



October 11, 2018

Daniel P. Wolf, Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, Minnesota 55101

**Re: Dakota Electric Association Request to Implement  
Service Features Related to AGi Technology  
Docket No. E-111/M-18-\_\_\_\_**

Dear Mr. Wolf:

Dakota Electric Association® (Dakota Electric® or Cooperative) submits the attached Petition requesting Minnesota Public Utilities Commission (Commission or MPUC) approval to implement certain service features related to Advanced Grid Infrastructure (AGi) technology including an advanced meter opt-out fee and modifying language related to load control receiver bypass. This filing also describes the anticipated use of internal meter switch capabilities.

If you or your staff has any questions regarding Dakota Electric's petition, please contact me any time at (651) 463-6258.

Sincerely,

*/s/ Douglas R. Larson*

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Douglas R. Larson  
Vice President of Regulatory Services  
Dakota Electric Association  
4300 220<sup>th</sup> Street West  
Farmington, MN 55024  
651-463-6258  
dlarson@dakotaelectric.com

STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

IN THE MATTER OF A  
DAKOTA ELECTRIC ASSOCIATION  
PETITION TO IMPLEMENT SERVICE FEATURES  
RELATED TO AGI TECHNOLOGY

DOCKET No. E-111/M-18-\_\_\_\_

**SUMMARY**

On October 11, 2018, Dakota Electric Association® (Dakota Electric® or Cooperative) submitted a Petition to the Minnesota Public Utilities Commission (Commission or MPUC) requesting approval to implement certain service features related to Advanced Grid Infrastructure (AGi) technology including an advanced meter opt-out fee and modifying language related to load control receiver bypass. This filing also describes the anticipated use of internal meter switch capabilities.

STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

Nancy Lange  
Dan Lipschultz  
Matt Schuerger  
Katie Sieben  
John Tuma

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

IN THE MATTER OF A  
DAKOTA ELECTRIC ASSOCIATION  
PETITION TO IMPLEMENT SERVICE FEATURES  
RELATED TO AGI TECHNOLOGY

DOCKET No. E-111/M-18-\_\_\_\_

**PETITION OF DAKOTA ELECTRIC ASSOCIATION**

**I. Introduction**

Dakota Electric Association® (Dakota Electric® or Cooperative) submits the attached Petition requesting Minnesota Public Utilities Commission (Commission or MPUC) approval to implement certain service features related to Advanced Grid Infrastructure (AGI) technology including an advanced meter opt-out fee and modifying language related to load control receiver bypass. This filing also describes the anticipated use of internal meter switch capabilities.

**II. Filing Requirements**

Pursuant to Minn. Stat. § 216B.16, subd. 1 and Minn. Rule 7829.1300, Dakota Electric provides the following required general filing information.

**1. Summary of Filing (Minn. Rule 7829.1300, subp.1)**

A one paragraph summary accompanies this Petition.

**2. Service on Other Parties (Minn. Rule 7829.1300, subp. 2)**

Pursuant to Minn. Rules 7829.1300, subp. 2, Dakota Electric eFiles this Petition on the Minnesota Department of Commerce – Division of Energy Resources and the Office of Attorney General – Antitrust and Utilities Division. A summary of the filing prepared in

accordance with Minn. Rules 7829.1300, subp. 1 is being served on Dakota Electric's general service list.

**3. Name, Address and Telephone Number of Utility (Minn. Rule 7829.1300, subp. 4(A))**

Dakota Electric Association  
4300 220th Street West  
Farmington, MN 55024  
(651) 463-6212

**4. Name, Address and Telephone Number of Utility Attorney (Minn. Rule 7829.1300, subp. 4(B))**

Eric F. Swanson  
Winthrop & Weinstine  
225 South Sixth Street, Suite 3500  
Minneapolis, Minnesota 55402-4629

**5. Date of Filing and Date Proposed Rate Takes Effect (Minn. Rule 7829.1300, subp. 4(C))**

This Petition is being filed on October 11, 2018. Minn. Rule 7825.3200 requires that utilities serve notice to the Commission at least 90 days prior to the proposed effective date of modified rates. The proposed service features will take effect upon Commission approval, but no sooner than January 9, 2019.

**6. Statute Controlling Schedule for Processing the Filing (Minn. Rule 7829.1300, subp. 4(D))**

This Petition is made pursuant to Minn. Stat. § 216B.16. Dakota Electric's proposed service features fall within the definition of a "Miscellaneous Tariff Filing" under Minn. Rules 7829.0100, subp. 11. Minn. Rules 7829.1400, subp. 1 and 4 specify that comments in response to a miscellaneous filing be filed within 30 days, and reply comments be filed no later than 10 days from the expiration of the original comment period.

