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April 1, 2024

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

**RE: In the Matter of Otter Tail Power Company 2023 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2024
Docket No. E017/M-24-
Annual Report**

Dear Mr. Seuffert:

Otter Tail Power Company (Otter Tail) submits the enclosed Annual Report pursuant to Minn. Rules 7826.0400, 7826.0500, and 7826.1300. This Annual Report presents our safety, reliability, and service quality performance for the year 2023 and proposed reliability standards for 2024 pursuant to Minn. Rule 7826.0600.

Otter Tail has electronically filed this document with the Commission. In compliance with Minn. Rule 7829.1300, subp. 2, Otter Tail is serving a copy of this filing on the Department of Commerce – Division of Energy Resources and Office of Attorney General – Residential Utilities Division. A Summary of the filing has been served on all persons on Otter Tail’s General Service list. A Certificate of Service is also enclosed.

We are available to provide any additional information or respond to any questions you may have. Feel free to contact me at (218) 739-8699 or email me at wolson@otpc.com.

Sincerely,

/s/ WENDI A. OLSON
Wendi A. Olson
Regulatory Compliance Specialist

lcd
Enclosures
By electronic filing
c: Service List

**STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION**

**In the Matter of Otter Tail Power
Company's 2023 Annual Safety,
Reliability and Service Quality
Report and Proposed SAIFI,
SAIDI and CAIDI Reliability
Standards for 2024**

Docket No. E017/M-24-

SUMMARY OF FILING

Please take notice that on April 1, 2024, Otter Tail Power Company (Otter Tail), filed with the Minnesota Public Utilities Commission its annual Safety, Reliability and Service Quality Report for 2023 pursuant to Minnesota Rules 7826.0400, 7826.0500 and 7826.1300. Pursuant to Minnesota Rule 7826.0600, Subp. 1, Otter Tail proposes SAIFI, SAIDI and CAIDI reliability standards for 2024.

**STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION**

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Company's 2023 Annual Safety,
Reliability and Service Quality
Report and Proposed SAIFI,
SAIDI and CAIDI Reliability
Standards for 2024**

**Docket No. E017/M-24-

ANNUAL REPORT
AND PETITION**

I. INTRODUCTION

Otter Tail Power Company (Otter Tail or the Company) submits this filing in compliance with Minnesota Rules 7826.0400, 7826.0500, 7826.0600, Subp. 1, and 7826.1300. This filing also includes compliance items from previous Minnesota Public Utilities Commission (Commission) Orders.

II. GENERAL FILING INFORMATION

Pursuant to Minnesota Rule 7829.1300, Subp. 3, Otter Tail provides the following general information.

A. Name, Address, and Telephone Number of Utility

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

B. Name, Address, and Telephone Number of Utility Attorney

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

C. Date of Filing

This Report is being filed on April 1, 2024.

D. Title of Utility Employees Responsible for Filing

Collin Kremeier Supy, Cust Admin & Outage Mgmt Otter Tail Power Company 215 South Cascade Street P.O. Box 496 Fergus Falls, MN 56538-0496 (218) 739-8443 ckremeier@otpc.com	Wendi Olson Regulatory Compliance Specialist Otter Tail Power Company 215 South Cascade Street P.O. Box 496 Fergus Falls, MN 56538-0496 (218) 739-869 wolson@otpc.com
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E. Service List

(Minn. Rules 7829.0700)

Otter Tail requests that the following persons be placed on the Commission’s official service list for this matter and that any trade secret comments, requests, or information be provided to the following on behalf of Otter Tail:

Collin Kremeier Supy, Cust Admin & Outage Mgmt Otter Tail Power Company 215 South Cascade Street P.O. Box 496 Fergus Falls, MN 56538-0496 ckremeier@otpc.com	Cary Stephenson Associate General Counsel Otter Tail Power Company 215 South Cascade Street P.O. Box 496 Fergus Falls, MN 56538-0496 cstephenson@otpc.com
Wendi Olson Regulatory Compliance Specialist Otter Tail Power Company 215 South Cascade Street P.O. Box 496 Fergus Falls, MN 56538-0496 wolson@otpc.com	Regulatory Filing Coordinator Otter Tail Power Company 215 South Cascade Street P.O. Box 496 Fergus Falls, MN 56538-0496 regulatory_filing_coordinators@otpc.com

F. Service on other parties

(Minn. Rules 7829.1300, Subp. 2; Minn. Rules 7829.0600)

Pursuant to Minn. Rule 7829.1300, Subp. 2, Otter Tail served a copy of this Petition on the Division of Energy Resources of the Department of Commerce and the Residential Utilities Division of the Office of the Attorney General. A

summary of the filing prepared in accordance with Minn. Rule 7829.1300, Subp. 1 was served on all parties on Otter Tail's general service list.

III. DESCRIPTION AND PURPOSE OF FILING

A. Annual Reporting

Minnesota Rules 7826.0400, 7826.0500 and 7826.1300 require electric utilities to file reports on safety, reliability, and service quality performance for the prior year. Otter Tail's 2023 Safety, Reliability, and Service Quality Report is attached.

B. Proposed reliability standards for 2024

Minnesota Rules 7826.0600, Subp. 1, requires electric utilities to propose reliability performance standards for each of its work centers. The rule requires the performance standards be filed on or before April 1 of each year. The utility is to propose standards for the following reliability indices:

1. System average interruption duration index or SAIDI
2. System average interruption frequency index or SAIFI
3. Customer average interruption duration index or CAIDI

As approved in the March 2, 2022 Order in Docket E017/M-21-225, Otter Tail made a change from six service centers to four service centers for the 2021 report and future reporting.

Also, Otter Tail agrees to set standards for reliability indices at IEEE's Reliability Benchmark Survey median values for medium sized utilities for the corresponding year's data set, i.e. 2023 goals will be set on the 2023 IEEE Benchmark Survey results, as provided historically in August of 2024.

The current year report historically is completed, and results posted, in the third quarter of the following year. As done in 2023, Otter Tail will provide a supplemental filing within 30 days from when IEEE's 2023 Benchmark Reliability Survey results are completed and provide explanations for standards not met.

IV. CONCLUSION

Otter Tail appreciates the opportunity to provide this Safety, Reliability, and Service Quality Report for 2023, and requests Commission approval of our proposed reliability standards for 2024.

Date: April 1, 2024

Respectfully submitted,

OTTER TAIL POWER COMPANY

By: /s/ WENDI A. OLSON

Wendi A. Olson

Regulatory Compliance Specialist

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APRIL 1, 2024



Safety, Reliability, and Service Quality Report for 2023

Including Additional Compliance Obligations



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I. EXECUTIVE MANAGEMENT’S VIEW OF RELIABILITY

This section provides the view of Otter Tail’s executive management towards reliability and customer satisfaction.

Otter Tail Power Company (Otter Tail or the Company) is committed to providing quality and reliable service for the rural communities we serve. Reliability at Otter Tail continues to be best summarized in the Company’s mission statement:

“To produce and deliver electricity as reliably, economically, and environmentally responsibly as possible to the balanced benefit of customers, shareholders, and employees and to improve the quality of life in the areas in which we do business.”

Otter Tail Power Company serves more than 133,700 customers in a service area that spans 70,000 square miles in western Minnesota, eastern North Dakota, and northeastern South Dakota. Our service area is predominantly rural and agricultural. We generate about one-third of revenues from residential customers, and the remaining revenues come from industrial and commercial customers. The average population of the 422 communities we serve is approximately 400, and over one-half of the communities we serve have populations of fewer than 200. Only three of our communities have populations exceeding 10,000: Fergus Falls, Minnesota (pop. 13,138), Bemidji, Minnesota (pop. 13,431), and Jamestown, North Dakota (pop. 15,427). We operate nine Customer Service Centers (CSCs) and are committed to proactive efforts of communicating, investigating, and resolving reliability issues across our service territory.

The integrity of Otter Tail’s entire transmission and distribution system is directly related to interruption frequency; thus, the accountability lies within our Asset Management area. Otter Tail’s Asset Management area is accountable for the planning, engineering and design, execution, operation and on-going maintenance and reliability oversight to ensure that we provide reliable and affordable electric service to our customers. At Otter Tail, we employ a system of Key Performance Indicators (KPIs), for the purpose of providing additional focus on achievement in particular areas of our operations. Two of Asset Management’s KPIs are reliability indices dealing with interruption frequency: the Momentary Average Interruption Frequency Index (MAIFI) and System Average Interruption Frequency Index (SAIFI).

Otter Tail’s Customer Service area is accountable for responding to all interruptions. Thus, Otter Tail’s Customer Service area is accountable for the cost effective and efficient deployment of field personnel, trucks, and equipment as quickly and safely as possible, necessary for restoring service to customers when interruptions occur. One of the Customer Service area’s KPIs is Customer Average Interruption Duration Index (CAIDI). Additionally, the Reliability indices, SAIDI, SAIFI, CAIDI, and MAIFI are companywide KPI’s. These indices are communicated and reviewed with all impacted employees, on a monthly basis, with the expectation that all employees remain cognizant of our company’s reliability performance.

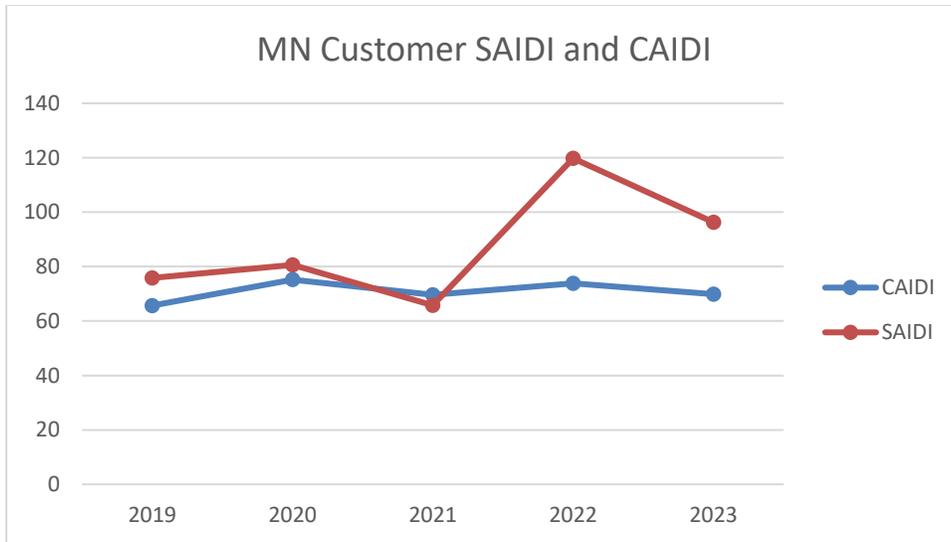
Otter Tail continues to investigate upgrades to increase the resiliency of our system to withstand increased weather events into the future and has several projects in process.

The Asset Management and Customer Service areas have a common goal, which is to improve the overall system reliability. Each area recognizes the overall system improvement cannot be accomplished without collaboratively working with the other area. Each area also recognizes system reliability improvements are based on cost effective decisions and overall system improvements over longer periods of time.

II. 2023 SUMMARY GRAPHS

As included in previous reports, Otter Tail provides a summary that allows the reader to more easily assess the overall reliability of the system and identify the main factors that affect reliability. Figure 1 through Figure 5 and Table 1 below provides a summary of Otter Tail’s overall Minnesota reliability and service quality for the years 2019 through 2023.

Figure 1 – Normalized Historic Minnesota SAIDI and CAIDI



Otter Tail saw normalized performance levels decrease for both SAIDI and CAIDI for 2023 compared to 2022 results.

Figure 2 – Normalized Minnesota Historic SAIFI

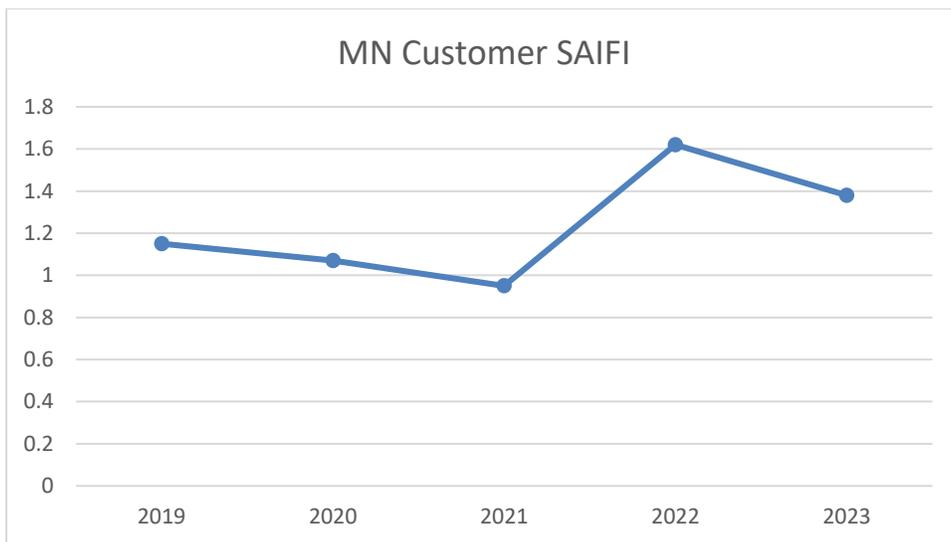


Figure 3 – Normalized Minnesota Historic MAIFI

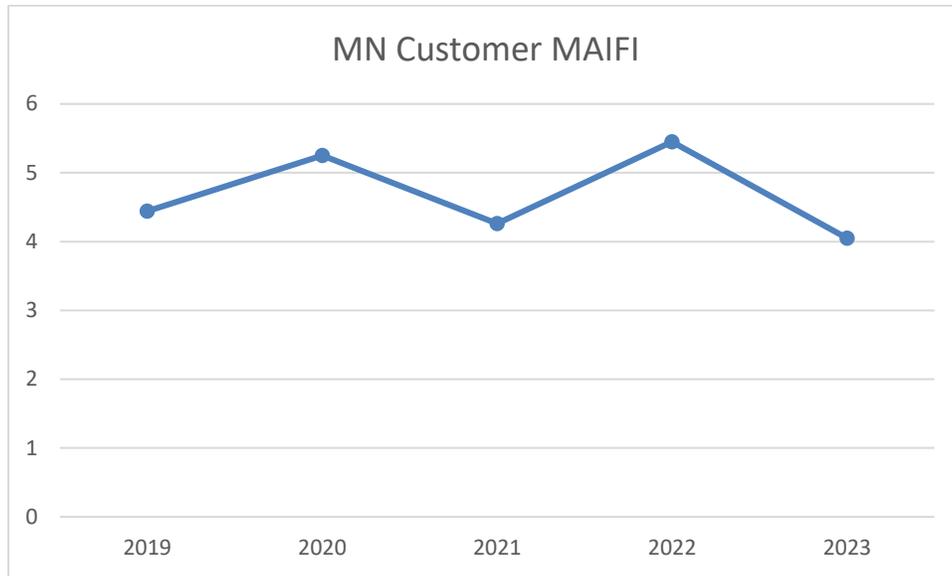


Table 1

Normalized MAIFI by Customer Service Center

CSC 2023	MAIFI
Bemidji	4.52
Crookston	6.51
Fergus Falls	3.46
Morris	3.87
MN Total	4.05

MAIFI is the momentary average interruption frequency index. It is an indication of the average number of momentary interruptions the average customer received over the course of a year, for a particular region. Otter Tail views MAIFI as a leading indicator for future SAIDI and thus tracks and analyzes line sections with higher than average momentary interruptions for future capital improvements or possible vegetation management needs. Overall, Otter Tail saw a decrease in 2023 results when compared to 2022, and our five year trend shows a decrease.

Figure 4 – Full Time Lineworkers available for trouble calls and for the operation and maintenance of Minnesota distribution lines

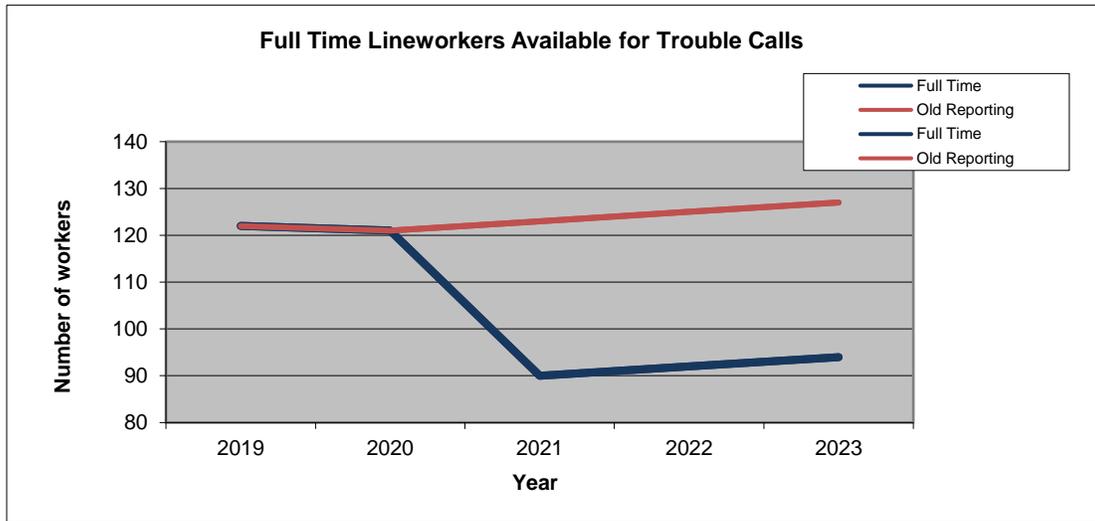
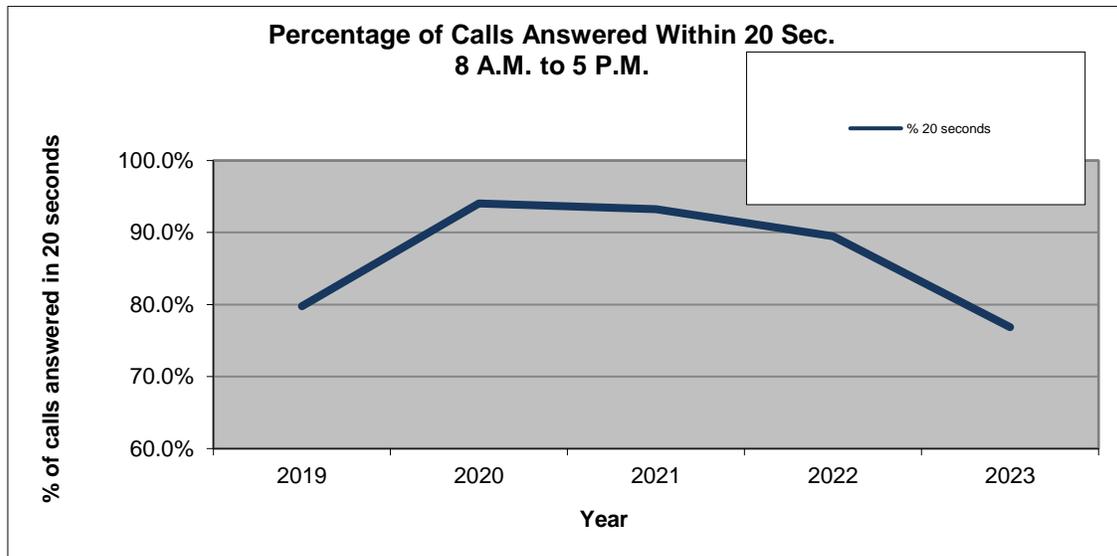


Figure 5 - Calls Answered within 20 Seconds

Otter Tail did not meet the 80 percent of our calls answered within 20 seconds requirement this year. We have submitted more details in section IX Reporting Call Center Response Time in Table 36.



