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## STAFF MEMORANDUM

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**TO:** COMMISSIONERS AND ADVISORS  
**FROM:** BRITTANY MEHLHAFF AND KRISTEN EDWARDS  
**RE:** EL23-015 - In the Matter of Otter Tail Power Company's Petition for Approval of Rate Schedule, Section 13.09, Phase-In Rider  
**DATE:** August 9, 2023

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### BACKGROUND

On June 1, 2023, the South Dakota Public Utilities Commission (Commission) received a petition from Otter Tail Power Company (Otter Tail or Company) for approval of its fourth annual update to its Phase-In Rider (PIR) rate. The proposed PIR rates reflect the PIR revenue requirements for September 1, 2023, through August 31, 2024.

SDCL §§ 49-34A-73 through 78, inclusive authorize the Commission to approve a tariff mechanism for the annual adjustment of charges for a phase-in rate plan for rate increases due to plant additions.

Previously, on March 6, 2019, the Commission issued an Order Granting Joint Motion for Approval of Settlement Stipulation; Order Approving Settlement Stipulation in Docket EL18-021. This settlement established Otter Tail's phase-in rider, allowing Otter Tail the opportunity to recover the Merricourt Wind Project (Merricourt) and the Astoria Natural Gas Project (Astoria), along with offsetting revenue credits for new load growth in the Lake Norden area and net savings associated with Otter Tail's retirement of its Hoot Lake Plant (HLP). As part of this settlement, Otter Tail agreed to not file a rate case until the test year for such filing reflects twelve months in-service for the Merricourt and Astoria projects, with April 1, 2022, being the earliest Otter Tail could file.

Otter Tail's initial filing for approval of the phase-in rider was Docket EL19-025 where the Commission approved recovery of projects consistent with the EL18-021 settlement and Otter Tail's proposed "percent of bill" rate design, resulting in an initial "percent of bill" factor of 3.345 percent effective September 1, 2019. The phase-in rider was subsequently adjusted in Docket EL20-019 and EL21-017 to reflect additional costs as the projects progressed towards completion.

In Docket EL22-013, the Commission approved a \$2,997,688 revenue requirement for the September 1, 2022, through August 31, 2023, plan year. That filing added the Ashtabula III Wind Project (Ashtabula) and Advanced Grid Infrastructure (AGI) projects. The approval resulted in a 10.181 "percent of bill" phase-in rider factor and new per meter rates associated with the AGI projects, effective September 1, 2022.

In this current filing, Otter Tail initially requested to recover a projected September 1, 2023, through August 31, 2024 revenue requirement of \$2,623,921 associated with the Merricourt, Astoria, and Ashtabula III projects, the revenue credit due to the new load growth in Lake Norden, the net savings associated with the HLP retirement, and the AGI projects. No new projects were proposed in this filing. The Company's proposed revenue requirement

results in a proposed “percent-of-bill” base revenue charge of 9.923 percent and per meter rates to recover the AGI projects, which vary based on customer class.

## STAFF’S ANALYSIS AND UPDATES

Staff’s recommendation is based on its analysis of Otter Tail’s filing, discovery information, relevant statutes, and previous Commission orders. Staff’s analysis consisted of review of the revenue requirement calculations, class allocation, and rate design. Each of these items are discussed below.

### REVENUE REQUIREMENT

Staff reviewed the forecasted September 1, 2023, through August 31, 2024 revenue requirement associated with the Merricourt, Astoria, and Ashtabula III projects, Lake Norden load growth credit, HLP retirement savings, and the AGI projects. The September 1, 2023, through August 31, 2024 phase-in rates are based on estimated costs of Astoria, Merricourt, Ashtabula III, and AGI projects, estimated Lake Norden load growth revenue credit, estimated HLP retirement savings, and the true-up balance associated with the prior collection period. All projects and credits are subject to a later “true-up” to reflect the actual costs, actual revenues, and actual recoveries.

As discussed in more detail below, Otter Tail filed a Supplemental Filing on July 31, 2023. The Supplemental Filing updated the revenue requirement based on items identified in Staff’s review and updated information provided by Otter Tail.

