

Unapproved MINUTES
Power Supply Committee Meeting
Integrated Resource Plan Workshop
Municipal Energy Agency of Nebraska
NMPP Energy office – 8377 Glynoaks Dr. Lincoln, Nebraska 68516
With Virtual Conference Option
April 21, 2022 - 10:00 a.m. (CT)

The Municipal Energy Agency of Nebraska (MEAN) Power Supply Committee met Thursday, April 21, 2022, at 10:00 a.m. (CT), at the NMPP Energy office, 8377 Glynoaks Drive, Lincoln, Nebraska, the designated public meeting site. A virtual conference option was provided. Notice of the meeting was given to committee members by e-mail, and the public was advised by publication both print and online in the Lincoln Journal-Star newspaper and website on April 8, 2022. The notice and agenda were posted upon issuance in the NMPP Energy office, kept continuously current and available for public inspection at the NMPP Energy office. Instruction to join the meeting via virtual conference or telephone and links to an electronic copy of the agenda, all documents being considered at the meeting, and the current version of the Nebraska Open Meetings Act were made available on NMPP Energy's Public Meeting Information website.

CALL TO ORDER

Chairman Tom Ourada called the meeting to order at 10:00 a.m. (CT). Pursuant to Section 84-1412 (8) of the Nebraska Open Meetings Act, a current copy of the Open Meetings Act was posted in the meeting room and made available to the public.

ROLL CALL

A quorum was declared with eight of ten committee members in attendance.

Present:

1. James DePue — Wray
2. Will Dowis — Gunnison
3. Bill Hinton — Kimball
4. Duane Hoffman — Oxford
5. Matt Langhorst — Glenwood Springs
6. Tom Ourada — Crete
7. Chris Rodman — Wall Lake
8. Adam Suppes — Delta

Absent: Pat Davison — Imperial, Randy Woldt — Wisner

Others in attendance: Tyler Christoff, Luke Danielson (joined at 10:39), James DePue, Chris DesPlanques, KK DuVivier, Russ Forest, Leslie Glustrom, Nate James, Jim Kerr, Todd Kielkopf, Kate Clark, Kallie Klein, Jeff Kohrs, Ted Light, Brent Nation, Tess Peterson, Todd Rust, George Sibley, Dallas Thomas, and Darrel Wenzel.

NMPP Staff: Carol Brehm, Tim Cerveny, Shannon Coleman, Chris Dibbern, Brad Hans, Mandy Hansen, Scott Hartz, Stacy Hendricks, Kara Hunt, Jamie Johnson, Jill Jones, Sarah Jones, Kyle Kaldahl, Michelle

Lepin, Jennifer McCoy, Brittany Millard, Samantha Parker, Matt Reed, Andrew Ross, David Russell, Vidal Sabio, Robin Spady, Candy Thomazin, and Kevin Wickham.

PUBLIC COMMENT PERIOD

Presenter: Michelle Lepin, Associate General Counsel

The Public Comment Period was announced, and a review of the rules applicable to the public comment process at MEAN public meetings was provided. It was stated that there had been sixteen previous public meetings that included opportunities for public participation. Continued opportunities for public comment, in addition to oral comments, were stated to include utilizing the chat function during the meeting, participating in the written comment period for the draft IRP, which began April 19, 2022, and ends May 14, 2022, at 5 pm CT, and in-person public comment opportunities at upcoming meetings.

Public Comment was given by:

Kallie Klein, Gunnison, CO, Sustainable Development Strategies Group (SDSG): requested an expanded public comment period.

Tess Peterson, Gunnison, CO, Sustainable Development Strategies Group (SDSG): requested an expanded public comment period and that MEAN hold workshops throughout its service area.

KK DuVivier, Denver, CO, Citizen: requested an expanded public comment period. Expressed concern that the IRP plan's timeframe to divest of coal is too slow and of its projection that MEAN's fossil fuel use will increase in 2029. Requested MEAN work harder at cutting back on coal.

Kate Clark, Gunnison, CO, Citizen: requested an expanded public comment period and expressed concern about MEAN's reliance on fossil fuel.

Committee member Mike Palmer stated he wanted to reiterate that all sixteen previous meetings were publicly noticed meetings that were open to members of the public and afforded the opportunity for anyone to participate in the process who wished to participate.

CONSENT AGENDA

Minutes

Minutes of the March 31, 2022, meeting of the Power Supply Committee were previously distributed. There were no corrections to the minutes.

