

# Integrated Resource Plan serves as guide in procuring future generating resources

## *Plan approved by MEAN Board at August meeting*

The Municipal Energy Agency of Nebraska (MEAN) Integrated Resource Plan will place a priority on future generation resources that incorporate natural gas, wind, solar as well as projects that can provide local benefit.

The plan, which serves as a road map for determining how to supply MEAN's future electric generation needs, was approved by the MEAN Board of Directors in August.

The Energy Policy Act of 1992 requires utilities that receive federal hydropower allocations, including MEAN, to prepare and submit an Integrated Resource Plan every five years to the Western Area Power Administration (WAPA) under its Energy Planning and Management Program.

The plan is used to ensure MEAN has sufficient power supply to fulfill the power supply demand of its Total Requirements Participants excluding their federal hydro allocation from WAPA. The resource plan, which is reviewed and updated annually, will be incorporated into MEAN's overall strategic plan and be available on the NMPP Energy website ([nmppenergy.org](http://nmppenergy.org)) after final approval by WAPA.

"An Integrated Resource Plan identifies current load forecasts and resources and where the gaps will



occur in the future," said Shannon Coleman, supervisor of resource planning and analysis for MEAN. "It also prioritizes what is most important for MEAN's participants in choosing a resource to fill those gaps going forward."

Prior to developing the plan, a survey of MEAN participants was used to gather input regarding several different generation resource criteria. Low cost was the most important criteria, according to the survey. Other criteria considerations included local benefit, operational flexibility/dis-

patchability, environmental impact, fuel diversity, renewable fuel, power purchase agreement vs. ownership and environmental policy risk.

Demand side management efforts are also included in the plan. Existing activities such as MEAN's commercial lighting program, infrared energy audits and other energy efficiency and education efforts will continue under the plan as well as the existing community demand-side management programs of MEAN participants.

# Utilities see demand dip during eclipse

The August 21 solar eclipse caused a brief dip in electric demand across Nebraska to the surprise of electric utilities.

The general thought across utilities was that as the eclipse occurred resulting in increased darkness and reduced temperatures, lights would come on causing a brief uptick in electric demand. As it happened, the exact opposite occurred with utilities experiencing a brief drop in electric demand during the three-hour event.

Lincoln (Neb.) Electric System reported a drop of approximately 14 megawatts during the first two hours of the eclipse period. Nebraska Public Power District (NPPD) reported its load was down 200 megawatts, or about



seven percent of its “anytime peak,” according to the Omaha World-Herald. The Omaha Public Power District reported a similar drop to NPPD’s although only a part of its service territory was in the path of totality.

The Municipal Energy Agency of Nebraska experienced

reduced electric demand of approximately 25 megawatts overall during the hours of the eclipse across two of the three regions where it operates compared to a typical day during the same hours.

Operators of the Southwest Power Pool (SPP), the regional entity that coordinates electricity generation and transmission across 14 states which the Nebraska utilities operate, experienced a drop of approximately six percent or 2,500 megawatts from their typical demand forecast. In preparation, SPP had more electric generation on stand-by to be able to handle any significant swings in electric demand during the event.

## Upgrade to more efficient lighting with MEAN’s LED Commercial Lighting Program

The program is provided by the **Municipal Energy Agency of Nebraska** in partnership with its long-term wholesale power Participants.

The program provides cash incentives to commercial businesses of MEAN long-term power participants to replace less-efficient lighting with higher-efficient LED lighting.

Visit [www.nmppenergy.org/mean](http://www.nmppenergy.org/mean) to download a brochure and application.

For more information contact:

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# After nearly 40 years, PURPA needs changes

The Public Utility Regulatory Policy Act (PURPA) was passed in 1978 to reduce the United States' dependence on foreign oil, promote alternative energy sources and energy efficiency, and diversify the electric power industry.

These are all good goals. However, after nearly 40 years it's time to ask: Has PURPA outlived its purpose and, if it has—what changes are needed to make it workable again? Various industry sides want changes yet they disagree on solutions. The U.S. House of Representatives recently held hearings on the matter, and while they may focus on bigger energy or infrastructure measures, PURPA should be studied, revised and included in the package.

