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July 3, 2025



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

**PUBLIC DOCUMENT – NOT PUBLIC
(OR PRIVILEGED) DATA HAS BEEN EXCISED**

**RE: In the Matter of Otter Tail Power Company's Petition for Approval of the
Annual Rate Update to its Transmission Cost Recovery Rider Annual
Adjustment, Rate Schedule 13.05
Docket No. E017/M-24-204
Supplemental Filing**

Dear Mr. Seuffert:

Otter Tail Power Company (Otter Tail Power or Company) submits to the Minnesota Public Utilities Commission (the Commission) this supplemental filing to provide additional evidence and information to its initial petition for the Transmission Cost Recovery Rider Docket No. E017/M-24-204. During the Commission's hearing on this matter on May 15, 2025 several questions arose concerning the Milbank Area Reliability Project. Rather than act on the Company's Petition, the Commission authorized the Company to supplement the record to address issues raised at hearing. Otter Tail Power provides the following information concerning the Milbank Area Reliability Project and respectfully requests the Commission approve cost recovery for the project through the Company's Transmission Cost Recovery Rider.

The public version of this Supplemental Filing is contemporaneously filed under a separate cover letter in this proceeding. Portions of the enclosed Supplemental Filing are marked as PROTECTED DATA. This information and data concerns diagrams contain specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure that: (i) relates details about the production, generation, transportation, transmission, or distribution of energy; (ii) could be useful to a person planning an attack on critical infrastructure; and (iii) does not simply give the location of the critical infrastructure. Therefore, this information is designated as Critical Energy Infrastructure Information (CEII). This information and data also concern customer-specific energy usage data and terms of service, the confidentiality of which Otter Tail Power is required to maintain. The Protected Data therefore: (1) constitutes security and trade secret information, as defined in Minn. Stat. § 13.37, subd. 1(a) and (b); (2) is classified as nonpublic data pursuant to Minn. Stat. § 13.37, subd. 2; (3) is also not public data, as defined in Minn. Stat. § 13.02, subd. 8a; and (4) is protected data under Minn. R. 7829.0100, subp. 19a(A).

Overview & Summary

As more fully described below, the Milbank Area Reliability Project is a reliability project that addresses longstanding reliability and performance concerns on the Company's 41.6 kV transmission system serving the area in and around Milbank, South Dakota. Milbank community load growth over time, including increased load growth from an agricultural processing customer was the reason that the Company decided to transition from 41.6 kV to 115 kV transmission service in the Milbank area. The Company selected the 115 kV upgrade as a result of planning studies showing that the 115 kV upgrade was the most effective and lowest cost solution to maintain reliability of the transmission system in the Milbank area. This plan was presented and approved through the MISO Expedited Project Review process. Later, the Company modified this plan because it was unable to secure the necessary easements from landowners. The revised plan included retirement of an existing 41.6 kV line that allowed the Company to leverage the existing easements along this soon to be retired 41.6 kV line to be used for the new 115 kV line. The original and revised transmission plans were ultimately presented and approved through the MISO Expedited Project Review process. The need driver for the original and revised transmission plans did not change through the MISO process - MISO classified the original and revised transmission plan under the category of "Other Projects" which is inclusive of reliability projects on the transmission system operated below 100 kV that are driven in part by load growth.

The methodology the Company utilized to justify and develop the Milbank Area Reliability Project is the same methodology the Company has used for other transmission projects across the Company's three-state service area, including transmission system reliability projects in Minnesota. Because transmission system upgrades have broader benefits beyond a single customer, the Company does not directly assign the cost of transmission system upgrades to new or existing customers experiencing load growth, even when load growth substantially contributes to the need for transmission system upgrades. The allocation of Milbank Area Reliability Project costs follows the Company's historical treatment of projects of this size and type. Under this methodology our state jurisdictions share in the cost, regardless of the geographic location of the project.

The Company is sensitive to concerns about potential large data-center type load requests and the potential impact of these very large loads on triggering significant upgrades to the transmission system. Generally, data-center type load requests are 50 to 100 times larger than the Company's typical load requests. The Company views these very large loads quite differently than existing loads that are increasing. Given the magnitude of these potential large loads, the Company is evaluating ways to ensure appropriate costs are allocated to these future loads. To be clear, very large loads of this nature are not part of the Milbank Area Reliability Project.

