

Staff Briefing Papers

Meeting Date July 22, 2021 Agenda Item *1

Company Dakota Electric Association

Docket No. **E-111/M-21-45**

In the Matter of the Petition by Dakota Electric Association for Approval of the Monthly Fixed Charges per Meter for the Advanced Grid Infrastructure (AGi) Rider

Issue Should the Commission approve Dakota Electric Association's 2021 AGi Rider Monthly Fixed Charge per Meter amounts for various rate classes?

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 **Relevant Documents**

Date

Dakota Electric Association – Initial Filing	January 13, 2021
Department of Commerce – Comments	February 12, 2021
Dakota Electric Association – Reply Comments	February 22, 2021

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The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

I. Statement of the Issue

Should the Commission approve Dakota Electric Association's 2021 AGi Rider Monthly Fixed Charge per Meter amounts for various rate classes?

II. Background

On January 13, 2021, Dakota Electric Association ("Dakota Electric" or "Cooperative") submitted a petition to the Commission regarding approval of the monthly fixed charge per meter for the Advanced Grid Infrastructure ("AGi") Rider. Dakota Electric's petition for recovery of an AGi rider was approved by the Commission in Docket No. E-111/M-17-821.¹

The AGi Rider allows Dakota Electric to "recover certain net distribution grid modernization and load management investments that occur between Cooperative general rate cases."²

A. Dakota Electric Association Petition

1. Overview of the AGi Project Implementation

In 2019, Dakota Electric and its vendors began implementing AGi. Vendors set up and configured software that includes development, testing, and production elements; and developed and implemented integration between AGi and current Dakota Electric systems. Dakota Electric developed and implemented the utility side of the integration between current and new AGi systems; installed an on-premise meter and load control receiver testing facility; purchased and installed advanced testing boards for meter functionality; and installed 5,000 meters and 1,000 load control receivers for the pilot program. The pilot program was completed in 2020, and widespread installation of new meters and load control receivers will continue through 2021. Data collection from the meter data management system allows Dakota Electric to operate the system efficiently and size equipment properly, which promotes energy efficiency and conservation.

2. Calculation of the 2021 Monthly Fixed Meter Charge Per Meter

Recovery of AGi costs using the AGi Rider allows for Dakota Electric to finance installation of meter infrastructure, meter data management equipment, and related systems. The Rider allows for collection of these costs from ratepayers between rate cases by adding a separate line item on the Cooperative members' bills. The AGi Rider is a per meter charge and will appear on monthly bills as a separate line item labeled 'Advanced Meter Recovery.'

Calculations of the AGi recovery fee are filed with the Commission at the beginning of the calendar year with the Resource and Tax Adjustment ("RTA"). The AGi adjustment is added to bills after January 1 and may be corrected and modified by Commission approval.

¹ Docket No. E-111/M-17-821 Petition to Implement Tracker Recovery for Advanced Grid Infrastructure Investments, May 8, 2018 *Order Approving Recovery of Grid Modernization Costs*, Ordering Para. 1, p. 5.

² Dakota Electric initial filing, January 13, 2021, p. 1.

Property taxes are not included in the calculation of the monthly charge associated with the AGi rider. Dakota Electric's base rates already include recovery of property taxes. Annual property taxes may change due to the new AMI meters and removal of the current meters, so the RTA's property tax component will track changes and adjust revenue accordingly. In its initial filing, Dakota Electric included schedules with calculations for return on rate base and depreciation associated with AGi.³

3. 2021 "Advanced Meter Recovery" Fees

Dakota Electric's updated tariffs include the monthly fixed charge per meter and the rules and regulations of the AGi Rider in the Advanced Grid Infrastructure Rider section.⁴ The below table shows the monthly fixed charge per meter by rate class:

Table 1: AGi Rider Monthly Fixed Charge per Meter by Rate Class⁵

<i>Rate Class</i>	Approved 2020 AGi Rider Monthly Fixed Charge	Proposed 2021 AGi Rider Monthly Fixed Charge
<i>Residential</i>	\$0.40	\$1.16
<i>Irrigation</i>	\$2.43	\$2.14
<i>Small General</i>	\$0.40	\$1.16
<i>General</i>	\$3.51	\$3.51
<i>C&I Interruptible</i>	\$13.58	\$16.33

III. Parties' Comments

A. Department of Commerce Comments

The Department of Commerce ("Department") recommends that the Commission approve Dakota Electric's petition. The Department reviewed the petition for compliance with applicable orders, statutes, and usage of approved rate design principles.

