

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

**In the Matter of Otter Tail Power  
Company's Petition for Approval  
of Rate Schedule, Section 13.09,  
Phase-In Rider**

**Docket No. EL24-  
  
PETITION**

**I. PETITION SUMMARY**

- A. This filing for Otter Tail Power Company's (Otter Tail or Company) Phase-In Rate Plan Rider (Rider) includes annual updated actual and forecasted costs and collections associated with the following:
1. Astoria Station Natural Gas Plant Project (Astoria Station).
  2. Merricourt Wind Project (Merricourt Project).
  3. The Ashtabula III Wind Farm Purchase.
  4. Wind Energy Facility Equipment Upgrades (Upgrade Project) to repower the following four wind facilities:
    - a. Langdon,
    - b. Ashtabula I,
    - c. Luverne, and
    - d. Ashtabula III.
  5. Forecasted net benefits associated with additional load in the Lake Norden area.
  6. Net savings associated with Otter Tail's retirement of its Hoot Lake Plant (HLP).
  7. Advanced Metering Infrastructure (AMI).
  8. An Outage Management System (OMS).
  9. Demand Response (DR) system replacement.
- B. Otter Tail continues to propose two different rate structures to provide an accurate cost for the percent of bill projects and the Advanced Grid Infrastructure (AGI) per meter rate. The petition is broken into two sections, which describe how the different types of rates are established.
- C. The rate of return (ROR) included in this filing is based on Otter Tail's actual capital structure as of December 31 of the preceding year using the return on equity (ROE) approved by the Commission in the most recent general rate case in Docket No. EL18-021 (Rate Case).

- D. The projected revenue requirement for the recovery period of September 1, 2024, through August 31, 2025, is \$4,531,109.
  - a. As shown in Attachment 1, \$3,693,011 is the proposed revenue to be collected by the percent of bill portion of the Rider.
  - b. As shown in Attachment 16, \$838,098 is the proposed revenue to be collected by the per meter charge portion of the Rider.
- E. A residential customer with one meter and using 1,000 kWh per month will experience a bill increase of \$7.98 per month. A Large General Service (LGS) customer with one meter and using 486 kW and 222,350 kWh per month will see a bill increase of 1,018.25 per month.

## II. INTRODUCTION

Otter Tail Power Company hereby Petitions the South Dakota Public Utilities Commission for approval of its fifth annual update to its Phase-In Rate Plan Rider. This filing is made in compliance with the South Dakota Public Utilities Commission's (Commission) Order in Otter Tail's 2019 Rider Filing (2019 Filing) and under the Commission's authority granted in South Dakota Codified Laws 49-34A-73 through 49-34A-78 under Otter Tail's Rider, Electric Rate Schedule Section 13.09.<sup>1</sup> This Rider is described in the Settlement Stipulation (Settlement) and approved by the Commission's Order (Order) in Otter Tail's last Rate Case.<sup>2</sup> This filing includes the components described in the Settlement.

## III. GENERAL FILING INFORMATION

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

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Phone (218) 739-8200

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<sup>1</sup> Commission's August 26, 2019, Order in the Matter of Otter Tail Power Company's Petition for Approval of Rate Schedule, Section 13.09, Phase-In Rider in Docket No. EL19-025.

<sup>2</sup> Commission's March 6, 2019, Order Granting Joint Motion for Approval of Settlement Stipulation; Order Approving Settlement Stipulation in the Matter of the Application of Otter Tail Power Company for Authority to increase its Electric Rates in Docket No. EL18-021.

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

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

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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:**

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

The date of this filing is June 3, 2024. Otter Tail proposes the update to the Rider factor to go into effect for usage on and after September 1, 2024.

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

Otter Tail files this Rider for Commission approval under the authority of South Dakota Codified Laws 49-34A-73 through 49-34A-78. The Administrative Rules of South Dakota (ARSD) SD Part 20:10:13:15 requires a 30-day notice to the Commission of a proposed change in a utility's tariff schedule. Attachment 26 of this Petition is the proposed customer notice required by ARSD 20:10:13:19, which will be sent to customers with the first bill rendered once the rate is implemented. Otter Tail includes Attachment 27 to comply with ARSD 20:10:13:26, which requires a Utility to report all rate schedule changes and customer impacts. Otter Tail will provide notice of this proceeding to its customers pursuant to South Dakota Codified Laws Chapter 49-34A-12 in June 2024 billing statements.

**IV. PHASE-IN COST RECOVERY BACKGROUND**

On April 20, 2018, Otter Tail filed a Rate Case Application with the Commission requesting approval to increase electric service rates for customers in its South Dakota service territory.<sup>3</sup> Otter Tail's application included a proposed step increase, to be effective January 1, 2020, to facilitate recovery of the Merricourt and Astoria Projects. Commission Staff and Otter Tail (together the Parties) filed a Joint Settlement addressing the recovery of the Merricourt and Astoria Projects. The Stipulation was later approved by the Final Decision and Order on May 30, 2019.<sup>4</sup>

Section 3, Part 2 of the Settlement contemplates the Merricourt and Astoria Projects as part of a Phase-In Rate Plan for recovery of capital projects as well as

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<sup>3</sup> In the Matter of the Application of Otter Tail Power Company for Authority to increase its Electric Rates in Docket No. EL18-021.

