

**STATE OF SOUTH DAKOTA  
BEFORE THE  
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION**

**In the Matter of Otter Tail Power  
Company’s Petition for Approval  
of Tariff Revisions to Facilitate  
Implementation of our New Advanced  
Grid Infrastructure (AGI) Projects**

**Docket No. EL23-  
PETITION**

**I. INTRODUCTION**

Otter Tail Power Company (Otter Tail or Company) submits this Petition to the South Dakota Public Utilities Commission as notice and request for approval of changes to tariffs and a variance to Commission Rules necessary for the implementation and operation of the new Advanced Grid Infrastructure (AGI) projects. The Advanced Metering Infrastructure (AMI), Outage Management System (OMS) and Demand Response (DR) System projects were introduced to the Commission in our 2022 Phase-In Rider filing<sup>1</sup> and are part of Otter Tail’s Innovation 2030 (I2030) initiative – a portfolio of projects focused on upgrading the Company’s communications and technology assets to improve system data communications, allowing better identification of issues and improved system performance.

These projects will allow us to meet objectives described in our I2030 initiative, while continuing to provide cost-effective, reliable service.

Our implementation of AMI, OMS and DR requires approval of tariff changes including a variance to Commission Rules.

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<sup>1</sup> *In the Matter of Otter Tail Power Company’s Petition for Approval of Phase-In Rider Rate in South Dakota*, Docket No. EL22-013, Petition for Annual Update to Phase-In Rider, pp 18-36, June 1, 2022.

## II. GENERAL FILING INFORMATION

**A. Name, address, and telephone number of the utility making the filing**

Otter Tail Power Company  
215 South Cascade Street  
P.O. Box 496  
Fergus Falls, MN 56538-0496  
Phone (218) 739-8200

**B. Name, address, and telephone number of the attorney for Otter Tail Power Company**

Cary R. Stephenson  
Associate General Counsel  
Otter Tail Power Company  
215 South Cascade Street  
P.O. Box 496  
Fergus Falls, MN 56538-0496  
Phone (218) 739-8956

**C. Title of utility employee responsible for filing**

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| Matthew J. Olsen<br>Manager, Reg. Strategy & Compliance<br>Otter Tail Power Company<br>215 South Cascade Street<br>P.O. Box 496<br>Fergus Falls, MN 56538-0496<br>(218) 739-8657<br>molsen@otpco.com | Ben Christenson<br>Supervisor, EM&C<br>Otter Tail Power Company<br>215 South Cascade Street<br>P.O. Box 496<br>Fergus Falls, MN 56538-0496<br>(218) 739-8868<br>bchristenson@otpco.com |
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**D. The Company also requests that the following contact(s) be placed on the Commission's official service list for this matter**

Regulatory Filing Coordinator  
Otter Tail Power Company  
215 South Cascade Street  
P.O. Box 496  
Fergus Falls, MN 56538-0496  
regulatory\_filing\_coordinators@otpco.com

**E. The date of filing and the date changes will take effect**

The date of this filing is September 8, 2023. Otter Tail requests the proposed effective date of the changes described in this filing to be January 1, 2024, consistent with our planned January 2024 roll-out.

## **F. Statutes controlling schedule for processing the filing**

Pursuant to ARSD 20:10:13:15, Otter Tail provides this filing to the Commission as notice of changes to the provisions in our tariff schedules. This filing is accompanied by the report to Commission of tariff schedule changes on notice required by ARSD 20:10:13:26 at Attachment 1.

Attachment 2 is the customer bill message that will be included on customer bills following submittal of this filing as required by ARSD 20:10:13:17 and ARSD 20:10:13:19. Additionally, a proposed customer implementation notice (bill insert) is included as Attachment 3. This bill insert will be included with customer bills the month these tariff changes become effective.

## **III. DESCRIPTION OF AMI METER FUNCTIONALITY**

Deployment of AMI technology will be a significant milestone for our ability to serve customers. While the core function of meters remains, the ability to capture detailed usage data, to compile this data without a physical meter read, and to make it available to customers will enhance the customer experience and improve quality of service.

Unlike legacy analog meters, AMI will capture energy usage data for every 15-minute interval. Customers will be able to see and track how their daily lives or operations affect usage patterns. The AMI-enabled meters will utilize communication capabilities to bring this interval data into a central software system, from which we can perform analysis and billing. As with legacy meters, the AMI meters will be subject to testing to confirm accurate metering of energy consumption.

Along with these operational changes, some changes to customer bill presentment and tariff language are necessary to accommodate the technology and optimize the customer experience of AMI.

