



February 5, 2024

Will Seuffert, Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
Saint Paul, MN 55101-2147

Subject: Dakota Electric Association Reply Comments

**In the Matter of Petition to Implement a Pilot Residential and Small
General Service Behind-the-Meter Battery Storage Program and Tariff
*Docket No. E-111/M-23-495***

Dear Mr. Seuffert:

On December 5, 2023, Dakota Electric Association (Dakota Electric or Cooperative) filed a petition with the Minnesota Public Utilities Commission (Commission) to implement a pilot residential and small general service behind-the-meter (BTM) battery storage program and tariff. The proposed pilot program and rate offering allows members with a BTM battery energy storage system (BESS) the ability to receive lower priced energy for all load at the BESS premises in exchange for Dakota Electric having access to the BESS for reliability and economic purposes. Allowing Dakota Electric access to these storage resources, in exchange for a lower rate, provides the Cooperative with additional system flexibility and will allow us to decrease overall power costs for all members, not just those with the storage resource. This rate will be available to all members who take power under the existing residential rate (Schedule 31) and small general service rate (Schedule 41). Dakota Electric's proposal included two

rate options: 1.) where the member receives a per kWh rate of \$0.08540 per kWh for all load with a Full Control option (able to use battery for at least 4 hours) and 2.) where the member receives a rate of \$0.1063 per kWh for all load on a Limited Control option (able to use battery for at least 2.5 hours). Dakota Electric recommended that the pilot program last for two years.

On December 15, 2023, the Commission issued a Notice of Comment Period (Notice) in the above-referenced docket. This Notice stated that the issue to be addressed is:

Should the Commission approve Dakota Electric Association's Residential and Small General Service Behind-the-Meter Battery Storage Pilot Program and related tariffs as found in the Company's December 5, 2023 petition?

The Commission also noted that the following topics were open for comment:

- Should the Commission approve the Behind-the-Meter Storage Pilot Program for Residential and Small General Service customers?
- Should the Commission approve the associated rate tariffs with the Pilot Program for Residential and Small General Service customers who choose to participate in the program?
- Should the Commission approve a new Net Metering rate for those customers enrolled in the pilot program?
- Are there other issues or concerns related to this matter?

On January 29, 2024, the Minnesota Department of Commerce, Division of Energy Resources (Department) filed comments in response to the Cooperative's petition and provided recommendations to the Commission. Through the Department's review, they concluded that Dakota Electric's request for a pilot BTM storage program and tariff was acceptable and recommended that the Commission approve as filed. The Department did, however, request additional information be provided in reply comments and the provision of certain information at the end of the pilot program. Specifically, the Department requested that Dakota Electric answer the following questions in reply comments:

1. What will be net costs for an average customer who installs a 4-hour battery and participates in the pilot's tariff?
2. What will be net costs for an average customer who installs a 2.5-hour battery and participates in the pilot's tariff?
3. How much of federal and state funds can be used by potential pilot participants?

The Department recommended that the Commission require the following as part of a summary of findings from the pilot program within 60 days of the pilot's end date:

- DEA's next steps regarding scaling of BESS systems;
- if DEA intends to proceed with the proposed tariff or modify the tariff based on results from the pilot;
- answers to the 3 questions above based on actual data collected through surveys from the pilot participants:
 - o What were the net costs for an average customer who installs a 4-hour battery and participates in the pilot's tariff?
 - o What were the net costs for an average customer who installs a 2.5-hour battery and participates in the pilot's tariff?
 - o How much of federal and state funds were used by potential pilot participants?
- the number of control events each participant was subjected to during the pilot.

The Cooperative appreciates the Department's thorough review of our petition and their recommendation that the Commission approve our requested pilot program and tariff. Dakota Electric provides a brief analysis of the requested information and proposed reporting requirements below.

In terms of the information that the Department requested we provide in reply comments, Dakota Electric notes that it is difficult to provide specific, or firm, cost estimates for the average member who installs either a 4-hour or 2.5-hour battery. Although Dakota Electric receives cost estimate data for DER installations (this information is provided as part of the DER application and annually in our DER interconnection filing (Docket No. 20##-10)), these are cost estimates and, in terms of battery storage installations, generally reflect the full cost of DER installations. These estimates are inclusive of solar costs. We are only aware of two operational battery only

interconnection applications on our distribution system, both of which occurred in 2022, so the cost information may be out of date. However, using these as a guide, Dakota Electric can provide a high-level response.