As further discussed below under the rate design section, Otter Tail continues to propose two different rate structures: per meter rates for the AGI projects and a percent of bill factor for the remaining projects. Thus, the revenue requirements are split into two groups accordingly and discussed separately below.

### PERCENT OF BILL REVENUE REQUIREMENTS

The first group of revenue requirement items are those recovered through the percent of bill factor. These include certain projects and other items approved by the Commission in previous dockets and settlement agreements.

#### PERCENT OF BILL PROJECTS BACKGROUND AND UPDATES

Staff first provides some background and updates on each of the “Percent of Bill” revenue requirement items: Astoria, Merricourt, Ashtabula III, Lake Norden Area load growth credit, and HLP retirement savings.

#### *Astoria*

Astoria is a 245 MW natural gas-fired simple cycle combustion turbine constructed near Astoria, South Dakota, with an in-service date for accounting purposes of February 2021. The Commission approved Otter Tail’s Application for an Energy Conversion Facility Permit in Docket EL17-042. Since Astoria was commercially operational beginning in April 2021, it has been dispatched on a regular basis. At the time of filing its petition, Otter Tail expected final closeout activities and final contractor payments to continue through mid-2023. The current estimated capital costs at completion is \$15.8 million at the South Dakota level<sup>1</sup>. This compares to last year’s estimate of \$15.6 million at the South Dakota level<sup>2</sup>.

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<sup>1</sup> \$152.2 million total company

<sup>2</sup> \$153.2 million total company

In addition to the simple cycle combustion turbine, the project includes all associated facilities, including a short natural gas pipeline necessary to interconnect to the Northern Border Pipeline and a generation-tie line necessary to connect to the electric transmission grid. The necessary transmission upgrades benefit both Astoria and the Tatanka Ridge Wind, LLC (Tatanka) project. As the transmission owner of these network upgrades, Otter Tail receives facility service agreement revenues from Tatanka for approximately 35% of the interconnection costs. These revenues are included as a reduction to the revenue requirement.

Otter Tail entered into a Long-Term Service Agreement (LTSA) with Mitsubishi (combustion turbine manufacturer), 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. Otter Tail in turn makes prepayments to the manufacturer for major maintenance based on the hours the unit is operated and/or the number of starts until the major maintenance is complete. The typical annual LTSA fee is estimated at \$0.2 million at the South Dakota level<sup>3</sup>. Approximately 8% of the LTSA agreement is included as part of operating costs. The remaining costs are included as capital costs. The capital portion of the LTSA prepayments is included in rate base until major maintenance is completed. At that time, the amount of accumulated LTSA prepayments that have been utilized during major maintenance will be included in the plant balance and subject to depreciation.

### *Merricourt*

The Merricourt project consists of 75 V110-2.0 MW Vestas wind turbine generators with an aggregate nameplate capacity of 150 MW. The project is located near Merricourt, North Dakota and was completed in 2020, with all units fully in-service by December 19, 2020.

In last year's petition, Otter Tail discussed that Merricourt was operating at reduced output while certain transmission network facilities are being constructed throughout 2022. Merricourt could be subject to MISO's quarterly operating limits until all network facility upgrades are in service. Otter Tail explained that a generator seeking to interconnect in MISO has conditional interconnection service until all required upgrades and contingent facilities are completed, and thus is subject to quarterly operating limits. In 2021, Merricourt generated about 75 percent of the expected output at full operation, or approximately 500,000 MWhs of 660,000 MWhs.

Otter Tail provided Staff an update on Merricourt's output. In 2022, the actual output was 575,653 MWh. Estimates for 2023 and 2024 are in this range as well with 2023 estimated at 569,991 MWh (+/- 10%) and 2024 estimated at 572,068 MWh (+/- 10%).