III. ANNUAL SAFETY REPORT 7826.0400

Pursuant to Minnesota Rule 7826.0400, ANNUAL SAFETY REPORT, each utility shall file a report on its safety performance during the last calendar year. This report shall include the following information.

A. Summary of all reports filed with the United States Occupational Safety and Health Administration and the Occupational Safety and Health Division of the Minnesota Department of Labor and Industry during the 2023 Calendar year.

Table 2

NUMBER OF CASES				
Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases	
0	3	2	4	
NUMBER OF DAYS				
Total number of days of job transfer or restriction		Total number of days away from work		
190		49		
INJURY AND ILLNESS TYPES				
Injuries	Skin disorders	Respiratory conditions	Poisonings	All other illnesses
9	0	0	0	0

When an injury or illness involves one or more days away from work, you must record the injury or illness on the OSHA 300 Log with a check mark in the space for cases involving days away and an entry of the number of calendar days away from work in the number of days column. The number of cases with job transfers or restrictions safety metric employers determine how many workplace injuries and illnesses required employees to miss work, perform restricted work activities or transfer to another job within a calendar year. The number of other recordable cases describes the work-related injury of illness that does not involve death, days away from work, or days of restricted work or job transfer, and where the employee receives medical treatment beyond first aid. The total number of days away from work shows the total number of calendar days away from work for all work-related injuries and illnesses.

B. A description of all incidents during the calendar year in which an injury requiring medical attention or property damage resulting in compensation occurred as a result of downed wires or other electric system failures and all remedial action taken as a result of any injuries or property damage described, are shown in Table 3.

Table 3

ANNUAL SAFETY REPORT				
Date	Cause	Type	Action Taken	Expense
<i>There were no instances of personal injury due to system failures in 2023.</i>				

IV. RELIABILITY REPORTING REQUIREMENTS 7826.0500

Subpart 1. Annual reporting requirements. On or before April 1 of each year, each utility shall file on its reliability performance during the last calendar year.

A – D. REPORT OF OTTER TAIL’S SAIDI, SAIFI, AND CAIDI FOR 2023 AND STORM NORMALIZATION OF RELIABILITY DATA

Minnesota Rule 7826.0500, Subparts 1a, 1b, 1c, and 1d requires the utility to file a report on its SAIDI, SAIFI and CAIDI for the calendar year, by work center and for its assigned service area as a whole. Additionally, this rule requires the utility to provide an explanation of how the utility normalized its reliability data to account for major storms.

Since 2018, Otter Tail has used our Itron interruption monitoring system, IMS, to calculate storm normalized reliability data. 2024’s process will utilize our new outage manage system, OMS, to provide the normalization process and associated metrics.

Otter Tail’s 2023 2.5 Beta process is based on the following assumptions:

- Itron calculates annual system T_{med} (SAIDI/Day threshold) based on all historic data available, 2018 - 2022.
- The system T_{med} is utilized to run our indices for Minnesota and individual Minnesota Customer Service Centers (CSCs).

For 2023 data, the 2.5 beta parameter assumptions are as follows:

2.5 Beta Parameters:

Alpha	Beta	Major Event Day
-2.26	2.09	19.22

After applying 2.5 Beta Parameters for 2023, one day met the criteria to be considered a Major Event Day (MED), December 26, 2023.

- December 26, 2023 – A severe ice storm in North Dakota caused prolonged interruptions to 17,000 customers in our system due to extensive equipment damage including 200+ broken poles. The SAIDI/day system accumulation was 36 minutes. Accumulation for December 25 – December 27 was in excess of 54 minutes. However, Minnesota did not receive a sustained interruption during this event (there was a momentary interruption), thus, Minnesota normalized and non-normalized results are the same.

Table 4 shows Otter Tail’s 2023 SAIFI, CAIDI, and SAIDI normalized results based on the IEEE 2.5 Beta Method for each CSC and the entire Minnesota system. 2023 results were gathered by our Itron Interruption Monitoring System, implemented in 2019.

The 2023 IEEE Reliability Benchmarking Report will not be completed until the August 2024 timeframe. At that time, Otter Tail will compare statewide and work center results and will provide those results, including explanations for standards not met, in the supplemental filing required within 30 days from when IEEE’s 2023 Benchmark Reliability Survey results are completed.

Table 4

2.5 Beta 2023			
CSC	SAIFI	SAIDI	CAIDI
Bemidji	1.94	106.29	54.73
Crookston	1.7	128.63	75.57
Fergus Falls	1.04	70.96	68.24
Morris	1.61	135.71	84.15
MN Total	1.38	96.28	69.89

Table 4a shows Otter Tail’s 2023 SAIFI, CAIDI, and SAIDI non-normalized results for each CSC and the entire Minnesota system. As previously mentioned, during Otter Tail’s MED, Minnesota customers did not realize a sustained interruption, thus, non-normalized results are the same as normalized.

Table 4a

Non-Normalized 2023			
CSC	SAIFI	SAIDI	CAIDI
Bemidji	1.94	106.29	54.73
Crookston	1.7	128.63	75.57
Fergus Falls	1.04	70.96	68.24
Morris	1.61	135.71	84.15
MN Total	1.38	96.28	69.89

Reliability Standard Summary

When compared to 2022, Otter Tail's 2023 overall Minnesota reliability performance realized a decrease, or improvement, in SAIFI, SAIDI, CAIDI and MAIFI.

Reliable service continues to be one of Otter Tail's top priorities and we are mindful that ongoing improvements in reliability will continue to happen over time and must be done cost effectively. We believe the continued maturity of our current processes and the application of new technologies and tools will provide improved customer results.

Table 5 provides a summary of the different types of interruption causes that affect overall Minnesota system reliability. It is not always possible to determine the cause of every interruption. This summary provides investigated and verified causes that were found in the field via patrols and inspections. 2023 cause summary data comes from our Outage Management System (OMS), implemented on December 20, 2022 and includes distribution interruption cause data.

Table 5 on next page.

Table 5
2023 MN Sustained Interruption Summary
by CSC and cause

MN CSC	Transmission Interruption	Planned Outage	Equipment	Maintenance	Weather	Animals	Public	Other	Unknown	CSC Total
Bemidji										
Outages:	3	0	55	4	5	68	16	11	95	257
Customers Affected:	694	0	5,422	21	959	7,195	176	192	7,994	22,653
Customer Minutes:	20,008	0	474,382	3,893	60,893	388,926	16,232	12,564	1,000,550	1,997,448
Crookston										
Outages:	14	4	52	2	10	32	12	17	142	285
Customers Affected:	1,035	13	5,312	154	2,507	1,145	61	704	9,330	20,261
Customer Minutes:	44,285	1,389	815,545	16,395	124,325	37,149	2,704	118,454	889,590	2,049,836
Fergus Falls										
Outages:	16	10	86	7	52	125	22	24	292	634
Customers Affected:	3,701	174	5,886	677	2,310	11,835	257	1,834	20,476	47,150
Customer Minutes:	241,316	24,595	627,380	71,413	311,807	905,519	22,859	118,803	2,381,841	4,705,533
Morris										
Outages:	5	2	65	5	18	30	17	20	152	314
Customers Affected:	397	37	3,378	615	2,059	343	76	1,479	12,645	21,029
Customer Minutes:	67,065	6,302	390,366	51,575	169,025	21,380	5,047	180,390	2,270,759	3,161,909

E. ACTION PLAN FOR REMEDYING ANY FAILURE TO COMPLY WITH RELIABILITY STANDARDS

Minnesota Rule 7826.0500, Subpart 1e, requires utilities to file an action plan for remedying any failure to comply with reliability standards set forth in part 7826.0600 or an explanation as to why non-compliance was unavoidable under the circumstances.

As referenced in our action plan required in the Commission's Order dated December 20, 2012, in Docket No. E017/M-12-325, Otter Tail continues to enhance our new processes adopted by the Company to improve system reliability performance. The following is an update of our action plan:

- 1. Outage Management System:** As discussed in both Otter Tail's Integrated Distribution Plan (IDP) and Otter Tail's Electric Utility Infrastructure Cost (EUIC) recovery rider petition, Otter Tail went live with an Outage Management System (OMS) in December of 2022. Continued improvements to this system took place throughout 2023. In summary, the OMS will drastically improve the way in which outage information is organized and summarized. This system allows Otter Tail crews to respond to outages more efficiently which improves restoration times.

In addition, the more granular information from the OMS, when compared to 2019 through 2023 data from the Interruption Monitoring System (IMS), will show future increases in reported SAIFI, SAIDI, and CAIDI when Otter Tail utilizes that system for 2024 annual SRSQ reporting. However, this does not mean that reliability is degrading. In fact, over time, Otter Tail's use of this data will greatly aid in future investment decisions to improve reliability. More details can be found in Otter Tail's EUIC recovery rider Docket No. E017/M-21-382¹.

A comparison of 2023 IMS and OMS system data shows anticipated increases in SAIDI by 2.2X, SAIFI by 1.2X, and CAIDI by 1.8X over indices reported 2019 - 2023.

- 2. Customer Service and Asset Management Joint Monthly Team Meetings:** Otter Tail's Customer Service and Asset Management cross functional team meets quarterly for a comprehensive overview of our system's reliability. This process continues to provide increased awareness, focus and attention to reliability related issues through the prioritization of resources. In addition to managers from each of the Customer Service and Asset Management business units, Otter Tail's Vice Presidents of both Customer Service and Asset Management attend these quarterly meetings. In addition, this information is reviewed by the Otter Tail Executive team on a quarterly basis as well highlighting the importance of good reliability.

¹ *In the Matter of Otter Tail Power Company's Petition to Implement Tracker Recovery for Advanced Metering Infrastructure/Outage Management System/Demand Response System*, Docket No. E017/M-21-382, June 7, 2021.

In a similar process, local CSC operation management and engineering staff meet monthly to discuss any reliability concerns as well. In these meetings teams discuss more details including mitigation plans.

- 3. Electronic Tracking Process for Transmission Patrol Reports and Maintenance Activities:** In 2021, the company approved a new field app (Field Worker) that has a direct tie to Otter Tail's staking system. This allows for a more efficient and seamless transition from when an issue is identified in the field to development of a work order to correct the concern. This allows the Company to more effectively schedule and manage maintenance activities based on historic and current maintenance data. This enables more efficient prioritization of resources. In addition, specific budget dollars are allocated for mitigating identified reliability concerns. The process continued to provide the several benefits noted throughout the past three years.
- 4. Lightning Tracking System:** Otter Tail's lightning tracking system tracks lightning activity within Otter Tail's service territory. This tool has been beneficial in identifying remote areas hit by lightning, assisting in follow-up patrols and inspections to identify damaged equipment. The integration of the lightning data with our GIS system allows for strike data to be tracked and compared to our asset locations, identifying areas for needed patrol following lightning/storm events.
- 5. GIS Data Integration & Improvements:** As discussed in both Otter Tail's Integrated Distribution Plan (IDP) and Otter Tail's Electric Utility Infrastructure Cost (EUIC), Otter Tail is greatly improving the quality of its GIS data through a data collection effort performed by a third-party. This work started in 2021 and all data was collected in 2023. QA/QC was completed on March 1, 2024 (third party staffing issues and severe winter weather conditions delayed this completion). The information collected will be used to better inform reliability improvement programs and projects. In addition, Otter Tail continues the integration of critical system data into its GIS. Underground fault data, patrol information, SEL distance relay data, lightning strike location data, and pole inspection data is all integrated into GIS providing an optimized approach to reliability related activities in the future.
- 6. Fault Indicator Installations at Transmission Line Junctions:** Otter Tail continues to install and utilize fault indicators on transmission line junctions (line splits). Otter Tail will continue to monitor and investigate the improvements this equipment provides in our abilities to identify fault location detection which are aimed at improving CAIDI and subsequently SAIDI as well.
- 7. Installation of Real-Time Voltage, Current, and Power Quality Monitors:** Otter Tail continues to utilize remote real-time power quality monitors in the field to assist with investigating interruption events and power quality issues. Today, Otter Tail has 108 of these power quality monitors installed and operating throughout our system. These tools are located in identified problem areas and then redeployed in other areas once the issues are resolved. Data provided is real-time and displayed via a web browser or via downloads. Continued deployment of this equipment has improved Otter Tail's efforts in identifying power quality and reliability problems and issues in the field.

- 8. Installation of Grid Monitoring Power Sensors:** In 2020, Otter Tail purchased and installed 15 sets of medium voltage power sensors for monitoring overhead distribution and 41.6KV transmission circuits. They communicate critical power quality attributes via wireless cellular and data is provided real time via a web browser. Otter Tail continues to learn and apply this tool and use its data for continued system optimization. These monitors continue to provide critical information which aides in our customer service improvement.
- 9. Vegetation Maintenance Improvement:** In July of 2023, Otter Tail signed a 1-year pilot program with AiDash to analyze 1,750 miles of distribution and 250 miles of transmission lines located in highly vegetated areas within our service territory. AiDash uses high-definition satellite imagery in combination with AI to prioritize these line sections within their IVMS (intelligent vegetation management system) dashboard. The use of AiDash allows Otter Tail to visualize and prioritize each line section in multiple ways including the following: vegetation criticality, customers impacted, critical lines based on potential load loss, Wildfire FEMA rating, and many more. The use of AI also gives a look into future needs using predictive growth modeling technology that analyzes current conditions and applies species specific growth rates to see and plan for future areas of concern. With the use of AiDash, Otter Tail has clearer visibility into the current and future vegetative conditions of our system which allows us to direct our vegetation needs more strategically and efficiently.

This action plan will provide continued contribution towards cost-effective improvement of the Company's overall system reliability. Overall system improvements will be realized over longer periods of time. These improvements will come through new technology, improved efficiencies, disciplined primary cause investigation and analysis, situational awareness, and attention to overall cross-functional accountabilities.

F. INTERRUPTION OF BULK POWER SUPPLY FACILITY

Pursuant to Minnesota Rule 7826.0500, Subpart 1f, to the extent feasible, a report on each interruption of a bulk power supply facility during the calendar year, including the reasons for interruption, duration of interruption, and any remedial steps that have been taken or will be taken to prevent future interruption.

For the 2023 calendar year, Otter Tail reports that there were two bulk power supply interruptions, both causing sustained interruptions to Minnesota Otter Tail customers.

On February 3, 2023, a conductor fed from the MPC Oslo 115KV substation failed. This event impacted 587 Otter Tail customers in the Oslo and Manvel area for a duration of 84 minutes.

On September 28, 2023, a protection relay failed at the MPC Winger 230KV substation. This event impacted 791 Otter Tail Customers in the Callaway, Ogema, White Earth, and Waubun area for a duration of 67 minutes.

G. REPORTING MAJOR SERVICE INTERRUPTIONS

Minnesota Rule 7826.0500, Subpart 1g, requires utilities to file a copy of each report filed under part 7826.0700, reporting major service interruptions.

Minnesota Rule 7826.0500, Subpart 1g, requires utilities to file a copy of each report filed under part 7826.0700, reporting major service interruptions. On December 18, 2020, the Minnesota Public Utilities Commission issued an order in Docket No. E017/M-20-401 granting a variance to Minnesota Rule 7826.0500, Subpart 1g. Otter Tail provides as required by this variance as Attachment 1, a summary table that includes the information contained in the reports.

This reporting was completed using our old Itron system at the feeder level. We are working with Milsoft (our OMS provider) to use OMS live data for reporting in the future.

H. CIRCUIT INTERRUPTION DATA

Minnesota Rule 7826.0500, Subparts 1h, requires utilities, to the extent technically feasible, to file circuit interruption data, including identifying the worst performing circuit in each work center, stating the criteria the utility used to identify the worst performing circuit, stating the circuit's SAIDI, SAIFI, and CAIDI, explaining the reasons that the circuit's performance is in last place, and describing any operational changes the utility has made, is considering, or intends to make to improve its performance.

In compliance with this rule, **Table 6** shows the worst performing circuit for each of Otter Tail's four CSCs. Otter Tail continues to define a circuit as a distribution feeder and it will again use customer interruptions, both momentary and sustained, as the criteria for identifying worst performers. We continue to include momentary customer interruptions as conditions due to the fact this is a "forward looking" metric and that MAIFI is a predictor of future SAIDI. Also, benchmark surveys show that multiple momentary interruptions have a negative impact on customer satisfaction. This analysis does include interruptions occurring during our identified MEDs which for 2023 was only momentary as discussed earlier in the report.