Based on the information we have available, it appears that these two installations are likely large enough for the Full Control, or 4-hour program, and the cost of these installations were approximately \$25,000. Dakota Electric does not have tax experts on staff, but our understanding is that BTM BESS installations are now eligible for a 30% investment tax credit.¹ The Cooperative is also aware of the State of Minnesota's battery incentive program that will be available for non-Xcel Energy utilities. The specifics of this program are unknown at this time, but if it is modeled after Xcel Energy specific legislation, then a member is eligible for up to \$5,000 per installation up to a 50-kWh battery. The two battery-only installations we are aware of are significantly smaller than 50kWh, so we assume they would receive a \$3,000 incentive from the State. When this is combined with the 30% Federal tax credit, this results in a decrease in costs of \$10,500. In addition, as noted in our comments, if the battery is associated with an average Dakota Electric residential member, the member will save \$349 per year via lower electric rates.² Over a 10-year period, the member would receive approximately \$14,000 in benefits resulting in a net cost of \$11,000.

Turning to the Limited Control, or 2.5-hour program, this would likely involve the installation of a smaller battery. It is important to remember that Dakota Electric does not install DER, nor do we have plans to at this time, so we do not have access to specific cost information, but it is our understanding that there are upfront installation costs that do not vary substantially based on facility size. As such, using the \$25,000 installation estimate as a starting point, we assume a 2.5-hour battery will cost approximately \$18,000 fully installed.³ Assuming the 30% tax incentive and a \$2,000 State grant, this

¹ It is important to note that any existing battery installation prior to enactment of the Inflation Reduction Act likely will not be eligible for the 30% tax credit.

² Dakota Electric Comments, Page 15. Please note that this high-level analysis assumes that the rate differential between the battery pilot and standard residential rates remains fixed.

³ This estimate is supported by a recent energy storage only application we received for a 5kW facility; the projected costs are \$17,500.

will result in a decrease in costs of \$8,000. If the 2.5-hour battery is associated with an average residential member, they will expect to save approximately \$175 per year via lower energy rates. Over a 10-year period, the member would receive approximately \$9,750 in benefits resulting in a net cost of \$8,250.

Regarding the Department's requested summary information at the conclusion of the pilot, Dakota Electric does not object to providing our next steps regarding system scaling and whether we intend to proceed or modify the tariff. The Cooperative does, however, have concerns regarding the other two requested bullet points because, as written, they seek information that may be considered personal by our members and may impact the overall success and uptake of this program. On the topic of control events, we would be able to provide information at a macro level, such as the number of control events, the duration, and level of compliance. Dakota Electric is concerned that reporting participant level data could be considered intrusive or fall into the realm of PII data.

The Cooperative has a similar concern as it relates to the cost and tax information. As noted above, Dakota Electric does not install DER and our experience from the interconnection process is that batteries are typically installed as part of a combined solar and storage project. Although cost information is provided in the DER application and in the annual DER interconnection filing, this information is not necessarily representative of the final cost of the project, and it is not broken out by solar and battery. We feel that requesting additional cost information may be received negatively by the membership and impact participation in the pilot. We also believe that requesting tax and grant information from participating members will significantly impact pilot participation and have a negative impact on member engagement. Tax status and appetite are personal subjects. Dakota Electric strongly believes in maintaining and protecting the privacy of our membership, and we do not support reporting requirements that have the potential to erode or impact the relationships we have with our membership.

Dakota Electric appreciates the thoughtful review of the Department and its approval recommendation. We are excited to provide this pilot program and tariff to our members, and the Cooperative believes this proposal provides a unique rate option that allows our members to derive additional value from behind-the-meter storage systems while offering Dakota Electric the ability to control these devices and achieve lower wholesale power costs, which benefits all Dakota Electric ratepayers.

If you or your staff have any questions about these comments, please contact me at 651-463-6258 or aheinen@dakotaelectric.com.

Sincerely,

/s/ Adam J. Heinen

Adam J. Heinen
Vice President of Regulatory Services
Dakota Electric Association
4300 220th Street West
Farmington, MN 55024

Certificate of Service

I, Melissa Cherney, hereby certify that I have this day served copies of the attached document to those on the following service list by e-filing, personal service, or by causing to be placed in the U.S. mail at Farmington, Minnesota.

Docket No. E-111/M-23-495

Dated this 5th day of February 2024

/s/ Melissa Cherney

Melissa Cherney

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-495_M-23-495
Eric	Fehlhaber	e Fehlhaber@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_23-495_M-23-495
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_23-495_M-23-495
Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_23-495_M-23-495
Corey	Hintz	chintz@dakotaelectric.com	Dakota Electric Association	4300 220th Street Farmington, MN 550249583	Electronic Service	No	OFF_SL_23-495_M-23-495
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 E 7th St St Paul, MN 55106	Electronic Service	No	OFF_SL_23-495_M-23-495
David	Moeller	dmoeller@allte.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	OFF_SL_23-495_M-23-495
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_23-495_M-23-495
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-495_M-23-495
Kristin	Stastny	kstastny@taftlaw.com	Taft Stettinius & Hollister LLP	2200 IDS Center 80 South 8th St Minneapolis, MN 55402	Electronic Service	No	OFF_SL_23-495_M-23-495

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Eric	Swanson	eswanson@winthrop.com	Winthrop & Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_23-495_M-23-495