<sup>4</sup> February 21, 2019, Staff Memorandum Supporting Settlement Stipulation, beginning on page 14.

additional components. The Phase-In description of the Settlement Agreement reads as follows:

*The Parties agree that OTP may file for the establishment of a phase-in rate plan under SDCL 49-34A-73 through 78, seeking recovery of Merricourt and Astoria construction work in progress and continuing once the projects are in-service and until the time the Company files its next rate case. This approach provides OTP the opportunity to recover costs associated with the two capital projects while avoiding multiple rate cases...*

*The phase-in rate plan will also include an adjustment reflecting the net benefit of the additional load in the Lake Norden area, including corresponding updates to jurisdictional allocation factors resulting from the increased load to South Dakota...*

*The phase-in plan will also include an adjustment to reflect the net savings associated with the Hoot Lake plant retirement, which is scheduled for retirement in May of 2021.*

*The Parties agree OTP will submit an annual Phase-In Rider filing on a going forward basis to be received by the PUC by June 1 of each year. Based on this annual report, OTP will adjust the Phase-In rate each year based on actual costs and collections.*

In compliance with the above referenced statutes, the approved Settlement, and other previous Phase-In Commission Orders, this Petition provides updates on the Merricourt and Astoria projects and the Ashtabula III purchase, as well as information associated with the Lake Norden area load growth, the retirement of Hoot Lake Plant, Advanced Meter Infrastructure, Outage Management System, a Demand Response system, and Otter Tail's calculations for its Phase-In Rider rate. Otter Tail provides an updated tariff rate schedule, Section 13.09, as Attachment 25 to this filing. The updated tariff contains adjusted rates used for Phase-In cost recovery. The percent of bill rate is calculated in Attachments 1 through 14, and the per meter rates are calculated in Attachments 15 through 24. The projects being recovered in the Phase-In Rider under each of these charges are discussed in separate sections of this filing.

## V. PERCENT OF BILL PROJECTS

### A. Astoria Station – Attachment 4

Otter Tail owns a 245 MW natural gas-fired, simple cycle combustion turbine near Astoria, South Dakota. Otter Tail’s Energy Conversion Facility Permit Application for Astoria Station (Permit Application) provides a complete description of the project and analysis to determine the appropriateness of the project.<sup>5</sup>

Astoria Station was deemed “in-service” on an accounting basis as of February 2021. The financial tracker attachments included in this filing reflect a February 2021 in-service date for the main Astoria Station project. Formal performance testing was conducted the week of April 5, 2021. Astoria Station was declared commercially operational and first offered into the Midcontinent Independent System Operator (MISO) market in late April 2021. Astoria has been dispatched on a regular basis since the commercial operation date. The project was completed under budget and one month before Astoria Station was needed as a generation resource. As shown in Attachment 4, the total cost at completion was \$152.2 million (OTP Total)/\$15.8 million (OTP SD).

The Astoria Station Project includes transmission network upgrades required to accommodate the interconnection of these facilities into the integrated transmission system. Transmission network upgrades of approximately \$8.7 million (OTP Total) were included in the total cost estimate of the project. Per prior Federal Energy Regulatory Commission (FERC) Orders, transmission owners may elect to self-fund the transmission network upgrades.<sup>6,7</sup> The transmission owner will pay for and build the necessary transmission network upgrades that are needed by the interconnection customer(s). The interconnection customer(s) will then pay the transmission owner for the cost of the network upgrade through facility service agreement (FSA) revenues over a 20-year term.

In the case of the transmission upgrades necessary to interconnect the Astoria Station Project, Otter Tail is the owner of those transmission facilities. In addition,

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<sup>5</sup> In the Matter of the Application of Otter Tail Power Company for an Energy Conversion Facility Permit for the Construction of a Combustion Turbine Generator and Associated Infrastructure Including a Natural Gas Pipeline and Electric Transmission line near Astoria, South Dakota in Docket No. EL17-042.

<sup>6</sup> See FERC Order dated August 31, 2018, in FERC Docket No. ER18-2513 and FERC Orders on Remand dated August 31, 2018, under FERC Docket Nos. EL15-36, EL15-68, ER16-696, ER18-1964 and EL18-1965. See Remand Order at PP 28-88; see also *Ameren Srvs. Co. v. FERC*, 880 F.3d 571, 581 (D.C. Cir. 2018). FERC further denied requests for rehearing of the Commission’s August 31, 2018, order on remand in a December 20, 2019, order under Docket No. ER18-2513, Midcontinent Independent System Operator, Inc., 164 FERC ¶ 61,158 (2018).

<sup>7</sup> See FERC Order dated December 20, 2019, under FERC Docket No. ER18-2513. (169 FERC ¶ 61,233).

MISO determined that the costs of those transmission upgrades benefitted two interconnection customers; therefore, the costs are being shared between Astoria Station and the Tatanka Ridge Wind, LLC project. MISO determined Astoria Station is responsible for 65.48 percent of the interconnection costs, while Tatanka Ridge Wind, LLC is responsible for 34.52 percent of the interconnection costs. As Otter Tail owns the transmission facilities and is the owner of Astoria Station, the network upgrades are included as part of the overall capital spend of the project along with the associated FSA revenues received and paid for from Tatanka Ridge Wind, LLC. Attachment 4, Line 23 identifies forecasted Net FSA Revenues for the Astoria Station interconnection of approximately \$304,000 (OTP Total) / \$30,900 (OTP SD) to be paid to Otter Tail during the September 2024 through August 2025 recovery period. This revenue stream represents the FSA revenues to be received from Tatanka Ridge Wind, LLC to pay for their share of the interconnection upgrades. No revenue stream exists related to Otter Tail's ownership of both Astoria and the Transmission facilities under the FSA.