1. Background on the AGi Rider

In its comments, the Department provides an overview of and background on the Cooperative's AGi Rider. The Commission approved Dakota Electric to recover the costs of investing in the AGi system using the AGi Rider:

The Commission's approval of the AGi Rider authorized Dakota Electric to recover, on a fixed, per-meter basis, the return on incremental rate base, incremental property taxes, and incremental depreciation expense associated with the Cooperative investments in advanced metering infrastructure (AMI) and the AGi meter data management (MDM) system.⁶

³ Dakota Electric initial filing, January 13, 2021, pp. 8-13 of document.

⁴ Dakota Electric Association Tariff Book, Section V, Sheet 59, Revision 2, Copy included in Dakota Electric initial filing, January 13, 2021, pp. 14-15 of document.

⁵ Dakota Electric Association Tariff Book, Section V, Sheet 59, Revision 2, Copy included in Dakota Electric initial filing, January 13, 2021, p. 14 of document.

⁶ Department comments, February 12, 2021, p. 1.

The AMI costs recovered are mostly capital investments to replace the existing meters with new AMI meters. The AGi Rider costs recovered also include the Cooperative's investments in its AGi MDM system, which is a database that stores, validates, analyzes, and reports data that has been collected by the AMI system.

The Commission approved the first set of AGi Rider charges by rate class and the following modifications in its April 20, 2020 Order in Docket No. E-111/M-20-78.⁷ In Dakota Electric's latest rate case (Docket No. E-111/GR-19-748), the Cooperative agreed to credit members for expected depreciations and returns on rate base by adjusting the AGi Rider calculations.⁸

The Department noted that Dakota Electric accidentally omitted the credits granted by the agreement in their last rate case. The Department issued an informal information request to which the Cooperative provided updated AGi Rider calculations. The updated calculations include \$18,474 in credits from the decreases in depreciation expense and return on rate base. The Department says that the Cooperative would prefer that the credits be incorporated into the calculations for the next AGi Rider filing in 2022, because the new AGi Rider charges have already taken effect. Changing them now would be administratively burdensome and the amount is too small to have an impact on rates. The Department agrees with the Cooperative and recommends that the Commission allows the Cooperative to defer the credits until the next AGi Rider filing in 2022. However, the Department says that if the Commission prefers, it could require Dakota Electric to make adjustments for these credits.⁹ The Commission could approve the adjusted 2021 AGi Rider charges.¹⁰

2. Statutory Authority

The Electric Utility Infrastructure Costs ("EUIIC") statute, Minnesota Statute §216B.1636, allows electric utilities to petition the Commission for recovery of rate of return, income taxes on rate of return, incremental property taxes, and incremental depreciation expenses for infrastructure projects.¹¹ The Department's position is that Dakota Electric may seek recovery of their AGi grid modernization costs through the AGi Rider per §216B.1636.

The Department notes that Dakota Electric did not propose cost recovery for any other new projects, modification to approved projects, or to change to the approved rate design for the 2021 AGi Rider. Finally, the Department concludes that "Dakota Electric's 2021 AGi Rider proposals in the instant Petition are consistent with the Commission's initial approval of the Cooperative's AGi Rider under the EUIIC statute in Docket No. E111/M-17-821."¹²

⁷ Docket No. E-111/M-20-78 Order, April 20, 2020, Ordering Para. 1, p. 1.

⁸ Department comments, February 12, 2021, p. 2.

⁹ This is reflected in the Department's alternative option on p. 6 of the briefing papers and in decision option #3.

¹⁰ Shown in column (m) of Schedule G-2a, Department comments, February 12, 2021, p. 11 of document.

¹¹ Minn. Stat. §216B.1636 RECOVERY OF ELECTRIC UTILITY INFRASTRUCTURE COSTS.
(<https://www.revisor.mn.gov/statutes/cite/216B.1636>)

¹² Department comments, February 12, 2021, p. 4.

3. AGi Implementation Process

In Dakota Electric's latest AGi Rider filing (Docket No. E-111/M-20-78), the Department notes that the Cooperative expected to complete its performance acceptance program and begin widespread meter and load control receiver installations in 2020. Since those two 2020 objectives were met, the Cooperative will continue meter and load control receiver installations through 2021.