PURPA's key provision required utilities to provide access to the electric grid and buy electricity from "qualifying facilities" that can sell power at or below the utility's avoided cost rate, which is essentially the marginal cost for a utility to produce electricity.

Many people agree PURPA accomplished its goal of promoting renewable energy projects and making a market for power from non-utility power producers. However, there have been challenges as well. Some utilities argue PURPA imposes higher costs on customers, disrupts electricity planning and operations and impedes federal and state energy policies. PURPA supporters would like to see a re-examination of avoided cost rates and more incentives.

Considering regional transmission organization roles and state laws maybe it is time for Congress and states to review their laws regarding PURPA and state net metering. Here are few suggestions and challenges:

1. PURPA requires competition in the utility industry and encourages renewables such as wind and solar. But it may not be much help to renewables in the long run because they cannot compete with new natural gas turbines, due to the low cost of natural gas.

2. Some utilities complain that abuse of the rule is occurring. Under PURPA, qualifying facilities are required to be one mile apart and be capped at 20 megawatts in areas operating in organized markets. However, some large wind farms

exceeding the 20-megawatt threshold are splitting into smaller portions and spreading turbines more than one mile apart to "game" the system. This allows producers to circumvent the cap, receive more production tax credits, avoid state regulations all while obligating utilities to buy the project's generated electricity.

3. PURPA currently allows utilities to pay the "avoided cost" for excess electricity generated by a qualifying facility. Avoided cost is essentially the marginal cost for a utility to produce electricity. PURPA requires utilities to buy this excess electricity "as available" but the definition is confusing. The power is sometimes not needed, transmission and the role of regional transmission organizations have further confused the issue, and most importantly, avoided costs are sometimes too low to develop renewable energy.

The bottom line is consumers carry the cost of PURPA. It obligates utilities to purchase excess electricity from qualified facilities during a time of low electric load growth. It also benefits a small number of producers while it impacts all consumers for decades through higher costs. Congress should take steps to mitigate negative impacts on consumers, utilities and the grid by modernizing the law.

## Legislative Notes



By Chris Dibbern

## Register now for Training Webinars

An internet connection and a computer are all you need to educate your entire staff for just \$99. Register today at [www.PublicPower.org/Academy](http://www.PublicPower.org/Academy) and click on webinars. Non-members enter coupon code **webinar** to receive the member rate. MEAN pays the APPA membership fee for all long-term (Schedule M and K) wholesale electric participants.

- Public Power Forward Webinar Series: Best Practices in Battery Storage Oct. 12
- Public Power Forward Webinar Series: Smart Meters for Smart Solutions Oct. 26
- Understanding the FEMA Grant Process Webinar Series: FEMA Basics for the Municipal Utility Nov. 14

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# Understanding the term ‘dispatchable’ regarding electricity generation

A modern society requires electricity to be available on demand around the clock. Fulfilling this need requires constant monitoring of electric demand on the electric grid and then matching that demand with electric supply from various generation sources.

Accomplishing this continual critical feat is a balancing act of epic proportions. It requires sources of energy that are “dispatchable” – an industry term essentially meaning a resource can be counted on when needed. This concept is critical in understanding why it takes a diverse mix of resources to operate the electric grid.

There are many sources of fuel that can produce electricity – the most typical being nuclear, coal, natural gas, hydro, wind and solar. Each of these resources has strengths and drawbacks when it comes to generating electricity. Some resources are more environmentally favorable while others are more reliable because they are dispatchable, or available when needed.

Dispatchable fuel resources include nuclear, coal and natural gas. These fuel sources are highly reliable because each fuel is a constant supply.



Energy Education 101 is an ongoing NMPP Energy series focusing on energy-related topics with the goal of providing straightforward, agenda-free information that can help provide a better understanding of the energy that powers our modern society.

These are known as baseload resources.