Otter Tail entered into a Long-Term Service Agreement (LTSA) with Mitsubishi, the combustion turbine supplier. The arrangement of an LTSA is one where the manufacturer maintains a parts pool for its fleet of combustion turbines and takes on the risk of the repair and/or replacement of the combustion components. The owner makes prepayments to the manufacturer for major maintenance based on the hours and/or starts the unit is operated up until the major maintenance is complete. There are many benefits to an LTSA, which include: predictable major maintenance costs paid over a period of time, predictable planned outage lengths, long-term parts warranties, coverage for damage caused by failed parts, and remote monitoring of the combustion turbine by the manufacturer. The annual LTSA fee is estimated to be \$2.0 million (OTP Total) / \$0.20 million (OTP SD) during a typical year Astoria Station is in service. Attachment 4, Line No. 11 includes approximately 92 percent of the LTSA agreement as capital costs, as estimated by Mitsubishi. The remaining 8 percent is included as part of operating costs for Astoria Station on Attachment 4, Line No. 22. The capital portion of the LTSA Prepayments is included in rate base until major maintenance is completed. At that point, the amount of accumulated LTSA Prepayments that have been utilized during major maintenance will be included in Plant Balance and subject to depreciation.

## **B. Merricourt Project – Attachment 5**

In 2020, Otter Tail completed the construction of the Merricourt Project located near the town of Merricourt, North Dakota, approximately 15 miles south of Edgeley in McIntosh and Dickey Counties. The Merricourt Facility consists of 75 V110-2.0 MW Vestas wind turbine generators with an aggregate nameplate capacity of 150 MW. It includes real property interests, tower foundations, operational equipment, electric collection circuit lines, a collector system with an on-site collector substation, and additional infrastructure such as communications systems, meteorological towers, operations and maintenance building, monitoring, safety, lighting, and measuring systems.

Commissioning of turbines began in October of 2020, with all 75 units fully in service by December 19, 2020. The Merricourt Facility's zero fuel cost energy generation contributes to a reduction in the cost of energy paid through the Energy Adjustment Rider in tariff rate schedule, 13.01.

## **C. Ashtabula III Wind Farm- Attachment 6**

Otter Tail entered into a Power Purchase Agreement (PPA) with Ashtabula III, LLC in 2013, which included an option for Otter Tail to purchase the wind facility assets in 2023. If Otter Tail did not exercise this option, the PPA would continue through 2037. Consistent with the option to purchase in the PPA, in July 2021, Otter Tail entered into a Purchase and Sale Agreement (PSA), subject to regulatory approvals, for the purchase of the wind facility assets. The acquisition was completed on January 3, 2023.<sup>8</sup> The PSA for Ashtabula III facility assets includes 39 wind generators with an aggregate nameplate of 62.4 MW that were placed into service in 2010, real estate interests, substation assets, and licenses and permits necessary to own and operate the wind facility.

## **D. Wind Energy Center Facility Upgrade Projects– Attachments 7-10**

Otter Tail has four facilities that qualify for Production Tax Credits (PTCs) through the Inflation Reduction Act (IRA). Otter Tail plans to upgrade the Langdon, Luverne, Ashtabula I, and Ashtabula III Wind Energy Facilities in 2024 and 2025. The Upgrade Projects consist of removing and replacing the existing General Electric (GE) blades, hub, and gearbox with upgraded turbine technology

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<sup>8</sup> The Commission issued an order on March 30, 2022, approving Otter Tail's application for a certificate of public convenience and necessity to acquire, own and operate Ashtabula III in Case No. PU 22-27. The Minnesota Public Utilities Commission approved Otter Tail's petition to purchase the assets of the Ashtabula III wind facility on October 6, 2022. *In the Matter of the Petition of Otter Tail Power Company for Approval of a Transfer of Property*, Docket No. E017/PA-21-793.



and increased blade rotor diameters. The existing 80-meter structural towers and existing nacelles will be unchanged. Otter Tail plans to use the existing turbine foundations (with reinforcement, if needed), collection and communication systems, and permanent access roads. Installation of the upgraded equipment is expected to increase energy generation at the facilities by more than 20 percent annually, contributing to a reduction in the cost of energy paid through the Energy Adjustment Rider in tariff rate schedule 13.01. Total capital costs for the projects are estimated to be \$230 million (OTP Total) / \$22.8 million (OTP SD). Otter Tail expects that these projects will generate \$23.4 million<sup>9</sup> (OTP Total) / \$2.3 million (OTP SD) in PTCs annually. The Commission approved the original projects for recovery in Docket No. EL08-030 (Langdon), Docket No. EL08-030 (Ashtabula I), Docket No. EL10-011 (Luverne), and Docket No. EL22-013 (Ashtabula III).