Why the Milbank Reliability Project was Necessary

The Milbank Area Reliability Project was and is necessary to address reliability and performance concerns on the 41.6 kV system serving the Milbank area. These concerns predate the recent expansion of a Milbank agricultural processing customer. As described in the initial petition, Otter Tail Power operates a 41.6 kV transmission system between two high voltage (115/41.6 kV) sources: (1) the Highway 12 substation south of Big Stone City, South Dakota, and (2) the Ortonville substation in Ortonville, Minnesota. These sources are connected via a 41.6 kV line with an open switch between them. The Highway 12 source serves the city of Milbank including the agricultural processing customer's facility. The Ortonville source supplies several quarry loads and a portion of Big Stone City. The picture below shows the configuration of the 41.6 kV system and the 115 kV high voltage sources.

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In the event of an outage of the Highway 12 source, the Ortonville source is required to serve the City of Milbank, which includes the agricultural production facility, along with the eastern portion of Big Stone City, and the various quarries that are normally served from the Ortonville source. When the combined load on this 41.6 kV transmission system between these sources exceeds 16 MWs in total, the 41.6 kV system will experience low voltage and loading violations.

The figure below is a series of load duration curves that illustrate the historical hourly loading on the 41.6 kV system from 2019 through 2023. While the total load is typically below the 16 MW limit, historical data shows that this limit was exceeded between 38 and 452 hours per year and the system load peaked near 25.8 MW, which is well above the 16 MW limit. During such periods, the outage of a high voltage source would have resulted in Otter Tail Power being unable to serve all of the load while operating within acceptable voltage and loading criteria.

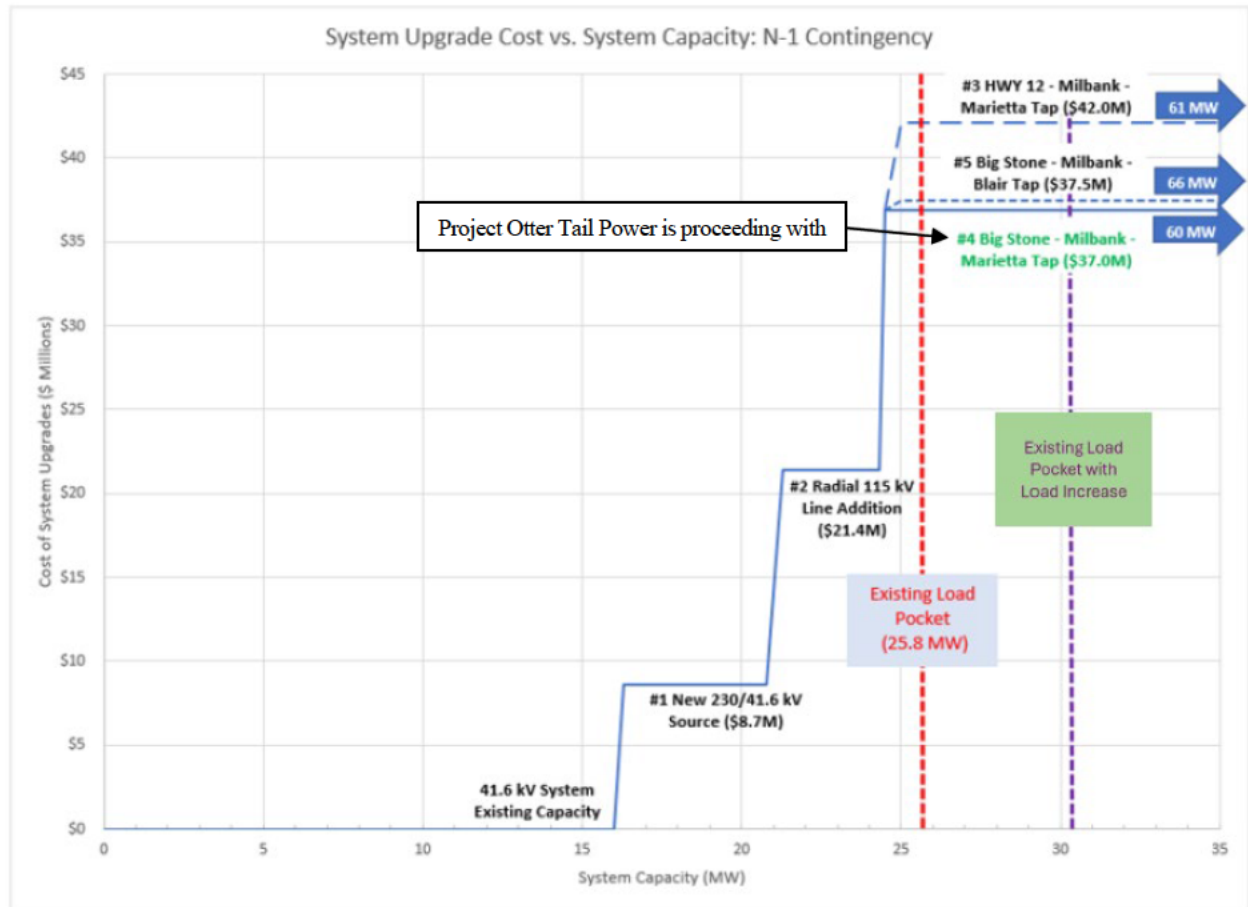
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Progression of Transmission Planning