The output is important given Production Tax Credits (PTCs) are on a per MWh basis. However, the settlement Staff reached with Otter Tail in Docket EL18-021 included a provision requiring Otter Tail reflect PTCs for the Merricourt project based on a 50.7% capacity factor beginning October 1, 2022. This settlement provision protects Otter Tail's customers from the increased revenue requirement impact resulting from lower PTCs as a result of reduced output. Staff's review identified that Otter Tail had not appropriately reflected the PTCs based on the agreed upon capacity factor. Therefore, Otter Tail corrected the PTCs beginning October 1, 2022, in its Supplemental Filing. The revenue requirement impact of this update is further discussed later in this memo.

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<sup>3</sup> \$2 million total company

### *Ashtabula III Wind Farm Purchase*

Ashtabula III is a wind facility of 39 wind turbines with a nameplate of 62.4 MW. Otter Tail entered into a purchased power agreement with Ashtabula III, LLC in 2013 with the option to purchase the wind facility assets in 2023. Absent an agreement to purchase the facility, Otter Tail would continue to purchase the energy from the facility and flow those energy costs through the fuel clause as has been done since 2013. As discussed in Docket EL22-013, Otter Tail's analysis indicated that purchasing the facility would benefit customers over the remaining life of the project. Accordingly, Otter Tail entered into a Purchase and Sale Agreement with an anticipated closing of January 2, 2023. The sale actually closed on January 3, 2023.

### *Lake Norden Area Load Growth Credit*

Otter Tail continues to reflect the Lake Norden Area load growth credit in accordance with the EL18-021 settlement, utilizing the same methodology approved in prior filings. The credit includes the impact of the new load revenues as well as the impact on costs associated with changes in jurisdictional allocation factors.

### *Hoot Lake Plant Retirement Savings*

The settlement in EL18-021 requires Otter Tail include net savings associated with the HLP retirement within the PIR. Otter Tail incurred normal operation costs associated with HLP through May 2021, when operations ceased. Decommissioning of equipment and abatement of hazardous materials was substantially complete in 2021, with demolition of structures and foundations completed in 2022. Otter Tail reports that final site grading commenced in May 2023 with completion expected in July 2023. Starting in June 2021, Otter Tail included an adjustment in the PIR to reflect the net savings associated with the HLP retirement. The HLP adjustment compares current HLP revenue requirements with those included in the 2017 test year, which are currently being recovered through base rates. The difference results in a credit for customers. Forecasts are updated to actuals and subject to true up in the subsequent year's rider update.

### PERCENT OF BILL PRIOR COLLECTION PERIOD TRACKER

The Percent of Bill portion of the PIR approved in Docket EL22-013 was based on the estimated revenue requirements associated with the above items for the collection period of September 2022 through August 2023 of \$2,498,735<sup>4</sup>. The Company's tracker initially filed in this docket reflects actual costs through April 2023 and forecasted costs through August 2023. This results in an updated Percent of Bill revenue requirement for September 2022 through August 2023 of \$2,177,493.

The difference between the forecasted revenue requirements in Docket EL22-013 and the updated revenue requirements in the initial filing in this docket is primarily related to a lower Merricourt Wind revenue requirement and a greater Hoot Lake Plant Retirement Savings Credit.

Otter Tail further updated the September 2022 through August 2023 revenue requirement in its Supplemental Filing to reflect actual costs through June 2023 and to update the Merricourt project revenue requirement to reflect the 50.7% capacity factor beginning October 1, 2022 for purposes of calculating the PTCs. Otter Tail also updated the PTC rate to \$28 per MWh which was announced after Otter Tail's initial filing and is effective retroactively to January 2023. The Merricourt updates are responsible for the majority of the difference between the Supplemental Filing and the Initial Filing revenue requirements, as summarized below:

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<sup>4</sup> Excluding estimated carrying charge and true-up. Total estimated requirements were \$2,582,108.

