



January 12, 2022

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

***Subject: In the Matter of a Filing by Dakota Electric Association
Regarding the Monthly Fixed Charge per Meter for the
Advanced Grid Infrastructure (AGi) Rider
Docket No. E111/M-22-30***

Dear Mr. Seuffert:

Enclosed is the Dakota Electric Association® (Dakota Electric or Cooperative) filing to update the Monthly Fixed Charge per Meter for the Advanced Grid Infrastructure (AGi) Rider. The AGi Rider, approved by the Minnesota Public Utilities Commission (MPUC or Commission) on May 8, 2018 in Docket No. E111/M-17-821, allows the Cooperative to recover certain net distribution grid modernization and load management investments that occur between Cooperative general rate cases. This filing establishes the 2022 AGi Rider Monthly Fixed Charge per Meter for various rate classes.

If you have any questions about the information in this filing, please call me at (651) 463-6258.

Sincerely,

/s/ Adam J. Heinen

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

Enclosure

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. E111/M-22-30

Dated this 12th day of January 2022

/s/ Melissa Cherney

Melissa Cherney

**STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION**

Katie Sieben
Valerie Means
Matthew Schuerger
Joseph Sullivan
John Tuma

Chair
Commissioner
Commissioner
Commissioner
Commissioner

In the Matter of a Filing by Dakota Electric Association
Regarding the Monthly Fixed Charge per Meter for
the Advanced Grid Infrastructure (AGi) Rider

E111/M-22-30
January 12, 2022

SUMMARY OF FILING

Please take notice that on January 12, 2022, Dakota Electric Association® (Dakota Electric or Cooperative) submitted a filing regarding the Monthly Fixed Charge per Meter for the Advanced Grid Infrastructure (AGi) Rider. The AGi Rider, approved by the Minnesota Public Utilities Commission (MPUC or Commission) on May 8, 2018 in Docket No. E111/M-17-821, allows the Cooperative to recover certain net distribution grid modernization and load management investments that occur between Cooperative general rate cases. **This filing establishes the 2022 AGi Rider Monthly Fixed Charge per Meter for various rate classes.**

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In the Matter of a Filing by Dakota Electric Association
Regarding the Monthly Fixed Charge per Meter for
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January 12, 2022

**PETITION OF
DAKOTA ELECTRIC ASSOCIATION**

Introduction

The Advanced Grid Infrastructure (AGi) Rider, approved by the Minnesota Public Utilities Commission (MPUC or Commission) on May 8, 2018 in Docket No. E111/M-17-821, allows Dakota Electric Association® (Dakota Electric or Cooperative) to recover certain net distribution grid modernization and load management investments that occur between Cooperative general rate cases.

This filing establishes the 2022 AGi Rider Monthly Fixed Charge per Meter for various rate classes.

Advanced Grid Infrastructure (AGi) Rider

This filing provides the following:

- 1) an overview of the AGi project implementation;
- 2) description of specific schedules used to determine/calculate the AGi Rider Monthly Fixed Charges per Meter; and

3) presentation of the “Advanced Meter Recovery” fees associated with the AGi Rider.

Dakota Electric discusses these topics separately below.

AGi Project Implementation Overview

In 2019, Dakota Electric and our contracted vendors initiated several steps in the process of implementing AGi including:

Vendors

- Set up and configured software for the AMI, MDM, and Load Management systems. This included Development, Testing, and Production environments for the software.
- Developed and implemented integration between the AGi systems and existing Dakota Electric systems.
- Developed some of the unique advanced functionality.

Dakota Electric

- Developed and implemented much of the utility side of the integration between the existing Dakota Electric systems and the new AGi systems.
- Installed an on-premise testing facility where meters and load control receivers are installed and monitored under typical operating conditions using Development and Testing AGi software environments.
- Purchased and installed advanced testing boards for the AGi meters to allow simulated testing of meter functionality.
- Dakota Electric completed the installation of a 5,000 meter and 1,000 load control receiver performance acceptance pilot program on members’ homes and business.

In 2020, Dakota Electric completed the performance acceptance program and began widespread meter and load control receiver installations. Installations continued throughout 2021 and by the conclusion of the year Dakota Electric had installed approximately 94% of its meters and approximately 50% of load control receivers.