Table 6
2023 MN Worst Performing Feeders

Service Center	Substation Name	Feeder Description	Customer Count	Total Sustained Customer Minutes	SAIFI	SAIDI	CAIDI	MAIFI
BEMIDJI	Twin Valley	Main Feeder	721	103398	2	143.41	71.66	14
CROOKSTON	Crookston Barrette St	South Feeder	834	56805	2	67.25	33.62	6.7
FERGUS FALLS	Ottertail City	North Feeder	876	203413	4	232.21	57.84	13
MORRIS	Wheaton	North Feeder	1117	455643	5	407.92	81.58	12

Bemidji CSC: The Main Feeder fed from the Twin Valley Substation was the worst performing feeder in 2023 for the Bemidji CSC. This feeder experienced two sustained and 14 momentary interruptions impacting 721 customers in 2023. The cause of both sustained interruptions were due to trees.

This feeder was last trimmed in 2021 as part of our vegetation management process. Otter Tail had crews to the area to trim/clear in Q1 of 2024. Also in 2024, the 41.6KV transmission line to the substation continues to be upgraded. This work includes replacing insulators and poles and was started in 2023.

Crookston CSC: The South Feeder fed from the Crookston Barrette Street Substation was the worst performing feeder in 2023 in the Crookston CSC. This feeder experienced two sustained and seven momentary interruptions impacting 834 customers. The causes of the sustained interruptions were weather related. Severe icing and lightning, both causing damage to overhead conductors.

This feeder was last trimmed in late 2023 and early 2024 as part of our vegetation management process. In 2023 a project was started to convert portions of overhead to underground. This project continues into 2024. Also, as a result of this circuit's past two years performance, Otter Tail will continue to monitor and investigate upgrades to this feeder to ensure improved results in the future.

Fergus Falls CSC: The North Feeder fed out of the Ottertail City Substation was the worst performing feeder in 2023 for the Fergus Falls CSC. This feeder has been a poor performer in the past years out of the Fergus Falls CSC. This feeder experienced four sustained and 13 momentary interruptions, impacting 876 customers in 2023. The causes of the sustained interruptions include birds, equipment failure, and an agricultural vehicle coming in contact with overhead lines.

This feeder, which resides in a heavily wooded area was last trimmed late summer/fall of 2021 as part of our vegetation management process. Several “hot spot” locations were trimmed in 2023. A project to replace an old section of underground primary was completed during the summer of 2021. A large project to replace existing overhead primary with underground cabling was largely completed in 2022. However, supply chain issues had delayed delivery of padmount transformers to complete this project. Otter Tail took delivery of the transformers on January 20, 2024. This allows completion of this upgrade once the ground thaws. It is expected that this upgrade will provide much improvement in service in 2024 and beyond due to the heavily wooded area and feeder surroundings. Otter Tail has observed great improvements in other Overhead to Underground conversion projects and expect similar improvements on this feeder. Investigations into additional proactive maintenance activities continue to improve this feeder’s performance in the future.



Morris CSC: The North Feeder fed from the Wheaton Substation was the worst performing feeder in 2023 for the Morris CSC. This feeder experienced five sustained and 12 momentary interruptions impacting 1117 customers in 2023. The causes of the sustained interruptions include overhead line conductor failure, two of those due to icing breaking off tree limbs.

This feeder was last trimmed in 2019 as part of our vegetation management process. It is scheduled to be trimmed again in 2024. Upgrades are planned for this feeder to replace aging underground and convert overhead to underground in 2024. Investigations into additional proactive maintenance activities continue to improve this feeder’s performance in the future.

I. REPORT OF NOMINAL ELECTRIC SERVICE VOLTAGES

Minnesota Rule 7826.0500, Subpart 1i, requires that utilities shall file a report providing data on all known instances in which nominal electric service voltages on the utility’s side of the meter did not meet the stands of the American National Standards Institute for nominal system voltages greater or less than voltage range B.

Otter Tail provides, in **Table 7** below, the feeders and number of occurrences where the voltage fell outside the ANSI voltage range B. Most of the feeders, with numerous occurrences, are feeders with a single large customer that has a very large load. As discussed in Information Request, MN-DOC-006, of the 2022 Safety Reliability Service Quality Report (Docket No. E017/M-23-76) Otter Tail’s IMS (used to collect data) captures instantaneous voltage violations greater or less than voltage range B.

**Table 7
MN Feeders and Number of Occurrences – Voltage fell outside the ANSI Voltage Range**

Customer Service Center	Feeder	Events - Instantaneous Voltage	
		Number of Volt(RMS) Below Threshold Events (E6)	Number of Volt(RMS) Above Threshold Events (E7)
Bemidji CSC	Main Feeder	1	4
Bemidji CSC	Downtown Feeder	0	5
Bemidji CSC	Feeder	0	5
Bemidji CSC	South Feeder	0	2
Bemidji CSC	Main Feeder	0	3
Bemidji CSC	Feeder	0	1
Bemidji CSC	Feeder	0	2
Bemidji CSC	South Feeder	0	5
Bemidji CSC	Main Feeder	0	28
Bemidji CSC	Feeder	0	43
Bemidji CSC	East Downtown Feeder	0	53
Bemidji CSC	East Feeder	0	12
Bemidji CSC	Feeder	0	88
Bemidji CSC	Main Feeder	0	940
Bemidji CSC	Main Feeder	0	7
Bemidji CSC	North Feeder	1	0
Bemidji CSC	Main Feeder	0	10

Customer Service Center	Feeder	Events - Instantaneous Voltage	
		Number of Volt(RMS) Below Threshold Events (E6)	Number of Volt(RMS) Above Threshold Events (E7)
Bemidji CSC	Main Feeder	0	40
Bemidji CSC	East Feeder	0	16
Bemidji CSC	West Feeder	0	19
Bemidji CSC	North Feeder	1	0
Bemidji CSC	South Feeder	1	3
Bemidji CSC	Main Feeder	0	38
Bemidji CSC	Main Feeder	0	117
Bemidji CSC	Main Feeder	0	3
Bemidji CSC	Main Feeder	0	25
Bemidji CSC	Feeder	0	1
Bemidji CSC	Main Feeder	6	20
Bemidji CSC	Feeder	0	2
Bemidji CSC	Feeder	0	1
Bemidji CSC	Main Feeder	0	317
Bemidji CSC	Main Feeder	0	3
Bemidji CSC	Main Feeder	0	2
Bemidji CSC	Main Feeder	0	5,195
Bemidji CSC	Main Feeder	0	5
Bemidji CSC	Main Feeder	0	42
Bemidji CSC	Main Feeder	0	5
Bemidji CSC	Main Feeder	0	6
Bemidji CSC	Main Feeder	0	8
Crookston CSC	Feeder	0	5,347
Crookston CSC	Feeder	27	4
Crookston CSC	Main Feeder	0	4
Crookston CSC	North Feeder	0	123
Crookston CSC	South Feeder	0	57
Crookston CSC	Main Feeder	0	31
Crookston CSC	Feeder	1	3
Crookston CSC	East Feeder	0	3
Crookston CSC	North Feeder	1	9
Crookston CSC	Main Feeder	4	28,946
Crookston CSC	North Feeder	0	9
Crookston CSC	South Feeder	2	3
Crookston CSC	Main Feeder	0	1
Crookston CSC	Main Feeder	0	12,315
Crookston CSC	Feeder	1	0
Crookston CSC	South Main Feeder	0	1
Crookston CSC	South Main Feeder	0	2
Crookston CSC	South Main Feeder	0	8
Crookston CSC	South Main Feeder	0	1

Customer Service Center	Feeder	Events - Instantaneous Voltage	
		Number of Volt(RMS) Below Threshold Events (E6)	Number of Volt(RMS) Above Threshold Events (E7)
Crookston CSC	South Main Feeder	0	13
Crookston CSC	Main Feeder	14	27
Crookston CSC	Main Feeder	0	25
Crookston CSC	Main Feeder	0	11
Crookston CSC	Main Feeder	0	59
Crookston CSC	East Feeder	0	79
Crookston CSC	West Feeder	0	38
Crookston CSC	North Feeder	0	4
Crookston CSC	South Feeder	0	12
Crookston CSC	Main Feeder	0	110
Crookston CSC	Main Feeder	1	159
Crookston CSC	Main Feeder	0	7
Crookston CSC	Main Feeder	0	4,801
Crookston CSC	North Feeder	2	5,936
Crookston CSC	South Feeder	2	711
Crookston CSC	Main Feeder	1	157
Crookston CSC	Main Feeder	0	3
Crookston CSC	Main Feeder	0	7
Crookston CSC	Main Feeder	0	11
Crookston CSC	Main Feeder	0	1
Crookston CSC	East Feeder	0	12
Crookston CSC	West Feeder	3	15
Crookston CSC	Feeder	2	0
Crookston CSC	North Feeder	0	24,165
Crookston CSC	South Feeder	0	26,008
Crookston CSC	East Feeder	0	18,605
Crookston CSC	Feeder	0	2
Crookston CSC	Southeast Feeder	0	4
Crookston CSC	Main Feeder	0	5
Crookston CSC	Main Feeder	2	18
Fergus Falls CSC	Main Feeder	0	51
Fergus Falls CSC	North Feeder	0	1
Fergus Falls CSC	South Feeder	0	3
Fergus Falls CSC	North Feeder	4	10
Fergus Falls CSC	Feeder	2	11
Fergus Falls CSC	North Feeder	1	86
Fergus Falls CSC	South Feeder	0	55
Fergus Falls CSC	Feeder	1	9
Fergus Falls CSC	Feeder	0	5
Fergus Falls CSC	Feeder	2	0
Fergus Falls CSC	Main Feeder	0	222
Fergus Falls CSC	Feeder	2	116

Customer Service Center	Feeder	Events - Instantaneous Voltage	
		Number of Volt(RMS) Below Threshold Events (E6)	Number of Volt(RMS) Above Threshold Events (E7)
Fergus Falls CSC	Feeder	0	179
Fergus Falls CSC	Main Feeder	0	46
Fergus Falls CSC	Main Feeder	0	935
Fergus Falls CSC	Main Feeder	0	89
Fergus Falls CSC	Main Feeder	0	1
Fergus Falls CSC	Feeder	5	77
Fergus Falls CSC	Feeder	5	83
Fergus Falls CSC	Main Feeder	0	4
Fergus Falls CSC	Main Feeder	0	6
Fergus Falls CSC	Main Feeder	16	1,070
Fergus Falls CSC	East Feeder	0	12
Fergus Falls CSC	West Feeder	0	4
Fergus Falls CSC	Feeder	0	11
Fergus Falls CSC	Feeder	0	1
Fergus Falls CSC	Feeder	0	290
Fergus Falls CSC	Feeder	0	57
Fergus Falls CSC	Feeder	0	973
Fergus Falls CSC	East Feeder	0	5
Fergus Falls CSC	Northeast Feeder	0	3
Fergus Falls CSC	Northeast Feeder	1	0
Fergus Falls CSC	Northeast Feeder	0	1
Fergus Falls CSC	Northeast Feeder	0	2
Fergus Falls CSC	Northeast Feeder	0	1,281
Fergus Falls CSC	West Feeder	1	0
Fergus Falls CSC	Main Feeder	0	12,676
Fergus Falls CSC	South Feeder	301	2,248
Fergus Falls CSC	South Feeder	0	607
Fergus Falls CSC	Feeder	0	11,935
Fergus Falls CSC	Feeder	0	25
Fergus Falls CSC	Feeder	348	736
Fergus Falls CSC	Main Feeder	1	139
Fergus Falls CSC	Main Feeder	0	1
Fergus Falls CSC	Feeder	0	1
Fergus Falls CSC	Feeder	2	2
Fergus Falls CSC	North Feeder	0	6
Fergus Falls CSC	South Feeder	0	19,043
Fergus Falls CSC	North Feeder	1	2
Fergus Falls CSC	North Feeder	0	167
Fergus Falls CSC	South Feeder	0	10
Fergus Falls CSC	East Feeder	0	5
Fergus Falls CSC	Feeder	0	10
Fergus Falls CSC	West Feeder	0	4

Customer Service Center	Feeder	Events - Instantaneous Voltage	
		Number of Volt(RMS) Below Threshold Events (E6)	Number of Volt(RMS) Above Threshold Events (E7)
Fergus Falls CSC	East Feeder	0	1
Fergus Falls CSC	Feeder	926	4,553
Fergus Falls CSC	Feeder	0	1
Fergus Falls CSC	Main Feeder	0	2
Fergus Falls CSC	Main Feeder	0	5
Fergus Falls CSC	Main Feeder	1	13,270
Fergus Falls CSC	Main Feeder	1	0
Fergus Falls CSC	Feeder	2	14,103
Fergus Falls CSC	Feeder	0	68
Fergus Falls CSC	Main Feeder	0	7
Fergus Falls CSC	Main Feeder	1	61
Fergus Falls CSC	Main Feeder	0	107
Morris CSC	Main Feeder	0	5
Morris CSC	East Feeder	6	134
Morris CSC	West Feeder	3	85
Morris CSC	Main Feeder	0	1
Morris CSC	Main Feeder	47	1
Morris CSC	North Feeder	0	82
Morris CSC	South Feeder	0	130
Morris CSC	Main Feeder	1	1
Morris CSC	East Feeder	1	62
Morris CSC	West Feeder	1	5
Morris CSC	Main Feeder	1	4
Morris CSC	Main Feeder	0	2
Morris CSC	East Feeder	2	3,843
Morris CSC	Feeder	1	4,021
Morris CSC	West Feeder	1	3,227
Morris CSC	Main Feeder	0	1
Morris CSC	Main Feeder	0	2
Morris CSC	Main Feeder	0	2
Morris CSC	Main Feeder	0	9
Morris CSC	Main Feeder	0	11
Morris CSC	Main Feeder	0	3
Morris CSC	East Feeder	0	1
Morris CSC	West Feeder	0	1
Morris CSC	East Feeder	46	19
Morris CSC	Main Feeder	0	13
Morris CSC	Main Feeder	0	1
Morris CSC	Main Feeder	0	2
Morris CSC	Main Feeder	0	112
Morris CSC	Main Feeder	1	5
Morris CSC	North Feeder	0	2

Customer Service Center	Feeder	Events - Instantaneous Voltage	
		Number of Volt(RMS) Below Threshold Events (E6)	Number of Volt(RMS) Above Threshold Events (E7)
Morris CSC	South Feeder	0	3
Morris CSC	Feeder	4	10
Morris CSC	Main Feeder	0	1
Morris CSC	Main Feeder	0	2
Morris CSC	West Feeder	2	4
Morris CSC	Main Feeder	0	692
Morris CSC	North Feeder	0	1
Morris CSC	South Feeder	0	5
Morris CSC	East Feeder	2	6
Morris CSC	West Feeder	2	2
Morris CSC	Feeder	1	16
Morris CSC	Main Feeder	0	1
Morris CSC	Main Feeder	1	121
Morris CSC	East Feeder	0	70
Morris CSC	West Feeder	0	65
Morris CSC	East Feeder	1	16
Morris CSC	West Feeder	2	29
Morris CSC	Northwest Feeder	0	644
Morris CSC	West Feeder	2	5
Morris CSC	East Feeder	1	1
Morris CSC	Main Feeder	1	59
Morris CSC	West Feeder	1	1
Morris CSC	Feeder	0	195
Morris CSC	Feeder	0	99
Morris CSC	Main Feeder	0	6
Morris CSC	Main Feeder	0	486
Morris CSC	Main Feeder	1	841
Morris CSC	South Feeder	11	14,326
Morris CSC	Main Feeder	1	0
Morris CSC	Feeder	1	1
Morris CSC	Feeder	1	1
Morris CSC	Main Feeder	1	389
Morris CSC	North Feeder	2	2
Morris CSC	South Feeder	0	3
		19,365	473,949

J. STAFFING LEVELS AT EACH WORK CENTER

Minnesota Rule 7826.0500, Reliability Reporting Requirements, Subpart 1j, requires utilities to file a report providing data on staffing levels at each work center, including the number of full-time equivalent positions held by field employees responsible for responding to trouble and for the operation and maintenance of distribution lines.

In compliance with this rule, Otter Tail reports staffing levels by CSC including the number of full-time equivalent positions held by field employees responsible for responding to trouble and for the operation and maintenance of distribution lines. The staffing levels of Otter Tail’s Minnesota CSCs as of December 31, 2023, are shown in **Table 8** below.

Table 8

	Department	Type	Total
	Bemidji	Field	17
		Office	2
	Bemidji Total		19
	Crookston	Field	18
		Office	1
	Crookston Total		19
	Fergus Falls	Field	25
		Office	1
	Fergus Falls Total		26
	Morris	Field	18
		Office	1
	Morris Total		19
	Operations Support	Field	4
		Office	1
	Operations Support Total		5
	System Infra/Reliability	Office	5
	System Infra/Reliability Total		5
	Substation Maintenance	Field	7
	Substation Maintenance Total		7
	Customer Care & Relations	Office	39
	Customer Care & Relations Total		39
	12/31/2023		139

The Fergus Falls CSC includes the addition of one field personnel and one office employee that are located in our Wahpeton CSC. Our Wahpeton CSC serves communities in Minnesota. The additional employees into the Fergus Falls CSC count are responsible for responding to trouble and for the operation and maintenance of distribution lines.

The Morris CSC includes the addition of three field personnel and two office employee that are located in our Milbank CSC. Our Milbank CSC serves communities in Minnesota.

The additional employees into the Morris CSC count are responsible for responding to trouble and for the operation and maintenance of distribution lines.

Operations Support is based in Fergus Falls and the field employees are dispatched to assist CSCs in need throughout the entire system. The office employees coordinate resources.

Substation Maintenance is a department with employees that work in substations and with substation related equipment. During trouble they are dispatched to complete switching and other work associated with substation equipment.

Customer Care and Relations is the office staff that is made up of Customer Service Representatives, Lead Customer Service Representatives, Outage Management System Operators and Customer Service Management that are located in CSCs throughout our service territory. Since Otter Tail operates a Virtual Call Center, all the office staff located throughout the territory are accountable for answering outage calls in all states. The employee count for Customer Care and Relations is 39.