Due to the historical load exceeding the system limit, coupled with the real time operational challenges of keeping the system within acceptable voltage and loading limits, Otter Tail Power considered upgrading a section of the 41.6 kV line near Milbank by replacing the small 1/0 conductor between two Milbank distribution substations with a larger conductor. This upgrade would have eliminated the most restrictive conductor on the system, improved voltage performance in the Milbank area and increased the thermal capacity of the line. However, this upgrade alone would not have fully resolved the voltage issues that could occur with the loss of one of the sources.

The inadequacy of replacing the conductors between the Milbank substations was underscored when in 2022 the agricultural production customer announced plans to expand its facility and requested adding **[PROTECTED DATA BEGINS... ..PROTECTED DATA ENDS]** of increased load. In view of these circumstances, Otter Tail Power conducted a holistic study of the transmission system. Within this study, the Company evaluated several potential solutions to resolve the system deficiencies that included a new 230/41.6 kV source, the addition of a radial 115 kV line, and a variety of other 115 kV transmission loops. The study concluded that a 115 kV transmission loop (the Big Stone – Milbank – Marietta Tap 115 kV loop referred to as the Milbank Area Reliability Project) would be the most effective and lowest cost solution to support both the existing and new load demands while addressing the voltage and loading concerns. The lower voltage and radial solutions were inadequate to support the existing or new load demands of the area, and the other 115 kV transmission loops evaluated were more costly to implement. The chart below shows the estimated cost of the system upgrades evaluated and how much load each system upgrade could support.



Otter Tail Power MISO Expedited Project Review Filings

Otter Tail Power submitted the Big Stone – Milbank – Marrietta Tap 115 kV transmission loop project into MISO’s Expedited Project Review (EPR) process on March 31, 2023. The project was presented at the May 18, 2023 MISO West Technical Study Task Force Meeting¹ and approved at the May 31, 2023 MISO Planning Advisory Committee Meeting.²

Following MISO’s approval, Otter Tail Power began securing easements along the project route. Despite diligent efforts, the Company was unable to procure easements from landowners whose properties were located near existing transmission facilities that the new project was intended to connect to, making it impractical to construct the project as defined in MISO’s approval.

Because of the inability to secure land rights, the Company withdrew the initial project and revised and resubmitted the project on August 18, 2023. The revised project addressed the inability to secure the necessary easements by utilizing the right of way of the existing 41.6 kV line that extended from the Highway 12 source to and around the City of Milbank. The use of the existing 41.6 kV right of way required Otter Tail Power to retire a portion of the 41.6 kV transmission system and allowed for the opportunity to improve reliability to the City of Milbank by converting its high voltage service from the 41.6 kV system to the new 115 kV system. The revised project was presented at the MISO West

¹ May 18, 2023 MISO West Technical Study Task Force Meeting Material [Microsoft PowerPoint - WTSTF Milbank EPR Presentation](#)

² May 31, 2023 MISO Planning Advisory Committee Meeting Material [20230531 PAC Item 04a Expedited Project Reviews629022.pdf](#)

Subregional Planning Meeting on September 7, 2023³ and approved at the October 11, 2023 MISO Planning Advisory Committee Meeting.⁴

In each of the Company's MISO submissions, the project was classified as an "Other Project." Other Projects represent local transmission projects performed on the transmission system operated below 100 kV that address localized transmission issues, which are different than Baseline Reliability Projects that are performed on the transmission system operated above 100 kV that are subject to NERC reliability standards or other regional standards). Other Projects can represent a variety of projects that may include projects that satisfy Transmission Owner and/or state and local planning criteria, age and condition issues, operational performance issues, new load interconnections, and relocations, among other transmission system reliability needs.⁵

MISO further allows subcategories of "Other Projects" types through its planning process. Otter Tail Power consistently submitted this project as a subcategory of "Load Growth" for both MISO submissions. As described above, the existing 41.6 kV system was unable to serve the existing load; much less the increased load of the Milbank agricultural production facility while operating within acceptable voltage and loading criteria during an outage of a high voltage source. These reliability issues were driven by both the historical and increased load on the 41.6 kV transmission system.