**7. Utility Employee Responsible for Filing (Minn. Rule 7829.1300, subp. 4(E))**

Douglas R. Larson  
Vice President of Regulatory Services  
Dakota Electric Association  
4300 220<sup>th</sup> Street West  
Farmington, MN 55024

### **8. Impact on Rates and Services (Minn. Rule 7829.1300, subp. 4(F))**

The proposed opt-out fee reflects costs incurred by Dakota Electric for service to consumers who would be subject to the fees. Rates and service to all other Cooperative members are not affected.

The additional information required under Minn. Rule 7829.1300, subp. 4(F) is included throughout this Petition.

## **III. Petition**

### Background

At a meeting on April 19, 2018, the Commission authorized the use of recovery mechanisms for Dakota Electric's implementation of Advanced Grid Infrastructure. (The Commission's written order in Docket No. E-111/M-17-821 was issued on May 8, 2018.) Advanced Grid Infrastructure (AGi) is the term Dakota Electric is using to refer to new technologies that would enhance the communication and operation of our distribution system that delivers electricity to our members. These technologies will help Dakota Electric monitor our distribution system for better efficiency and operation and allow us to have two-way communication to field equipment, providing numerous benefits to our members and Dakota Electric. The main AGi components include Advanced Metering Infrastructure (AMI), Meter Data Management (MDM), and the Load Management (LM) system.

As Dakota Electric installs AGi facilities and implements the new technologies, we anticipate that we will encounter certain service issues. Specifically, as described below, Dakota Electric anticipates the need for an advanced meter opt-out fee and modifying the language related to load control receiver bypass. We also describe the anticipated use of internal meter switch capabilities.

### Advance Meter Opt-Out Rider

The experience from other utilities around the country that have implemented advanced metering infrastructure – commonly referred to as “smart metering” – has shown that some consumers refuse to have such metering installed at their residences. To address such consumer preferences, utilities around the country have adopted advanced meter opt-out

fees as approved by state regulators. The purpose of an advanced meter opt-out fee is to recover the costs of manually reading a limited number of meters where the standard meter reading system has been fully automated.

Dakota Electric proposes to implement an Advanced Meter Opt-Out (AMO) Rider designated as Section V, Sheets 60.0 and 60.1, Revision Original attached to this filing. The AMO Rider includes the following clauses:

*Applicability* – The AMO Rider applies to residential consumers who do not want to have an advanced, wireless, communicating meter installed at their residence.

*Rate* – The AMO Rider applies a recurring monthly charge. This charge is in addition to charges for electric service under the applicable metered retail service.

*Terms and Conditions* – The Terms and Conditions section includes descriptions for selecting or defaulting to the AMO Rider, metering equipment, circumstances where the Cooperative has the right to refuse the opt-out option, impact on load management program participation, estimated meter reading, and billing.

The cost analysis for the proposed Monthly Charge is attached. The proposed Monthly Charge of \$12.00 consists of the estimated labor, vehicle, hardware, and software metering reading costs associated with limited and dispersed manual readings minus the net cost difference between AMI and conventional meters and the monthly costs of meter reading that are included in Dakota Electric's base rates. In narrative form, the net Monthly Charge for the AMO Rider is determined as follows:

Meter-reader labor and benefit costs per opt-out meter read
+ Vehicle cost at miles per read
- Net monthly lower cost of a non-communicating meter
+ Handheld device and software for manual meter reading
- <u>Monthly meter reading costs included in present rates</u>
= Net Monthly Charge for AMO Rider

#### Bypass of Load Control Receivers

Load Management provides control of consumer loads when required through Load Control Receivers (LCR) located at a member site. The LCR device is the “switch” at

members' homes and businesses to directly control the load when required. Air conditioners, water heaters, electric heat etc., are remotely turned off by a signal sent to the load control receiver. The load management system provides this capability/functionality to residential, commercial and agricultural loads. LCRs are sometimes bypassed/disconnected (unintentionally or intentionally) when there is maintenance or replacement of an end-use device. When this happens, the end-use device is no longer controlled when the Cooperative sends a load control signal. With the new AMI technology, Dakota Electric will be able to remotely determine when a device is not being controlled. In such cases we will be able to contact the member so that the LCR connection may be restored. Since the member may or may not be aware of actions that bypass or disconnect the LCR, we are proposing to modify language related to Dakota Electric's demand-side management program general rules and policies found in our Rate Book in Section VI, Sheet 16. We propose to replace the word "automatically" with the words "subject to being" in the following sentence:

If any part of the controlled system is tampered with, the member is ~~automatically~~ subject to being removed from the controlled rate for at least one (1) year.