## **IV. BILLING CONTENT VARIANCE**

### **A. Background**

Today, our Time of Day (TOD) and Time of Use (TOU) customer bills (or “electric service statement”) are calculated monthly using an “incremental” approach – calculating usage for each billing period by subtracting the previous meter reading from the current meter reading for each price period. We program the price period into each TOD and TOU meter on our system resulting in three registers to record kilowatt hour (kWh) consumption. Similarly, we calculate bills with penalty pricing using an “incremental” approach for each non-penalty and penalty period. When a penalty period is initiated, a relay within the meter triggers

the penalty register to record usage or demand, if any. This is a common legacy energy billing practice for customers that relies on very basic meter functionality registering usage in “increments” through use of analog dials or digital measurement of each kWh used. These readings occur approximately once each month and result in customers being billed for electrical energy consumed, in kWh, over the course of that billing period for each price period or non-penalty and penalty period. ARSD 20:10:17:03 (1) requires, among other things, that utilities provide customers with the meter reading and the date the meter was read on their bills.

We are programming the Meter Data Management System (MDMS) to calculate energy usage for customer bills based on energy consumption intervals, generally 15 minutes, recorded by the AMI meters. This will increase accuracy as we transition our TOD and TOU customers, and customers with penalty pricing, to AMI meters. It also prepares us for the potential implementation of residential time-of-use and other possible advanced rates for customers enabled by AMI. The Company will no longer program meters with price periods or rely on additional equipment to trigger a penalty period. We will rely on the MDMS to calculate the energy consumption in the proper periods. This means bills to customers will rely on the sum of the consumption intervals over the billing period and will no longer be based on the subtractive method currently used, where a meter reading registered at the end of a billing period is compared to one at the beginning. Because the register readings at the beginning and end of a period will no longer be the basis for the bill calculation for TOD, TOU, and rates with penalty pricing, Otter Tail seeks approval to no longer print the present Meter Reading on customer bills once we install an AMI meter, as further described below.

Below is our current version of the account details in our electric service statement and a modified sample of the account details for our proposed interval electric service statement displaying the billing period and dates rather than the meter reads.

Current:

| Account Detail (21824481) |          |                       |       | 02.Small Dual Fuel Sum |          |                      |       |
|---------------------------|----------|-----------------------|-------|------------------------|----------|----------------------|-------|
| 01.Residential Serv Sum   |          |                       |       | 02.Small Dual Fuel Sum |          |                      |       |
| P                         | 08/14/19 | Reading               | 11824 | P                      | 08/14/19 | Reading              | 10349 |
|                           | 07/16/19 | Reading               | 11362 |                        | 07/16/19 | Reading              | 9181  |
|                           |          | Kilowatt Hours Used   | 462   |                        |          | Kilowatt Hours Used  | 1168  |
|                           |          | Customer Charge       |       |                        |          | Customer Charge      |       |
|                           |          | (10.00 x 12/365) x 29 | 9.53  |                        |          | (10.00 x 12/365) x   | 9.53  |
|                           |          | 462 kWh at .06252     | 28.88 |                        |          | 29 Facilities Charge |       |
|                           |          | Energy Adjustment     |       |                        |          | (9.50 x 12/365) x 29 | 9.06  |
|                           |          | 239 kWh at .02348     | 5.61  |                        |          | 1168 kWh at .01024   | 11.96 |
|                           |          | 223 kWh at .02457     | 5.48  |                        |          | Energy Adjustment    |       |
|                           |          |                       |       |                        |          | 604 kWh at .02348    | 14.19 |
|                           |          |                       |       |                        |          | 564 kWh at .02457    | 13.85 |

Modified Sample (Interval):

| Account Detail (21824481) |  |                       |       | 02.Small Dual Fuel Sum |  |                      |       |
|---------------------------|--|-----------------------|-------|------------------------|--|----------------------|-------|
| 01.Residential Serv Sum   |  |                       |       | 02.Small Dual Fuel Sum |  |                      |       |
| P                         | Billing Period:<br>07/16/19 - 08/14/19 |                       |       | P                      | Billing Period:<br>07/16/19 - 08/14/19 |                      |       |
|                           |  | Kilowatt Hours Used   | 462   |                        |  | Kilowatt Hours Used  | 1168  |
|                           |  | Customer Charge       |       |                        |  | Customer Charge      |       |
|                           |  | (10.00 x 12/365) x 29 | 9.53  |                        |  | (10.00 x 12/365) x   | 9.53  |
|                           |  | 462 kWh at .06252     | 28.88 |                        |  | 29 Facilities Charge |       |
|                           |  | Energy Adjustment     |       |                        |  | (9.50 x 12/365) x 29 | 9.06  |
|                           |  | 239 kWh at .02348     | 5.61  |                        |  | 1168 kWh at .01024   | 11.96 |
|                           |  | 223 kWh at .02457     | 5.48  |                        |  | Energy Adjustment    |       |
|                           |  |                       |       |                        |  | 604 kWh at .02348    | 14.19 |
|                           |  |                       |       |                        |  | 564 kWh at .02457    | 13.85 |

On August 18, 2023, Otter Tail submitted a Petition to the Commission to approve our request of an updated bill design and updates to our Section 1.05 tariff. This matter is in Docket No. EL23-021. As part of our bill redesign, we are adding a new billing terms section accessible by a QR Code or URL. Otter Tail proposes to include in these billing terms the frequency on which the customer’s interval bills are based. This new billing term is included here.