Next Meeting

The next meeting of the Power Supply Committee is scheduled for Wednesday, May 18, 2022, at the Younes Conference Center in Kearney, Nebraska.

Consent Resolution

Motion: Duane Hoffman moved to approve the resolution as presented. Matt Langhorst seconded the motion, which carried on a unanimous roll call vote.

WHEREAS, certain business of the Power Supply Committee of the Municipal Energy Agency of Nebraska (MEAN) transpires on a regular and routine basis or is not of a controversial nature; and,

WHEREAS, roll call votes on each individual issue greatly extended the meeting time.

NOW, THEREFORE, BE IT RESOLVED BY THE MEAN Power Supply Committee that in the interest of economizing time, yet complying with the Open Meetings Act of the State of Nebraska, which requires roll-call voting, the following issues are hereby consolidated in this Consent Resolution:

- 1. BE IT FURTHER RESOLVED BY the MEAN Power Supply Committee that the minutes of the March 31, 2022 meeting are hereby approved.*
- 2. BE IT FURTHER RESOLVED BY the MEAN Power Supply Committee that the next meeting will be held on Wednesday, May 18, 2022, at the Younes Conference Center in Kearney, Nebraska*

INTEGRATED RESOURCE PLAN (IRP)

Presenter: Shannon Coleman, Supervisor of Resource Planning & Analysis

The purpose of the IRP workshop is to walk through the draft Integrated Resource Plan that was posted on April 19, in a guided presentation so that when reading the document, the intent and conclusion of each section will be clear. The information presented today will be a review of items covered at sixteen previous public meetings with input from the membership incorporated. The intent is for the Committee to have a meaningful discussion about the details in the analysis and what this means for MEAN's future portfolio. The further intent is for members to discuss and prepare to make a recommendation of the optimal portfolio to the MEAN Board of Directors. Once finalized, the IRP is due to be submitted to Western Area Power Administration (WAPA) in July of this year. MEAN values public participation, and as representatives of your communities MEAN encourages you to convey the thoughts of your communities in relation to resource planning, questions, concerns, goals, or anything that you or your communities would like to see included in our analysis.

There have been sixteen public meetings to date where the topic of the Integrated Resource Plan was presented and discussed. Meeting minutes and materials are included in the draft IRP document. The overall IRP process and upcoming action items were then presented.

Load Forecast Scenarios: Five load forecast scenarios were presented: a reference case, a high load case, a low load case, an electrification case, and a recession case. Forecasts were derived from the hourly load forecast per member and summed per market and for the entire MEAN system. MEAN annual peak demand forecasts and MEAN annual energy consumption forecasts through 2038 were presented, with regional and seasonal data included in the report.

Existing Resource Portfolio: MEAN's existing coal, nuclear, landfill gas, BTMG, hydro, and wind resources were reviewed and the 2022 capacity and available energy of MEAN, Southwest Power Pool (SPP), West, and Midcontinent Independent System Operator (MISO) were reviewed.

Future Resource Needs: MEAN, SPP, West, and MISO's Load and Capability, annual capacity vs. peak demand, and annual available energy vs. consumption were presented. Future capacity and energy needs were quantified according to time and magnitude.

Candidate Portfolios:

Phase I Evaluation: Supply-side resource options were identified for fossil fuel, carbon-neutral and storage resources, and scoring criteria were rated by the membership to be applied to quantitative data for each resource. Following the Phase 1 evaluation, the Candidate portfolios to be modeled in Phase 2 are as follows:

- Portfolio #1 NGCC
- Portfolio #1A NGCC – CCS
- Portfolio #2 LFG
- Portfolio #3 MSW
- Portfolio #4 Wind
- Portfolio #5 Solar
- Portfolio #6 NG Fuel Cell
- Portfolio #7 Hydropower
- Portfolio #8 Wind + Battery
- Portfolio #9 Solar + Battery
- Portfolio #10 Extend CNS

The process for sizing each resource in the candidate portfolios was explained.

Market Price Scenarios: The pricing sensitivity analysis considered independent and dependent variables combined to create nine future market price scenarios and allowed measurement of risk and volatility related to future conditions.

Energy Efficiency/DSM Programs: Utilizing the results of a survey sent to all members in January, MEAN compiled the top responses for program participation and conducted a three-part cost-to-benefit analysis. MEAN has identified future demand-side management to include the continuation of existing MEAN programs and community programs, energy efficiency education, residential electric vehicle chargers, advanced metering infrastructure, and battery storage.