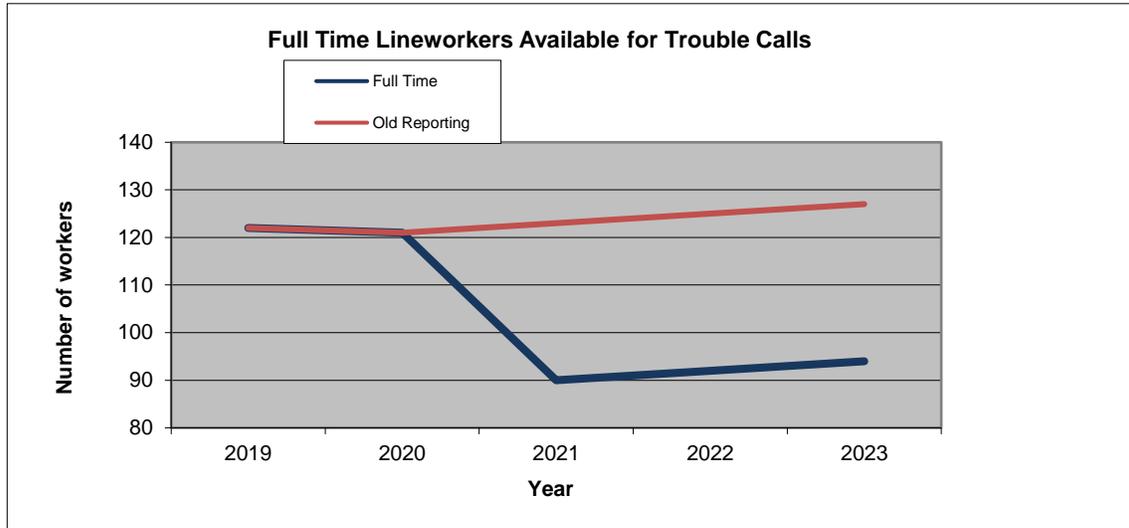
System Infrastructure and Reliability consists of Area Engineers that assist with overall outage restoration efforts including distribution and supports system reliability.

In 2022 we went live with a new Outage Management system in mid-December. To operate the system, six new Outage Management System operators were hired within the Customer Care and Relations department. Their main accountability is to dispatch field personnel to outages. The Outage Management System Operators are included within the Customer Care and Relations employee count.

Figure 6 depicts by year the number of full-time line workers available for trouble and for the operation and maintenance of distribution lines. The blue line indicates Minnesota only line workers (new reporting method). The red line includes all Minnesota line workers, North Dakota, and South Dakota, line workers located in our Wahpeton and Milbank Customer Service Centers as previously reported (old reporting method). We moved Wahpeton (2 feeders serving Minnesota Customers) into the Fergus Falls CSC and moved Milbank (2 feeders serving Minnesota customers) into the Morris CSC. We've included this additional line for comparison purposes.

As stated in Otter Tail's Electric Utility Infrastructure Costs (EUIC) filing in docket E017/M-21-382 filed on June 7, 2021, with AMI implementation, between now and 2032, Otter Tail anticipates seeing employee reductions. This will be largely due to automation, which will almost eliminate the need for employees to physically read customer meters. This reduction is expected to be accomplished through attrition and reassignment of personnel.

Figure 6



K. OTHER INFORMATION RELEVANT IN EVALUATING RELIABILITY PERFORMANCE

Minnesota Rule 7826.0500, Subpart 1k, requires utilities to file any other information the utility considers relevant in evaluating its reliability performance over the calendar year.

This is Otter Tail’s fifth year utilizing our Itron interruption monitoring system, IMS, for reliability monitoring/reporting and purposes of data collection. The Itron system utilizes metering technology in a bellwether configuration capturing feeder level interruptions. As previously mentioned, Otter Tail implemented an Outage Management System (OMS) late in 2022. The OMS will improve the way in which outage information is organized and summarized for Otter Tail crews, improving response and restoration times (CAIDI). However, the addition of more granular information from an OMS will cause increases in both reported SAIDI, CAIDI, and SAIFI.

- 1. Power Quality monitoring improvements:** Otter Tail continues to install and utilize wireless power quality monitors in identified problem areas. These devices monitor voltage, current, power, voltage unbalance, histograms, profiles, etc. in near real-time. Monitors also can gather sub cycle data for transient, harmonic, etc. analysis. These monitors have greatly improved our ability to monitor, identify, and analyze issues in the field. This tool is also utilized to monitor critical loads on feeders with additional customers, as the IMS has historically monitored at the feeder level.
- 2. Challenges in achieving reliability:** Otter Tail has the unique challenge of delivering reliable services to its customers across a large rural service territory, which has tremendous exposure to hazards such as

vegetation, lightning, wind, and other weather-related issues. Our OMS deployment and the use of power quality meters will continue to provide optimized and focused deployment of our vegetation management and maintenance resources to specific areas that are identified through the interruption data collection and analysis processes. **Otter Tail is implementing system wide AMI meter technology with estimated completion in 2025. This technology implementation will provide advanced grid analytic capabilities. Otter Tail will also be investigating new technology capabilities integrated within all newly installed AMI meters, providing the potential for sub cycle power quality analysis. The company also plans to expand the reliability engineering workforce to focus on these new technologies and future benefits to our customers.**

3. **Measuring reliability:** Otter Tail continues to evaluate alternate indices and the subsequent relationship towards reliability and customer satisfaction tracking. Our Itron interruption monitoring system historically has had the capability to monitor the following indices: SAIFI, SAIDI, CAIDI, CTAIDI, CAIFI, ASAI, CEMI-5, CELID-s60, MAIFI, MAIFe, CEMSMI-5, and Total sustained customer minutes. With the adoption of our new OMS, Otter Tail will take another step forward in its ability to improve performance due to the application of additional and better field and system data. Although, some of the indices Otter Tail currently has available will need to be developed over time within the OMS as we continue improvements within our new system. Indices reporting from our new OMS will occur in our 2024 SRSQ filing. AMI power off and power on notifications from each meter will also take Otter Tail's reliability reporting another step forward.
4. **Grid Resilience:** Otter Tail maintains a focus on investing into various system wide programs to improve grid resilience and reliability. Over the past 3-5 years, Otter Tail has increased programs associated with replacement of aging assets by nearly 2x. For more information regarding these programs and spending levels, please visit Otter Tail's 2023 Minnesota Integrated Distribution Plan (Docket No. E017/RP-23-380).

Figures 7, 8, and 9. The following graphs show Otter Tail’s Normalized(*) SAIDI, SAIFI and CAIDI for the period of 2019 through 2023. When compared to 2022 results, Minnesota customers experienced a decrease in overall SAIDI, SAIFI, and CAIDI.

Figure 7

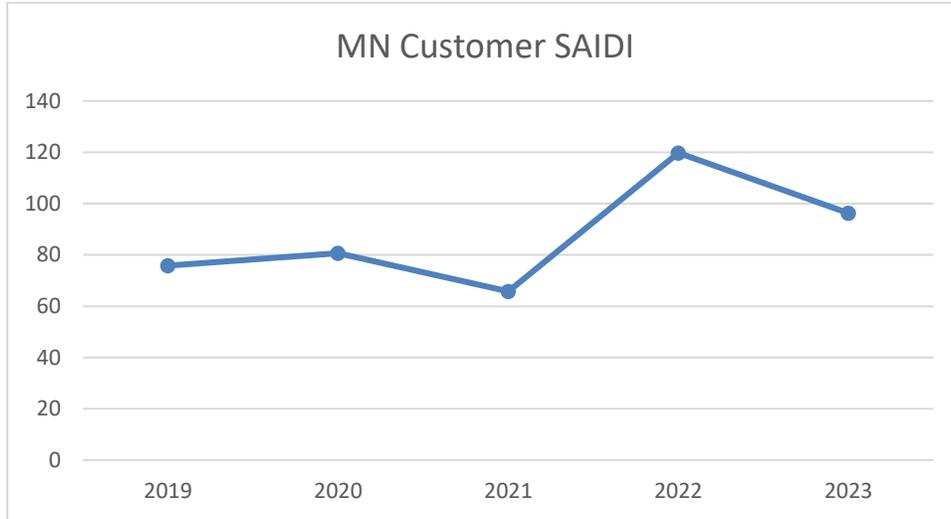


Figure 8

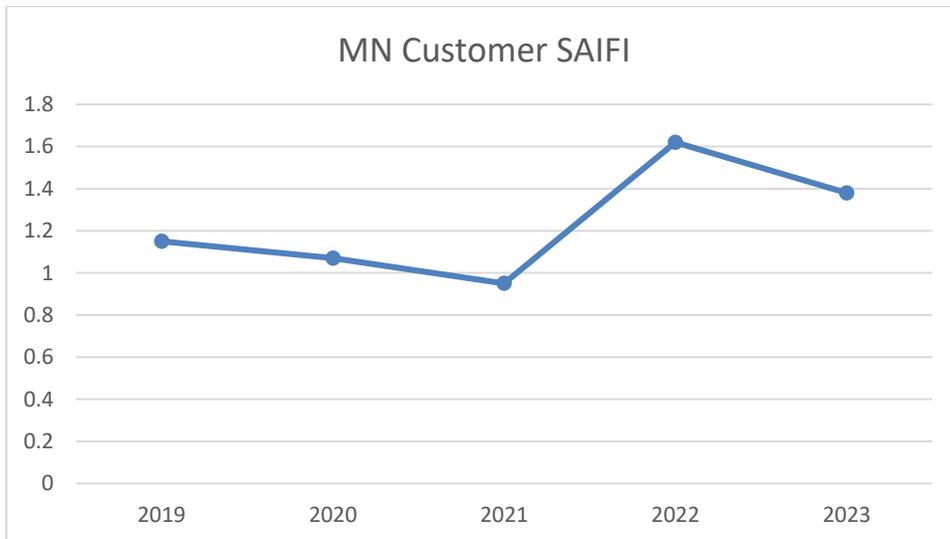
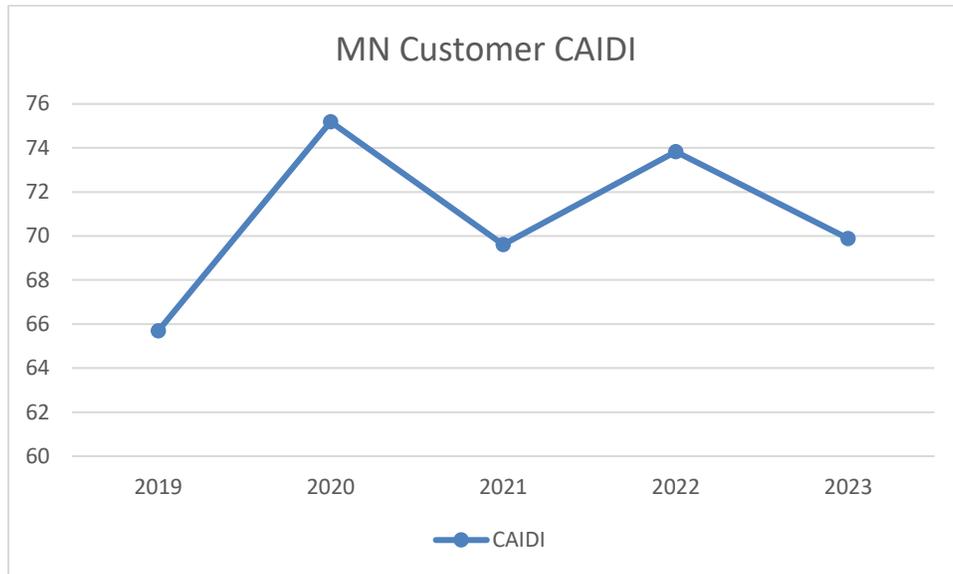


Figure 9



L. OTTER TAIL POLICIES, PROCEDURES, AND ADDITIONAL COMPLIANCE OBLIGATIONS

Otter Tail provides the following description of the policies and procedures that it has previously implemented and continues to utilize to improve reliability. Additional compliance obligation requirements are also provided.

The following is a list of reports that continue to be distributed internally. These reports ensure that Otter Tail employees are aware of issues in the system on a timely basis and can respond quickly to maintain and improve overall system reliability.

1. Internal Reporting

- a. Monthly Reliability Report:** Otter Tail distributes to all employees an overall summary of system performance as compared to internal KPI's. This report shows SAIDI, SAIFI, CAIDI, and MAIFI for the system. As discussed, Otter Tail will begin utilizing our new OMS for 2024 monthly reporting. As discussed earlier, increased granularity will cause an increase in indices reported going forward.
- b. Additional reporting:** Otter Tail will continue to evaluate and track other indices in 2024 and develop internal KPI's that are reported and published to Otter Tail's Asset Management and Customer Service Departments.

2. Proactive Inspections and Testing

- a. Field Inspections:** Otter Tail conducts several periodic patrols and inspections throughout the transmission and distribution system. Transmission substations and lines are inspected and patrolled on an annual basis and more often when issues are identified. Distribution substations are inspected for safety and equipment concerns on a periodic basis. The oil in substation transformers is sampled and tested for dissolved gas. Transformers greater than 10 MVA are tested annually and transformers less than 10 MVA are tested every three years.
- b. Pole integrity testing:** Otter Tail currently contracts for ground line inspections and treatment work of aged transmission poles for replacement identification. Otter Tail is currently also developing a more robust distribution pole inspection program to proactively identify and remove deteriorating poles before they fail.
- c. Underground Replacement:** Otter Tail continues its focus on replacing outdated and failing underground conductors. The Area Engineers proactively identify areas of concern and budget for replacement during the following year. Potential replacement candidates are identified and included in Otter Tail's Proactive UG Replacement project listing. The recently collected distribution data by the third party discussed earlier is also used to help identify cable sections for replacement. Otter Tail has greatly increased funding for this program over the past few years.
- d. Cut-Out Replacement Program:** In 2022, Otter Tail started a cut-out replacement program to replace failing porcelain cut-outs as well as add animal protection to poles and other distribution assets. This initiative is planned to continue throughout the 5-year planning horizon with a goal to replace all porcelain cut-outs.

In addition to the above-mentioned items, Otter Tail also employs a number of other policies, procedures, and committees to evaluate reliability and safety concerns that include, but are not limited to:

- Distribution Standards Committee
- Line inspections
- Workforce Planning Committee
- Transformer Installation and Change-out Loading Guide
- Voltage upgrades and evaluations as needed
- Mobile underground fault locating vans and associated equipment
- Wildlife protection and deterrent devices

The following are additional compliance obligation requirements.

3. Attachment B: Updated Annual Reporting Requirements (Clarifications to March 2019 Order Requirements) of January 28, 2020 PUC Order in Docket No. E017/M-19-260

a. Attachment B paragraph 1: *Non-normalized SAIDI, SAIFI, and CAIDI values.*

These are previously shown in section IV, A-D, Table 4a.

b. Attachment B paragraph 2: *SAIDI, SAIFI, and CAIDI, MAIFI, CEMI, and CELI normalized values calculated using the IEEE 1366 Standard.*

SAIDI, SAIFI, and CAIDI values are previously shown in section IV, A-D, at Table 4. MAIFI normalized values are previously shown in section II at Table 1, both normalized and non-normalized are the same and shown below in section c, at Table 9. CEMI, and CELI normalized and non-normalized values follow in section d, at Table 10 and 10a, and in section f, at Table 11 and 11a.

c. Attachment B paragraph 3: *MAIFI – normalized and non-normalized.*

Note, as discussed, both are the same so one is shown. There was one momentary interruption in Minnesota on our MED affecting a small number of customers with negligible impact to the indices.

Table 9

2.5 normalized

CSC 2023	MAIFI
Bemidji	4.52
Crookston	6.51
Fergus Falls	3.46
Morris	3.87
MN Total	4.05

d. Attachment B paragraph 4: *CEMI – at normalized and non-normalized outage levels of 4, 5, and 6 interruptions.*

Table 10

2023 system normalized CEMI

CEMI4	12.97%
CEMI5	6.59%
CEMI6	2.75%

Table 10a

2023 system non-normalized CEMI

CEMI4	15.98%
CEMI5	9.96%
CEMI6	4.41%

- e. Attachment B paragraph 5:** *The highest number of interruptions experienced by any one customer (or feeder, if customer level is not available).*

The North Feeder fed from the Wheaton Substation (Morris CSC worst performing circuit) was the feeder experiencing the most interruptions. This feeder had five sustained and 12 momentary interruptions in 2023.

- f. Attachment B paragraph 6:** *CELI – at normalized and non-normalized intervals of greater than 6 hours, 12 hours, and 24 hours.*

Table 11

2023 system normalized CELID

CELID24	0.25%
CELID12	0.83%
CELID6	3.08%

Table 11a

2023 system non-normalized CELID

CELID24	1.2%
CELID12	1.9%
CELID6	4.18%

- g. Attachment B paragraph 7:** *The longest experienced interruption by any one customer (or feeder, if customer level is not available).*

The Main Feeder fed from the Foxhome Substation experienced the longest duration interruption lasting 10 hours and 11 minutes on February 14, 2023.

- h. Attachment B paragraph 8:** *A breakdown of field versus office staff as required Minn. Rules 7826.0500, Subp. 1, J, including separate information on the number of contractors for each work center.*

Previously shown in section IV, J, Table 8. Otter Tail does not utilize contractors for these services.

i. Attachment B paragraph 9: Estimated restoration time accuracy, using the following windows:

- a. Within -90 minutes to 0 of estimated restoration time
- b. Within 0 to +30 minutes of estimated restoration time

Otter Tail implemented an outage management system, OMS, in December of 2022. Scale up, training, and persistent system optimization continues throughout our system. For purposes of the 2024 SRSQ filing based on 2023 data, we can provide the Commission with information on what our customers experienced. Through online subscription, currently more than 28,000 customers (representing all three states we serve) are requesting and receiving ETOR information by text, email or push notifications.

As we continue to scale up, train and optimize our OMS, 2023 realized approximately 50 percent of field input into ETOR following site/event inspection. In cases where ETOR was not entered, a default of our system KPI CAIDI goal was used as a default entry. Below is an account of actual restorations compared to both field entered and default ETOR from our OMS.

