant – Customers, Policy and Technology," sums up the challenges of doing business in today's electricity industry. The main agenda offers many perspectives on what customers want, what utilities can do to meet those expectations and what policy makers can do to help.

The workshop, however, is the place

to really get into the weeds on how change is reshaping everything from daily operations to long-term planning. If you are worrying about depreciating assets or new net-zero developments in your territory, this is the place to talk about it. If you wonder what kind of skills your employees will need to manage the new environment, suggest that topic. If you are trying to figure

out how to work with customers who want to install energy storage batteries on their homes or businesses, the workshop offers the chance to learn from others. And that only scratches the surface.

You don't have to be attending the Utility Energy Forum, May 3-5, to vote in the survey. All utility professionals and government representatives can contribute their valuable and much-needed perspective. For those who miss the event, Energy Services Bulletin will be reporting on the big stories, and speaker presentations will be posted on the website.

But there is nothing like a face-to-face conversation with your colleagues to get the wheels turning. We hope you will join us at the Hilton Sonoma in Santa Rosa, California, to share ideas, discuss solutions and think about where you—and our industry—are going. ■



# Business customers rate SRP first in customer service

**W**APA customer Salt River Project (SRP) once again earned a top spot on the J.D. Power 2016 Calendar-Year Electric Utility Business Customer Satisfaction Study, You are leaving WAPA.gov. released Jan. 11. This is the fourth consecutive year and the seventh time in the last eight years SRP ranked highest in customer satisfaction for business electric service among large electricity providers in the West Region. The region covers Arizona, California, Colorado, Idaho, Nevada, Oregon, Utah, Washington and Wyoming.

SRP's overall customer satisfaction index was 797 out of a possible 1,000 points in the annual study – a 50-point performance increase from last year. The study examines overall satisfaction across six factors (in order of importance): power quality and reliability; corporate citizenship; price; billing and payment; communications and customer service. SRP scored highest in its category in power quality and reliability, corporate citizenship, billing and payment and communications.

## More communication

According to the study, utilities are becoming more aware of the importance of engaging with their business customers, which is reflected in increasing communication. The study found that 52 percent of business customers recall at least one communication from their utility in the past six months, up from 49 percent last year.

"It is remarkable how utilities have improved as an industry in understanding the importance of being customer-focused," said John Hazen, J.D. Power director in the utility and infrastructure practice. "In doing so, they hope to not only improve their financial performance, but also to be viewed more favorably by regulators."

He added that business customers also tend to be more supportive of the investment plans utilities have in such projects as updating or developing their infrastructure.

## Other findings

The study noted three more important trends in 2016:

- **Power outages** – While the number of brief and lengthy power interruptions has not changed in the past six months, the average duration of the longest outage increased to 13.7 minutes from 11.9 minutes.



(Art by JD Power)

Thunderstorms are the most common cause of the longest outages (26 percent), followed by snow and ice (12 percent).

- **Alerts** – Since the previous study, the number of customers nationally signing up for electronic alerts increased more than 50 percent for outage alerts and 66 percent for monthly bill alerts.
- **Corporate citizenship efforts** – Utility providers continue to ramp up their efforts to be good corporate citizens. For example, 70 percent of business customers say their electric utility provider supports economic development in the local community; 30 percent have seen utility employees volunteering or working in their community; and 43 percent are aware of their utility's efforts to improve its effect on the environment.

The rankings from the J.D. Power study are based on interviews with representatives of more than 20,500 U.S. businesses that spend an average of \$200 or more a month on electricity. ■

# Proven Practices

## Engage Media to Garner Credibility

**A**s challenging as it is to design an energy efficiency or renewable energy program for utility customers, getting the word out and driving adoption often seems like the greater struggle. You know how to come up with an approach that balances your utility's goals with customer needs, ensure that quality equipment or systems are available in your area and streamline the application and installation processes. Now all you have to do is persuade your customers to get on board. Before you print another bill stuffer or pay for a newspaper or radio ad, visit the Better Buildings Residential Program Solution Center for some tips on building credibility through earned media.