This wording (shown on the attached redline for Section VI, Sheet 16, Revision 5) allows Dakota Electric to work with members to take corrective action, without immediately imposing the penalty of being removed from a controlled rate. Dakota Electric also plans to communicate with contractors working in our area to be sure they understand the importance of keeping LCRs connected to the controlled end-use devices.

Dakota Electric is also taking this opportunity to clarify wording relating to breaking meter seals and reimbursement for service calls.

#### Internal Meter Switch Capabilities

Dakota Electric plans to have internal meter switches on all 120/240 and 120/208 volt single phase service meters. These internal meter switches will allow the Cooperative to disconnect and reconnect electric service through remote electronic switching without the need to physically remove the meter from the meter socket. As we discussed in our AGI Tracker filing (Docket No. E-111/M-17-821), this enhances employee safety by reducing physical risks (e.g. arc flash). While the new automated meters will have remote switching

capabilities, Dakota Electric will continue to send an employee to a premise at the time of disconnection as required by Minnesota Rule 7820.2500 as follows:

**7820.2500 MANNER OF DISCONNECTION.**

Service may be disconnected only in conjunction with a personal visit by a representative of the utility to the address where the service is rendered and an attempt to make personal contact with the customer at the address. If the address is a building containing two or more dwelling units, the representative shall make a personal visit to the door of the customer's dwelling unit within the building. If security provisions in the building preclude free access on the part of the representative, the representative shall attempt to gain access to the building from the caretaker, for the purpose of attempting to make personal contact with the customer. The representative of the utility shall at all times be capable of receiving payment, if nonpayment is the cause of the disconnection of service, or the representative shall be able to certify that the cause of disconnection has been remedied by the customer.

While the remote meter switching capability will not eliminate the need for a personal visit at the time of disconnection, it will likely eliminate the need for a personal visit to reconnect service. Dakota Electric recognizes that this will affect the underlying costs and amount of our presently authorized reconnection fee. At this time, however, we do not have sufficient detail on the future reconnection process to propose a revised reconnection fee where automated metering is in place. Dakota Electric commits to filing a new reconnection fee where automated metering is in place prior to imposing a reconnection fee in such circumstances.

**Conclusion**

Based on the information provided in this filing, Dakota Electric requests Commission approval of the proposed advanced meter opt-out fee and modified language related to load control receiver bypass.

Dated: October 11, 2018

Respectfully Submitted,

*/s/ Douglas R. Larson*

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Douglas R. Larson  
Vice President of Regulatory Services  
Dakota Electric Association



## **Certificate of Service**

I, Cherry Jordan, 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-18-\_\_\_\_**

Dated this 11th day of October 2018

*/s/ Cherry Jordan*

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Cherry Jordan

## ADVANCED METER OPT-OUT (AMO) RIDER

### Applicability

Applicable for residential electric service provided under the Association's metered retail rate schedules for residential members who do not want an advanced, wireless, communicating meter installed at their residence ("Opt-Out Members").

### Rate

Advanced Meter Opt-Out Members are subject to a recurring monthly fee after enrollment, regardless of the quantity of meters per premise. The applicable fees for participating in Advanced Meter Opt-Out will be shown as separate line items on the Member's bill as follows:

Monthly Charge	\$12.00 per month
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The Monthly Charge will be applied following the meter exchange. Where a meter exchange is not required, charges will be applied following affirmative Opt-Out option election or action by the Member as described in the Terms and Conditions.

### Terms and Conditions

1. The Cooperative shall have the right to refuse to provide advanced meter opt-out service in either of the following circumstances:
  - a) If such a service creates a safety hazard to Members or their premises, the public, or the electric utility's personnel or facilities.
  - b) If a Member does not allow the Cooperative's employees or agents access to the meter at the Member's premises.
  - c) If the Member has a history of meter tampering.
2. Opt-Out Provisions:
  - a) Opt-Out Election: A Member must affirmatively elect to opt-out of having electric consumption metered through an advanced meter to obtain service under this AMO Rider. Members shall default to an advanced meter absent such an election. Members who do not provide reasonable access to their meter or affirmatively prevent the installation of an advanced meter shall be deemed to have elected this AMO Rider.
  - b) Frequency of Election: A Member may only enroll in this AMO Rider once per twelve-month period at the same residence.
  - c) Opt-In Election: At any time, Opt-Out Members may opt back into electric service with an advanced meter.
  - d) Local governments and entities such as condominiums and other multi-unit dwellings are not allowed to exercise the Opt-Out option on behalf of individually metered residents.

ADVANCED METER OPT-OUT (AMO) RIDER  
(Continued)

3. Metering Equipment: A non-communicating meter will be used to provide electric service for Members who elect this option.
4. Members enrolled in a load management program or other service requiring an advanced meter will be notified that the Member must discontinue participation in the load management program.
5. Estimated Meter Reading: Opt-Out Members may receive bills based on estimated meter reads if circumstances prevent reading a meter in a given month.
6. Billing: Members will be billed for charges incurred for electric consumption under the applicable metered retail rate schedule, plus the Monthly Charge described in this AMO Rider.