**E. Lake Norden Area Load Growth Credit – Attachments 11a - 11d**

As contemplated in the Rate Case and in Docket No. EL16-020, Otter Tail anticipated additional revenues associated with load growth in its South Dakota Lake Norden area service territory. The Settlement directed that Otter Tail reflect future benefits associated with the additional post-test year load in the Lake Norden, South Dakota area in the Rider. Otter Tail's Rate Case utilized a 2017 Test Year and included costs and revenues associated with the 2017 Test Year. Otter Tail has adjusted the methodology used in its 2019 filing for calculating the Lake Norden Area load growth credit in this annual update. The proposed changes are described below in Section G. This Rider credit due to Lake Norden Area load growth includes the impact of the new load revenues as well as the impact on costs associated with changes in jurisdictional allocation factors for each recovery period. The impacts of the Lake Norden Area load growth in comparison to the 2017 Test Year are provided in Attachment 11a. The revenue requirement credit to customers due to the Lake Norden Area load growth compared to the 2017 Test Year is spread evenly over the months of each of the respective recovery periods included in the Rider and shown in Attachment 3, Line No. 16.

The jurisdictional allocation factors for the 2017 Test Year were included in Otter Tail's initial filing in the Rate Case.<sup>10</sup> Otter Tail includes Attachment 11b, which provides the 2017 Test Year baseline kWh and the Lake Norden Area additional kWh. Otter Tail includes Attachment 11c, which provides the summary of the D and E allocation factors from the 2017 Test Year jurisdictional cost of

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<sup>9</sup> 655,000 MWh x \$27.50/MWh PTC rate + 177,000 MWh x \$30.50/MWh PTC rate = \$23,411,000.

<sup>10</sup> Rate Case Initial Filing, Volume 4A, Section 1 2017 Test Year Workpapers, JCOSS, Page 15-1.

service study (JCOSS) [Columns C & D] compared to the inclusion of the Lake Norden Area load growth in the 2017 Test Year allocation factors for the various recovery periods [Columns E:P]. The E jurisdictional allocation factor updates provided in Attachment 11c for the various recovery periods result from the actual and forecasted Lake Norden Area load growth.<sup>11</sup> Otter Tail applies the historical relationship between the demand allocation factors and the E2 allocation factor to the incremental kWh from the load growth to determine the estimated increase in the demand allocation factors. These updates to South Dakota jurisdictional allocation factors result in additional JCOSS allocations to South Dakota, which is more than offset by the additional revenues associated with the load growth.

Otter Tail provides Attachment 11d that includes a revenue summary of the Lake Norden Area load growth for the 2017 Test Year revenues compared to the respective recovery periods. The 2017 Test Year baseline sales and sales forecast for the Lake Norden Area are provided in Attachment 11b.

The Lake Norden Area load growth changes from the 2017 Test Year baseline for 2023 are provided in Attachment 11a, Columns C & D and result in a \$240,642 [Column D, Line No. 21] credit to the Rider. This credit is spread evenly by month over the 2023 calendar year.

The Lake Norden Area load growth changes from the 2017 Test Year baseline for 2024 (actuals through April 2024) are provided in Attachment 11a, Columns E & F and result in a \$321,610 [Column F, Line No. 21] credit to the Rider. This credit is spread evenly by month over the 2023 calendar year.

The forecasted Lake Norden Area load growth changes from the 2017 Test Year baseline for 2025 are provided in Attachment 11a, Columns G & H and result in a \$377,525 [Column H, Line No. 21] credit to the Rider. This credit is spread evenly by month over the 2025 calendar year.

Detailed in Attachment 11a, the Lake Norden Area load growth has resulted in a cumulative revenue requirement credit, including forecasted amounts through August 2025, of \$1,902,013 (Attachment 11a, Line No. 21). Otter Tail will continue to update the actual revenues as they are available in future updates.

## **F. Hoot Lake Plant Adjustment – Attachment 12**

The Settlement requires Otter Tail to discuss the retirement of Hoot Lake Plant (HLP) and include the net savings associated with Otter Tail's retirement of this facility (HLP Adjustment) within the Rider. HLP ceased operations on May

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<sup>11</sup> The change provided in Attachment 11c represent the load growth provided in Attachment 11b plus a line loss factor estimate.

27, 2021. Decommissioning of equipment and abatement of hazardous materials was substantially complete in 2021. Demolition of structures and foundations was completed in 2022. Final site grading commenced in May 2023 and was completed in July 2023.

The 2017 Test Year included components of HLP that are representative of the way that the plant operated until it ceased operations in May 2021. Since June 2021, Otter Tail has included an estimated monthly credit in the Rider that reflects the HLP Adjustment. In this filing, as noted in Section G below, Otter Tail provides a credit for all 2017 Test Year items related to HLP that are no longer on Otter Tail's books but not for the Ash Landfill that remains on Otter Tail's books and continues to depreciate. Otter Tail provides a summary of the HLP Adjustment in Attachment 12. Otter Tail includes the monthly forecasted credit for calendar year 2024, totaling (\$979,108), and the monthly forecasted credit for calendar year 2025, totaling (\$977,043), in Attachment 3, Line 17. These amounts are based on the 2024 and 2025 forecasted calendar year amounts shown in Attachment 12, Line 42, respectively. Otter Tail will continue to update forecasts with actuals in subsequent Rider updates.