Coverage that comes from good public relations may not generate immediate leads, but it can increase program recognition and lay the groundwork for future leads. A customer who has seen a news story about how a home energy upgrade helped a local family reduce electricity bills may pay more attention to the bill stuffer announcing your program. Timely content, such as a story about weatherizing or upgrading homes in the winter, can generate interest and even phone calls to customer service representatives.

The Residential Solution Center offers the following suggestions to earn media coverage:

- *Mark major milestones to spur momentum* – Media outlets are interested in stories about the first or the biggest.

- *Keep content fresh and relevant* – Refresh your messages about your program with stories about how it helped individuals, groups or the community.
- *Become a resource for energy efficiency* – Your staff has experience and knowledge about issues that concern homeowners and contractors. Reach out to local home improvement shows and newspaper columns, or better yet, start your own.

### Learn more

Visit the Residential Solution Center to find more tips, examples and tools for marketing and outreach. If you haven't used this online resource before, start the New Year by taking a tour of the Solution Center. ■



# Submit presentation proposals for Rocky Mountain Utility Efficiency Exchange

**Deadline: Feb. 27, 2017**

**W**APA customers are known for creating initiatives worth imitating, and we would like you to share yours for the 11th Rocky Mountain Utility Efficiency Exchange (RMUEE). Proposals for sessions are due Feb. 27, and the Advisory Committee is particularly interested in topics from utilities and government agencies addressing this year's theme, "Initiatives Worth Imitating."

Power providers are taking residential, commercial and industrial programs to a whole new level using imagination to create new offerings, innovation to improve existing programs and integration to break down the silos of thinking. Your successes should be on the agenda when more than 100 utility and government representatives and trade allies meet in Aspen, Colorado, Sept. 27-29.

Conference attendees will be exploring case study best practices and lessons learned about programs related to energy and water efficiency issues and integration with renewable energy, demand response and key account customer management. Special consideration will be given to suggestions for sessions that address:

- New energy-efficiency and demand-management technology
- Strategic onsite energy and distribution system management
- Workforce culture and program staffing challenges
- Pay-for-performance approaches

- Consumer engagement
- Indoor growers and other commercial customer segments at the water/energy nexus
- Electric vehicle charging, energy storage and other new end-use applications

You may choose a format for your presentation from several options:

- General or breakout sessions up to 20 minutes in length with Q&A
- Snapshot panel talks up to five minutes in length
- Poster discussions during the Wednesday evening reception
- Workshops or Roundtable Discussions two to four hours in length (for Friday morning)

There is also more than one way to participate. If you have never attended the RMUEE and don't yet have a program to share, you could be eligible for one of a limited number of scholarships. Or maybe you would like to sponsor the event, a great way to promote your organization. Learn more about these options from the FAQ sheet.

Whatever your level of participation in the RMUEE, you will enjoy an outstanding learning and networking experience in a relaxed atmosphere conducive to sharing. You may even turn this year's inspiration into next year's "boffo" presentation. ■



(Art work by Rocky Mountain Utility Efficiency Exchange)

# Try one easy energy-saving resolution

**T**he year is still young so it is not too late to make a resolution to use less energy in 2017—or to encourage your customers to do so. DOE Energy Saver recommends that people choose one easy step that makes them feel good and congratulate themselves each time they do it.

Just one thing, like turning off power strips when not using the connected electronics, or replacing a manual light switch in one busy room with an occupancy sensor, can add up to savings for your customers. In addition to saving energy, taking action builds awareness about energy use that could make your customers more receptive to bigger measures.

Check out the article on the Energy Saver blog and think about how your utility could use the “One Easy Step” strategy to start an energy-saving resolution campaign. And don’t forget to share your story with Energy Services Bulletin.

Have a happy, safe and efficient New Year. ■



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