*Interval Billing: AMI meters will capture usage in 15-minute intervals and your bill is based on a computation of 15-minute intervals in the billing period.*

**B. Variance Request**

Through this Petition, we seek a variance to ARSD 20:10:17:03, which governs billing content as follows (**emphases added**):

20:10:17:03. Information on Bills.

***Bills provided to customers for electric and gas service shall include the following information:***

- (1) The meter reading and the date the meter was read;***
- (2) The number and kinds of units metered;***
- (3) Identification of the applicable rate schedule;***

- (4) *The amount of the bill;*
- (5) *The date on which the bill will become delinquent;*
- (6) *The late fee, if applicable;*
- (7) *The date on which payment must be made in order to avoid the late fee, if applicable;*
- (8) *If an estimated bill, clear and conspicuous language identifying the bill as an estimated bill;*
- (9) *Tax, fuel, or power adjustment clause separately itemized, if applicable; and*
- (10) *A statement that customer information is available upon request and where it can be obtained.*

*The bill sent to the customer shall include only information related to the customer's account and advertising.*

As outlined above, the present and preceding meter reading will no longer be used to calculate an AMI customers' electric service statement for TOD, TOU, or rates with penalty pricing. As such, Otter Tail seeks a variance from this Rule to allow the Company to remove the meters' previous and current meter register readings from the customer bills for all rates, once a customer has an AMI meter. This change will create consistent bill presentment across all rates and reduce customer confusion.

## **V. PROPOSED CHANGES TO TARIFF SHEETS**

We provide a clean and redline version of the following tariff sheets detailing our proposed changes as Attachment 4 to this filing.

### **General Rules and Regulations**

Section 1.02 – Application for Service

Section 1.03 – Deposits, Guarantees and Credit Policy

Section 1.05 – Contract Agreements and Sample Forms

Section 4.01 – Meter and Service Installation

Section 4.02 – Meter Readings

Section 4.03 – Estimated Billing

Section 4.07 – Monthly Billing Period and Prorated Bills

Section 8.01 – Glossary

The changes to these tariff sheets are administrative in nature. In addition to the redline versions attached, additional explanations are included here.

**A. 1.02 Application for Service**

In Section 1.02, Application for Service, language has been added to clarify our use of customer’s email address, phone number, or text as allowed by Federal Law for customer notifications.<sup>2</sup>

**B. 1.03 Deposits, Guarantees and Credit Policy**

The term Meter Reading has been capitalized on page 1 as it has been added as a new term in the Section 8.01 Glossary.

**C. 1.05 Contract Agreements and Sample Forms**

In Section 1.05, Contract Agreements and Sample Forms, the Electric Service Statement sample form on Sheet No. 11 has been updated with a call-out box to show the difference between our current Electric Service Statement and an Interval Electric Service Statement (Interval Bill). Customers with a new AMI meter will receive the Interval Bill displaying the billing period rather than the meter reading.

Our current Sample Electric Service Statement within our Rate Book was not updated at the time of implementation of our Phase-In Rider on September 1, 2019 (Docket No. EL19-025).<sup>3</sup> The Phase-In Recovery Rider was included as its own line item on our customer’s bills, however our sample Electric Service Statement in our tariff did not reflect this. We’ve included the Phase-In Recovery Rider as a line item on this update Electric Service Statement sample.

At Sheet No. 19 and 20 is an updated Even Monthly Payment (EMP) Brochure and at Sheet No. 21 and 22 is an updated Ready Check Brochure. These brochures have been revised with a new look including a clear concise message that aligns with the suite of upgrades we are introducing.

**D. 4.01 Meter and Service Installations**

In Section 4.01 Meter and Service Installations, terminology has been updated to describe specifically the Meter Socket and not the Meter on Sheet No. 2.

Under the Profiles and Ratings section of Meter Socket Requirements on Sheet No. 3 (previously Sheet No. 2) we specifically state that the Customer must furnish a meter socket that is equipped with lever-style bypass. This is to reflect

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<sup>2</sup> See *Declaratory Ruling*, CG Docket No. 02-278, issued by the Federal Communications Commission adopted July 8, 2016, and released August 4, 2016.