The equipment that has been placed into service, and new equipment that will continue to be installed throughout 2022, as identified in this filing for the AGi project, is owned by the Cooperative. The data collected and administered through the meter data management system will allow Dakota Electric to operate the distribution system more

efficiently and size equipment properly, all of which will conserve energy and use energy more efficiently.

Calculation of 2022 Monthly Fixed Charge per Meter

The AGi Rider provides recovery for the net costs associated with installing advanced metering infrastructure, meter data management equipment, and related systems between general rate cases through a separate line item on Dakota Electric bills.

Dakota Electric received Commission approval to recover rate of return, incremental property taxes, and incremental depreciation expense associated with capitalized AGi equipment that will become part of the Cooperative's rate base. The calculation of the AGi recovery fee is filed with the Commission at the beginning of the calendar year, just like we have done for over two decades with the Resource and Tax Adjustment (RTA). The AGi Adjustment is implemented with bills mailed after January 1, 2022 subject to any correction or modification after regulatory review and Commission approval. This is the same annual process that Dakota Electric uses for the RTA. The AGi Rider applies a per meter charge to metered retail rate schedules. This charge appears as a separate line item on bills identified as "Advanced Meter Recovery."

While the Commission has approved recovery of incremental property taxes associated with AGi capitalized investments, Dakota Electric notes that the property tax component requires special consideration. Changes in property taxes (increases and decreases) are already automatically addressed through the property tax component in the Cooperative's Resource and Tax Adjustment (RTA). That is, Dakota Electric's base rates include recovery for property taxes. As relative annual property taxes change due to the addition of new AMI meters and removal of current meters, the property tax component of the RTA will track these changes and adjust revenue accordingly. Accordingly, property taxes are not included in the calculation of the monthly fee associated with the AGi Rider or the recovery of costs associated with load control receivers.

During its review of Dakota Electric's 2021 AGi filing, the Minnesota Department of Commerce (Department) observed that the Cooperative inadvertently failed to include credits for expected decreases in depreciation expenses and return on rate base in its AGi rate calculations related to Account 37020—Meters Used. Dakota Electric confirmed this omission, and the Department and the Cooperative agreed that given the small amount (\$18,474) it was most appropriate to defer incorporating this adjustment until the 2022 AGi filing. In its July 26, 2021 Order in Docket No. E111/M-21-45, the Commission allowed Dakota Electric to defer this credit until the next AGi filing. The Cooperative incorporates this credit into its 2022 AGi rate calculations.

Related to the above topic is a separate adjustment for Account 37000. In the 2019 general rate case, Dakota Electric agreed to a \$73,348 annual adjustment to the annual AGi rider starting in 2022 to account for a reduction in net book value associated with the transition to AGi meters. The Department noted this adjustment in last year's docket and stated that this adjustment will be applicable to the 2021 true up and in each subsequent year until the Cooperative's next rate case. Dakota Electric also agreed with this in its reply comments. The Cooperative includes this adjustment in its 2021 true up calculations and 2022 rate calculations.

In terms of the net book value to calculate the annual Account 37000 adjustment, Dakota Electric makes the following observation that the Commission may wish to consider for future AGi filings. The annual adjustment is based on estimated net book value at the end of 2021 as presented in the rate case. As we have progressed from the rate case, actual year end net book values are now, and will be, available in the future, so it may be appropriate to base the meter adjustment on actual net book value multiplied by the rate case rate of return in the future.

The calculations for return on rate base and depreciation associated with AGi are shown on the attached spreadsheets. These sheets and calculations are summarized as follows:

- **Schedule G-1** computes the AGi net recovery of \$1,934,376 for 2022.
- **Schedule G-2** summarizes AGi capital costs and related depreciation, ROE and annual operational savings. Schedule G-2 includes seven sub-schedules as follows:

- **Schedule G-2a** includes 2022 per meter charges
 - **Schedule G-2b** includes 2020 actual meter charges
 - **Schedule G-2c** includes 2020 per meter charges based on actuals through November 2020, with December 2020 estimates
 - **Schedule G-2d** includes a comparison of 2020 per meter charges based on actuals through November 2020, with December 2020 estimates, compared to 2020 per meter charges filed in 2020
 - **Schedule G-2e** includes 2021 per meter charges based on actuals through November 2021, with December estimates
 - **Schedule G-2f** includes 2021 per meter charges filed in the 2021 AGi filing
 - **Schedule G-2g** includes a comparison of 2021 per meter charges based on actuals through November 2021, with December estimates, compared to 2021 per meter charges filed in 2021
- In addition, these schedules show the allocation of AGi costs to the various rate schedules and calculates the per meter per month fee.
- **Schedule G-3** summarizes 2022 forecasted capital components and related depreciation expense for 2022.