The need driver for the transmission project remained the same between both submissions to MISO. As stated above, the 41.6 kV transmission system could not reliably serve the existing load nor the increased load from the agricultural production facility during the outage of a high voltage source. The load growth in the area has exceeded the existing transmission system's capability. Further, the load between the two MISO submissions remained unchanged despite MISO's reporting of the load levels. **[PROTECTED DATA BEGINS...**

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Direct Assignment Not Supported

Otter Tail Power's methodology for evaluating the benefits of proposed transmission projects considers the area and customers that benefit from the project. Benefits may be derived by offloading the existing transmission system, improving voltages, and reducing interruptions, among other metrics. Because new transmission projects benefit a broad area with multiple customers, the costs of new transmission projects are spread across all jurisdictions and not directly assigned to a single customer. The Company applied this methodology to the Milbank Area Reliability Project.

While an existing agricultural processing customer's announced load growth underscored the preexisting need to improve the transmission system in the Milbank area, such growth is not a basis to directly assign costs of a transmission project to that customer. The benefits of the Milbank Area Reliability Project go well beyond a single customer. The project offloads the 41.6 kV system and

³ September 7, 2023 MISO West Subregional Planning Meeting Material [MTEP23 Expedited Project Review OTP Milbank, SD Load Addition](#).

⁴ October 11, 2023 MISO Planning Advisory Committee Meeting Material (Slides 9-10) [20231011 PAC Item 04a Expedited Project Reviews630438.pdf](#).

⁵ MISO Business Practice Manual BPM-020 – Transmission Planning Section 2.3.2 describes the eight project types MISO uses including the "Other Projects" category [Business Practices Manuals](#).

increases voltages in the area between the Highway 12, Ortonville, and Marietta sources while providing existing and future customers with reliable service and growth opportunities. The project will bring benefits today and well into the future.

In the context of transmission system additions or enhancements, it is unreasonable to directly assign the cost of the transmission upgrades to a single customer whose load growth pushed the area transmission system over the threshold of requiring upgrades. Doing so could discourage existing customers from expanding their operations or discourage new customers from siting in a specific area, and the benefits of such transmission expansions would be enjoyed by other customers, new and existing, who would not pay for such benefits from the transmission upgrade. This approach is especially relevant in cases involving existing customers.

Otter Tail Power has applied this methodology universally across its service territory regardless of where a new transmission project is located and where the primary benefits of the project are seen, even if in adjacent jurisdictions. An example of this integrated approach is included in this Petition. Specifically, the Company undertook the Lake Ardoch-Oslo 115kV Project located in North Dakota to address load growth occurring in northwest Minnesota, primarily driven by a large pumping customer.

In cases where an existing or new customer's load requires significant investments by the Company, the Company may require the customer to guarantee a minimum amount of revenue from billings as a condition of making certain system upgrades. This methodology protects other customers and the Company, should the Company undertake system upgrades and the anticipated load addition does not materialize. In the case of the Milbank Area Reliability Project the Company and the agricultural processing customer executed a new electric service agreement with a minimum revenue guarantee consistent with Section 5.04 of the Company's South Dakota Rules and Regulations. **Attachment 1** of this Supplemental Filing is an electric service agreement with a minimum revenue guarantee from the agricultural processing customer. This document is Protected Data.

Unprecedented Large Loads Will Require a Different Approach

The Company is sensitive to and shares the Commission's concerns about potential large data-center type load requests and the potential impact of these very large loads triggering significant upgrades to the transmission system. The nature of these very large loads is unprecedented, ranging from 50 to 100 times larger than the Company's typical load requests. This is not the situation addressed by the Milbank Area Reliability Project, which falls well within the range of historical transmission system reliability projects triggered in part by load growth from existing customers.

The Company is evaluating ways to address data center type loads to ensure appropriate allocations and protections for other customers and the Company. The Company recognizes these future loads, if and when they materialize, must be handled differently than more traditional loads. This may include unique electric service agreements and commercial terms, potential direct assignment of some costs, among many other methods. The Company will approach these loads with the Commission's concern in mind.

Conclusion

The Company respectfully requests the Commission to approve the Petition in the above-mentioned matter, including cost recovery for the Milbank Area Reliability Project.