Table 12

2023 ETOR Accuracy

Less than -90 minutes	19.64%
-90 to 0 minutes	57.13%
0 to 30 minutes	9.68%
+30 minutes	13.54%

j. Attachment B paragraph 11: Performance by customer class.

Below are two accounts of Minnesota customer reliability performance based on customer class from our OMS. The first table represents performance compared to all Minnesota customers. The second table represents performance within customer class. It's important to note the source for this information is different (OMS) vs the information contained in other tables in their report (IMS). In 2024, all tables and figures will utilize OMS information.

Tables 13 and 14

2023 MN performance by Customer Class – all customers denominator

	SAIDI	SAIFI	CAIDI
Commercial	29.3	0.28	104.44
Industrial	1.32	0.014	95.21
Residential	148.16	1.46	101.29

2023 MN performance by Customer Class – class denominator

	SAIDI	SAIFI	CAIDI
Commercial	157.85	1.51	104.54
Industrial	124.64	1.31	95.15
Residential	180.78	1.46	123.82

k. Attachment B paragraph 12: *Causes of sustained customer outages, by work center.*

Previously shown in section IV, A-D, Table 5.

4. December 18, 2020 PUC Order in Docket No. E017/M-20-401 (2019 Annual SRSQ Report)

a. Ordering paragraph 4: *The Commission hereby grants a variance to Minn. R. 7826.0500, Subp. 1, item G, applicable to Minnesota Power, Otter Tail, and Xcel. The utilities must file a summary table that includes the information contained in the reports, similar to Attachment G of Xcel's filing.*

This variance was referenced previously at section IV, G and the summary is included as Attachment 1 to this report.

b. Ordering paragraph 5: *The utilities must file the reliability (SAIDI, SAIFI, CAIDI, MAIFI, normalized/non-normalized) for feeders with grid modernization investments such as Advanced Metering Infrastructure or Fault Location Isolation and Service Restoration to the historic five-year average reliability for the same feeders before grid modernization investments.*

This is not applicable for Otter Tail at this time given the company does not have AMI nor FLISR installed. Otter Tail began full scale AMI installations in February of 2024 and estimated completion is expected in mid-2025.

c. Ordering paragraph 16: *After consultation with Department and Commission staff, each utility must file revised categories for reporting complaint data. The Commission hereby delegates authority to the Executive Secretary to approve additional reporting categories, with the goal of establishing them by the April 1, 2021 reporting deadline.*

See section XII, A & B below for a work group summary.

5. December 2, 2021 PUC Service Quality Order in Docket No. E017/M-21-225 (2020 Annual SRSQ Report)

a. Ordering paragraph 2: *Required Minnesota Power, Otter Tail Power, and Xcel Energy to provide the following new information regarding electronic utility-customer interaction beginning with the reports filed in April 2023:*

Table 15

Percentage Uptime		
	General Website	99.58%
	Payment Services	99.87%
	Third-party web payment services	100.00%
	Outage map &/or Outage Info page	99.42%
Error Rate Percentage		
	Payment Services	0.13%

In August of 2023 Otter Tail moved to a new third-party payment provider. Payment services numbers above are from our prior third-party payment provider.

Our current third-party payment provider, web service and IVR were both available 99.9%.

If more granular data is available, please break down the error rate for unexpected errors, errors outside of the customer's control (i.e. how often to online payments fail for reasons other than insufficient funds or expired payment methods), and/or some other meaningful categorization.

We were unable to obtain more granular data regarding the types of errors.

b. Ordering paragraph 3: *Required Minnesota Power, Otter Tail Power, and Xcel Energy to provide percentage uptime and error rate percentage information in their annual reports for the next three reporting cycles, to build baselines for web-based service metrics.*

We were unable to obtain more granular data.

c. Ordering paragraph 4: *Required Minnesota Power, Otter Tail Power, and Xcel Energy to continue to provide information on electronic utility-customer interaction such that baseline data are collected:*

- a. Yearly total number of website visits;*
- b. Yearly total number of logins via electronic customer communication platforms;*
- c. Yearly total number of emails or other customer service electronic communications received; and*

d. Categorization of email subject, and electronic customer service communications by subject, including categories for communications related to assistance programs and disconnections as part of reporting under Minn. R.7826.1700.

Table 16 below is a count of customer requests from our self-service area within our website. The information within the table is broken out by our categories on our website. These requests create an email to our office team to complete the transaction for our customers. We were unable to separate this information by state. The information in this table represents inquiries from our entire service territory.

Table 16

2023 Service Request Types	Count
Connect Service Request	69
Disconnect Service Request	668
Transfer Service Request	139
Web Address Change Request	442
Web Inquiry My Account	52
Web Phone Number Change Request	251
Web Start Service - My Meter	681
Web Stop Service - My Meter	422
Web Transfer Service - My Meter	39
Web Update Person Name	971
Grand Total	3734

Table 17 below is a count of our Minnesota customer contacts that were submitted through our Contact Us section within our website. Contact Us is the area on our website where customers can ask their questions and engage in dialogue via email. When a customer utilizes the Contact Us feature, they are prompted to choose a topic as the subject for their inquiry. Below are the number of our 2023 Contact Us emails by topic.

Table 17

Contact Us Topic	Topic Count
Otter Tail Investments	5
Turn on/ turn off/ transfer service	70
Energy Assistance Program Information	6
Employment Opportunities	3
Generation interconnection	5
Help with technical issue	13
Business Energy Expert	1
Other	160
Send copy of my last bill	14
Enroll in EMP	272
Rebates and Financing Information	24
Payment programs/ arrangements	113
Street light/ security light	24
Energy control	38
Economic development	3
Jobs	6
My account	728
Tree trimming request	33
Rebates/ programs/ financing	59
Tell us how we're doing	7
General Inquiries	91
Grand Total	1675

Table 18 below is a count of our website visits and logins for our various customer communication platforms. The information in this table represents our entire service territory.

Table 18

2023 Electronic Customer Communications		
Website	3,180,363	Webpage Views
Facebook	76,005	Page Visits
	605	New Page Likes
	712,154	Page Reach
LinkedIn	6,107	Desktop Page views
	2,571	Mobile Page Views
	3,564	Unique Visitors
	593	New Followers
MyMeter	46,330	

Otter Tail has recently report Twitter Profiles Visits. Currently Twitter is making updates to their reporting and metrics used to provide the detail from prior years is not available.

- d. *Ordering paragraph 7:*** *Required Minnesota Power, Otter Tail Power, and Xcel Energy to file public facing summaries with their annual Safety, Reliability, and Service Quality reports. Utilities shall work with the Executive Secretary to publish those summaries in locations visible to consumers.*

Otter Tail’s 2023 Public Facing Summary is included as Attachment 2 and has been published on our website at otpc.com/help-center/. In 2022, we created a new left hand navigation option within our help center page to provide visibility to this summary.

6. March 2, 2022 PUC Service Quality Order in Docket No. E017/M-21-225 (2020 Annual SRSQ Report)

- a. *Ordering paragraph 5:*** *The Commission sets Otter Tail Power’s 2021 statewide reliability standard at the IEEE benchmarking second quartile for medium utilities and sets work center reliability standards at the IEEE benchmarking second quartile for medium utilities.*
- b. *Ordering paragraph 6:*** *Otter Tail must file a supplemental filing to its 2021 safety, service quality, and reliability report 30 days after IEEE publishes the 2021 benchmarking results. The supplemental filing must include an explanation for any standards the utility did not meet.*

Response to a and b above: Otter Tail will provide a supplemental filing within 30 days from when IEEE publishes the 2023 benchmarking results. Otter Tail will compare it’s results with the median values of SAIFI, SAIDI, and CAIDI for “medium” sized utilities as reported in the survey results and provide explanations for standards not met.

7. November 9, 2022 PUC Service Quality Order in Docket No. E017/M-22-159 (2021 Annual SRSQ Report)

- a. *Ordering paragraph 8:*** *Required Xcel Energy, Minnesota Power, and Otter Tail Power to each display, either directly or via a link to a PDF file, the utility’s public facing summary, as shown in Attachment A, on the utility’s website placed such that the summary is available to a website user after a single click away from the home page.*

Otter Tail’s 2023 Public Facing Summary is included as Attachment 2 and has been published on our website at otpc.com/help-center/. We created a new left hand navigation option within our help center page to provide visibility to this summary.

V. RELIABILITY STANDARDS 7826.0600

PROPOSED RELIABILITY PERFORMANCE STANDARDS

Minnesota Rule 7826.0600, Subpart 1, requires utilities to file proposed reliability performance standards in the form of proposed numerical values for the SAIDI, SAIFI, and CAIDI for each of its work centers.

Otter Tail did realize decreases in SAIDI, SAIFI, CAIDI and MAIFI 2023 results, compared to 2022.

As previously mentioned, Otter Tail implemented an Outage Management System (OMS) in December of 2022 and are currently working through scale up efforts with the new system. The OMS will improve the way in which outage information is organized and summarized for Otter Tail crews, improving response and restoration times (CAIDI). However, the addition of more granular information from an OMS will cause increases in reported SAIDI, SAIFI, and CAIDI.

As provided last year, Otter Tail will set indices' standards at IEEE's Reliability Benchmark Survey median values for medium sized utilities for the corresponding year's data set, i. e. 2023 goals will be set on the 2023 IEEE Benchmark Survey results.

The current year report historically is completed, and results posted, the third quarter of the following year. As done in 2023, Otter Tail will provide a supplemental filing within 30 days from when IEEE's 2023 Benchmark Reliability Survey results are completed and provide explanations for standards not met.

VI. REPORTING METER-READING PERFORMANCE 7826.1400

Minnesota Rule 7826.1400, Reporting Meter Reading Performance, requires utilities to provide a detailed report on the utility’s meter-reading performance. In compliance with this rule, Otter Tail provides **Tables 19-22** for its meter reading performance for 2023.

A & B. The number and percentage of customer meters read by utility personnel and the number and percentage of customer meters self-read by the customer.

Table 19
Otter Tail Power Company Meter Reading Performance
January 1, 2023 to December 31, 2023
Residential – MN

Residential							
MONTH	Meters Read	%	Meters Estimated	%	Self Read	%	Total Meters
1	61,744	96.53%	1,570	2.45%	650	1.02%	63,964
2	60,822	95.23%	2,386	3.74%	658	1.03%	63,866
3	60,960	95.07%	2,509	3.91%	650	1.01%	64,119
4	60,496	94.65%	2,824	4.42%	594	0.93%	63,914
5	62,920	97.99%	679	1.06%	614	0.96%	64,213
6	62,832	96.77%	1,509	2.32%	585	0.90%	64,926
7	62,880	97.08%	1,257	1.94%	637	0.98%	64,774
8	63,263	97.47%	1,056	1.63%	588	0.91%	64,907
9	62,490	96.42%	1,689	2.61%	628	0.97%	64,807
10	62,843	97.38%	1,083	1.68%	611	0.95%	64,537
11	62,221	96.89%	1,454	2.26%	542	0.84%	64,217
12	62,387	97.17%	1,211	1.89%	609	0.95%	64,207
Grand Total	745,858	96.56%	19,227	2.49%	7,366	0.95%	772,451

Table 20
 Otter Tail Power Company Meter Reading Performance
 January 1, 2023 to December 31, 2023
Small Commercial – MN

Small Commercial							
MONTH	Meters Read	%	Meters Estimated	%	Self Read	%	Total Meters
1	12,395	96.59%	436	3.40%	2	0.02%	12,833
2	12,349	96.39%	459	3.58%	4	0.03%	12,812
3	12,379	96.18%	486	3.78%	5	0.04%	12,870
4	12,224	95.23%	606	4.72%	6	0.05%	12,836
5	12,846	99.13%	106	0.82%	7	0.05%	12,959
6	12,736	97.80%	281	2.16%	6	0.05%	13,023
7	12,761	98.08%	244	1.88%	6	0.05%	13,011
8	12,857	98.39%	201	1.54%	10	0.08%	13,068
9	12,708	97.49%	320	2.45%	7	0.05%	13,035
10	12,725	97.75%	284	2.18%	9	0.07%	13,018
11	12,632	97.66%	296	2.29%	7	0.05%	12,935
12	12,622	97.81%	276	2.14%	7	0.05%	12,905
Grand Total	151,234	97.38%	3,995	2.57%	76	0.05%	155,305

Table 21
 Otter Tail Power Company Meter Reading Performance
 January 1, 2023 to December 31, 2023
Large Commercial – MN

Large Commercial							
MONTH	Meters Read	%	Meters Estimated	%	Self Read	%	Total Meters
1	735	96.97%	23	3.03%	-		758
2	750	97.78%	17	2.22%	-		767
3	761	98.32%	13	1.68%	-		774
4	737	97.10%	22	2.90%	-		759
5	761	98.58%	11	1.42%	-		772
6	752	97.41%	20	2.59%	-		772
7	733	96.32%	27	3.55%	1	0.13%	761
8	756	97.93%	16	2.07%	-		772
9	751	97.79%	17	2.21%	-		768
10	760	97.81%	17	2.19%	-		777
11	746	97.26%	21	2.74%	-		767
12	764	98.58%	11	1.42%	-		775
Grand Total	9,006	97.66%	215	2.33%	1	0.01%	9,222

Table 22
Otter Tail Power Company Meter Reading Performance
January 1, 2023 to December 31, 2023
Total – MN

System							
MONTH	Meters Read	%	Meters Estimated	%	Self Read	%	Total Meters
1	74,874	96.54%	2,029	2.62%	652	0.84%	77,555
2	73,921	95.45%	2,862	3.70%	662	0.85%	77,445
3	74,100	95.29%	3,008	3.87%	655	0.84%	77,763
4	73,457	94.77%	3,452	4.45%	600	0.77%	77,509
5	76,527	98.18%	796	1.02%	621	0.80%	77,944
6	76,320	96.95%	1,810	2.30%	591	0.75%	78,721
7	76,374	97.23%	1,528	1.95%	644	0.82%	78,546
8	76,876	97.62%	1,273	1.62%	598	0.76%	78,747
9	75,949	96.61%	2,026	2.58%	635	0.81%	78,610
10	76,328	97.44%	1,384	1.77%	620	0.79%	78,332
11	75,599	97.02%	1,771	2.27%	549	0.70%	77,919
12	75,773	97.29%	1,498	1.92%	616	0.79%	77,887
Grand Total	906,098	96.70%	23,437	2.50%	7,442	0.79%	936,978

C. The number and percentage of customer meters that have not been read by utility personnel for periods of 6 to 12 months and for periods of longer than 12 months, and an explanation as to why they have not been read.

In 2023, 30 meters for customers of Otter Tail were not read by utility personnel for a period of 6 months to 12 months. Otter Tail had one meter not read for a period greater than 12 months. We encountered access issues where meters were located in locked buildings or meters had obstructions in front of them such as a fence. In all instances we worked with the customer to obtain access and readings.

D. Data on monthly meter-reading staffing levels, by work center or geographical area.

Table 23

Row Labels	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23
Bemidji Cust Serv Center	8											
Service Representative	8	8	8	8	8	8	8	8	8	8	8	8
Crookston Cust Serv Center	12											
Apprentice Service Representative	1	1	1	1	1	1	1	1	1	1	1	1
Service Representative	11	11	11	11	11	11	11	11	11	11	11	11
Fergus Falls Cust Serv Center	15											
Service Representative	15	15	15	15	15	15	15	15	15	15	15	15
Morris Cust Serv Center	15											
Service Representative	15	15	15	15	15	15	15	15	15	15	15	15
Grand Total	50											

Note: Milbank CSC and Wahpeton CSC serve Minnesota Communities where we read meters. The employees accountable for meter reading in those Minnesota communities have been included in the employee count in Morris and Fergus Falls.

Otter Tail utilizes its Service Representatives to read its meters on a monthly basis except in the following towns where a third party reads the Company's meters:

- | | | |
|------------------|---------------------|--------------------|
| Alexandria MN | Erskine MN | Nashua MN |
| Amiret MN | Evansville MN | New York Mills MN |
| Argyle MN | Fergus Falls MN | Odessa MN |
| Ashby MN | Fertile MN | Ogema MN |
| Audubon MN | Fisher MN | Oklee MN |
| Battle Lake MN | Frazee MN | Oslo MN |
| Barry MN | Forada MN | Ottertail MN |
| Beardsley MN | Foxhome MN | Parkers Prairie MN |
| Bejou MN | Garfield MN | Pelican Rapids MN |
| Bellingham MN | Gary MN | Pennock MN |
| Beltrami MN | Gentily MN | Perham MN |
| Bemidji MN | Ghent MN | Plummer MN |
| Brandon MN | Graceville MN | Porter MN |
| Brooks MN | Green Valley MN | Red Lake Falls MN |
| Callaway MN | Gonvick MN | Richville MN |
| Campbell MN | Gully MN | Rothsay MN |
| Canby MN | Hancock MN | Saint Hilaire MN |
| Carlos MN | Hallock MN | Shevlin MN |
| Chokio MN | Henning MN | Solway MN |
| Clearbrook MN | Hitterdal MN | St. Leo MN |
| Climax, MN | Holloway MN | Sunburg MN |
| Clinton MN | Johnson MN | Taunton MN |
| Clitherall MN | Kent MN | Tenney MN |
| Correll MN | Kerkhoven MN | Tintah MN |
| Crookston MN | Lockhart MN | Trail MN |
| Cyrus MN | Loouisburg MN | Twin Valley MN |
| Dalton MN | Mahnomen MN | Ulen MN |
| Danvers MN | Marshall MN (Rural) | Underwood MN |
| Dawson MN | McIntosh MN | Urbank MN |
| Dent MN | Mentor MN | Vergas MN |
| Deer Creek MN | Milan MN | Vining MN |
| Degraff MN | Millerville MN | Waubun MN |
| Detroit Lakes MN | Milroy MN | Wendell MN |
| Doran MN | Miltona MN | Wheaton MN |
| Dumont MN | Minneota MN | White Earth MN |
| Eldred MN | Morris MN | Wilton MN |
| Elizabeth MN | Murdock MN | Winger MN |

Otter Tail is currently installing AMI meters. The towns where we utilize our third-party meter reading services will narrow throughout 2024.