#### **G. Proposed Changes to Tracker Calculations**

On May 15, 2024, Otter Tail met with PSC staff to discuss changes to the revenue requirement calculations for the Lake Norden Area Load Growth Credit and the HLP Adjustment. The proposed changes to the two adjustments result in a net zero change for the recovery period.

The calculation for the Lake Norden Area Load Growth Credit currently adjusts the 2017 Test Year base revenues and fuel revenues using actual rates, which causes a mismatch between fuel revenues and expenses because no update is being made to fuel expenses. Changes in the demand allocation factors are currently based on the incremental billed demand of the load growth area. Otter Tail proposes to change these items in the calculation. In this filing, fuel revenues and expenses have been removed from the 2017 Test Year. The change in demand allocation factors is calculated by multiplying the actual demand ratio for the D1, D2, D3, and D4 allocators of the LGS class by the incremental load growth kWh, adjusted for line losses. This is a decrease of approximately five MW from the prior demand allocation factor adjustment calculation. The proposed changes to the Load Growth Credit calculation decrease the customer credit for the September 2024 through August 2025 recovery period by approximately \$117,000.

The current calculation for the HLP Adjustment removes all HLP amounts included in the 2017 Test Year for all plant balances, accumulated depreciation, ADIT, and expenses, including the Ash Landfill, and includes actual plant balances, accumulated depreciation, ADIT and expenses, including decommissioning balances. The calculation in this filing removes all 2017 Test Year items that are no longer on Otter Tail's books but leaves the Ash Landfill that remains on Otter Tail's books and continues to depreciate. The actuals included in the calculation no longer include the decommissioning balance. The proposed changes to the HLP Adjustment calculation increase the credit to customers for the September 2024 through August 2025 recovery period by approximately \$117,000.

#### **H. Percent of Bill Revenue Requirement Components and Tracker**

Attachments 1 - 3 are, respectively, the Revenue Requirements Summary, Rate Design, and Tracker Summary calculations used for Otter Tail's Percent of Bill Phase-In Plan rate submittal. Attachments 4 through 10 provide the revenue requirement calculations for the Projects for which Otter Tail requests percent of bill Rider recovery. Attachments 11a through 11d provide the adjustment reflecting the net benefit of new load in the Lake Norden area, including corresponding updates to jurisdictional allocation factors resulting from the increased load to South Dakota. Attachment 12 provides the Hoot Lake Plant revenue requirement share back calculation. Further information on these components is included above in Section IV.

Specifically, the calculations of the revenue requirement in this Petition include the following:

- *Rate base section.* This section provides details on the amount of plant in service, accumulated depreciation (if applicable), construction work in progress (CWIP),<sup>12</sup> accumulated deferred taxes including the effect of proration on Federal amounts, accumulated deferred and utilized LTSA, and a 13-month average rate base calculation.
- *Expense section.* The expenses applicable to a project are listed here and include operating costs, property taxes, depreciation, and income taxes.
- *Revenue requirements section.* This section shows the components of the revenue requirements, including expenses and return on rate base.
- *Return on investment (cost of capital).* The return on investment utilizes

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<sup>12</sup> SDCL 49-34A-25.2 allows a current return on CWIP.

the return on equity approved in Otter Tail's Rate Case. As described on page 15 in the Settlement for the Rate Case:

*While the projects are under construction, the rate of return will include the weighted average cost of debt calculated at year-end levels, including short-term debt costs, and the equity ratio calculated at year-end levels. Once the projects are in-service the weighted average cost of long-term debt calculated at year-end levels will be used.*

- *Depreciation expense.* Depreciation expense is calculated using the Company's current depreciation rates.
- *Property taxes.* The property tax calculation is based on Otter Tail's composite tax rate for the jurisdiction in which the facilities are located and is calculated in accordance with the procedures specified by that state. Based on agreements with the state of South Dakota, the year after Astoria Station is in-service (Astoria went into service in 2021), the total property tax expense will be subject to a ramp-up period where the total property tax will be multiplied by 0 percent the first year, 20 percent the second year, 40 percent the third year, 60 percent the fourth year, and 80 percent the fifth year, and 100 percent the sixth year and years forward. With Astoria Station going into service in 2021, the 0 percent treatment began with the property tax expense in 2022 (calculated using 2021 year-end values). Some components of the Astoria Station project (related to distribution work, switching station work, and transmission line modifications) did not receive approval of this treatment from the State of South Dakota; thus, the property tax amount on Attachment 4 is not equal to \$0 in 2022. Land is not applicable to the property tax ramp-up treatment. It is taxed at the full composite tax rate. Merricourt and Ashtabula III have been placed into service, and are subject to taxes consisting of the following two components:
  1. A tax of two dollars and fifty cents per kilowatt times the rated capacity of the wind generator.
  2. A tax of one-half of one mill per kilowatt-hour of electricity generated by the wind generator during the taxable period.
- *Operation and maintenance Expense.* Astoria Station, Merricourt, and Ashtabula III projects are in-service. Operation and maintenance costs

specifically related to these projects are tracked in Attachments 4 through 10. Annual O&M expenses for these generation facilities include operating costs, ground lease payments, property taxes and depreciation.