September 2022 – August 2023 Revenue Requirements			
	EL22-013	EL23-015	EL23-015
	Approved	Initial	Supplemental
Astoria Generation	\$1,717,451	\$1,702,688	\$1,708,479
Merricourt Wind	1,515,901	1,349,468	1,067,863
Ashtabula III Wind	497,857	483,994	\$483,959
SD Filing Fee	5,000	5,000	5,000
Credit due to Load Growth	(439,345)	(439,345)	(439,345)
HLP Adjustment	(798,641)	(924,824)	(924,824)
Proration of Federal ADIT	513	513	513
<b>Total</b>	<b>\$2,498,735</b>	<b>\$2,177,493</b>	<b>\$1,901,644</b>

The rates implemented in Docket EL22-023 were based on the above estimated revenue requirement plus estimated carrying charges/credits and the true-up balance from the prior collection period. Rates were based on a total estimated revenue requirement of \$2,582,108 and forecasted base rate retail sales for all classes of customers of \$25,361,505. This resulted in a percent of bill factor of 10.181%. The initial filing in this docket reflected estimated revenues for the September 2022 through August 2023 collection period of \$2,527,499<sup>5</sup>. Otter Tail’s Supplemental Filing updates the estimated revenue received during this collection period to \$2,519,183, updating actual revenues through June 2023.

Comparing the updated revenue requirements of \$1,901,644 to the revenues received for the same time period of \$2,519,183, this results in a difference of \$(617,539). Applying the carrying cost rate results in carrying charges of \$(10,813) and a cumulative true-up balance of \$(507,249) to be carried over into the next collection period tracker.

PERCENT OF BILL 9/1/23 – 8/31/24 REVENUE REQUIREMENT

The September 1, 2023, through August 31, 2024 Percent of Bill Revenue Requirement is based on estimated revenue requirements of Astoria, Merricourt, and Ashtabula III projects, estimated Lake Norden load growth revenue credit, estimated HLP retirement savings, and the true-up balance associated with the prior collection period.

Otter Tail’s Attachments 4 – 10 provide the details regarding the Percent of Bill Revenue Requirement calculations. Attachment 3 provides the Percent of Bill Tracker Summary for the current and proposed collection periods, and Attachment 1 summarizes the revenue requirements for the upcoming recovery period.

Otter Tail provided updated attachments in its Supplemental Filing to correct the Merricourt project revenue requirement to reflect the 50.7% capacity factor for purposes of calculating the PTCs, along with updating the PTC rate to \$28 per MWh. The change to appropriately reflect the EL18-021 settlement provision regarding the Merricourt capacity factor accounts for most of the revenue requirement change provided in the Supplemental Filing. Other minor updates were made to other projects as well to reflect the most recently available information.

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<sup>5</sup> Consists of actual revenues through June 2023 and projected revenues through August 2023.

A summary of the forecasted Percent of Bill Revenue Requirements for the September 2023 through August 2024 Collection Period as provided in Otter Tail’s initial filing and Supplemental Filing are as follows:

September 2023 – August 2024 Revenue Requirements		
	Initial	Supplemental
Astoria Generation	\$1,679,449	\$1,679,036
Merricourt Wind	1,327,301	781,344
Ashtabula III Wind	786,103	780,904
SD Filing Fee	5,000	5,000
Credit due to Load Growth	(216,152)	(216,152)
HLP Adjustment	(925,844)	(925,844)
Proration of Federal ADIT	(2,137)	(2,077)
Carrying Cost / (Credit)	(9,432)	(17,444)
True-Up	(235,393)	(507,249)
<b>Total</b>	<b>\$2,408,896</b>	<b>\$1,577,517</b>

#### PER METER REVENUE REQUIREMENTS

In Docket EL22-013, the Commission approved Otter Tail’s proposal to include three new AGI projects (Advanced Metering Infrastructure, Outage Management System, and Demand Response System) in the PIR, recovered through a new per meter rate. The current docket reflects the first annual update for these three AGI projects.

#### PER METER PROJECTS BACKGROUND AND UPDATES

Staff provides a brief description and update of each project below.

##### *Advanced Metering Infrastructure (AMI)*

Otter Tail is deploying new AMI meters throughout its service territory to replace the existing meters which are primarily read manually each month. AMI will enable two-way communications between Otter Tail and the meters, reducing expenses and safety risks associated with needing to be physically on customer property for these utility functions. Otter Tail states AMI will be a foundation for potential future grid modernization functions and allow future opportunities for the Company to create new rate offerings and additional support for customer located generation. Otter Tail expects to see reductions in operations and maintenance (O&M) expenses because of these new meters and those savings will be accounted for in the rider. Measured incremental savings realized from AMI will include avoided contracted meter reading costs and avoided maintenance expenses attributable to hand-held meter reading devices net of new AMI O&M costs incurred.