A Certificate of Service is enclosed. Otter Tail Power has served a copy of this filing on all parties listed on the enclosed Service List.

Please contact me at 218-739-8956 or cstephenson@otpc.com if you have any questions regarding this filing.

Sincerely,

/s/ DYLAN STUPCA
Dylan Stupca
Manager Delivery Planning

/s/ CARY STEPHENSON
Cary Stephenson
Associate General Counsel

kaw
Enclosures
By electronic filing
c: Service List

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CERTIFICATE OF SERVICE

**RE: In the Matter of Otter Tail Power Company's Petition for Approval of the Annual Rate Update to its Transmission Cost Recovery Rider Annual Adjustment, Rate Schedule 13.05
Docket No. E017/M-24-204**

I, Kim Ward, hereby certify that I have this day served a copy of the following, or a summary thereof, on Will Seuffert and Sharon Ferguson by e-filing, and to all other persons on the attached service list by electronic service or by First Class Mail.

**Otter Tail Power Company
Supplemental Filing**

Dated this 3rd day of **July, 2025**.

/s/ KIM WARD

Kim Ward
Lead Regulatory Filing Coordinator
Otter Tail Power Company
215 South Cascade Street
Fergus Falls MN 56537
(218) 739-8268

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
1	Ray	Choquette	rchoquette@agp.com	Ag Processing Inc.		12700 West Dodge Road PO Box 2047 Omaha NE, 68103-2047 United States	Electronic Service		No	24-204M-24-204
2	Generic	Commerce Attorneys	commerce.attorneys@ag.state.mn.us		Office of the Attorney General - Department of Commerce	445 Minnesota Street Suite 1400 St. Paul MN, 55101 United States	Electronic Service		Yes	24-204M-24-204
3	Sharon	Ferguson	sharon.ferguson@state.mn.us		Department of Commerce	85 7th Place E Ste 280 Saint Paul MN, 55101-2198 United States	Electronic Service		No	24-204M-24-204
4	Paula	Foster	pfooster@otpc.com	Otter Tail Power Company		215 S Cascade St PO Box 496 Fergus Falls MN, 56538-0496 United States	Electronic Service		Yes	24-204M-24-204
5	Jessica	Fyhrie	jfyhrie@otpc.com	Otter Tail Power Company		PO Box 496 Fergus Falls MN, 56538-0496 United States	Electronic Service		No	24-204M-24-204
6	Derek	Haugen	dhaugen@otpc.com	Otter Tail Power Company		215 South Cascade Street PO Box 496 Fergus Falls MN, 56538-0496 United States	Electronic Service		Yes	24-204M-24-204
7	Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association		4300 220th St W Farmington MN, 55024 United States	Electronic Service		No	24-204M-24-204
8	Nick	Kaneski	nick.kaneski@enbridge.com	Enbridge Energy Company, Inc.		11 East Superior St Ste 125 Duluth MN, 55802 United States	Electronic Service		No	24-204M-24-204
9	James D.	Larson	james.larson@avantenergy.com	Avant Energy Services		220 S 6th St Ste 1300 Minneapolis MN, 55402 United States	Electronic Service		No	24-204M-24-204
10	Kavita	Maini	kmains@wi.rr.com	KM Energy Consulting, LLC		961 N Lost Woods Rd Oconomowoc WI, 53066 United States	Electronic Service		No	24-204M-24-204
11	Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP		33 South Sixth St Ste 4200 Minneapolis MN, 55402 United States	Electronic Service		No	24-204M-24-204
12	Matthew	Olsen	molsen@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	24-204M-24-204
13	Generic Notice	Regulatory	regulatory_filing_coordinators@otpc.com	Otter Tail Power Company		215 S. Cascade Street Fergus Falls	Electronic Service		No	24-204M-24-204

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						MN, 56537 United States				
14	Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us		Office of the Attorney General - Residential Utilities Division	1400 BRM Tower 445 Minnesota St St. Paul MN, 55101-2131 United States	Electronic Service		Yes	24-204M-24-204
15	Will	Seuffert	will.seuffert@state.mn.us		Public Utilities Commission	121 7th PI E Ste 350 Saint Paul MN, 55101 United States	Electronic Service		Yes	24-204M-24-204
16	Cary	Stephenson	cstephenson@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		Yes	24-204M-24-204
17	Stuart	Tommerdahl	stommerdahl@otpc.com	Otter Tail Power Company		215 S Cascade St PO Box 496 Fergus Falls MN, 56537 United States	Electronic Service		No	24-204M-24-204