Examples of non-dispatchable fuel resources include wind, solar and hydro generated electricity (although some hydro generation can also be considered a baseload resource). These resources are environmentally beneficial because they produce no emissions, however they are not always available – the wind doesn’t always blow, the sun doesn’t always shine and, depending on location and weather conditions, water may not always be available to generate electricity.

The strategy for most utilities is to have a diverse mix of fuel resources, using both dispatchable and non-dispatchable forms of power supply to strike a balance between being environmentally conscious while not compromising reliability, ensuring a steady flow of electricity is always available.

## MEAN completes testing of local power generators

The Municipal Energy Agency of Nebraska recently completed its annual testing of local power plants among its long-term power participants.

Formally known as unit capability testing, the process occurs each summer and ensures local generating units remain reliable to serve as part of MEAN’s energy capacity portfolio as well as to serve as back-up electric generation for each of the respective 19 communities that have their own generating units.

“This year’s testing went extremely well,” said Tim Cervený, MEAN manager of resources and transmission. “Overall, there was significant improvement in the testing results from the previous year. Credit goes to the local utilities that maintain these units to make sure they remain reliable and part of MEAN’s overall energy capacity.”

Cervený oversees the testing process, which includes on-site visits to inspect the units and to put them through a testing procedure that includes running the units at full electric load for two hours. Readings from the units are recorded and verified to ensure they meet their specified capacity.

The energy capacity from the units are leased to MEAN as part of MEAN’s Electric Resource Pooling Agreement and make up a small slice of MEAN’s overall diverse power supply.

The power plants typically are in stand-by mode, operating only in emergency situations such as local power outages or to address peak demand or reliability issues as ordered by electric grid operators.



## Meet your staff...

**SCOTT HARTZ**

### **Business Systems Administrator**



**Joined NMPP Energy:** July 2016.

#### **What organization are you assigned to?**

Most of my time is spent assisting the Municipal Energy Agency of Nebraska, but with data management as my specialty, I assist the other NMPP Energy organizations as needed.

#### **How do you assist member communities in your position?**

I assist member communities primarily behind the scenes, working with software and data management solutions. My longer-term goals involve being able to roll some of these data solutions out directly to our member communities.

#### **What do you love about your job?**

Without question it's the opportunity to work with the people we have on staff. I've worked in other organizations, and there are good people everywhere, but proportionally I've never worked for an organization with so many good, professional, hardworking and honest individuals.

The collective knowledge of staff is truly incredible, and I'm thrilled to be a member of this team.

## NMPP Board approves new Champion businesses

The NMPP Board of Directors approved two businesses for the NMPP Champions program at the board's quarterly meeting in September. NMPP Champions are businesses and organizations that support NMPP's effort to provide products and services to the NMPP membership.

The new Champions are:

#### **League Association of Risk Management**

The League Association of Risk Management (LARM) is an

insurance pool consisting of 160 cities, villages, power districts, fire districts, natural resource districts and sanitary improvement districts across Nebraska.

([www.larmpool.org](http://www.larmpool.org))

#### **Foundation for Educational Services**

Foundation for Educational Services (FES) is a nonprofit organization that offers professional services to communities and other nonprofit organizations. Services

offered include marketing, website development, IT and network services.

([www.fes.org](http://www.fes.org))

For information on becoming an NMPP Energy Champion business, contact Amanda Hansen at (800) 234-2595 or email [Ahan-sen@nmppenergy.org](mailto:Ahan-sen@nmppenergy.org).

A full listing of NMPP's Champion businesses is listed on the NMPP Energy website ([nmppenergy.org](http://nmppenergy.org)).



## Exponential Engineering provides consulting services

Over the past 25 years, Exponential Engineering Company has provided power engineering consulting in the Rocky Mountain region and throughout the country.

It provides full-service consulting to a full range of clients in diverse industries, which include: rural electric associations, municipalities, manufacturers, government entities and more.

Its team has more than 300 years of combined professional experience and executes each project as if it were its own to run for years to come, resulting in an end product they are proud to deliver to their clients.

They offer a complete suite of consulting services for clients across all 50 states, applying extensive experience and expertise to the unique challenges of each project.