In Docket EL22-013 the Company estimated average annual O&M savings of approximately \$0.61 million (Otter Tail SD)<sup>6</sup> from the beginning of initial deployment in 2022 through 2045. After including annual O&M expenses, depreciation, property tax, and income tax associated with the AMI project, the net savings over the life of the AMI

<sup>6</sup> \$6.61 million total company

project are estimated to be, on average, \$0.32 million (Otter Tail SD)<sup>7</sup> annually. Net expenses are expected in the beginning years, with Otter Tail originally anticipating net savings to begin in 2025.

While Otter Tail still anticipates the same expected savings overall, the timeline has shifted due to implementation delays caused by integration requirements of the software systems. As explained in response to Staff's data request, the new AMI Command Center, the new Meter Data Management System, and the existing customer information system must all be integrated together so that information passes seamlessly between the systems. All three systems must be synchronized on a daily and weekly basis. This project is the first that the vendors have done together, and the synchronization processes are taking longer than anticipated.

Otter Tail also provided in its Supplemental Filing some steps taken to resolve these integration challenges. Otter Tail states that three measures were taken following a summit held early this spring: 1) An integrated unit testing phase was implemented allowing issues to be identified earlier and to streamline the overall testing process; 2) The addition of internal personnel with more direct experience working with the current software systems that require interface work for the AMI system; and 3) The creation of teams made up of subject matter experts to focus on critical issues.

Otter Tail now expects to begin the AMI pilot of 1,000 meters in Fall 2023, with remaining meters being installed in 2024 (including Otter Tail's South Dakota service territory). Although there is potential for some meters being installed in early 2025, Otter Tail hopes to meet the original end of 2024 timeline and has coordinated additional resources to enable a quicker deployment within the shortened time period.

#### *Outage Management System (OMS) with Geographic Information System (GIS) enhancements*

Otter Tail is implementing an OMS that will offer operational and customer benefits related to outage response as well as a foundation for future grid modernization plans. Otter Tail states that deployment of the OMS will allow Otter Tail to identify outages more rapidly and deploy crews more efficiently to reduce the number and length of outages. The new system will allow for better communication with customers before, during, and after outage events.

As a part of this project, Otter Tail is developing the electrical connectivity model from meter to substation and specific attribution data of Otter Tail's GIS features. Updated data will facilitate better outage prediction and response when outage information is received by the OMS. The attribution data will also be used by engineers to refine underground cable replacement and overhead line replacement projects. The connectivity model will also be utilized by the MDMS for operational and planning tools and will be available for future tools such as Volt/Var optimization, demand response controls, and automated system reconfigurations.

The GIS portion of the OMS project is nearing completion and at the time of the filing, it was expected to be completed by June 2023. Otter Tail provided Staff an update indicating the collection efforts have been extended into the third quarter of 2023 due to severe winter weather along with staffing challenges for the GIS contracted service vendor. The first phase of the OMS installation was completed in December 2022, with final go-live improvements expected to be complete by Fall 2023. Otter Tail states that while the project is not fully completed, available outage and restoration information and communications have already improved, most notably the new

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<sup>7</sup> \$3.45 million total company

outage map available on the Company’s website that provides real time information on current outages. Further OMS development will be integrated with the AMI project.

*Demand Response (DR) System*

Otter Tail has high DR program adoption, allowing Otter Tail to control between 10-15 percent of total winter peak load. Much of the Company’s existing DR infrastructure is either approaching end of life or already functionally obsolete. The current DR software is unsupported by the vendor and components of the DR system either limited in availability or no longer available at all. The Company intends to replace the DR system, utilizing a two-way communications network to support the functionality of the DR programs and enable improvement and expansion of such programs in the future. Otter Tail states another benefit of the renewed DR system is the potential to delay the need for new resources as Otter Tail receives capacity accreditation of the amount of DR based interruptible load on its system.