The below table from the Department comments shows Dakota Electric's AGi initiative capital investments through 2021:

Table 2: Dakota Electric's Cumulative AGi Capital Investments Forecasted through 2021¹³

<i>AGi Capital Asset Description</i>	Capital Costs Added to Rate Base (Forecasted through 2021)
<i>Meters</i>	\$16,863,272
<i>Radio Frequency Network Infrastructure</i>	\$871,653
<i>IT Network Security</i>	\$29,684
<i>Testing Facility</i>	\$405,885
<i>Software</i>	\$514,743
<i>System Integration</i>	\$627,142
<i>Project Management and Consulting</i>	\$778,468
<i>Warehouse Forklift</i>	\$54,441
Total	\$20,145,228

According to the Department, the total capital cost of \$20,145,288 represents the AGi investments of \$9,495,769 for 2020 and \$10,649,519 for 2021. Also, the largest portion of costs is the investment in new meters.

4. Proposed 2021 AGi Rider Recovery

The below table from the Department comments shows Dakota Electric's calculation of costs eligible for recovery through its AGi Rider in 2021, net of:

Table 3: Dakota Electric's AGi Rider Eligible for Recovery in 2021¹⁴

2021 AGi Rider Recovery Component	Amount (\$)
<i>Return Earned on AGi Incremental Rate Base</i>	\$931,074
<i>Incremental Depreciation Expense</i>	\$1,290,007
<i>Operational Savings</i>	(\$377,000)
AGi Rider Revenue Requirement, Net Savings	\$1,844,081

While Dakota Electric was approved for \$677,380 in recoverable costs in 2020, they have forecasted \$1,844,081 in recoverable costs for 2021. The Department believes this increase in recoverable costs from 2020 to 2021 is consistent with the Cooperative's continued investment in and expansion of the AGi system.

¹³ Department comments, February 12, 2021, Table 1 on p. 5.

¹⁴ Department comments, February 12, 2021, Table 2 on p. 5.

The Cooperative had fewer AGi costs and less meters replaced in 2020 than initially forecasted, so the difference between the 2020 AGi forecast and actual 2020 total leads to an over-recovery of approximately \$158,867. To true-up this over-recovery, Dakota Electric calculated an AGi Rider credit for each rate class. The Cooperative reduced its proposed 2021 AGi Rider charges for each rate class by these true-up credit amounts. The Department concludes that the true-up has been calculated and applied correctly. The true-up credit amounts per class are in the below table:

Table 4: Dakota Electric's 2020 AGi Rider Charge True-up¹⁵

<i>Rate Class</i>	2020 AGi Rider Charge True-up Credit
<i>Residential</i>	(\$0.07)
<i>Irrigation</i>	(\$1.44)
<i>Small General</i>	(\$0.08)
<i>General</i>	(\$1.68)
<i>C&I Interruptible</i>	(\$3.87)

The below table compares Dakota Electric's currently approved and proposed AGi Rider charges:

Table 5: Comparison of Dakota Electric's Approved and Proposed AGi Rider Charges¹⁶

<i>Rate Class</i>	Monthly Fixed AGi Rider Charge per Meter		Difference (B – A)	Percentage Increase or Decrease
	Approved (A)	Proposed (B)		
<i>Residential</i>	\$0.40	\$1.16	\$0.76	190%
<i>Irrigation</i>	\$2.43	\$2.14	(\$0.29)	(11%)
<i>Small General</i>	\$0.40	\$1.16	\$0.76	190%
<i>General</i>	\$3.51	\$3.51	\$0.00	0%
<i>C&I Interruptible</i>	\$13.58	\$16.33	\$2.75	20%

The Department analyzed the changes between the approved and proposed AGi Rider charges. They state that there has been a notable increase for the proposed AGi Rider charges for the Residential, Small General, and C&I Interruptible classes. Meanwhile, there was a decrease for the Irrigation class, and no change to the charge for the General (service) class. The Department concludes that "the AGi Rider charge increases are reasonable, given Dakota Electric's continued investment in its AGI, and especially in the AMI components. Given the 2020 over recovery and corresponding credit impact on the 2021 AGi Rider charges for the Irrigation and General rate classes, the Department concludes that the AGi Rider charge changes are reasonable for these two classes as well."¹⁷

5. AGi Rider Rate Design

In Dakota Electric's proposed AGi rider rate design, rider costs, and credits are grouped into three basic categories: AMI meter capital costs, shared infrastructure capital costs of the

¹⁵ Department comments, February 12, 2021, Table 3 on p. 6.

¹⁶ Department comments, February 12, 2021, Table 4 on p. 7.