**Dakota Electric Association**  
**Cost Analysis for Proposed Advanced Meter Opt Out Fee**

**Proposed Opt Out Fee**

*Self Contained Meter - One Person, one vehicle*

Task	Item	Job Title	Hourly Rate	Hours	Overhead	Total
<u>Working hours</u>	Labor	Meter Reader	\$ 32.10	0.15	61.30%	\$ 7.77
	Mileage	7.50	miles	\$ 0.545	Rate	\$ 4.09
Subtotal						\$ 11.86

Reduction in Meter Cost

Cost of New Advanced Meter	\$ 110.00	
Cost of Current Meter	43.00	
Reduction in Cost	\$ (67.00)	
Life of Meter in Years	15	
Savings in Depreciation per Year	\$ (4.47)	
Months per year	12	
Savings per Month	\$ (0.37)	Subtotal \$ (0.37)

Hardware & Software Costs for Manual Reads

Itron - Quarterly Hardware Mtnce (3 devices)	# of Units	Quarterly Cost	Annual Cost
Handhelds	\$ 129.92		
Docks	\$ 53.99		
Hardware Maintenance	\$ 183.91	3 \$ 551.73	\$ 2,206.92
Itron - Software Mtnce		\$ 1,283.77	\$ 5,135.08

Total Annual Hardware & Software Costs \$ 7,342.00

Assumed Opt Out Count 500 \$ 14.68

Monthly Cost per Opt Out Subtotal \$ 1.22

Reduction of Current Meter Reading Costs

Total METRD Project 2017	\$ (833,600)	Meter Count 105,000	\$ (7.94)
Monthly Savings			Subtotal \$ (0.66)

Total \$ 12.05

**Use \$ 12.00**

**ASSUMPTIONS**

Meter Reader rate	\$ 32.10
IRS mileage rate	\$ 0.545
Overhead rate per 2014 rate case	61.3%
Miles traveled one way	7.5
Average speed in mph	30
Average speed in mpm	0.50
Minutes to destination	3.75
Minutes to read	5
Total minutes	8.75

## MEMBER SERVICE INFORMATION DEMAND-SIDE MANAGEMENT PROGRAM

Any Dakota Electric Association member allowing Demand-Side Management (DSM) controls on approved interruptible loads will receive an off-peak energy kilowatt-hour and/or demand kilowatt charge for that electricity as listed in the rates.

### General Rules and Policies

1. Dakota Electric Association shall supply additional meters and the DSM receivers at no cost to the member. All other requirements, such as the meter sockets, wiring, and installation shall be the responsibility of the member. The DSM receivers will remain the property of Dakota Electric Association. Only authorized DEA employees shall have the authority to break the seals ~~and for any reason, including~~ repair of the DSM receivers or metering equipment.
2. DSM receivers and submeters shall be mounted adjacent to the existing kilowatt-hour meter. The meter shall be mounted on the outside of the building and shall be accessible to the Association at all times and comply with the Association meter socket requirements. Any alternate locations must be approved by the Association prior to installation.
3. Dakota Electric will make a final inspection after all of the necessary work has been done. At that time, if all equipment is functioning properly, the second meter will be installed, if required, and the controlled rate will apply. All installations must have an electrical inspection affidavit filed with the Minnesota State Board of Electricity and DEA.
4. All trouble calls dealing with the controlled loads shall be made to DEA. DEA will determine whether to send out a DEA service technician or request that the member call a service company on his/her own behalf. If the member's service technician determines that DEA's DSM receiver was malfunctioning and a DEA service technician verifies that, Dakota Electric Association will reimburse the member for ~~costs incurred~~ the service call. If the problem is with the member's wiring or equipment, then the member will be responsible for costs incurred which may include a Load Management Service Charge.
5. All members with DSM-controlled loads shall allow periodic inspections of the controlled loads by Dakota Electric.
6. If any part of the controlled system is tampered with, the member is ~~automatically subject to being~~ removed from the controlled rate for at least one (1) year.
7. Eligibility of participating loads will be guided by Great River Energy program requirements.

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500  Saint Paul, MN 551012198	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Corey	Hintz	chintz@dakotaelectric.com	Dakota Electric Association	4300 220th Street  Farmington, MN 550249583	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W  Farmington, MN 55024	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E  St. Paul, MN 55106	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St  Duluth, MN 558022093	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Ron	Spangler, Jr.	rlspangler@otpc.com	Otter Tail Power Company	215 So. Cascade St. PO Box 496 Fergus Falls, MN 565380496	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List