Six responses were received in November 2022 in reply to Otter Tail’s request for proposals for the DR replacement system. The Company continues to evaluate the top two vendors with the expectation of presenting the final decision to the Board of Directors in September 2023. Otter Tail also submitted an application for grant opportunities related to the 2021 Infrastructure Investment and Jobs Act. Otter Tail anticipates installation to begin in 2024 with full implementation being complete in 2027.

PER METER PRIOR COLLECTION PERIOD TRACKER

The Per Meter portion of the PIR approved in Docket EL22-013 was based on the estimated revenue requirements associated with the AGI projects for the collection period of September 2022 through August 2023 of \$419,949<sup>8</sup>. The Company’s tracker initially filed in this docket reflects actual costs through April 2023 and forecasted costs through August 2023. This results in an updated Per Meter revenue requirement for September 2022 through August 2023 of \$115,083. The difference between the forecasted revenue requirements in Docket EL22-013 and the updated revenue requirements in this initial filing in this docket is primarily related to the AMI implementation delays.

Otter Tail further updated the September 2022 through August 2023 revenue requirement in its Supplemental Filing to reflect actual costs through June 2023. The September 2022 – August 2023 revenue requirements are summarized below:

September 2022 – August 2023 Revenue Requirements			
	EL22-013	EL23-015	EL23-015
	Approved	Initial	Supplemental
Advanced Metering Infrastructure	\$385,429	\$76,429	\$64,820
Outage Management System	131,761	31,390	31,562
Demand Response	7,929	7,264	1,318
O&M Savings due to AMI Implementation	(105,171)	0	0
<b>Total</b>	<b>\$419,949</b>	<b>\$115,083</b>	<b>\$97,700</b>

<sup>8</sup> Excluding estimated carrying charge and true-up. Total estimated requirements were \$415,580.



Comparing the updated revenue requirements of \$97,700 to the revenues received for the same time period<sup>9</sup> of \$387,204, this results in a difference of \$(289,504). Applying the carrying cost rate results in carrying charges of \$(8,949) and a cumulative true-up balance of \$(298,453) to be carried over into the next collection period tracker.

#### PER METER REVENUE REQUIREMENT

The September 1, 2023, through August 31, 2024 Per Meter Revenue Requirement is based on estimated revenue requirements of the three AGI projects and the true-up balance associated with the prior collection period.

Otter Tail's Attachments 15 – 19 provide the details regarding the Per Meter Revenue Requirement calculations. Attachment 14 provides the Per Meter Tracker Summary for the current and proposed collection periods, and Attachment 12 summarizes the revenue requirements for the upcoming recovery period.

Otter Tail provided updated attachments in its Supplemental Filing to provide actual cost data through June 2023 for all three AGI projects, updated forecasted construction work in progress and O&M costs for all three AGI projects, and updated in-service dates for the AMI and OMS with GIS projects.

Otter Tail's Supplemental Filing also updated the estimated AMI O&M Savings adjustment to more appropriately reflect the credit customers should receive through the PIR. While the initial filing already reflected a shift in the timing of the AMI savings due to the updated AMI project timeline, the adjustment was based off of a benefits calculation developed by a consultant when analyzing the business case for the AMI investment. The Supplemental filing bases the O&M savings credit on the meter reading expense included in base rates,<sup>10</sup> which is \$5,977,246 on a total Company basis. The credit included as an estimate for 2024 is based on the forecasted meter installation schedule, with an estimated 46% total install in 2024. 46% of \$5,977,246 results in an estimated savings for the year 2024 of \$2,749,533 on a total Company level, or \$248,648 on a South Dakota level. Since the PIR collection period runs from September through August, the forecasted revenue requirement for this collection period includes only 8 months of the 2024 credit, which is \$165,765 on a South Dakota level. In future riders, the actual O&M savings credit will be calculated by comparing actual meter reading expense to the meter reading expense in the EL18-021 test year and refunding the difference.

A summary of the forecasted Per Meter Revenue Requirements for the September 2023 through August 2024 Collection Period as provided in Otter Tail's initial filing and Supplemental Filing are as follows:

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<sup>9</sup> Consisting of actual revenues through June 2023 and projected revenues through August 2023.