2022 “Advanced Meter Recovery” Fee

Attached is a redline version and clean version of Dakota Electric’s Advanced Grid Infrastructure Rider (Section V, Sheet 59, Revision 3) indicating the Monthly Fixed Charge per Meter. This fixed charge will appear on member bills on a line item identified as “Advanced Meter Recovery.”

Conclusion

Based on the information included in this filing, Dakota Electric respectfully requests Commission approval of the 2022 AGi Rider Monthly Fixed Charge per Meter amounts for various rate classes. If you have any questions about the information in this filing, please call me at (651) 463-6258.

Respectfully submitted,

/s/ Adam J. Heinen

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

Enclosures

Rate Recovery for AGI - Meters & Communication

	Actual 2020 2020	Forecast 2021* 2021	Forecast 2022 2022
Capitalized Costs - Added to Rate Base	\$ 9,382,044	\$ 19,504,744	\$ 20,015,606
Rate of Return Recovery 6.47%/5.68%	\$ 301,208	\$ 862,238	\$ 1,122,991
Rate of Return Recovery Adjustment	\$ (703)	\$ (703)	\$ (703)
Rate of Return Recovery Adjustment	\$ -	\$ (73,348)	\$ (73,348)
Income Taxes N/A	\$ -	\$ -	\$ -
Incremental Property Taxes N/A	\$ -	\$ -	\$ -
Incremental Depreciation	\$ 441,766	\$ 1,171,057	\$ 1,597,707
Depreciation Adjustment	\$ (17,771)	\$ (17,771)	\$ (17,771)
Subtotal Before Savings	724,500	1,941,473	2,628,876
Operational Savings	\$ (254,857)	\$ (519,000)	\$ (694,500)
Net to Recover	469,643	1,422,473	1,934,376

* includes Jan-Nov 2021 Actuals, Dec 2021 forecast

Notes

Capitalized outlay for meters, communication equipment, software and related integrations, project management

Rate from 2014 Rate Case (Docket No. E-111/GR-14-482) through September 2020, Rate from 2019 Rate Case (Docket No. E-111/GR-19-478) starting in October 2020

MPUC Docket No. E-111/GR-19-478/OAH Docket No. 60-2500-36475

MPUC Docket No. E-111/GR-19-478/OAH Docket No. 60-2500-36475

Captured in RTA property tax filing

Based on monthly detail

MPUC Docket No. E-111/GR-19-478/OAH Docket No. 60-2500-36475

Savings from reduced meter reading costs

(3 headcount in 2020, 4 headcount in 2021, 5.5 headcount in 2022)

AGI Rider
2022 AGI Rider Filing

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
Schedule	Meters	MWh Sales	Allocated Capitalized Costs			Sum	Annual Costs	Operational Savings	Net Recovery	Per Meter Per Mo.	2020 True-up Credit	2021 True-up Credit	2022 Final
			Meters	Comm & MDM	Proj Mgmt						Per Meter Per Mo.	Per Meter Per Mo.	Per Meter Per Mo.
Residential	105,533	925,264	\$ 14,727,863	\$ 1,163,644	\$ 643,080	\$ 16,534,588	\$ 2,171,674	\$ (573,716)	\$ 1,597,958	\$ 1.26	\$ (0.03)	\$ (0.27)	\$ 0.96
Irrigation	394	7,699	\$ 169,736	\$ 9,683	\$ 7,261	\$ 186,679	\$ 24,519	\$ (6,477)	\$ 18,041	\$ 3.82	\$ (0.14)	\$ (1.07)	\$ 2.60
Lighting	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Small General	4,667	44,582	\$ 651,312	\$ 56,068	\$ 28,625	\$ 736,006	\$ 96,668	\$ (25,538)	\$ 71,130	\$ 1.27	\$ (0.03)	\$ (0.28)	\$ 0.96
General	2,816	505,700	\$ 1,213,140	\$ 635,986	\$ 74,828	\$ 1,923,954	\$ 252,695	\$ (66,757)	\$ 185,937	\$ 5.50	\$ (0.21)	\$ (1.55)	\$ 3.74
C&I Interruptible	260	395,742	\$ 112,009	\$ 497,699	\$ 24,673	\$ 634,380	\$ 83,320	\$ (22,012)	\$ 61,309	\$ 19.65	\$ (1.15)	\$ (6.70)	\$ 11.80
	113,670	1,878,987	\$ 16,874,060	\$ 2,363,079	\$ 778,468	\$ 20,015,606	\$ 2,628,876	\$ (694,500)	\$ 1,934,376				