Renewable Distributed Generation: Reviewed MEAN’s current renewable Distributed Generation policy and the contribution of potential future energy generation under the updated policy. Provided an update of the planned installations under the Community Solar RFP. Also presented the concepts of installing other renewable technologies under the policy, the collaboration possible between communities, and MEAN-contracted resources to be located in member communities.

2050 Vision: The MEAN Board of Directors approved the 2050 Vision in January of 2020 which included the goal of creating a carbon-neutral resource portfolio by 2050. Future resources must be selected within this vision. Accordingly, the IRP values portfolios that reduce carbon emissions, and the portfolio modeling includes an accounting of carbon emissions to compare options. The results of the September 2021 renewable survey were reviewed, indicating existing local carbon-free goals and member positions on additional carbon-free energy within their portfolios.

IRP Modeling Process: MEAN wants its membership to not only understand the steps it is taking in the Phase II Economic Analysis, but to thoroughly examine it as well.

Each of the following steps in the Phase II modeling was explained:

- Hourly Load Forecast: The hourly load profile of every MEAN participant community was calculated using historical data. That hourly profile was applied to the monthly load forecast for the next 15 years to arrive at the projected load for each region for each hour of the next 15 years.
- Hourly Market Price Forecast: The hourly market pricing was provided by a third-party consultant and was provided by area. Because MEAN needed the individual prices for each MEAN resource as well as a load price per market, MEAN compared historical nodal pricing to

an average regional price and created an hourly ratio that was then applied to the pricing projections for the larger areas.

- Hourly Resource Generation (Existing): The output of each resource on an hourly basis was calculated using historical data and known outage schedules.
- Resource Cost and Revenue (Existing): For the existing resources, the current cost of generation is known, and future pricing can be escalated accordingly using fuel price projections, efficiencies, and capital project schedules.
- New Resource Parameters: MEAN then defined the operating parameters – capacity factor, emissions data, outage rates, etc. for all of the possible new resources.
- New Resource Hourly Generation: Similar to the existing resources, MEAN had to determine the available capacity of the new resources for each hour of the study period.
- New Resource Cost and Revenue: Next, MEAN found the generating costs of the proposed resources by tabulating the capital cost, fixed O&M, variable O&M, and fuel costs to determine the escalation rate of each cost. For the most part, these are generic resources, so publicly available data for costs we utilize from EIA, NREL, and other DOE sources, along with data from published studies. Exceptions were proposed projects that provided actual pricing and operating data.
- Hourly Dispatch Cost/Revenue Model: To determine how each of the resources would be dispatched each resource was categorized according to its operating mode – intermittent resources, must-run resources, WAPA allocations, resource minimums, and dispatchable resources. All resources were layered by operating mode. This gave the hourly output of each, hourly cost of generation, hourly revenue from market sale, and hourly load cost.
- Total Revenue Requirement: Those costs and revenues were summed on an hourly basis, then combined with all 15 years summed up to provide the total revenue requirement.

Modeling Results: Summary results were reviewed for SPP and the West. For each region, the 15-year revenue requirement (representing the portfolio cost), the scenario variance (representing risk), and the carbon intensity (representing the environmental impact) were shown graphically to compare portfolios. Lastly, summary heat maps were presented on those three bases.

Discussion ensued to include: MEAN requests Committee and Board representatives consider the recommendations. These recommendations give MEAN guidelines to follow and help define Board direction when MEAN procures resources. Cost is a significant consideration in these decisions, and the cost of each resource in the future needs to be considered. In accordance with MEAN's 2050 Vision, higher consideration should be given to resources that can decrease the portfolio's carbon intensity while maintaining cost-effectiveness and reliability. It is also essential to keep in mind the technology has to be developed and proven to support around-the-clock carbon-free generation.

Constituencies are very concerned with any cost increase. Cost and reliability are the two most important factors in many communities. It was suggested MEAN look at the availability of Production Tax Credits (PTC) for public power entities to reduce the cost of renewable installations and that MEAN should increase its advocacy for public power eligibility for PTCs.

Per the results, Committee members discussed an inclination to recommend wind, solar, hydropower, and landfill gas resources in the future MEAN portfolio. The hybrid renewable and storage options should be studied in the future as prices trend down.

The RTO market section regarding available energy vs dispatch energy shows MEAN's coal facilities have seen a decrease in capacity factor over the last few years, which is largely credited to the accessibility of renewables in the markets when running those units economically. MEAN expects to see this trend continue, which would reduce the fossil fuel energy in the portfolio in future years.