<sup>10</sup> See Docket EL18-021, Vol. 4A, Section 2, Functionalization, Page 3 of 6.

September 2023 – August 2024 Revenue Requirements		
	Initial	Supplemental
Advanced Metering Infrastructure	\$545,062	\$468,659
Outage Management / GIS Updates	130,150	158,684
Demand Response	40,344	37,622
O&M Savings due to AMI Implementation	(205,939)	(165,765)
Carrying Cost / (Credit)	(13,448)	(14,035)
True-Up	(281,144)	(298,453)
<b>Total</b>	<b>\$215,025</b>	<b>\$186,712</b>

## TOTAL REVENUE REQUIREMENT

When the Percent of Bill revenue requirement of \$1,577,517 is combined with the Per Meter revenue requirement of \$186,712, the total PIR revenue requirement for the September 2023 through August 2024 collection period is \$1,764,229.

## CLASS ALLOCATION AND RATE DESIGN

Otter Tail continues to utilize the “percent-of-bill” and “per meter” rate designs<sup>11</sup> as approved previously. The revenue requirement for the “percent-of-bill” portion of the phase-in is \$1,577,517, as provided in Otter Tail’s Supplemental Filing. The “percent-of-bill” factor is determined by dividing the revenue requirement by the total base rate revenue for the recovery period. This results in a “percent-of-bill” factor of 6.498 percent for the September 2023 through August 2024 collection period.

The revenue requirement for the “per meter” portion of the phase-in is \$186,712, as provided in Otter Tail’s Supplemental Filing. To allocate revenue requirement to customer classes, Otter Tail determined the average cost of materials and labor per meter 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. Each class revenue requirement is divided by the number of meters per class to arrive at the monthly per meter charges.

In Otter Tail’s Supplemental Filing, updated meter cost information was provided<sup>12</sup>. This update to the costs of the different types of meters to be installed impacts the percent of total costs per customer class, thus shifting costs between the classes<sup>13</sup>.

The table below provides the proposed per meter rates proposed to be effective September 1, 2023.

<sup>11</sup> See Petition, Attachments 2 and 13, and Supplemental Filing, Revised Attachments 2 and 13.

<sup>12</sup> Refer to Supplemental Filing, Revised Attachment 13.

<sup>13</sup> Only class allocation was impacted; Estimated project costs is a contracted amount and has not changed.

<b>Class</b>	<b>Per Meter Charge</b>
<b>Residential</b>	\$0.52
<b>Residential RDC</b>	\$1.26
<b>Farm</b>	\$1.23
<b>General Service</b>	\$2.00
<b>General Service TOU</b>	\$4.10
<b>Large General Service Primary / Transmission</b>	\$14.91
<b>Large General Service – Secondary</b>	\$4.81
<b>Irrigation Service</b>	\$3.36
<b>Outdoor Lighting (Metered)</b>	\$1.28
<b>OPA (Metered)</b>	\$1.43
<b>Controlled Service Water Heating</b>	\$1.26
<b>Controlled Service interruptible - Small Dual Fuel</b>	\$1.28
<b>Controlled Service Interruptible - Large Dual Fuel</b>	\$5.15
<b>Controlled Service Deferred</b>	\$1.57

Otter Tail states the impact of the change in the “percent-of-bill” factor for a residential customer using 1,000 kWh per month is a decrease of approximately \$2.67. The impact of the change in the “per meter” rate for an average residential customer using 1,000 kWh per month is a decrease of approximately \$0.62, resulting in a total reduction for an average residential customer of approximately \$3.29 per month compared to current rates. Overall, a residential customer using 1,000 kWh per month will see a bill decrease of approximately 2.876%.

## RECOMMENDATION

Staff recommends the Commission approve the total \$1,764,229 revenue requirement for the September 1, 2023, through August 31, 2024, plan year, the resulting 6.498 “percent of bill” phase-in rider factor, and the revised per meter charges as provided in Otter Tail’s Supplemental Filing, effective September 1, 2023.