- *Proration of Federal Accumulated Deferred Income Taxes (ADIT)*. Otter Tail provides Attachment 13 to this filing to show the Federal ADIT proration calculation impact on the revenue requirement for the recovery period. Otter Tail provides Attachment 14 calculating the Accumulated Deferred Income Tax (ADIT) balances to preserve the effect of the application of the proration methodology for the true-up period. This calculation methodology is necessary to comply with Section 1.167(l)-1(h)(6)(ii) of the IRS regulations and to avoid a tax normalization violation.<sup>13</sup>
- *Federal Production Tax Credit (PTC)*. Merricourt became eligible for PTCs when it was placed in service. Effective January 1, 2023, the rate per MWh was increased from \$26.00 to \$28.00 per MWh. Beginning October 1, 2022, Otter Tail includes the PTCs as a credit to tax expense (Attachment 5, Line No. 43) based on Merricourt's capacity factor of 50.7 percent , which will continue until Otter Tail files an application for an increase in base rates (Rate Case).<sup>14</sup> Otter Tail Corporation procured approximately \$14.6 million of Otter Tail's Merricourt PTCs in early 2024, which will be utilized on the 2023 tax return. This procurement reduces the deferred tax PTC balance and the associated 2023-2024 Phase-In revenue requirement by approximately \$90,070. When Langdon, Ashtabula I, Luverne, and Ashtabula III Upgrade Projects are complete, these wind farms will begin to generate PTCs. The PTC rate for the Langdon Upgrade Project is \$30.50 per megawatt hour for the recovery period.<sup>15</sup> The PTC rate for the Ashtabula I, Luverne, and Ashtabula III Upgrade Projects is \$27.50 per megawatt hour for the recovery period. The impact of the PTCs is appropriately incorporated into the revenue requirements in Attachments 7, 8, 9, and 10.

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<sup>13</sup> See Treas. Reg. SS 1.167(l)-1(h)(6)(ii).

<sup>14</sup> In the Matter of the Application of Otter Tail Power Company for Docket No. EL18-021 Authority to Increase Its Electric Rates, Settlement Stipulation, page 5, 3. Merricourt Wind Project Capacity Factor. The Parties agree that the Phase-In Plan for the Merricourt Wind Project will reflect production tax credits (PTCs) based on Merricourt's actual production. If recovery for the Merricourt Wind Project under 6 the Phase-In Plan remains in effect after October 1, 2022 because the Company has not filed an application for an increase in base rates (Rate Case) to be effective by that date, the Phase-In Plan will reflect PTCs based on a Merricourt capacity factor of 50.7% until updated in OTP's next Rate Case.

<sup>15</sup> The PTC rate for Langdon includes a 10 percent energy community bonus adder under guidance from the Internal Revenue Service (IRS).

- *Baseline Year.* The Rate Case included a 2017 Test Year upon which base rates were set. Otter Tail utilizes the Commission approved 2017 Test Year as the baseline year. Attachments 11a through 11d reflect updates to the 2017 Test Year resulting from load growth in the Lake Norden Area.
- *Jurisdictional Allocation Factors.* Jurisdictional allocators are used to allocate system cost among jurisdictions. The Commission approved Otter Tail's South Dakota jurisdictional allocations for the 2017 Test Year in the Rate Case.

### **I. Percent of Bill Rate Design**

The Commission approved the percent-of-bill method for the Rider in Docket No. EL19-025. Under this method, the rate is calculated by dividing the total Percent of Bill revenue requirement for September 2024 through August 2025 by the total base rate revenue for this recovery period. For this filing, this method results in a percent of base revenue charge of 14.667 percent. The rate design is shown on Attachment 2.

## **VI. PER METER CHARGE PROJECTS**

In 2022 Otter Tail made its initial request for the establishment of the AGI per meter portion of the Phase-In rider for recovery of AMI, the OMS Project, and the DR system replacement. All three projects were approved for recovery and the new per meter rate went into effect September 1, 2022. This filing is the second annual update for AMI, OMS, and DR system replacement projects.

Otter Tail requests the continuation of the Phase-In recovery mechanism as costs are incurred for the AMI, OMS, and DR projects outside of a general rate case.

### **A. Advanced Metering Infrastructure (AMI) Update – Attachment 19**

The original implementation plan for the AMI project anticipated business process development, system integration, and initial deployment from late 2021 to the fourth quarter of 2022, with full deployment from late 2022 to the third quarter 2024. The deployment schedule has been delayed due to the integration requirements of the software systems. The AMI pilot of 500 meters occurred in December 2023. Full meter deployment started in mid-February 2024 and will continue throughout the year. While it is anticipated that most AMI meters will be installed by the end of 2024, there will be some AMI meter installations occurring in the first quarter of 2025. Allegiant Utility Services, Otter Tail's meter installation

contractor, plans to complete the contracted portion of the installations in 2024, which represents approximately 91 percent of the total meter installations. The remaining meters, which represent meters associated with complex rates, complexity of metering configurations, and heightened impact to customer processes will be installed by Otter Tail employees. Allowing Otter Tail staff to manage these meter exchanges will reduce delays for Allegiant Utility Services and allow for a more coordinated exchange process for the customer group, which includes larger commercial and industrial load.

Otter Tail realized minimal O&M savings beginning in April 2024 as a result of the commencement of the full AMI deployment. Otter Tail estimates that approximately 25 percent of total expected annual savings will be realized in 2024, 75 percent in 2025, and nearly 100 percent of expected savings will begin in 2026. South Dakota customers will receive a credit for O&M savings of meter reading expenses that are included in base rates, as shown in Attachment 22.