VII. REPORTING INVOLUNTARY DISCONNECTIONS 7826.1500

Minnesota Rule 7826.1500, Reporting Involuntary Disconnections, requires utilities to provide a detailed report on involuntary disconnections of service. In compliance with this rule, Otter Tail provides its report of involuntary disconnections of service.

A. Number of customers who received disconnection notices.

Table 24

Month	Large Commercial	Residential	Small Commercial	Grand Total
January	14	4484	354	4852
February	13	4452	379	4844
March	17	4797	398	5212
April	17	4516	356	4889
May	19	4290	372	4681
June	19	4131	389	4539
July	20	3750	291	4061
August	17	4846	339	5202
September	21	5016	353	5390
October	16	4839	362	5217
November	23	4469	370	4862
December	14	3604	323	3941
Grand Total	210	53194	4286	57690

B. Number of customers who sought cold weather rule protection under Minnesota Statutes §216B.096 and §216B.097 and the number who were granted cold weather rule protection.

Table 25

Month	Customers who sought Cold Weather Rule Protection in 2023	Number Granted Cold Weather Protection in 2023
January	130	119
February	104	94
March	116	106
April	24	19
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
October	241	214
November	188	169
December	108	90
Grand Total	911	811

The deviation between customers who sought CWP, and the customers granted CWP is due to Otter Tail having to access the CWP form within our customer information system to begin our CWP discussion with the customer on the monthly amount of their CWP amount. Customers are not denied CWP but rather the customer chose an alternative payment option or obtained payment assistance.

C. Total number of customers whose service was disconnected involuntarily, and the number of these customers restored to service within 24 hours.

Table 26

Month	Customer Class	Disconnected For more than 24 hours	Service Restored within 24 hours	Grand Total
January	Residential	8	14	22
	Small Commercial	1	1	2
January Total		9	15	24
February	Residential	19	23	42
	Small Commercial	0	0	0
February Total		19	23	42
March	Residential	21	39	60
	Small Commercial	3	9	12
March Total		24	48	72
April	Residential	30	21	51
	Small Commercial	3	6	9
April Total		33	27	60
May	Residential	232	185	417
	Small Commercial	6	8	14
May Total		238	193	431
June	Residential	88	75	163
	Small Commercial	2	6	8
June Total		90	81	171
July	Residential	67	63	130
	Small Commercial	1	8	9
July Total		68	71	139
August	Residential	71	74	145
	Small Commercial	4	3	7
August Total		75	77	152
September	Residential	76	109	185
	Small Commercial	1	2	3
September Total		77	111	188
October	Residential	3	2	5
	Small Commercial	0	1	1
October Total		3	3	6
November	Residential	4	7	11
	Small Commercial	2	0	2
November Total		6	7	13
December	Residential	6	2	8
	Small Commercial	0	1	1
December Total		6	3	9
Grand Total		648	659	1307

D. Number of disconnected customers restored to service by entering into a payment plan.

Table 27

Month ▾	Residential	Small Commercial	Total
January	5		5
February	12		12
March	22		22
April	5		5
May	21		21
June	7	1	8
July	7		7
August	5		5
September	13		13
October	2		2
November	2		2
December	2		2
Total	103	1	104

In response to the comments provided in the SRSQ 2022 report briefing papers, Otter Tail does offer arrangements for customers in need however those arrangements can deviate based on seasonality.

During the Cold Weather Protection periods, our CWP plan allows the customer to be set up on a payment plan that level out their monthly payments throughout the CWP period. This payment plan does not exceed 10 percent of the gross household income for qualifying households. During the pandemic and through the transition period, customers could choose alternative arrangements as we were providing greater flexibility due to the potential of unique impacts the pandemic may have had on each customer.

Currently customers can choose to make a payment or obtain assistance for their billing and not participate in our CWP plan. However, the CWP option is available for customers at a later date if they so choose.

VIII. REPORTING SERVICE EXTENSION REQUEST RESPONSE TIMES 7826.1600

Minnesota Rule 7826.1600, Reporting Service Extension Request Response Times, requires utilities to provide a report on service extension request response times.

In compliance with this rule, Otter Tail provides in **the figures and tables** below our report of service extension request response times by customer class for each calendar month, in the following categories:

- A. The number of customers requesting service to a location not previously served by Otter Tail and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service.**

Figures and tables on next page.

Residential – Not Previously Served

Figure 10

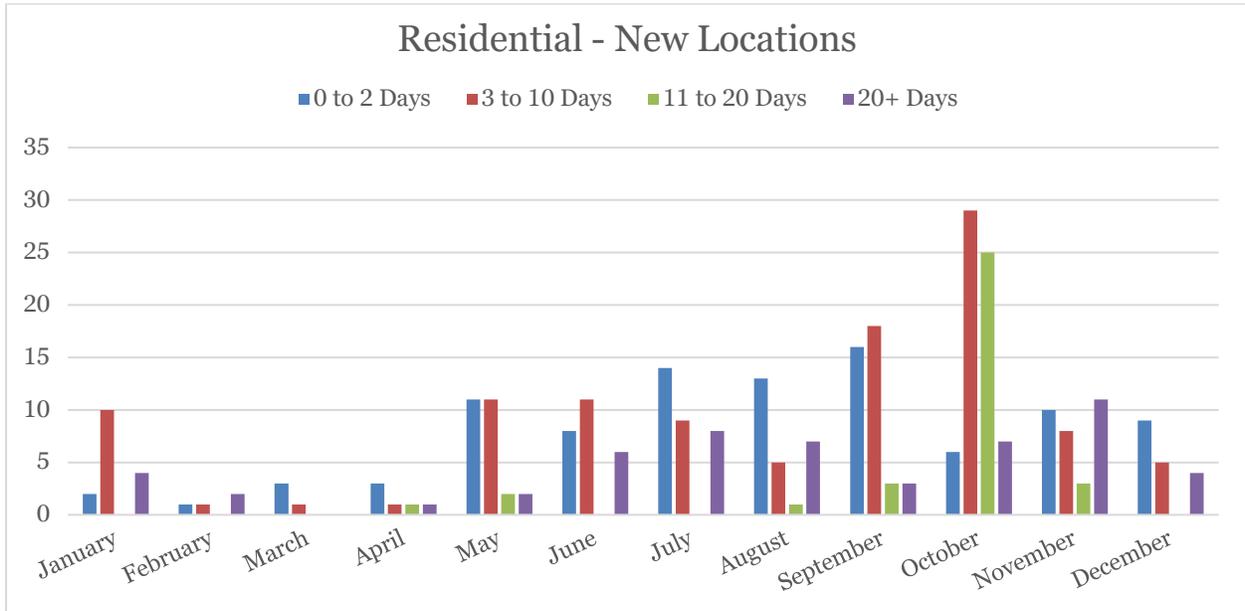


Table 28

Month	0 to 2 Days	3 to 10 Days	11 to 20 Days	20+ Days	Grand Total
January	2	10		4	16
February	1	1		2	4
March	3	1			4
April	3	1	1	1	6
May	11	11	2	2	26
June	8	11		6	25
July	14	9		8	31
August	13	5	1	7	26
September	16	18	3	3	40
October	6	29	25	7	67
November	10	8	3	11	32
December	9	5		4	18
Grand Total	96	109	35	55	295

Small Commercial – Not Previously Served

Figure 11

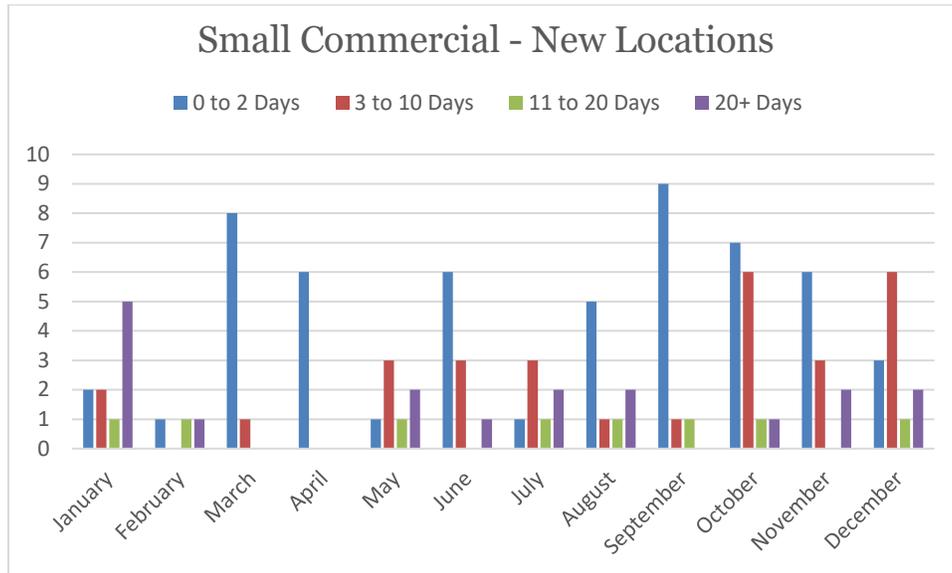


Table 29

Month	0 to 2 Days	3 to 10 Days	11 to 20 Days	20+ Days	Grand Total
January	2	2	1	5	10
February	1		1	1	3
March	8	1			9
April	6				6
May	1	3	1	2	7
June	6	3		1	10
July	1	3	1	2	7
August	5	1	1	2	9
September	9	1	1		11
October	7	6	1	1	15
November	6	3		2	11
December	3	6	1	2	12
Grand Total	55	29	8	18	110

Large Commercial – Not Previously Served

Figure 12

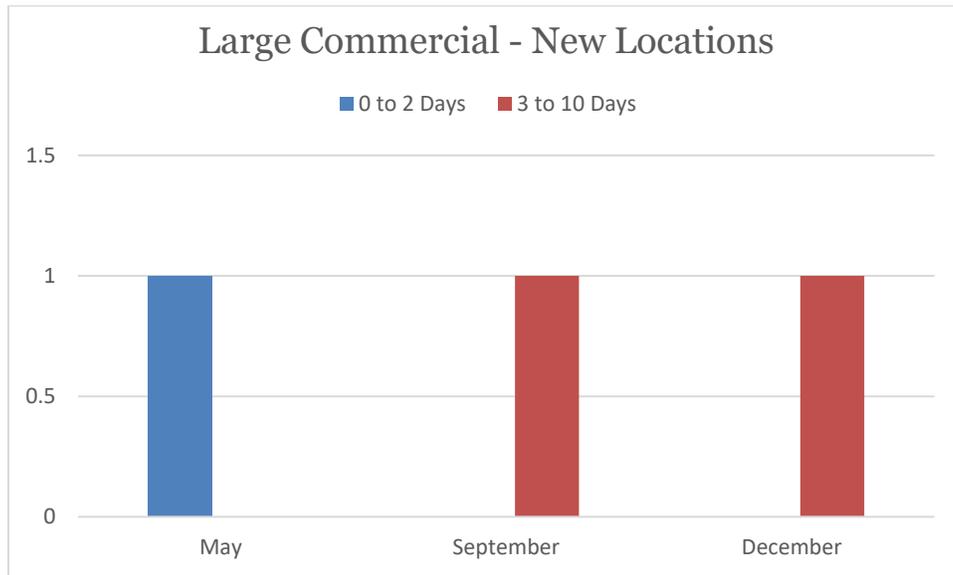


Table 30

Month	0 to 2 Days	3 to 10 Days	Grand Total
May	1		1
September		1	1
December		1	1
Grand Total	1	2	3

Government – Not Previously Served

Figure 13

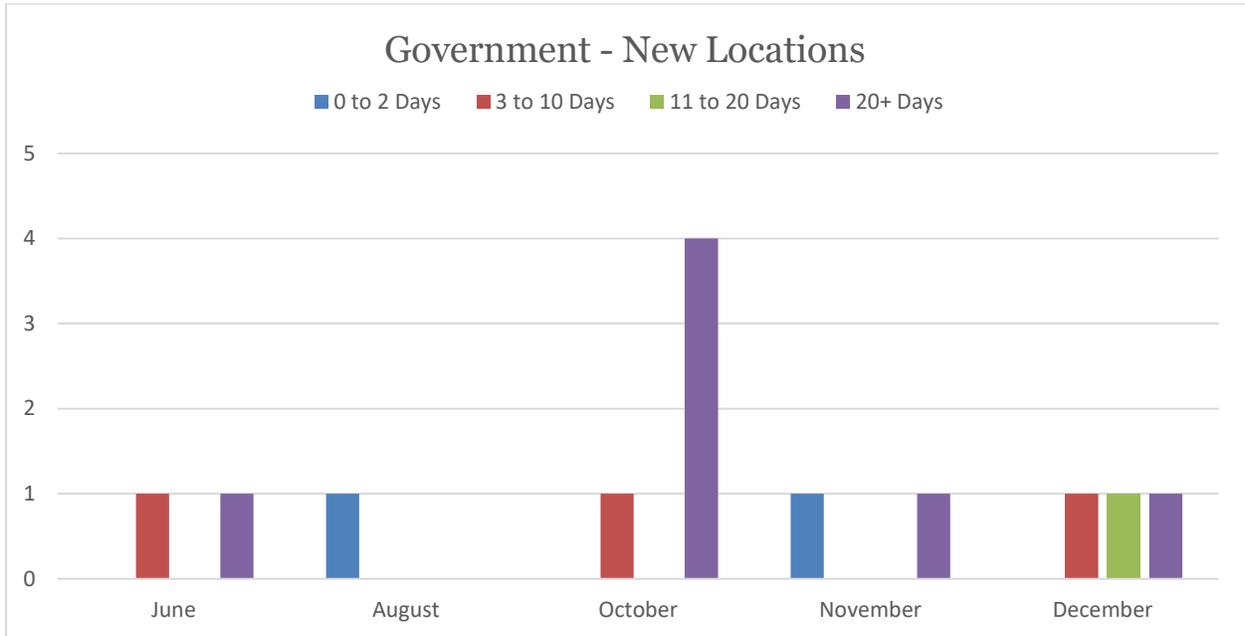


Table 31

Month	0 to 2 Days	3 to 10 Days	11 to 20 Days	20+ Days	Grand Total
June		1		1	2
August	1				1
October		1		4	5
November	1			1	2
December		1	1	1	3
Grand Total	2	3	1	7	13

B. The number of customers requesting service to a location previously served by the utility but not served at the time of the request, and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service, shown in the figures and tables below.

Residential – Previously Served

Figure 14

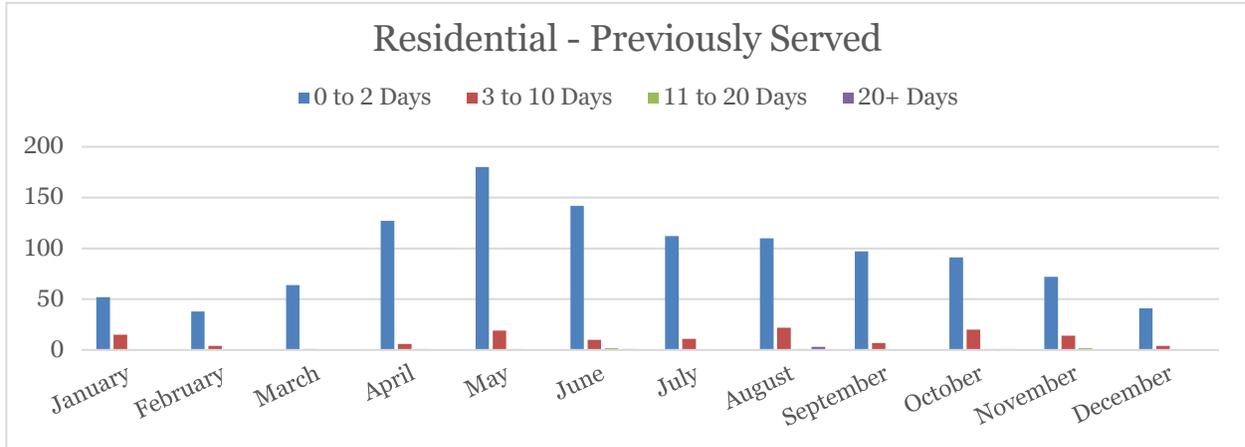


Table 32

Month	0 to 2 Days	3 to 10 Days	11 to 20 Days	20+ Days	Grand Total
January	52	15			67
February	38	4			42
March	64	1			65
April	127	6	1		134
May	180	19	1		200
June	142	10	2	1	155
July	112	11			123
August	110	22	1	3	136
September	97	7			104
October	91	20	1	1	113
November	72	14	2		88
December	41	4			45
Grand Total	1126	133	8	5	1272

Small Commercial – Previously Served

Figure 15

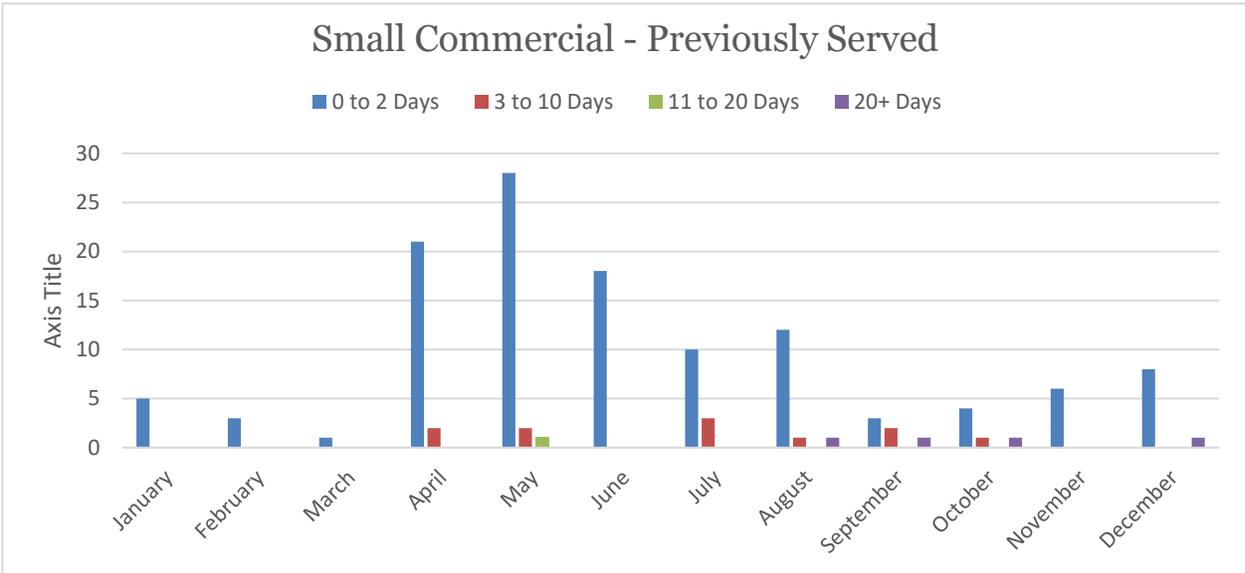


Table 33

Month	0 to 2 Days	3 to 10 Days	11 to 20 Days	20+ Days	Grand Total
January	5				5
February	3				3
March	1				1
April	21	2			23
May	28	2	1		31
June	18				18
July	10	3			13
August	12	1		1	14
September	3	2		1	6
October	4	1		1	6
November	6				6
December	8			1	9
Grand Total	119	11	1	4	135