A discussion was held on the future installation of electric vehicle infrastructure and the power needs to support this build-out. It was suggested MEAN study the electrification scenario for the next IRP.

NEXTERA SOLAR PROJECT

Presenter: Tim Cerveny, Manager of Resources, Transmission and O & M Services

Due to several factors, material availability, etc., this project is on hold right now. It makes sense to hold off until there is less uncertainty which should also lower costs. This project would be in the SPP region but with the availability of DC Ties, MEAN may have the option to bring this West.

CENTRAL NEBRASKA PUBLIC POWER & IRRIGATION DISTRICT HYDROPOWER RFP

Presenter: Tim Cerveny, Manager of Resources, Transmission and O & M Services

MEAN submitted a proposal for 40 – 60 MW of hydropower located in central Nebraska. The proposal included capacity, energy, and renewable energy credits and the proposed contract would begin in January of 2024 when the Multi-Unit Participation Agreement with NPPD ends. These units are very well maintained and would be a great fit for MEAN’s portfolio in terms of the capacity and energy that MEAN will need and in the time frame that it is needed. It would be a fully accredited renewable resource which is in line with MEAN’s 2050 Vision.

12:03 p.m. Recessed for lunch

1:00 p.m. The MEAN Power Supply Committee reconvened and was joined by the Risk Oversight Committee and Finance Committee.

PUBLIC COMMENT PERIOD

Presenter: Michelle Lepin, Associate General Counsel

The Public Comment Period was announced and a review of the rules applicable to the public comment process at MEAN public meetings was provided. There were no requests to comment.

FINANCIAL AND ADMINISTRATIVE POLICIES AND GUIDELINES

Presenter: Jamie Johnson, Director of Finance & Accounting

Cash Reserves & Rate Stabilization Account Targets: MEAN will seek a recommendation for Board approval of the updated language to the cash reserve, liquidity, rate stabilization account, and rates and charges sections of the Financial and Administrative Policies and Guidelines as provided in the meeting packet, and as discussed at the March 31st meeting.

MEAN balances relative to the minimum cash reserve balances established by historical targets were presented. Those are minimums to be maintained. It is healthy and expected to have funds higher than the minimums. When looking at the operating fund, it is important to keep in mind that timing differences can significantly influence balances at a given point in time.

There is no proposal to change the formulas used to calculate minimum balances. The proposed language additions as shown in the meeting packet are only to provide clarification and add transparency to the policies that are already in place.

To date, MEAN’s rate stabilization account has primarily been funded by external events. The reserve portion of these funds should be maintained except in very extreme circumstances. The goal would

continue to be to maintain funds at least equal to 15% of budgeted cash operating expenses, excluding purchased power capital; plus, the annual average of the preliminary 5-year capital budget, including purchased power capital. Targets can be changed through a Board resolution. As the target will fluctuate annually, it is important to fund the account at a level that will maintain the funds at the minimum for multiple years.

Discussion ensued to include: Do members want to have funding of the other component of the rate stabilization account built into the rates or would they prefer to allocate a certain amount of funds annually to fund the rate stabilization account? Costs will vary each year, but the later the Board starts funding the other component the more pressure there will be. Considering external events have added \$28 million into this account to date, can't we assume that will continue to some degree? Under a previous resolution, \$4 million is to be returned to members. Should there be an initiation fee for new members? New members will benefit from funds that they have never paid into. The fixed cost recovery charge per member has the potential to be lowered with new members resulting in the costs being spread over a larger group. When considering new J or K members, look not just at funding recovery of current costs paid in, but also the help on the backend. At some point, an analysis may be needed to show both the future load and energy benefits as well as decommissioning sharing expenses to determine if there is a need for a surcharge for new members.

In terms of distributing the \$28.3 million in the rate stabilization fund, based on the 2022-2023 calculated target (MEAN's current policy), \$20.1M should be allocated to the reserve account, leaving \$8.2 M remaining prior to analyzing preliminary 2021-2022 results. \$6.9M of that \$8.2M has been allocated through the previous direction of the Board. As part of the 2022-2023 budget, \$1.9M is needed to meet debt service coverage and \$1M is needed to reduce the FCRC, and another \$4M to reduce the FCRC in future years through the August 2021 resolution and the 2022-2023 budget process. Evaluations are always done at year-end and a determination is made on the use of funds based on the information at that point in time. In August 2021, the Board wanted to use \$5M (\$1M/year) to reduce the FCRC by \$1M per year beginning 2022-2023. The Board can revisit that decision as needed. Additional discussions will take place at the meeting on May 12th, and on May 18th the Committee will be asked to make a recommendation to the Board on the allocation of the Rate Stabilization Fund balance to the various components.