Areas of expertise include: Substations, transmission and distribution, protective relaying and controls, planning and studies, generation/interconnection, renewable energy, industrial and commercial. They have Colorado locations in Fort Collins, Wheat Ridge, Steamboat Springs and Cortez. They also recently opened a Nebraska location in Ogallala.

For more information visit Exponential Engineering online at [www.exponentialengineering.com](http://www.exponentialengineering.com).

For a complete listing of NMPP Energy Champion Businesses, see page 7

## Xcel Energy, other groups unveil Colorado Energy Plan

*Proposal calls for investment in renewable energy, early retirement of coal units*

Xcel Energy in late August filed its "Colorado Energy Plan", a proposal with a coalition of 14 groups, asking the Colorado Public Utilities Commission (CPUC) to approve a process that could lead to \$2.5 billion in clean energy investments in rural Colorado, if there is no additional cost to the company's electricity customers.

The proposal includes the consideration of the early retirement of two coal-fired generation units at the Comanche Generating Station located in Pueblo, Colo., totaling 600 megawatts.

The plan would augment the investor-owned utility's current

2016 Electric Resource Plan and would only be advanced if the resulting portfolio of resources reduces, or at least does not increase, the cost of energy to Xcel Energy's Colorado customers, according to the utility.

The new generation projects will be identified and selected through a soon-to-be initiated competitive acquisition process, targeting a mix of utility and independent power producer (IPP) owned facilities, with Xcel Energy having a targeted investment of 50 percent of the renewable generation, and 75 percent of the natural gas-fired, storage, or renewable with storage generation resources in the portfolio.

Portfolio estimates are up to 1,000 megawatts of wind, up to 700 megawatts of solar and up to 700 megawatts of natural gas.

Parties to the stipulation are seeking approval of the proposal from the CPUC by the end of 2017, which would allow the company to bring forth a portfolio that includes the retirement of coal units and replacement of generation capacity.

Xcel Energy plans to issue the all-source RFP and anticipates filing a recommended portfolio with the CPUC in the first quarter of 2018. A final decision on the recommended portfolio by the CPUC is expected in the summer of 2018.

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## Support NMPP member communities through the Champions Business Program

Champions are businesses and organizations that support NMPP Energy's effort to provide products and services to members. Consider these businesses when your utility or municipality has a business need. If your business is interested in becoming an NMPP Energy Champion, call Andrew Ross at (800) 234-2595.



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### Champions Business Directory

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#### **Financial Services**

Ameritas Investment Corp. (Ameritas.com).....	Omaha, Neb.
D.A. Davidson & Co. (dadavidson.com/ficm).....	Omaha, Neb.
First National Bank (Firstnational.com).....	Omaha, Neb.
UNICO Group, Inc. and Midlands Financial Benefits (unicogroup.com).....	Lincoln, Neb.
Nebraska Energy Federal Credit Union (ne-fcu.org).....	Columbus, Neb.
RBC Capital Markets (rbc.com).....	Denver, Colo.

#### **Regulatory/Compliance Services**

Air Regulations Consulting (airregconsulting.com).....	Lincoln, Neb.
Power Plant Compliance (Powplant.com).....	Oketo, Kan.
NAQS Environmental Experts (naqs.com).....	Lincoln, Neb.

#### **Community/Utility Services & Supplies**

EnergySolutions, Inc. (Energysolutions-inc.com).....	Omaha, Neb.
Fairbanks Morse Engine (Fairbanksmorse.com).....	Beloit, Wis.
Hometown Connections, LLC (Hometownconnections.com).....	Lakewood, Colo.
Hubbell Power Systems (Hubbellpowersystems.com).....	Bellevue, Neb.
Foundation for Educational Services (fes.org).....	Lincoln, Neb.
JK Energy Consulting, LLC (JKenergyconsulting.com).....	Lincoln, Neb.
Kriz-Davis Co. (Krizdavis.com).....	Grand Island, Neb.
League Association of Risk Management (larmpool.org).....	Lincoln, Neb.
NovaTech (Novatechweb.com).....	Lenexa, Kan.
PDS, Inc. (PDSinc.biz).....	Omaha, Neb.
Protective Equipment Testing Laboratory (petl.com).....	Great Bend, Kan.
REM Electric, Inc. (Davidsoncompanies.com).....	Nebraska City, Neb.
RESCO (Rural Electric Supply Cooperative) (resco1.com).....	Ankeny, Iowa
Solomon Corporation (Solomoncorp.com).....	Solomon, Kan.
Stanley Consultants, Inc. (Stanleyconsultants.com).....	Muscatine, Iowa