Large Commercial – Previously Served

Figure 16

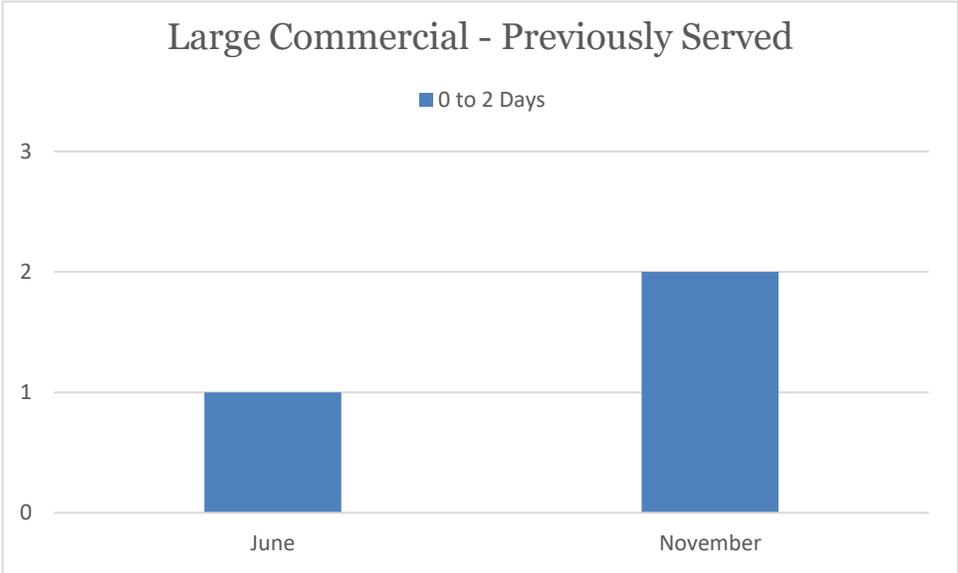


Table 34

Month	0 to 2 Days	Grand Total
June	1	1
November	2	2
Grand Total	3	3

Government – Previously Served

Figure 17

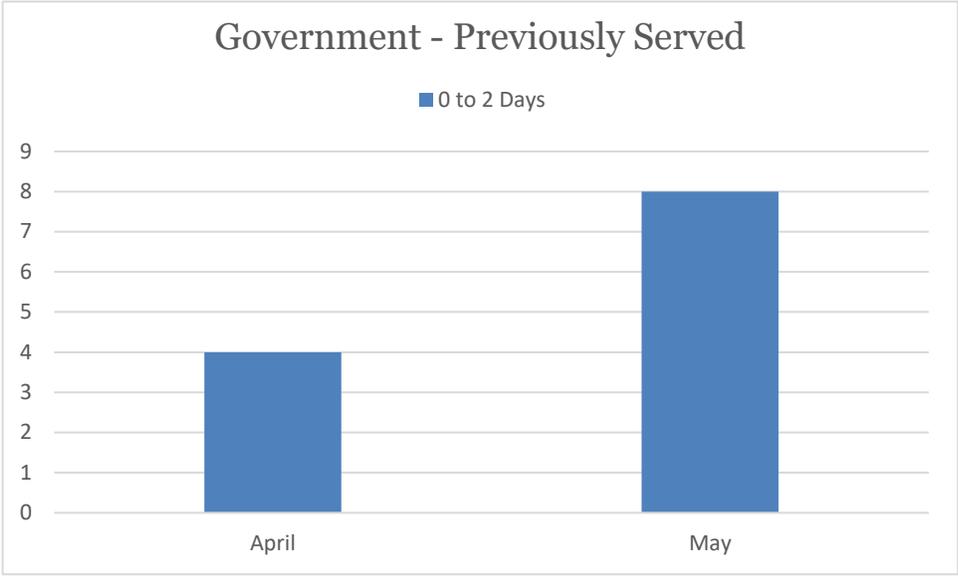


Table 35

Month	0 to 2 Days	Grand Total
April	4	4
May	8	8
Grand Total	12	12

IX. REPORTING CALL CENTER RESPONSE TIMES 7826.1700

Minnesota Rule 7826.1700, Reporting Call Center Response Times, requires utilities to provide a detailed report on call center response times, including calls to the business office and calls regarding service interruptions. The report must include a month-by-month breakdown of information.

In compliance with this rule, Otter Tail provides its report of call center response times for 2023 in **Table 36**. **Figure 18** shows a historical graph of the percent of Minnesota calls answered within 20 seconds.

Table 36

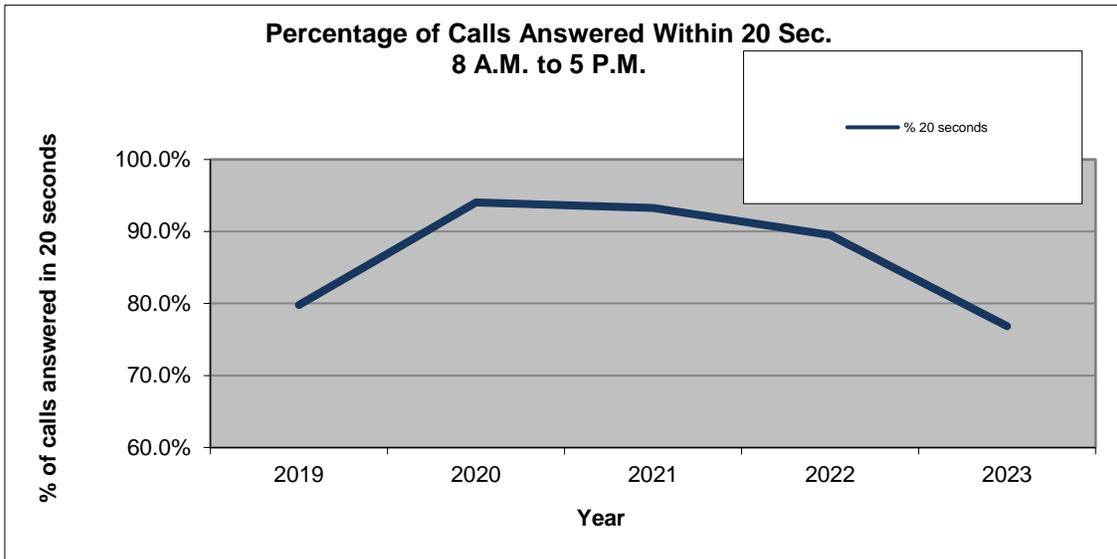
	(A)	(B)	(C)	(D)	(E)
Month	Offered	Calls Abandoned	Calls Answered after 20 Seconds	Answered within 20 Seconds	Percent Answered within 20 seconds ¹
January	4,267	138	1,424	2,705	63.39%
February	3,761	68	986	2,707	71.98%
March	4,381	23	410	3,948	90.12%
April	4,394	21	694	3,679	83.73%
May	5,521	101	1,424	3,996	72.38%
June	4,959	87	1,022	3,850	77.64%
July	4,504	130	1,209	3,165	70.27%
August	5,361	97	1,317	3,947	73.62%
September	5,193	119	1,427	3,647	70.23%
October	4,957	71	1,232	3,654	73.71%
November	4,145	17	307	3,821	92.18%
December	3,309	20	327	2,962	89.51%
Total	54,752	568	7,169	42,081	76.86%

¹Column (D) / Column (A) = Percent answered within 20 Seconds

Otter Tail operates a call center using agents located in nine office locations across our entire service territory. Agents in these office locations answer calls from our Minnesota, North Dakota, and South Dakota customers. With our telecommunications system, our auto attendant allows customers to select the state in which the account or service the customer is calling to inquire about. This auto attendant for selecting the state is for reporting purposes only.

In 2023 Otter Tail did not meet the required 80 percent of calls answered within 20 seconds. We experienced turnover within the CSR role as we hired nine new CSRs and had a total of 11 CSRs complete our new CSR training. As our new CSRs completed their training, they began answering customer calls. As new CSRs begin taking calls, the number of calls taken is less and the time per call is higher. This is normal until the CSRs become more comfortable with answering calls. Throughout 2023, we trained and grew as a CSR group to rebound to more historic call center response times.

Figure 18



X. REPORTING EMERGENCY MEDICAL ACCOUNT STATUS 7826.1800

Minnesota Rule 7826.1800, Reporting Emergency Medical Account Status, requires utilities to provide a report that includes the number of customers who requested emergency medical account status under Minnesota Statutes, Section 216B.098 Subdivision 5, the number whose applications were granted, and the number whose applications were denied and the reason for each denial.

In compliance with this rule, Otter Tail reports that during 2023 Otter Tail had ten Minnesota customers request emergency medical account status. Otter Tail granted this status to all ten customers. This is an increase to the number of customers that requested and were granted emergency medical account status in 2022.

As part of our Emergency Medical Account visibility plan, annually, in August Otter Tail includes a bill insert with Customer's Residential Bills informing them of medically necessary equipment protection that is available. This protection is included in our Customer Information brochure that is in our New Customer Packets and on our website. Our Customer Service Representatives continue to educate and promote this protection with our customers.

Medically necessary equipment protection

If you're a residential customer with an existing medical condition that involves medical equipment requiring electricity, you may qualify for protection from disconnection.

To qualify, you must provide written certification from a licensed medical professional stating that lack of service will impair or threaten your health or safety.

If a customer who qualifies for medically necessary equipment protection upholds an established payment arrangement, we won't disconnect electrical service.

For more, information contact
Customer Service at 800-257-4044
or visit otpc.com.



MN 8/23

XI. REPORTING CUSTOMER DEPOSITS 7826.1900

Minnesota Rule 7826.1900, Reporting Customer Deposits, requires utilities to provide a report on the number of customers who were required to make a deposit as a condition of receiving service.

In compliance with this rule, Otter Tail reports that zero customers were required to make a deposit as a condition of receiving service during 2023. The number of deposit requests did not change when compared to 2022. During the pandemic deposits were not collected, as a part of the voluntary suspension of disconnections as we navigated out of the pandemic, Otter Tail assessed the need to require deposits. Otter Tail did make the decision to stop collecting deposits. We continue to assess the need for deposits and if necessary, we would reinstate the process to collect deposits.

XII. REPORTING CUSTOMER COMPLAINTS 7826.2000 AND 7820.0500

Minnesota Rule 7826.2000, Reporting Customer Complaints, requires utilities to provide a detailed report on complaints by customer class and calendar month.

In compliance with this rule, Otter Tail provides the following information on complaints the Company received during 2023.

A & B. The number and percentage of complaints alleging billing errors, inaccurate metering, wrongful disconnection, high bills, inadequate service, and the number involving service extension intervals, service restoration intervals, and any other identifiable subject matter involved in five percent or more of the customer complaints.

Table 37

Complaint Type	Total	Percent of Total
Billing error	7	8.24%
High bills	10	11.76%
Inaccurate metering	6	7.06%
Inadequate service - field/operations	39	45.88%
Inadequate service - programs and services	10	11.76%
Inadequate service - customer service	10	11.76%
Inadequate service - Cold Weather Protection	0	0
Wrongful disconnect	3	3.53%
Service extension intervals	0	0
Service restoration intervals	0	0
Grand Total	85	100.00%

C. The number and percentage of complaints resolved upon initial inquiry, within ten days, and longer than ten days.

Table 38

2023		
Resolved by	Total	Percentage
(1) Resolved on Initial Inquiry	81	95%
(2) Resolved within 10 days	2	2%
(3) Resolved in greater than 10 days	2	2%
Grand Total	85	100%

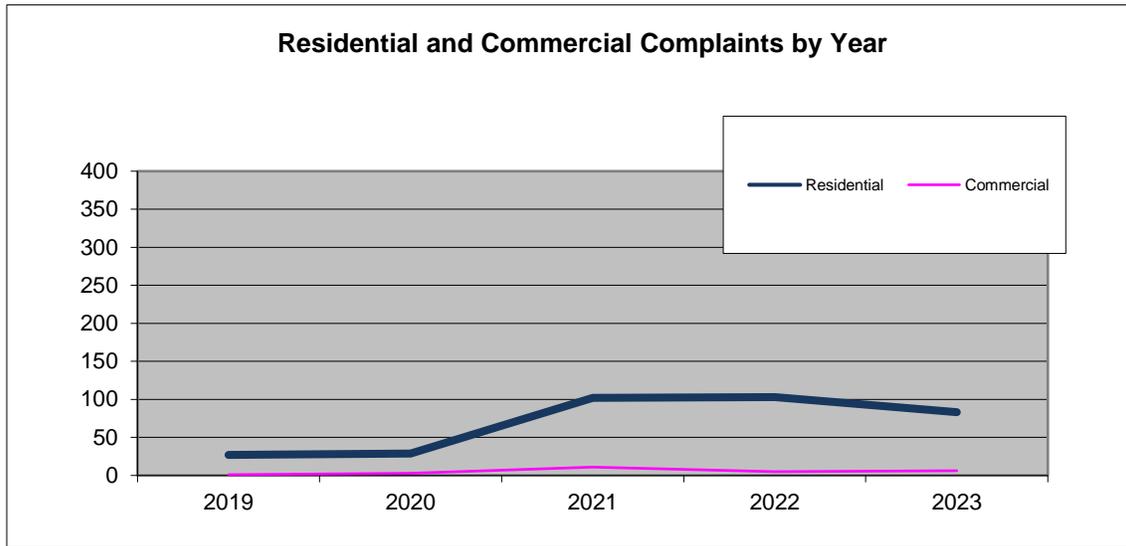
D. The number and percentage of all complaints resolved by taking any of the following actions: (1) taking the action the customer requested; (2) taking an action the customer and the utility agree is an acceptable compromise, (3) providing the customer with information that demonstrates that the situation complained of is not reasonably within the control of the utility or (4) refusing to take the action the customer requested.

Table 39

Action Taken	Total	Percentage
(1) Took action the Customer requested	37	43.53%
(2) Provided the customer with information that demonstrates that the situation complained of is not reasonably within the control of Otter Tail	24	28.24%
(3) Took an action the customer and the utility agree is an acceptable compromise	17	20.00%
(4) Refused to take action the customer requested	7	8.24%
Grand Total	85	100.00%

Figure 19 is a graph showing complaints by customer class for the previous five years.

Figure 19



E. The number of complaints forwarded to the utility by the Commission’s Consumer Affairs Office for further investigation and action.

Otter Tail received five customer complaints in 2023 that were forwarded from the Commission’s Consumer Affairs Office. Otter Tail resolved four of these complaints. We continue to work with the Consumer Affairs office to resolve the remaining complaint. The number of complaints received in 2022 was seven and the one unresolved complaint from last year’s report has been resolved.

Table 40

	2021	2022	2023
Customer Complaints	7	7	5

Minnesota Rule 7820.0500 Reporting Requirement requires each utility to provide an annual report with the Public Utilities Commission.

The Minnesota Public Utilities Commission made the following disposition in a January 18, 2022 Order in Docket No. E017/M-22-159.

Ordering Paragraph 1: Eliminated the standalone Annual Summary of Customer Complaint docket (YY-13).

Ordering Paragraph 2: Required utilities to include customer complaint data from Minnesota Rules 7820.0500 in their Annual Service Quality reports with data filed as part of Minnesota Rules 7826.2000.

In compliance with this Order and Minnesota Rules 7820.0500, Otter Tail provides the following annual report information in Attachment 3 to this report.

- A. The total numbers of resolved and unresolved complaints by class of service and type of complaint.**
- B. The total number of customers in each class of service and the total number of customers who initiated service during the past year.**
- C. The names, addresses, and telephone numbers of personnel designated and authorized to receive and respond to the requests and directives of the public utilities commission regarding customer inquiries, service requests, and complaints. The utility shall keep this information current and if changes occur, the utility must inform the commission immediately of these changes.**

For the purposes of this Annual Summary of Customer Complaints, Otter Tail has defined a customer complaint as a written complaint received from any of the following: Minnesota Public Utilities Commission, Minnesota Department of Commerce (Division of Energy Resources), Office of Minnesota Attorney General, and Better Business Bureau, or a Company officer. Using this definition, Otter Tail received seven reportable complaints during 2023. Otter Tail resolved six of these complaints. We continue to work with the Minnesota Public Utilities Commission, Consumer Affairs Office, to resolve the remaining complaint.

Reporting Major Service Interruptions Summary - 2023

Minnesota Rule 7826.0500, Subpart 1g, required utilities to file a copy of each report filed under part 7826.0700, reporting major service interruptions. Per PUC order dated December 18, 2020 in E017/M-20-401 PUC granted a variance to MN Rule 7826.0500 Subpart 1.G. Require utilities to file a summary table that includes the information contained in the reports, similar to Attachment G. in Xcel's filing (E002/M-20-406).