Capitalized Costs

\$ 15,379,176	Meters (Residential and Single Phase)
\$ 1,494,884	Meters (Irrigation, General, C&I Interruptible)
\$ 2,363,079	Communication, MDM & Software
\$ 778,468	Project Management
\$ 20,015,606	

\$ 2,628,876	Annual ROE, Depreciation
\$ (694,500)	Annual Operational Savings

NOTES:

- Column a Dakota Electric rate classes.
- Columns b and c Calendar year 2022 forecasted meter and energy consumption data.
- Column d Relative applicable rate class meter costs.
- Column e Relative applicable rate class communication, MDM, and software costs.
- Column f Project management costs allocated based on proportion of costs from Columns d and e.
- Column g Sum of Columns d + e + f.
- Column h Estimated annual ROE, and Depreciation divided by relative allocated capital costs.
- Column i Estimated annual Operational Savings allocated based on allocated costs in Column h.
- Column j Sum of Columns h + i.
- Column k Column j divided by Column b divided by 12 months.
- Column l Estimated credit from 2020 over-recovery.
- Column m Estimated credit from 2021 over-recovery.

**AGI Rider
2020 Actual**

(a)	(b)	(c)	(d)	(e)		(f)	(g)	(h)	(i)	(j)	(k)
Schedule	Meters	MWh Sales	Meters	Allocated Capitalized Costs		Proj Mgmt	Sum	Annual Costs	Operational Savings	Net Recovery	Per Meter Per Mo.
				Comm & MDM							
Residential	102,438	930,879	\$ 5,562,849	\$ 1,186,856	\$ 610,726	\$ 7,360,431	\$ 568,387	\$ (199,941)	\$ 368,446	\$ 0.30	
Irrigation	390	9,683	\$ 60,173	\$ 12,346	\$ 6,562	\$ 79,080	\$ 6,107	\$ (2,148)	\$ 3,959	\$ 0.85	
Lighting	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Small General	4,598	40,100	\$ 249,692	\$ 51,127	\$ 27,219	\$ 328,038	\$ 25,332	\$ (8,911)	\$ 16,421	\$ 0.30	
General	2,774	441,395	\$ 427,997	\$ 562,772	\$ 89,647	\$ 1,080,415	\$ 83,432	\$ (29,349)	\$ 54,083	\$ 1.62	
C&I Interruptible	260	352,671	\$ 40,115	\$ 449,650	\$ 44,315	\$ 534,080	\$ 41,243	\$ (14,508)	\$ 26,735	\$ 8.57	
	110,460	1,774,729	\$ 6,340,826	\$ 2,262,751	\$ 778,468	\$ 9,382,044	\$ 724,500	\$ (254,857)	\$ 469,643		

Capitalized Costs

\$ 5,812,541	Meters (Residential and Single Phase)
\$ 528,284	Meters (Irrigation, General, C&I Interruptible)
\$ 2,262,751	Communication, MDM & Software
\$ 778,468	Project Management
<u>\$ 9,382,044</u>	

\$ 724,500	Annual ROE, Depreciation
\$ (254,857)	Annual Operational Savings

NOTES:

Column a	Dakota Electric rate classes.
Columns b and c	Calendar year 2020 actual meter and energy consumption data.
Column d	Relative applicable rate class meter costs.
Column e	Relative applicable rate class communication, MDM, and software costs.
Column f	Project management costs allocated based on proportion of costs from Columns d and e.
Column g	Sum of Columns d + e + f.
Column h	Estimated annual ROE, and Depreciation divided by relative allocated capital costs.
Column i	Estimated annual Operational Savings allocated based on allocated costs in Column h.
Column j	Sum of Columns h + i.
Column k	Column j divided by Column b divided by 12 months.