#### **B. Outage Management System (OMS) Update – Attachment 20**

Otter Tail's OMS offers many operational and customer benefits related to outage response as well as a foundation that will be beneficial in future grid modernization plans. The OMS allows Otter Tail to identify outages more rapidly and deploy crews more efficiently to reduce the number and length of outages. It also allows Otter Tail to better communicate with customers before, during, and after outage events, by sending outage notifications, updates on estimated time of restoration, and restoration notices. Outage notifications were enhanced with the implementation of the Customer Experience Portal (CEP) in August 2023 and for those customers who have signed up to receive additional notifications. OMS system modeling improvements, as part of the GIS portion of the project, were completed in May 2024 and will improve outage and restoration information and communications to our customers. The total project cost for OMS to date is \$3.9 million, which is under the budget of \$4.2 approved in Otter Tail's 2022 Phase-In Annual Update Filing.<sup>16</sup>

Once the AMI implementation is complete, the speed in which the OMS receives outage information will be enhanced, improving restoration times even further. The individual meters will provide power-off and power-on notifications to be utilized by the OMS.

Otter Tail is currently working with the vendors as part of the AMI project to

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<sup>16</sup> Docket No. EL22-013.



complete the necessary integrations and anticipates completion by late 2024 or early 2025.

### **C. Demand Response System – Attachment 21**

The DR Replacement project began development in early 2021. In the Fall of 2021, Otter Tail retained Katama Technologies as a consultant. The Company and the consultant attended industry conferences, during which meetings with top vendors of DR programs were scheduled and their products reviewed. Investigation continued through interviews with nine utilities of interest from across the United States.

Otter Tail's complete Request for Proposals was released in the Fall of 2022. Six responses were received from major vendors in the DR industry. After a rigorous and extensive evaluation, two strategic partners were selected: Landis+Gyr (L+G) and Open Access Technology International (OATI).

Otter Tail expects DR implementation to begin in the fourth quarter of 2024. The project is projected to be completed in 2027.

### **D. Per Meter revenue requirements calculations**

Attachments 15 through 18 are, respectively, the Projected Revenue, Revenue Requirement Summary, Rate Design, and Tracker Summary calculations used for Otter Tail's proposed Phase-In update. Attachments 19, 20, and 21 provide the revenue requirement calculations for the Projects for which Otter Tail has received approval for Phase-In recovery. Attachment 22 is the AMI adjustment reflecting the estimated O&M savings due to the AMI implementation in South Dakota.

Specifically, the calculations of the revenue requirement in this Petition include the following:

- *Rate base section.* This section provides details on the amount of plant in service, accumulated depreciation (if applicable), construction work in progress (CWIP), accumulated deferred taxes including the effect of proration on Federal amounts, and a 13-month average rate base calculation.
- *Expense section.* The expenses applicable to a project are listed here and include operating costs, property taxes, depreciation, and income taxes.
- *Revenue requirements section.* This section shows the components of the revenue requirements, including expenses and return on rate base.
- *Return on investment (cost of capital).* The return on investment utilizes the return on equity approved in Otter Tail's Rate Case.

- *Depreciation expense.* Depreciation expense is calculated using the Company's current estimated depreciation rates.
- *Property taxes.* The property tax calculation is based on Otter Tail's composite tax rate for the jurisdictions in which the facilities are located and is calculated in accordance with the procedures specified by the states.
- *Operation and maintenance Expense.* Otter Tail will track operation and maintenance costs specifically related to each project in Attachments 19, 20, and 21. Annual O&M expenses related to these projects include operating costs, property taxes, and depreciation.
- *Operation and maintenance Savings.* Otter Tail will track operation and maintenance savings specifically related to the AMI project in Attachment 22. Annual O&M savings related to AMI implementation primarily include costs related to manual meter reading, of which a portion is completed by third party contract services and a portion is conducted internally by service reps across Otter Tail's service territory. Due to a delay in the installation of the AMI meters, the estimated O&M savings have been adjusted to reflect the new project timeline.
- *Proration of Federal Accumulated Deferred Income Taxes (ADIT).* Once the project is in service, Otter Tail will include proration of Federal ADIT, as shown in Attachment 23. Otter Tail provides Attachment 24 calculating the Accumulated Deferred Income Tax (ADIT) balances to preserve the effect of the application of the proration methodology for the true-up period. The methodology used for proration of Federal ADIT is in adherence to United States Internal Revenue Service (IRS) rules related to proration, including recently issued IRS private letter rulings. Otter Tail interprets this to include proration of Federal ADIT for the (forward-looking) recovery period and, in future filings, preserving the effect of the application of the proration methodology for the true-up period. This calculation methodology is necessary to comply with Section 1.167(l)-1(h)(6)(ii) of the IRS regulations and to avoid a tax normalization violation.<sup>17</sup> In annual Updates, Otter Tail will include a workpaper with the details of the calculation of the proration of Federal ADIT for the recovery period and whether it results in an increase or decrease to the revenue requirement.

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<sup>17</sup> See Treas. Reg. SS 1.167(l)-1(h)(6)(ii).

