If integrating distributed generation is challenging for large utilities, imagine the difficulties faced by rural and small municipal utilities. With 200 member communities located in six western states, Nebraska Municipal Power Pool (NMPP) doesn’t have to use imagination to identify the needs of its members.

Distributed generation is becoming increasingly popular even in rural communities. NMPP has developed a resource guidebook to help prepare its members to deal with the challenges of interconnection. NMPP is the utility services organization of NMPP Energy, the trade name for a coalition of four organizations based in Nebraska that provide municipal utilities with wholesale electricity, wholesale and retail natural gas and energy-related services. Some of its members serve as few as 200 customers with minimal

continued on Page 3

inside
2 Overton Power District plan
4 USDA zero-interest loan funds
5 Around the Web: Home Performance with ENERGY STAR
6 Fall Protection Symposium
7 Residential Program Solution Center focus group
8 Upcoming deadlines

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On the wide spectrum of utility policies that encourage customers to adopt renewable energy systems, Overton Power District 5 (OPD) is on the ambitious end of the spectrum.

Desert Southwest Energy Services Representative Audrey Colletti pointed out the strategy in OPD’s most recent integrated resource plan (IRP). “I look for customer goals and achievements in their IRPs and alternative reports,” explained Colletti.

“For example, one customer hasn’t increased rates in over five years, while another is thinking of decreasing rates. Some offer renewable power that is less expensive than fossil generation, but it is unusual for a small customer to make such an aggressive push to add more renewables.”

The Southern Nevada power provider is playing the long game with an eye on someday generating most of its own electricity through renewables. “But that day is a long way off,” acknowledged OPD General Manager Mendis Cooper. “Our current goal is to provide ways to help our customers.”

Keeping customers in mind

Happily, the steps OPD is taking to increase renewables in its portfolio are also good for its 15,000, mostly residential customers. Its generous net-metering policy for small renewable systems is a notable step. Customers who install renewable generators that comply with OPD policies are eligible to receive a rebate of up to $2,500 for homeowners and up to $5,000 for large commercial industrial accounts. Since OPD implemented the policy, 49 net meters have been installed.

Increasing energy-efficiency programs is also part of OPD’s long-range plan that benefits customers in the near term. Thanks to a power contract, OPD will soon be stepping up its efforts to move customers to more efficient appliances and water and space heating systems. “We see natural gas as a reliability measure, but the savings will help to finance more customer efficiency measures, too,” Cooper explained.

Piecing together affordable sustainability

Even with the high cost of tapping gas lines, low natural gas prices are a boon to OPD—for now. “In eight to 10 years, gas prices are likely to go up,” said Cooper. “The cost of renewable resources, which are getting more competitive all the time, won’t be rising.”

The transition to a sustainable power supply is challenging for a utility that must rely on other providers for both generation and transmission, as OPD does. Cooper would like to get more WAPA hydropower, but acknowledges that ongoing drought conditions make that unlikely. OPD now has 49 rooftop solar arrays on its system, but the utility is investigating the feasibility of and support for utility-scale development. “That is where our customers will really see the benefits of alternative energy,” the general manager observed.

OPD also offers customers rebates for wind turbines and ground-source heat pumps.

Using all tools

OPD’s comprehensive long-range plan presents other opportunities—and identifies challenges—for load management as well. A scheme to install low-impedance transformers and implement power factor correction promises to increase systemwide efficiency.

With spillover growth from Las Vegas expected to add load over the next five years, OPD is working to encourage Clark County to adopt

continued on Page 3
Overton Power District  from Page 2

high-efficiency building standards. Programs to rebate measures such as weather stripping, relamping, heat pump systems and window replacement are being considered for existing buildings.

Another, nearly inexhaustible resource—an engaged and energy-savvy customer base—factors into OPD’s plans, too. The IRP highlights the utility’s use of social media to educate its customers about building technology, appliance energy use, efficient equipment and systems and no-cost common sense behaviors.

It will take every tool at OPD’s disposal to move its portfolio toward clean resources and self-generation. But that is what long-term planning is for, notes Cooper. “The IRP keeps our goals at the forefront where we can’t forget about them, and it reminds us every day of the issues we have to address.”

Net-metering services  from Page 1

staff who wear many hats, said NMPP Energy Communications Specialist Kevin Wickham. “We saw the need to help our members with interconnection coming several years ago when some of the states we serve passed net-metering laws,” he recalled.

Building new services

NMPP launched a net-metering service in 2010 that 22 member utilities have used to date. That number is likely to increase as the cost of installing individual solar arrays drops and utilities install community solar projects.

The net-metering program offers members a choice of three options, each for a cost-based, one-time fee. Members may choose from assistance in developing their own policy guideline and procedures, review of customer generation application for interconnection or avoided cost rate development for payment for energy delivered to the utility.

As it developed its net metering service, NMPP was also working on a resource guidebook, Recommended Policy and Guidelines for Interconnection of Customer-Owned Generation Including Net Metering.” The guidebook was six years in the making,” said Wickham. “Initially, we were going to offer it as one of the services available under the program.”