AGI Rider
***2020 Forecast**

(a)	(b)	(c)	(d)	(e)		(f)	(g)	(h)	(i)	(j)	(k)
Schedule	Meters	MWh Sales	Meters	Allocated Capitalized Costs		Proj Mgmt	Sum	Annual Costs	Operational Savings	Net Recovery	Per Meter Per Mo.
				Comm & MDM							
Residential	102,083	923,792	\$ 5,582,255	\$ 1,219,811	\$ 607,434	\$ 7,409,500	\$ 580,864	\$ (176,271)	\$ 404,593	\$ 0.33	
Irrigation	391	9,682	\$ 65,180	\$ 12,785	\$ 6,962	\$ 84,927	\$ 6,658	\$ (2,020)	\$ 4,637	\$ 0.99	
Lighting	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Small General	4,565	38,919	\$ 249,630	\$ 51,390	\$ 26,882	\$ 327,902	\$ 25,706	\$ (7,801)	\$ 17,905	\$ 0.33	
General	2,773	427,423	\$ 462,262	\$ 564,385	\$ 91,681	\$ 1,118,329	\$ 87,671	\$ (26,605)	\$ 61,066	\$ 1.84	
C&I Interruptible	260	353,110	\$ 43,342	\$ 466,260	\$ 45,508	\$ 555,111	\$ 43,518	\$ (13,206)	\$ 30,312	\$ 9.72	
	110,072	1,752,926	\$ 6,402,670	\$ 2,314,631	\$ 778,468	\$ 9,495,769	\$ 744,416	\$ (225,903)	\$ 518,513		

Capitalized Costs

\$ 5,831,885	Meters (Residential and Single Phase)
\$ 570,784	Meters (Irrigation, General, C&I Interruptible)
\$ 2,314,631	Communication, MDM & Software
\$ 778,468	Project Management
<u>\$ 9,495,769</u>	

\$ 744,416	Annual ROE, Depreciation
\$ (225,903)	Annual Operational Savings

NOTES:

- Column a Dakota Electric rate classes.
- Columns b and c Calendar year 2020 forecasted meter and energy consumption data.
- Column d Relative applicable rate class meter costs.
- Column e Relative applicable rate class communication, MDM, and software costs.
- Column f Project management costs allocated based on proportion of costs from Columns d and e.
- Column g Sum of Columns d + e + f.
- Column h Estimated annual ROE, and Depreciation divided by relative allocated capital costs.
- Column i Estimated annual Operational Savings allocated based on allocated costs in Column h.
- Column j Sum of Columns h + i.
- Column k Column j divided by Column b divided by 12 months.

* includes Jan-Nov 2020 Actuals, Dec 2020 forecast

AGI Rider

2020 Actual vs. *2020 Forecast (difference)

(a)	(b)	(c)	(d)	(e)		(f)	(g)	(h)	(i)	(j)	(k)	
Schedule	Meters	MWh Sales	Meters	Allocated Capitalized Costs		Proj Mgmt	Sum	Annual Costs	Operational Savings	Net Recovery	Per Meter Per Mo.	
				Comm & MDM								
Residential	355	7,087	0	\$ (19,406)	\$ (32,955)	\$ 3,292	\$ (49,069)	0	\$ (12,477)	\$ (23,670)	\$ (36,148)	\$ (0.03)
Irrigation	(1)	1	0	\$ (5,008)	\$ (439)	\$ (401)	\$ (5,848)	0	\$ (551)	\$ (128)	\$ (679)	\$ (0.14)
Lighting	-	-	0	\$ -	\$ -	\$ -	\$ -	0	\$ -	\$ -	\$ -	\$ -
Small General	33	1,181	0	\$ 62	\$ (263)	\$ 337	\$ 136	0	\$ (374)	\$ (1,110)	\$ (1,484)	\$ (0.03)
General	1	13,973	0	\$ (34,265)	\$ (1,614)	\$ (2,035)	\$ (37,914)	0	\$ (4,239)	\$ (2,744)	\$ (6,983)	\$ (0.21)
C&I Interruptible	-	(439)	0	\$ (3,227)	\$ (16,610)	\$ (1,193)	\$ (21,030)	0	\$ (2,275)	\$ (1,302)	\$ (3,577)	\$ (1.15)
	388	21,803	\$	\$ (61,844)	\$ (51,880)	\$ 0	\$ (113,724)	\$	\$ (19,916)	\$ (28,954)	\$ (48,871)	