#### **Computer/Technology Services**

Proteus (Proteus.co).....	Lincoln, Neb.
Salt Creek Software, Inc. (Saltcreek.com).....	Lincoln, Neb.

#### **Engineering Services**

EPSIM Corporation (epsim.us).....	Boulder, Colo.
Exponential Engineering Company (exponentialengineering.com).....	Fort Collins, Colo.
HDR (hdrinc.com).....	Omaha, Neb.
JEO Consulting Group, Inc. (jeo.com).....	Wahoo, Neb.
Lutz, Daily & Brain, LLC (ldbeng.com).....	Overland Park, Kan.
Olsson Associates (Olssonassociates.com).....	Lincoln, Neb.
Power Engineers (powereng.com).....	Overland Park, Kan.

#### **Legal Services**

Chapman and Cutler, LLP (chapman.com).....	Salt Lake City, Utah
Spiegel & McDiarmid (spiegelmc.com).....	Washington, D.C.

#### **Telecommunication Services**

Consortia Consulting (consortiaconsulting.com).....	Lincoln, Neb.
River Oaks Communications Corp. (rivoaks.com).....	Centennial, Colo.



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## Employment Opportunities

### Journeyman or apprentice lineman

The City of **Torrington**, Wyo., is accepting applications for a journeyman or apprentice lineman with experience in the electric department. Applications and qualifications may be submitted at City Hall, 436 East 22nd Ave, Torrington, Wyo. Must have a valid class A or B CDL driver's license, or be able to obtain one within 60 days. Must have a high school education or GED. This is a full-time position with benefits and will be open until filled. For more information, contact Dana Youtz at (307) 532-1856 or (307) 532-2422. For applications, contact City Hall at (307) 532-5666, P.O. Box 250, 436 East 22nd Ave, Torrington, WY 82240 or on the web at [www.torringtonwy.gov](http://www.torringtonwy.gov). The City of Torrington is an equal opportunity

employer and maintains a drug and alcohol free workplace.

### Groundman

The City of **Broken Bow**/Broken Bow Municipal Utilities (Neb.) will be accepting applications for a groundman in the Utility Line Department. Applicants should have completed an instructor led utility line program. Duties will include assisting in the operation and maintenance of the City of Broken Bow electrical distribution system. Starting pay will be between \$16.29 and \$21.84 based on prior experience and certifications. Applications and job descriptions are available at the Broken Bow Municipal Building at 345 South 10th Ave in the Utility office, and should be returned to the utility

office with applicable resume. Applications are available at [www.cityofbrokenbow.org](http://www.cityofbrokenbow.org) and will be taken until the job is filled. The City of Broken Bow is an equal opportunity employer. For more information call (308) 872-6884 or email: [dstaab@cityofbrokenbow.org](mailto:dstaab@cityofbrokenbow.org).

## Upcoming Meetings

- Nov. 1**— JOC Meeting
- Nov. 2** — NMPP Board
- Nov. 14** — ACE Board
- Nov. 15** — MEAN Committees
- Nov. 16** — MEAN Board/  
Management Committee

**For all descriptions of employment opportunities go to [www.nmppenergy.org](http://www.nmppenergy.org).**

**To submit an ad:** NMPP members can advertise job openings for free in the Essent newsletter and on the [nmppenergy.org](http://nmppenergy.org) website. E-mail your job opening to: [info@nmppenergy.org](mailto:info@nmppenergy.org).

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