¹⁷ Department comments, February 12, 2021, p. 7.

communication network and MDM system, and operational savings. The Department described how Dakota Electric calculates its AGi rider charges, which is by rate class on a fixed, per-meter basis. The allocation of the rider costs and credits is described below:

- Meter costs are allocated to rate classes based on the number of meters in a rate class.
- Communication network and MDM system (shared infrastructure) costs are allocated to each class based on energy usage.
- Project management costs are allocated to each rate class in proportion to the combined allocations of meter and shared infrastructure costs per rate class.
- Incremental depreciation and return on incremental rate base for the 2021 forecasted year are allocated to each rate class in proportion to the combined allocations of meter, shared infrastructure, and project management costs per rate class.
- Operational savings are allocated to each rate class in proportion to the allocation of incremental depreciation and return on incremental rate base per class.¹⁸

6. Department Recommendations

The Department recommends that the Commission approve the proposed 2021 AGi Rider charges, seeing as they are reasonable and comply with the applicable statutes and orders.

The Department prefers its first recommendation, which they note that the Cooperative prefers as well:

Allow Dakota Electric to defer incorporating the credits required per Docket No. E-111/GR-19-478 until the Cooperative's next AGi Rider filing in 2022 and approve the Cooperative's proposed 2021 AGi Rider charges.¹⁹

The Department also offers an alternative option to account for the \$18,474 credit found in decreases in depreciation expense and return on rate base, which they have said they do not prefer:

Require the Cooperative to adjust its AGi Rider calculations in the current Petition for the credits required per Docket No. E-111/GR-19-478 and approve the 2021 AGi Rider charges.²⁰

B. Dakota Electric Association Reply Comments

In their reply comments, Dakota Electric acknowledged the omission of the credit for meter depreciation from its comments. They clarify that the new AGi Rider charges have already taken effect, so changing the 2021 charges would be burdensome for the Cooperative. Further, the dollar amount of a possible credit, which is one cent for residential members, is too small to

¹⁸ Department comments, February 12, 2021, p. 8.

¹⁹ Per Petition Schedule G-2a on p. 11 of Department comments, February 12, 2021. Discussion on p. 8 of Department comments.

²⁰ Per column (m) of Schedule G-2a on p. 11 Department comments, February 12, 2021. Discussion on p. 8 of Department comments.

have any meaningful impact on rates. This adjustment can instead be included with any other potential 2021 true ups in the 2022 AGi Rider charges.

Finally, Dakota Electric reiterates their request that the Commission approve the proposed 2021 AGi Rider fixed monthly charges per meter.

IV. Staff Analysis

Dakota Electric's proposed 2021 AGi Rider charges have been deemed just and reasonable by the Department. The difference between the approved and proposed monthly per meter charges are less than a dollar for three rate classes with a \$0.76 difference for residential members. There is no proposed change for the General class and a \$0.29 credit for the Irrigation class. The C&I Interruptible class has a proposed \$2.75 increase, but that is only 20% more than the approved amount.

To be clear, the 2021 AGi Rider is already in effect. The Cooperative added the proposed amount to bills starting January 1, 2021 and filed this petition on January 13 with their annual RTA filing. If the Commission does not accept Dakota Electric's proposed 2021 AGi Rider monthly fixed charges, the Cooperative would have to change its current billing for each rate class.

As far as the possible rider credit, both Dakota Electric and the Department agree that it can instead be incorporated in the 2022 AGi Rider changes. The total credit for all rate classes in sum is \$18,474. Dakota Electric and the Department believe spreading this across all members would be too burdensome administratively to justify such a small credit. Residential members would only see a one-cent credit. It should be noted, however, that the Department did provide an alternative should the Commission want to make a decision on the \$18,474 credit. This alternative would require the Cooperative to adjust its AGi Rider charge immediately to reflect the true-up credits (reflected in Decision Option #3). If the Commission does not make a decision on this issue, the credit will be rolled into the 2022 AGi rider filing.

V. Decision Options

1. Approve Dakota Electric Association's 2021 AGi Rider Monthly Fixed Charge per Meter amounts for various rate classes. *(Dakota Electric and Department support)*

[OR]

2. Do not approve Dakota Electric Association's 2021 AGi Rider Monthly Fixed Charge per Meter amounts for various rate classes.

[AND]

3. Require Dakota Electric Association to adjust its AGi Rider charge to reflect the true-up credits. *(Department offered but does not prefer)*

Staff recommends Decision Option 1.