- *Jurisdictional Allocation Factors.* Jurisdictional allocators are used to allocate system cost among jurisdictions. The Commission approved Otter Tail’s South Dakota jurisdictional allocations for the 2017 Test Year in the Rate Case.
- *Sales Tax.* Minn. Stat. 297A.68 states there is no sales tax on smart meter related equipment in the state of Minnesota. Sales tax has been charged on all meter purchases to date. Otter Tail will file for a sales tax refund to recover the sales tax charged in error. The total refund will be approximately \$0.9 million and is expected to be received later in 2024. Otter Tail has removed the sales tax on meter related equipment from the tracker, lowering the overall revenue requirement. Sales tax expense was removed from the CWIP amount in Attachment 19.

**E. Per Meter Rate (AGI) Rate Design**

Otter Tail proposes to use a monthly per meter charge rate design for the AGI portion of the Phase-In Rider. The proposed calculation will determine the average cost per meter for materials and labor for each customer class. The weighted average cost per customer class is then used to determine the percentage of project costs to be charged to each class. The weighted average cost per class, divided by the average annual number of meters per class, equals the monthly per meter charge.

**VI. RATE APPLICATION AND IMPACT**

As indicated earlier, the total annual revenue requirement to be collected for the next recovery period of September 2024 through August 2025 is estimated at \$4,531,109, which includes \$3,693,011 recovered under the percent of bill rate and \$838,098 recovered under the per meter rates. The proposed percent of bill rate of 14.667 percent of base rates is calculated on Attachment 2, Line No. 5 and the proposed per meter rates are listed on Attachment 17, Lines 2 through 16.

The new total billed charge amount of the Phase-In rates, beginning September 1, 2024, for a residential customer using 1,000 kWh per month with a single residential meter is approximately \$13.22 per month, which is an increase of \$7.98 per month from current rates. For a Large General Service (LGS) customer using 486 kW and 222,350 kWh with a single LGS Meter the total billed charge is approximately \$1,741.96 per month, which is an increase of \$1,018.25 per month from current rates. See Table 1 for bill impact and proposed rates.

**Table 1**  
**Phase-In Rider Rate Impact**

|                       | Average Usage per Month | Percent of Bill Sept 23-Aug 24 | Per Meter Rate Sept 23-Aug 24 | Percent of Bill Proposed Rate | Per Meter Proposed Rate | Percent of Bill Monthly Impact | Per Meter Rate Monthly Impact | Monthly Impact (increase or decrease from prior rate) |
|-----------------------|-------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------|--------------------------------|-------------------------------|---|
| Residential           | 1,000 kWh               | 6.498%                         | \$0.52                        | 14.667%                       | \$2.58                  | \$ 5.92                        | \$2.06                        | \$ 7.98   |
| Large General Service | 22,350 kWh and 486      | 6.498%                         | \$14.91                       | 14.667%                       | \$142.09                | \$ 891.07                      | \$127.18                      | \$ 1,018.25   |

The Customer Notice and Rate Impact, which represents the incremental increase between the prior rate and updated rate, is provided as Attachment 26. Otter Tail provides the report to Commission of tariff schedule changes as Attachment 27 to this filing.

## **VII. PHASE-IN RIDER TARIFF SHEET**

Otter Tail’s Phase-In Rider Rate Schedule (Section 13.09) is Attachment 25 to this Petition. The rates listed in the RATE sections of the tariff sheets are updated to reflect the proposed changes described in this annual update.

In the past, Otter Tail has included Small General Service and General Service in the same rate as projected meter costs were the same for both classes. Otter Tail received updated meter costs that show Small General Service and General Service have very different costs per meter. For this reason, Otter Tail includes separate rates for Small General Service and General Service using the updated meter costs.

### **South Dakota Tariff Schedules Volume II – Electric Service**

Section 13.09

Third Revised Sheet No. 2

Cancelling Second Revised Sheet No. 2

Second Revised Sheet No. 3

Cancelling First Sheet No. 3

## **VIII. FILING FEE**

Under SDCL 49-1A-8, the Commission may require a deposit of up to fifty thousand dollars for the filing of a tariff for approval under the provisions of 49-34A-4 and 49-34A-25.1 to 49-34A-25.4, inclusive, or makes a filing pursuant to 49-34A-97 to 49-34A-100. Otter Tail will pay such deposit amount as the Commission determines appropriate upon the Commission’s Order assessing such fee.

## IX. CONCLUSION

For the foregoing reasons, Otter Tail respectfully requests the Commission approve Otter Tail's proposals to:

1. Include updated costs and collections associated with current projects being recovered in the Phase-In Rider:
  - a. Astoria Station
  - b. Merricourt
  - c. Ashtabula III Wind Farm Purchase
  - d. Langdon Upgrade Project
  - e. Ashtabula I Upgrade Project
  - f. Luverne Upgrade Project
  - g. Ashtabula III Upgrade Project
  - h. Lake Norden Area Load Growth Credit
  - i. Hoot Lake Plant Adjustment
  - j. Advanced Metering Infrastructure
  - k. Outage Management System
  - l. Demand Response System Replacement
2. Implement the proposed rates and changes in Otter Tail's Phase-In Rider, Section 13.09, effective as of September 1, 2024.

Date: June 3, 2024

Respectfully submitted:  
OTTER TAIL POWER COMPANY

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