Capitalized Costs

\$ 19,344	Meters (Residential and Single Phase)
\$ 42,500	Meters (Irrigation, General, C&I Interruptible)
\$ 51,880	Communication, MDM & Software
\$ -	Project Management
<u>\$ 113,724</u>	

\$ 19,916	Annual ROE, Depreciation
\$ 28,954	Annual Operational Savings

NOTES:

Column a	Dakota Electric rate classes.
Columns b and c	Calendar year 2020 difference in meter and energy consumption data.
Column d	Relative applicable rate class meter costs.
Column e	Relative applicable rate class communication, MDM, and software costs.
Column f	Project management costs allocated based on proportion of costs from Columns d and e.
Column g	Sum of Columns d + e + f.
Column h	Estimated annual ROE, and Depreciation divided by relative allocated capital costs.
Column i	Estimated annual Operational Savings allocated based on allocated costs in Column h.
Column j	Sum of Columns h + i.
Column k	Column j divided by Column b divided by 12 months.

* includes Jan-Nov 2020 Actuals, Dec 2020 forecast

AGI Rider
****2021 Forecast**

(a)	(b)	(c)	(d)	(e)		(f)	(g)	(h)	(i)	(j)	(k)
Schedule	Meters	MWh Sales	Meters	Allocated Capitalized Costs		Proj Mgmt	Sum	Annual Costs	Operational Savings	Net Recovery	Per Meter Per Mo.
				Comm & MDM							
Residential	103,974	953,894	\$ 14,526,495	\$ 1,195,311	\$ 653,569	\$ 16,375,375	\$ 1,629,980	\$ (435,731)	\$ 1,194,250	\$ 0.96	
Irrigation	394	9,682	\$ 143,864	\$ 12,133	\$ 6,485	\$ 162,482	\$ 16,173	\$ (4,323)	\$ 11,850	\$ 2.51	
Lighting	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Small General	4,621	41,161	\$ 645,613	\$ 51,578	\$ 28,983	\$ 726,173	\$ 72,282	\$ (19,323)	\$ 52,960	\$ 0.96	
General	2,788	463,831	\$ 1,018,005	\$ 581,220	\$ 66,481	\$ 1,665,706	\$ 165,802	\$ (44,323)	\$ 121,479	\$ 3.63	
C&I Interruptible	259	365,089	\$ 94,571	\$ 457,487	\$ 22,950	\$ 575,008	\$ 57,235	\$ (15,300)	\$ 41,935	\$ 13.49	
	112,036	1,833,657	\$ 16,428,548	\$ 2,297,729	\$ 778,468	\$ 19,504,744	\$ 1,941,473	\$ (519,000)	\$ 1,422,473		

Capitalized Costs

\$ 15,172,108	Meters (Residential and Single Phase)
\$ 1,256,440	Meters (Irrigation, General, C&I Interruptible)
\$ 2,297,729	Communication, MDM & Software
\$ 778,468	Project Management
<u>\$ 19,504,744</u>	

\$ 1,941,473	Annual ROE, Depreciation
\$ (519,000)	Annual Operational Savings

NOTES:

Column a	Dakota Electric rate classes.
Columns b and c	Calendar year 2021 forecasted meter and energy consumption data.
Column d	Relative applicable rate class meter costs.
Column e	Relative applicable rate class communication, MDM, and software costs.
Column f	Project management costs allocated based on proportion of costs from Columns d and e.
Column g	Sum of Columns d + e + f.
Column h	Estimated annual ROE, and Depreciation divided by relative allocated capital costs.
Column i	Estimated annual Operational Savings allocated based on allocated costs in Column h.
Column j	Sum of Columns h + i.
Column k	Column j divided by Column b divided by 12 months.