Baseload Transmission Factors

Tim Cerveny, Manager of Resources, Transmission and O&M Services

Baseload Transmission Factors include economics, performance, operating strategy, regulatory environment, and MEAN's minority interest ownership in eight coal-fired facilities (200 MW). The economy drives the market, and integrated markets, subsidies for renewable resources, transmission congestion, and natural gas pricing factor into that. Performance factors are dependent on investment in facilities, and good management practices (e.g., not running a plant too hard) which are out of MEAN's control. Operating; cycling of units and heat rate impact, and the regulatory environment are all factors in baseload transmission.

Enterprise Risk Management Program

Robin Spady, Director of Risk & Compliance/Regulatory Counsel

An analysis of Enterprise Risk Management (ERM) is currently underway which will help identify areas of organizational risks both internally by MEAN staff, and by Committee representatives through one-on-one meetings. This will assist representatives in making recommendations to the MEAN Board of Directors on which risks to focus on. The ERM program timeline was presented and Baseload Facility Transition Planning from an ERM perspective was discussed.

MEAN Meeting Public Participation Policy

Presenter: Michelle Lepin, Associate General Counsel

MEAN staff presented a draft policy regarding public participation at MEAN public meetings. Under the Nebraska Open Meetings Act, public bodies can make and enforce reasonable rules and regulations regarding the conduct of members of the public at meetings. The MEAN staff has developed the proposed policy for consideration by the MEAN Committees and the Board. The policy would replace the current Public Comment Period Rules and would be incorporated into MEAN's Financial and Administrative Policies and Guidelines after the Committees and the Board have had sufficient time to review and comment on the proposed public participation policy language. Discussion ensued. No action was taken to approve the proposed policy language as MEAN staff will seek a recommendation from the MEAN Committees for Board approval at a future meeting.

MEAN staff recommends the Power Supply Committee consider a recommendation to the Board of Directors to approve the modifications to MEAN's Financial and Administrative Policies and Guidelines as presented.

Motion: Matt Langhorst moved for the Power Supply Committee to recommend the Board of Directors approve the changes to MEAN's Financial and Administrative Policies and Guidelines as presented. Duane Hoffman seconded the motion, which carried on a unanimous roll call vote.

The Finance Committee and Risk Oversight Committee also approved recommendations for the Board of Directors to approve the changes to MEAN's Financial and Administrative Policies and Guidelines as presented.

RATE STRUCTURE

Presenter: Jamie Johnson, Director of Finance & Accounting

In the future, MEAN wants to be sure its Fixed Cost Recovery Charge (FCRC) has components of all of the different ways MEAN procures energy. The energy charge has all the resource-related costs that are not included in the FCRC. Refer to the Financial and Administrative Policies and Guidelines for the full wind rate and landfill gas energy environmental attribute rate policies.

MEAN's renewable rate concept works with the potential change in underlying costs of the FCRC and ensures all participants pay for the capacity portion of all of MEAN's resources. It also eliminates the concerns regarding how market dynamics impact the cost of resources and continues to allow participants who want to be "more renewable" than MEAN is overall, to customize their resource mix.

MEAN is contemplating a new section in MEAN's Schedule of Rates and Charges to document the "E-rate". It will be similar to the current policy in that the "E-rate" won't be less than the Participant's contracted energy charge. It is a subscription based on a historical amount and is an add-on to participants' contracted energy charges. There must be agreement on the "E-Rate" to implement it.

Discussion ensued to include: Can someone who subscribes now, give up their portion later? What if due to political pressure a community needs to do something else? MEAN is in that position now and has received formal requests from communities but until MEAN has a resource change, it is not going to overextend itself. Those changes are coming, and most likely replacements will be renewables. The policy needs to be written to work with impending resource changes.

DEBT STRATEGY AND REFUNDING CONSIDERATION

Presenter: Jamie Johnson, Director of Finance & Accounting

A municipal bond market update and information on refunding opportunities were presented including the AAA MMD Rate Position from June 8, 1981, inception to April 13, 2022, yield curve movement since last year, and since January of 2022.

ADJOURNMENT

There being no further business, the meeting adjourned at 3:18 p.m. (CT)

Prepared by:
Stacy Hendricks
Municipal Energy Agency of Nebraska

Submitted by:
Brad Hans
Director of Wholesale Operations
Municipal Energy Agency of Nebraska