Something everyone needs

In 2015, NMPP and its wholesale power supply organization Municipal Energy Agency of Nebraska (MEAN) partnered to provide the guidebook to all of MEAN’s 54 long-term total requirements power participants.

“Distributed generation and customer self-generation has really taken off and we realized that there was a greater need for the information,” Wickham explained.

The guidebook contains policy guidance, sample agreements, industry terms and definitions and case studies from the American Public Power Association. You are leaving WAPA.gov. Members will also find net-metering statutes from the states NMPP and MEAN serve (Wyoming, Colorado, Nebraska, Iowa and Kansas). That was one of the bigger challenges in putting together the guidebook, Wickham acknowledged. “Each city council and each utility designs and administers its own policies and procedures around net metering,” he said. “We had to make sure the guidebook was going to be useful to all our customers.”

Input from several regional utilities and trade associations helped NMPP compile a comprehensive resource. Otherwise, the net-metering guidebook was a product of expertise within the organization. “The guidebook wouldn’t have been possible without the cooperation from those utilities, as well as the American Public Power Association,” said Tim Sutherland, MEAN director of wholesale electric operations.

Prepared for future

With an estimated 900 kilowatts of solar power on MEAN’s system, distributed generation has arrived, noted Wickham. “Customers have high expectations when it comes to utility customer service. We stress to our members to be prepared, starting with things like having an interconnection agreement in place before a customer walks in the door,” he said.

MEAN member utilities, especially the small ones, are finding the resource useful in working out their renewable interconnection policies. “The creation of the net-metering guidebook was the result of being responsive to MEAN’s power participants’ needs,” said Sutherland. “It is just an example of seeing a need and trying to assist our member-owners.”

Utilities can expect to be confronting the challenge of distributed generation and other changes in the electric industry well into the future, Sutherland noted. NMPP and MEAN will continue to look for services, programs and tools to help their member-owners provide consumers with reliable, affordable and sustainable power, he added.
USDA unveils new no-interest efficiency loan program for rural utilities

Informational webinar July 12, 2016
Letter of intent due Aug. 5, 2016

The Rural Utilities Service (RUS), an agency of the Department of Agriculture (USDA), has opened the application process for its new Rural Energy Savings Program (RESP).

Under this new program, rural electric cooperatives and other rural energy providers have access to $52 million in zero-percent loans for relending to homes and small businesses to make cost-effective energy-efficiency improvements. Participants repay their utility for these improvements over time through a fixed charge on their monthly utility bills. RESP loans can be used for a wide variety of energy-efficiency measures, providing the utility can justify the cost-effectiveness of the measures for the consumer.

Utilities across the country have successfully implemented this on-bill financing model and it is part of an ongoing initiative by Environmental and Energy Study Institute (EESI) to help families make home energy upgrades with no upfront costs.

To be considered for this initial round of RESP loans, utilities must submit a letter of intent to RUS by Aug. 5. RUS did not provide any information regarding the size or number of loans it plans to make. USDA and the Department of Energy will co-host a free webinar on July 12, 12 to 1 p.m. Mountain Time, to discuss the program. The webinar will provide an overview of the program and cover evaluation, measurement and verification methods used to assess an energy-efficiency program or project.

“We view the Rural Energy Savings Program as a real win for rural electric co-ops and their members, as well as for other rural utilities,” said EESI Executive Director, Carol Werner. “We hope that these utilities will move quickly to tap the program.”
Creating an energy-efficient home is a worthwhile goal. It is cooler in the summer, warmer in the winter, costs the homeowner less money to keep it that way and helps the environment. What’s not to like? Well, the difficulty of finding financing for upgrades, choosing the right equipment or systems and hiring contractors who are experienced in properly installing high-performance systems, to name just a few challenges.

To help homeowners overcome these barriers to successful energy-efficiency upgrades, the Department of Energy launched Home Performance with ENERGY STAR (HPwES) in 2011. The program connects homeowners with program sponsors and contractors who can help them improve their home comfort, indoor air quality and safety, while lowering utility bills.

**How it works**

HPwES takes the “whole house” approach to energy improvements that helps make the most of the homeowner’s investment. Rather than focusing on a single problem, participating contractors look at how improvements throughout the house can work together to get the best results.

To find participating contractors, homeowners go through HPwES-sponsored local programs. The contractors, who are trained to understand how homes operate, identify health and safety issues and provide the homeowner with personalized recommendations for increasing the house’s energy efficiency.

HPwES sponsors perform quality assurance checks on their contractors to ensure that the improvements are done right. In states where incentives are available, sponsors may also help homeowners apply for rebates.

**Supporting retrofit programs**

Becoming a Home Performance with ENERGY STAR sponsor is good for utilities as well as homeowners. Starting a residential efficiency improvement program from scratch is difficult, even for large utilities. Sponsors have access to a variety of resources they can use to implement and grow their programs and reach their own local energy savings goals. Program support includes account management services, marketing material, partnership and collaboration opportunities and resources from the Better Buildings Residential Solutions Center.