<sup>3</sup> In the Matter of Otter Tail Power Company’s Petition for Approval of Phase-In Rider Rate, Docket No. EL19-025.

industry adoption of equipment functionality to allow minimal or no impact to a customer's power in the event of a meter exchange.

**E. 4.02 Meter Readings**

In Section 4.02 Meter Readings, language has been updated to clarify that the Company will utilize the AMI to collect Customer energy consumption used for determining charges to Customers, unless authorized by statute, rule, or other appropriate authority.

The term Meter Reading has been capitalized as it has been added as a new term in our Section 8.01 Glossary.

**F. 4.03 Estimated Billing**

In Section 4.03 Estimated Billing, references have been added to incorporate utilization of our AMI into this tariff, for collection of Customer's energy consumption.

The term Meter Reading has been capitalized as it has been added as a new term in our Section 8.01 Glossary.

**G. 4.07 Monthly Billing Period and Prorated Bills**

The term Meter Reading has been capitalized as it has been added as a new term in our Section 8.01 Glossary.

**H. 8.01 Glossary**

In the Section 8.01 Glossary we identified the need to add two new terms and include a few edits.

- a. Advanced Metering Infrastructure. The term Advanced Metering Infrastructure was added to define this industry movement.
- b. Customer Charge. The term Meter Reading has been capitalized.
- c. Kilowatt-Hour (kWh) – The definition has been updated to incorporate utilization of our AMI for collection of energy consumption.
- d. Meter. The measurements have been updated in the description for Meter.
- e. Meter Reading. The term Meter Reading was included to give added clarity as it relates to the reading of our current meters and the new AMI meters.
- f. At sheet 3 of our Glossary the inadvertent borders have been removed for consistency.



- g. The additions to this Glossary made it necessary to add an additional page to this tariff and to relocate terms. The entire tariff is included with this filing to capture those changes and update the headers appropriately.

All terms included in this Glossary are capitalized throughout our Rate Book. A review of our Rate Book was done to locate and capitalize these new terms, and tariffs containing the terms have been included with this filing.

## **VI. CUSTOMER COMMUNICATION**

In our communications, we strive to provide helpful and timely information to customers, in the format and channel that is most useful to meet their needs. It's been our experience that early communications tend to be lost or forgotten by the time action is needed. We'll continue our focus on meeting customers where they're at and ensuring customers are well informed for the technology and data enhancements of AMI.

Our communication plan ensures customers are informed of the changes described in this filing through appropriate and focused communication tactics. These communications will incorporate any further actions required by the Commission. Specific tactics will include, at minimum:

- Webpage content and information
- Call guides and training for customer-facing employees
- Customer notices, like bill inserts and newsletters
- On-bill messages
- Informational FAQ sheets
- Postcards or letters
- Leave-behind door hangers
- Business cards
- Vehicle and personnel badging

We've included with this filing as Attachment 5, our current and updated version of the Customer Information Brochure. Reference numbers have been included for ease in comparing similar sections. New sections have been identified on the updated version. In addition to updating the sample electric service statement and other sections of the brochure affected by advanced grid infrastructure technology upgrades, we have taken this opportunity to make changes to the narrative, rearranged the content, and updated

headings, resulting in an easier-to-read and more understandable brochure. This updated brochure includes all the sections previously included in our brochure, in addition to three new sections (payment assistance, scam awareness, and an image displaying a customer's bill with the new advanced meter).

Notice in the form of a bill message will be included on customer's September bills pursuant to ARSD 20:10:13:19. Upon receiving Commission approval, in accordance with ARSD 20:10:13:17, we will deliver to each customer a notice, in the form of a bill insert, informing them of the approval of the amended Rate Schedules.

## **VII. CUSTOMER OPT-OUT OF AMI METERS WOULD REDUCE ANTICIPATED EFFICIENCY GAINS**

Otter Tail is not seeking to allow customers to opt out of AMI meters. The efficiencies gained by the deployment of AMI meters would be reduced by allowing customers to choose to have non-communicating meters. That would add significant cost to the company and likely other customers. A full description of the cost implications for allowing customers to opt out is described in Attachment 6 for the Commission's information.

## **VIII. CONCLUSION**

Otter Tail respectfully requests that the Commission issue an Order approving the following with an effective date of January 1, 2024.

1. Tariff changes requested in this Petition.
2. Disallowance of an opt-out option.
3. Variance to Commission Rules as described for all rates to create consistent bill presentment for customers with AMI meters.

Date: September 8, 2023

Respectfully submitted,

**OTTER TAIL POWER COMPANY**

/s/ MATTHEW J. OLSEN

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