** includes Jan-Nov 2021 Actuals, Dec 2021 forecast

**AGI Rider
Per 2021 Filing**

(a)	(b)	(c)	(d)	(e)		(f)	(g)	(h)	(i)	(j)	(k)
Schedule	Meters	MWh Sales	Meters	Allocated Capitalized Costs		Proj Mgmt	Sum	Annual Costs	Operational Savings	Net Recovery	Per Meter Per Mo.
				Comm & MDM							
Residential	103,103	899,353	\$ 14,740,659	\$ 1,235,632	\$ 642,182	\$ 16,618,474	\$ 1,832,239	\$ (310,999)	\$ 1,521,240	\$ 1.23	
Irrigation	391	7,642	\$ 165,705	\$ 10,499	\$ 7,083	\$ 183,287	\$ 20,208	\$ (3,430)	\$ 16,778	\$ 3.58	
Lighting	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Small General	4,611	44,045	\$ 659,236	\$ 60,514	\$ 28,931	\$ 748,681	\$ 82,544	\$ (14,011)	\$ 68,534	\$ 1.24	
General	2,801	468,180	\$ 1,187,060	\$ 643,238	\$ 73,571	\$ 1,903,869	\$ 209,908	\$ (35,629)	\$ 174,278	\$ 5.19	
C&I Interruptible	261	402,984	\$ 110,611	\$ 553,665	\$ 26,701	\$ 690,977	\$ 76,182	\$ (12,931)	\$ 63,251	\$ 20.20	
	111,167	1,822,204	\$ 16,863,272	\$ 2,503,549	\$ 778,468	\$ 20,145,288	\$ 2,221,081	\$ (377,000)	\$ 1,844,081		

Capitalized Costs

\$ 15,399,895	Meters (Residential and Single Phase)
\$ 1,463,376	Meters (Irrigation, General, C&I Interruptible)
\$ 2,503,549	Communication, MDM & Software
\$ 778,468	Project Management
<u>\$ 20,145,288</u>	

\$ 2,221,081	Annual ROE, Depreciation
\$ (377,000)	Annual Operational Savings

NOTES:

- Column a Dakota Electric rate classes.
- Columns b and c Calendar year 2021 forecasted meter and energy consumption data.
- Column d Relative applicable rate class meter costs.
- Column e Relative applicable rate class communication, MDM, and software costs.
- Column f Project management costs allocated based on proportion of costs from Columns d and e.
- Column g Sum of Columns d + e + f.
- Column h Estimated annual ROE, and Depreciation divided by relative allocated capital costs.
- Column i Estimated annual Operational Savings allocated based on allocated costs in Column h.
- Column j Sum of Columns h + i.
- Column k Column j divided by Column b divided by 12 months.

AGI Rider

**2021 Forecast vs. 2021 Filing (difference)

(a) <i>Schedule</i>	(b) <i>Meters</i>	(c) <i>MWh Sales</i>	Allocated Capitalized Costs			(g) <i>Sum</i>	(h) <i>Annual Costs</i>	(i) <i>Operational Savings</i>	(j) <i>Net Recovery</i>	(k) <i>Per Meter Per Mo.</i>	
			(d) <i>Meters</i>	(e) <i>Comm & MDM</i>	(f) <i>Proj Mgmt</i>						
Residential	871	54,541	0 \$	(214,164) \$	(40,322) \$	11,387 \$	(243,099) 0 \$	(202,259) \$	(124,732) \$	(326,990) \$	(0.27)
Irrigation	3	2,040	0 \$	(21,841) \$	1,633 \$	(598) \$	(20,805) 0 \$	(4,035) \$	(893) \$	(4,928) \$	(1.07)
Lighting	-	-	0 \$	- \$	- \$	- \$	- 0 \$	- \$	- \$	- \$	-
Small General	10	(2,884)	0 \$	(13,623) \$	(8,936) \$	52 \$	(22,507) 0 \$	(10,262) \$	(5,312) \$	(15,574) \$	(0.28)
General	(13)	(4,349)	0 \$	(169,055) \$	(62,018) \$	(7,089) \$	(238,163) 0 \$	(44,106) \$	(8,694) \$	(52,799) \$	(1.55)
C&I Interruptible	(2)	(37,895)	0 \$	(16,041) \$	(96,178) \$	(3,752) \$	(115,970) 0 \$	(18,947) \$	(2,369) \$	(21,316) \$	(6.70)
	869	11,453	\$	(434,724) \$	(205,820) \$	0 \$	(640,544) \$	(279,608) \$	(142,000) \$	(421,608) \$	

Capitalized Costs

\$	(227,787)	Meters (Residential and Single Phase)
\$	(206,937)	Meters (Irrigation, General, C&I Interruptible)
\$	(205,820)	Communication, MDM & Software
\$	-	Project Management
\$	(640,544)	

\$	(279,608)	Annual ROE, Depreciation
\$	(142,000)	Annual Operational Savings

NOTES:

Column a	Dakota Electric rate classes.
Columns b and c	Calendar year 2021 difference in meter and energy consumption data.
Column d	Relative applicable rate class meter costs.
Column e	Relative applicable rate class communication, MDM, and software costs.
Column f	Project management costs allocated based on proportion of costs from Columns d and e.
Column g	Sum of Columns d + e + f.
Column h	Estimated annual ROE, and Depreciation divided by relative allocated capital costs.
Column i	Estimated annual Operational Savings allocated based on allocated costs in Column h.
Column j	Sum of Columns h + i.
Column k	Column j divided by Column b divided by 12 months.