	Feeder	Primary Event #	Begin Time	Completion Time	Duration HH/MM/SS	Customers Out	Region	Email sent to CAO
JANUARY = 0 total qualifying events, 0 events with no email								
FEBRUARY = 1 total qualifying event, 0 events with no email								
1	Perham		2/14/2023 6:27	2/14/2023 7:35	01:07:57	515		x
MARCH = 1 total qualifying event, 0 events with no email								
1	Wheaton		3/9/2023 13:48	3/9/2023 15:19	01:30:23	1117		x
APRIL = 3 total qualifying events, 0 events with no email								
1	Erdahl_Melby_Ashby		4/4/2023 18:50	4/4/2023 20:44	01:53:48	177		x
	Erdahl_Melby_Ashby		4/4/2023 18:51	4/4/2023 20:43	01:52:33	337		x
	Ashby		4/4/2023 18:51	4/4/2023 20:21	01:29:59	12		x
	Pomme_De_Terre		4/4/2023 18:51	4/4/2023 20:44	01:52:34	7		x
2	Hendricks		4/5/2023 14:02	4/5/2023 15:34	01:32:00	394		x
	Ivanhoe		4/5/2023 14:02	4/5/2023 15:34	01:32:00	92		x
	Ivanhoe		4/5/2023 14:02	4/5/2023 15:34	01:32:00	446		x
	Dumont		4/5/2023 14:09	4/5/2023 15:43	01:33:37	89		x
	Wheaton		4/5/2023 14:09	4/5/2023 15:43	01:33:37	1464		x
	Wheaton		4/5/2023 14:09	4/5/2023 15:43	01:33:23	180		x
3	Ottertail Lake & Rush Lake		4/6/2023 0:51	4/6/2023 2:31	01:40:44	1055		x
	Ottertail City		4/6/2023 0:51	4/6/2023 2:31	01:40:44	875		x
MAY = 1 total qualifying event, 0 events with no email								
1	Fergus Falls		5/30/2023 19:29	5/30/2023 20:37	1:08:39	915		x
JUNE = 2 total qualifying events, 0 events with no email								
1	Bemidji		6/10/2023 9:28	6/10/2023 11:11	1:43:32	1311		x
2	Parkers Prairie		6/25/2023 10:52	6/25/2023 14:08	3:15:49	888		x
JULY = 6 total qualifying events, 0 events with no email								
1	Argyle		7/7/2023 10:10	7/7/2023 11:37	1:26:54	208		x
	Argyle		7/7/2023 10:10	7/7/2023 11:37	1:26:49	360		x
	Stephen		7/7/2023 10:10	7/7/2023 12:00	1:49:15	20		x
2	Crookston		7/9/2023 21:03	7/9/2023 22:21	1:18:22	933		x
	Crookston		7/9/2023 21:03	7/9/2023 22:20	1:17:14	1352		x
3	Ottertail		7/13/2023 18:17	7/13/2023 20:58	2:40:33	777		x
4	Rothsay		7/16/2023 23:40	7/17/2023 3:45	4:04:35	257		x
	Elizabeth		7/16/2023 23:40	7/17/2023 0:50	1:09:42	185		x
	Erhard		7/16/2023 23:40	7/17/2023 0:50	1:09:42	72		x
	Diversion Rural		7/16/2023 23:40	7/17/2023 0:50	1:09:29	249		x
5	Morris		7/25/2023 22:52	7/26/2023 0:52	2:00:39	944		x
6	Mahnomen		7/27/2023 2:59	7/27/2023 4:18	1:18:58	805		x
AUGUST = 1 total qualifying event, 0 events with no email								
1	Ottertail City		8/8/2023 19:25	8/8/2023 20:56	1:31:08	867		x
SEPTEMBER = 5 total qualifying events, 0 events with no email								
1	Beltrami		9/4/2023 10:40	9/4/2023 12:12	1:31:51	25		x
	Beltrami		9/4/2023 10:40	9/4/2023 12:11	1:31:37	6		x
	Beltrami		9/4/2023 10:40	9/4/2023 12:11	1:31:35	65		x
	Fertile		9/4/2023 10:40	9/4/2023 11:49	1:09:06	537		x
2	Erskine		9/8/2023 7:05	9/8/2023 8:15	1:09:53	271		x
	Mentor		9/8/2023 7:05	9/8/2023 8:15	1:09:48	435		x
	Brooks		9/8/2023 7:05	9/8/2023 8:14	1:09:45	74		x
3	Morris		9/16/2023 6:13	9/16/2023 7:28	1:15:04	576		x
4	Fergus Falls		9/26/2023 19:30	9/26/2023 20:42	1:11:57	776		x
5	Ogema		9/28/2023 0:53	9/28/2023 2:10	1:17:04	339		x
	Callaway		9/28/2023 0:53	9/28/2023 2:10	1:17:04	131		x
	Waubun		9/28/2023 0:53	9/28/2023 2:10	1:17:04	321		x
OCTOBER = 3 total qualifying events, 0 events with no email								
1	Ivanhoe		10/13/2023 4:01	10/13/2023 5:54	1:53:29	227		x
	Ivanhoe		10/13/2023 4:01	10/13/2023 5:54	1:53:19	110		x
	Ivanhoe		10/13/2023 4:01	10/13/2023 5:54	1:53:25	120		x
	Hendricks		10/13/2023 4:01	10/13/2023 5:45	1:44:06	394		x

	Feeder	Primary Event #	Begin Time	Completion Time	Duration HH/MM/SS	Customers Out	Region	Email sent to CAO
2	Fertile		10/27/2023 2:41	10/27/2023 4:10	1:29:00	522		x
	Gary		10/27/2023 2:41	10/27/2023 4:49	2:08:00	131		x
	Twin Valley		10/27/2023 2:41	10/27/2023 4:49	2:08:00	465		x
	Beltrami		10/27/2023 2:41	10/27/2023 3:43	1:02:00	100		x
3	Ottertail		10/28/2023 13:15	10/28/2023 14:45	1:30:00	745		x
NOVEMBER = 0 total qualifying events, 0 events with no email								
DECEMBER = 2 total qualifying events, 0 events with no email								
1	Crookston		12/9/2023 1:55	12/9/2023 5:52	3:56:59	880		x
2	Fertile		12/8/2023 23:53	12/9/2023 2:13	2:19:48	537		x
3	Fergus Falls		12/17/2023 18:57	12/17/2023 20:08	1:10:59	687		x

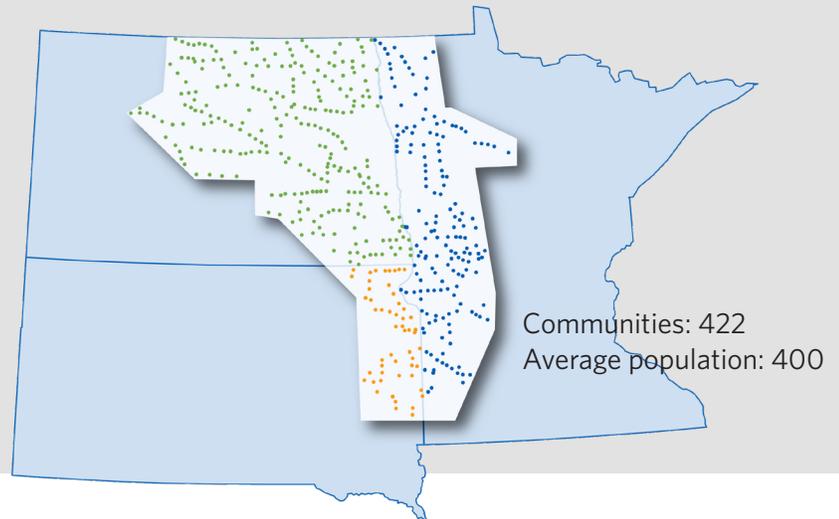


2023 MINNESOTA SAFETY, RELIABILITY, AND SERVICE QUALITY

Our focus on reliable electricity and timely, courteous customer service

OUR MISSION

To produce and deliver electricity as reliably, economically, and environmentally responsibly as possible to the balanced benefit of customers, shareholders, and employees and to improve the quality of life in the areas in which we do business.



POWER OUR CUSTOMERS CAN COUNT ON

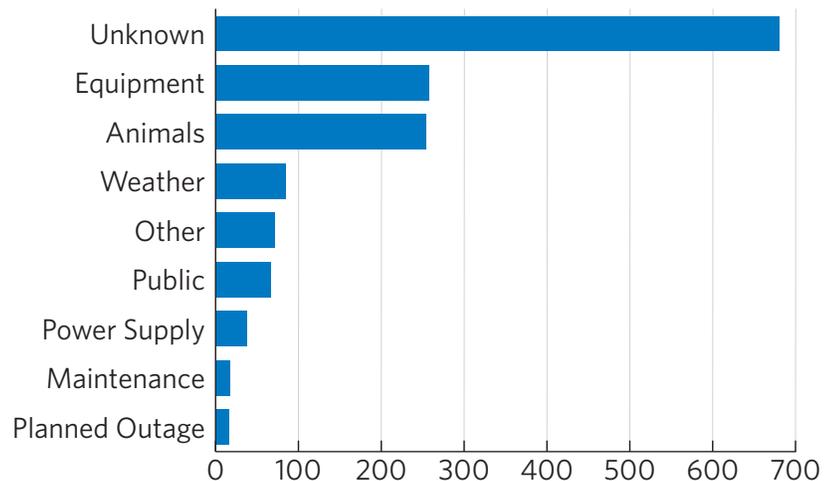
We strive to minimize the frequency and duration of service interruptions. And we deploy field personnel as safely and quickly as possible to restore power to customers when interruptions occur.

3.08% of our customers experienced an interruption greater than **six hours**.



12.97% of our customers experienced four or more interruptions lasting greater than **five minutes**.

INTERRUPTION REPORT BY TYPE



Keeping our lines clear of trees and other vegetation helps ensure safe and reliable service. We trimmed vegetation along **900 miles** of transmission line in 2023.

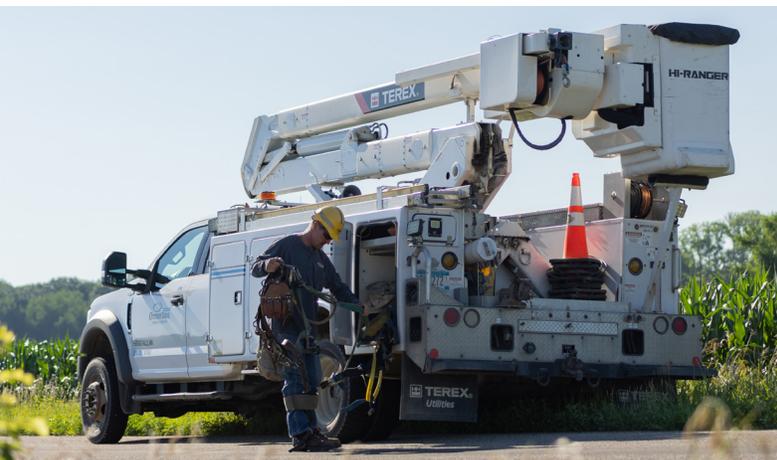


OUTAGE PREVENTION

As part of our long-term reliability strategy, we regularly perform critical analyses of our transmission and distribution systems.

We'll continue to invest in innovative, resourceful ways to create a more resilient regional transmission grid by:

- Identifying areas requiring proactive maintenance.
- Integrating geographic information system data.
- Continuous improvement efforts for the integrity of our existing infrastructure.



CUSTOMER SERVICE TEAM

We're here so our customers can focus on what matters most.

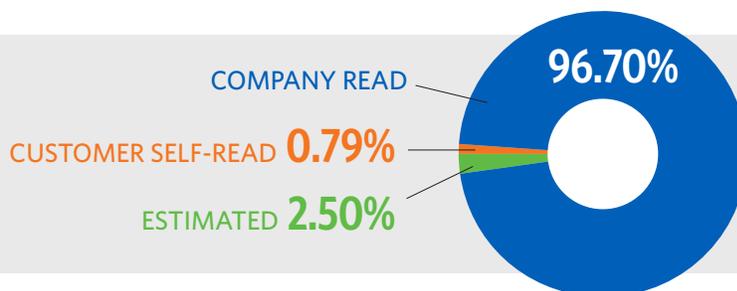
If there's a power outage, our customer service team is ready to help. **179 linemen and service representatives** were available to safely and quickly restore power to our customers in 2023.

Safety

In 2023 no injury-related incidents were reported that required medical attention as a result of downed wires or other electrical system failures.

Company-read meters

Our service representatives and contracted meter readers read almost all of our residential meters to ensure accurate bills.



HIGH SERVICE STANDARDS

Our **27 customer service representatives** are ready to assist our customers.

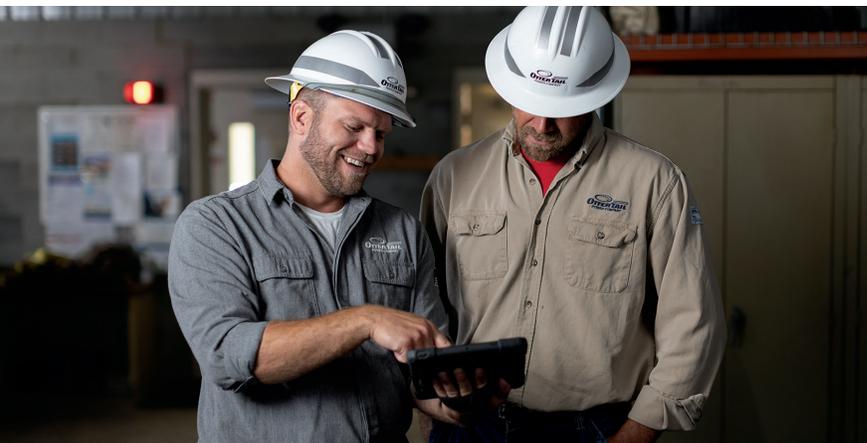
We promoted several resources during **outbound calls** throughout our service area to customers in need, offering:

- Payment plans.
- Protection under the Minnesota Cold Weather Rule.
- Energy assistance options.

In 2023 our team received over **54,000 customer calls** during business hours. Of those, we answered **76%** within **20 seconds**.

These are just a few reasons customers call us:

- Start or stop service.
- Billing related matters.
- Report an outage.



**MOVING?
WE TURN ON ELECTRICITY QUICKLY!**

89%
of locations we've
previously served
receive electricity
within 24 hours.



800-257-4044 or 218-739-8877
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- YouTube.com/OtterTailPowerCo
- LinkedIn.com/Company/Otter-Tail-Power-Company

MINNESOTA PUBLIC UTILITIES COMMISSION
 Consumer Affairs Office
 121 7th Place E - Suite 350
 St. Paul, MN 55101-2147

**Docket No. E017/M-24-
 Attachment 3
 Page 1 of 1**

ANNUAL SUMMARY OF CUSTOMER COMPLAINTS

For Year Ending 12/31/2023
 in accordance with Minn. Rule 7820.0500

Name of Utility Otter Tail Power Company
 Address 215 S Cascade St., Fergus Falls, MN 56537
 Prepared by Wendi A. Olson Phone No. (218) 739-8699

NUMBER OF DISCONNECTS
 FOR NON-PAYMENT
 (by month)

	1	2	3
Jan	22	2	0
Feb	42	0	0
Mar	60	12	0
Apr	51	9	0
May	418	14	0
Jun	163	8	0
Jul	131	9	0
Aug	146	7	0
Sep	185	3	0
Oct	5	1	0
Nov	11	2	0
Dec	8	1	0
Total	1,242	68	0

	Residential			Commercial & Industrial			Interruptible		
	Number Received	Number Resolved	Number Unresolved	Number Received	Number Resolved	Number Unresolved	Number Received	Number Resolved	Number Unresolved
I. Complaint Type									
A. Service	3	3							
B. Billing	4	3	1						
C. Rate									
D. Rules									
Total Complaints	7	6	1	0	0	0	0	0	0

	Residential	Commercial & Industrial	Interruptible
II. A. Number of Disconnections for Non-Payment	1,242	68	0
B. Number of Escrow Forms Filed	0	0	0
III. A. Total Number of Customers (year end)	51,007	11,239	0
B. Number of Customers Added During Year	290	31	0

1. Residential
2. Commercial & Industrial
3. Interruptible

7820.0500 REPORTING REQUIREMENT - Part C.

Company employee authorized to receive and respond to the requests –
 Wendi A. Olson
 State Regulatory Compliance Specialist
 Otter Tail Power Company
 Phone: 218-739-8699
 Email: otpregulatory@otpc.com and wolson@otpc.com

CERTIFICATE OF SERVICE

**RE: In the Matter of Otter Tail Power Company's 2023 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2024
Docket No. E017/M-24-**

I, Laura Dewey, 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
Annual Report**

Dated this 1st day of **April, 2024**.

/s/ LAURA DEWEY
Laura Dewey
Regulatory Filing Coordinator
Otter Tail Power Company
215 South Cascade Street
Fergus Falls MN 56537
(218) 739-8604

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Ray	Choquette	rchoquette@agp.com	Ag Processing Inc.	12700 West Dodge Road PO Box 2047 Omaha, NE 68103-2047	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Jessica	Fyhrie	jfyhrie@otpc.com	Otter Tail Power Company	PO Box 496 Fergus Falls, MN 56538-0496	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Nick	Kaneski	nick.kaneski@enbridge.com	Enbridge Energy Company, Inc.	11 East Superior St Ste 125 Duluth, MN 55802	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
James D.	Larson	james.larson@avantenergy.com	Avant Energy Services	220 S 6th St Ste 1300 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Kavita	Maini	kmaini@wi.rr.com	KM Energy Consulting, LLC	961 N Lost Woods Rd Oconomowoc, WI 53066	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP	33 South Sixth St Ste 4200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Matthew	Olsen	molsen@otpc.com	Otter Tail Power Company	215 South Cascade Street Fergus Falls, MN 56537	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Regulatory	regulatory_filing_coordinators@otpco.com	Otter Tail Power Company	215 S. Cascade Street Fergus Falls, MN 56537	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Cary	Stephenson	cStephenson@otpco.com	Otter Tail Power Company	215 South Cascade Street Fergus Falls, MN 56537	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ
Stuart	Tommerdahl	stommerdahl@otpco.com	Otter Tail Power Company	215 S Cascade St PO Box 496 Fergus Falls, MN 56537	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2024 SRSQ