*continued on Page 8*
Utilities talk safety at 2016 Fall Protection Symposium

More than 150 attendees from across the United States, Canada and even Europe came to Loveland, Colorado, May 17-18, to share best practices in utility field work, get an update on federal regulations and learn about the latest advances in safety equipment.

Navigating new rules

The 2016 Fall Protection Symposium, cosponsored by Western and Tri-State Generation and Transmission Association, offered an in-depth look at all these topics in depth. With the new fall protection standards Occupational Safety and Health Administration (OSHA) enacted last year, on-the-job safety has become a lot more complex, and many utilities are still climbing the learning curve.

Modesto Irrigation District, a water and electricity provider in California’s Central Valley, is just beginning to develop its fall protection program. MID Line Construction Manager Marty Gonzalez came to the event in part for the networking opportunities. “We want to learn more about what utilities with established programs are doing,” he explained.

Tools improving

Gonzalez also hoped to pick up more safety tips for MID crews and look for better tools, an interest many attendees shared.

Several equipment manufacturers were on the agenda and had tables in the conference room to display their latest products. Vendor presentations ranged from the traditional—harnesses, belts, fasteners and ropes—to high-tech. In the latter category, Fabio Bologna from the Electric Power Research Institute discussed the barriers as well as the potential for drone use in utility maintenance work.

Keeping up with OSHA

The 2016 symposium attracted many alumni from the previous event who were eager to hear about lessons learned from the first year of applying OSHA regulations. “Things can change quite a bit in one year, so it is worth

while to get updates and talk about where we can make improvements,” noted Sam Waggoner of Xcel Energy.

David Wallis, who authored and contributed to safety and health standards as director of the OSHA Office of Engineering Safety, shared his extensive knowledge of electrical safety standards and work rules.

Increasing safety and protecting utility workers from dangerous falls is an ongoing challenge that requires commitment from every power provider. Western thanks Tri-State and all the professionals who helped make the 2016 Fall Protection Symposium a success.
Residential Program Solution Center seeks input from users

The Department of Energy (DOE) is seeking volunteers to share their thoughts and experiences using the Better Buildings Residential Program Solution Center.

Launched in 2014, the Better Buildings Residential Program Solution Center is a repository for key lessons, resources and knowledge about the planning, operation and evaluation of residential energy-efficiency programs. DOE is convening a focus group of Solution center users this August to collect thoughts, opinions and experiences using it. This information will be used to guide improvements to the resources. Our goal is to make the Solution center the primary online resource that residential energy-efficiency program administrators turn to for program implementation insights, solutions and ideas. This focus group is an excellent opportunity for power providers to share their insights on how to make the Solution Center a more effective tool for utility program managers.

If you are interested in participating in this focus group, please email the Better Buildings Residential Program Solution Center team by Wednesday, July 13, with the following information:
- Your first and last name
- Email address
- Phone number
- Organization
- Title/role

The program is specifically seeking volunteers who:
- Are aware of the Solution Center’s content and organization
- Have used the Solution Center to look for something to help their program
- Serve as a program administrator or are in a decision-making role for a residential energy-efficiency program

DOE plans to convene the focus group the week of August 15 via a conference call. The time commitment of participants will be approximately one hour. Energy Services is interested in hearing about WAPA customers’ experiences with the Solution Center as well. Contact the Energy Services Bulletin editor if you would like to share your story.

Whether you are serving a new market or adding new energy-efficiency services to your portfolio, the Solution Center has the information you need to get started.
Because sponsorship is not limited to one type of organization, utilities have the opportunity to partner with municipalities, state energy programs and financial institutions. Collaborating with other agencies can make programs more effective, multiplying the benefits of efficiency upgrades across communities.

**Improving communication**

Helping sponsors to develop their own programs and connecting them to contractor pools is not the only way HPwES works to break down the siloes that stand in the way of a more efficient marketplace. Last year, the program introduced the HPXML Implementation Guide to help program administrators and software developers integrate HPXML into their operations and products.

Developed by Building Performance Institute, You are leaving WAPA.gov. HPXML is a set of common definitions for the attributes of home systems. It also includes computing language to facilitate the quick and easy transfer of home-related data between different market actors. Collecting and sharing this data across the industry is critical to supporting, measuring and verifying energy performance. The DOE expects the use of HPXML to build stronger relationships within the industry, increase consumer trust in energy-efficiency improvements and enhance the ability to evaluate programs.

Most program managers agree that measurement and evaluation is one of the big challenges of administration, so the HPXML guide could be a valuable resource for utilities. Visitors can learn more about the value the HPXML guide can bring to businesses, along with implementation methods, from a recorded webinar on the website.

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**Upcoming deadlines**

- July 8 – The Tribal Energy Development Capacity Program
- July 8 – The Energy and Mineral Development Program
- July 8 – Solicitation of Proposals for Funding from the Native American Business Development Institute (NABDI) Feasibility Study Program
- July 8 – Tribal Training Support for the Community and Tribal Air Quality Programs
- July 31 – Final deadline for USDA Agricultural Conservation Easement program. Application deadline varies by state.
- Aug. 5 – USDA Rural Energy Savings Program letter of intent due
- Aug. 26 – ENERGISE funding full applications due