** includes Jan-Nov 2021 Actuals, Dec 2021 forecast

AGi Project Cost Detail
2022 Forecast

Description	Capital Costs	Depreciation Expense	Notes
Meters	\$ 16,874,060	\$ 1,142,680	<i>Includes all meter costs</i>
Radio Frequency Network Infrastructure	871,653	\$ 185,485	<i>Access points, repeaters, and related network equipment</i>
IT Network Security	29,684	\$ 5,937	<i>Security software and hardware</i>
Testing Facility	405,885	\$ 27,312	
Software	514,743	\$ 94,827	<i>Software to operate the AGi system</i>
System Integration	541,113	\$ 87,655	<i>Software integration between AGi system and other DEA systems</i>
Administration	724,027	\$ 50,767	<i>Project management and consulting expenses</i>
Warehouse Forklift	54,441	3,043	<i>Material handling for remote warehouse location</i>
Total	\$ 20,015,606	\$ 1,597,707	
Operational Savings			
Meter Reading Savings	\$ (499,500)		
Contract Meter Reading and DEA Overtime	(195,000)		
Net Benefit	\$ (694,500)		

ADVANCED GRID INFRASTRUCTURE RIDER

Application

Applicable to bills for electric service provided under the Association's metered retail rate schedules.

Rider

There shall be included on each member's monthly bill an Advanced Grid Infrastructure (AGi) Rider adjustment. The AGi Adjustment shall be applied on a per-meter basis before any city surcharge and sales tax.

Determination of AGi Adjustment

The AGi Adjustment shall be the quotient obtained by dividing the forecasted balance of the AGi Tracker Account for each member class by the applicable meters in each member class. The AGi Adjustment may be changed annually upon a filing with the Minnesota Public Utilities Commission (Commission). The AGi Adjustment shall apply to bills rendered on and after January 1st of the year.

The AGi Adjustment for each metered retail rate schedule is:

Member Class	Monthly Fixed Charge per Meter
Residential (Schedules 31, 32, 53, 56)	\$1.160.96
Irrigation (Schedule 36)	\$2.142.60
Small General (Schedule 41)	\$1.160.96
General (Schedules 46, 54)	\$3.513.74
C&I Interruptible (Schedules 70, 71)	\$16.3311.80

Recoverable AGi Costs shall be the annual revenue requirements associated with AGi capital costs (a) not recovered through base rates, (b) recorded in the AGi Tracker Account for the designated period, and (c) determined by the Commission to be eligible for recovery under this Rider. A standard model will be used to calculate the total forecasted revenue requirements for eligible projects for the designated period. All costs appropriately charged to the AGi Tracker Account shall be eligible for recovery through this Rider, and all revenues recovered from the AGi Adjustment shall be credited to the AGi Tracker Account.

True-Up

For each 12-month period ending December 31, a true-up adjustment to the AGi Tracker Account will be calculated reflecting the difference between the AGi Adjustment recoveries and the revenue requirements for such period. The true-up adjustment shall be calculated and included in the AGi recovery filing submitted to the Commission for the following calendar year. No carrying cost shall be applied to the AGi Tracker.

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Small General (Schedule 41)	\$0.96
General (Schedules 46, 54)	\$3.74
C&I Interruptible (Schedules 70, 71)	\$11.80

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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_21-45_M-21-45
Eric	Fehlhaber	efehlhaber@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_21-45_M-21-45
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_21-45_M-21-45
Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	Yes	OFF_SL_21-45_M-21-45
Corey	Hintz	chintz@dakotaelectric.com	Dakota Electric Association	4300 220th Street Farmington, MN 550249583	Electronic Service	No	OFF_SL_21-45_M-21-45
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Electronic Service	No	OFF_SL_21-45_M-21-45
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	OFF_SL_21-45_M-21-45
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_21-45_M-21-45
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_21-45_M-21-45
Eric	Swanson	eswanson@winthrop.com	Winthrop & Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_21-45_M-21-45