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April 3, 2023

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 2022 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2023
Docket No. E017/M-23-76
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 2022 and proposed reliability standards for 2023 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@otpco.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 2022 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2023

Docket No. E017/M-23-76

SUMMARY OF FILING

Please take notice that on April 3, 2023, Otter Tail Power Company (Otter Tail), filed with the Minnesota Public Utilities Commission its annual Safety, Reliability and Service Quality Report for 2022 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 2023.

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Otter Tail Power Company's 2022 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2023	**Docket No. E017/M-23-76** **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@otpco.com

C. Date of Filing

This Report is being filed on April 3, 2023.

D. Title of Utility Employees Responsible for Filing

Matthew J. Olsen
Mgr Reg Strategy/Compliance
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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:

Matthew J. Olsen
Mgr Reg Strategy/Compliance
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Regulatory Filing Coordinator
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regulatory_filing_coordinators@otpco.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 2022 Safety, Reliability, and Service Quality Report is attached.

B. Proposed reliability standards for 2023

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. Minnesota customers served by the Wahpeton and Milbank customer service centers are included in Fergus Falls and Morris customer service centers' analysis (respectively). This 2022 report and any future reports will be reported in the same manner.

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. 2022 goals will be set on the 2022 IEEE Benchmark Survey results, as provided historically in August of 2023.

The current year report historically is completed, and results posted, in the third quarter of the following year. As done in 2022, Otter Tail will provide a supplemental filing within 30 days from when IEEE's 2022 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 2022, and requests Commission approval of our proposed reliability standards for 2023.

Date: April 3, 2023

Respectfully submitted,

OTTER TAIL POWER COMPANY

By: */s/ WENDI A. OLSON*
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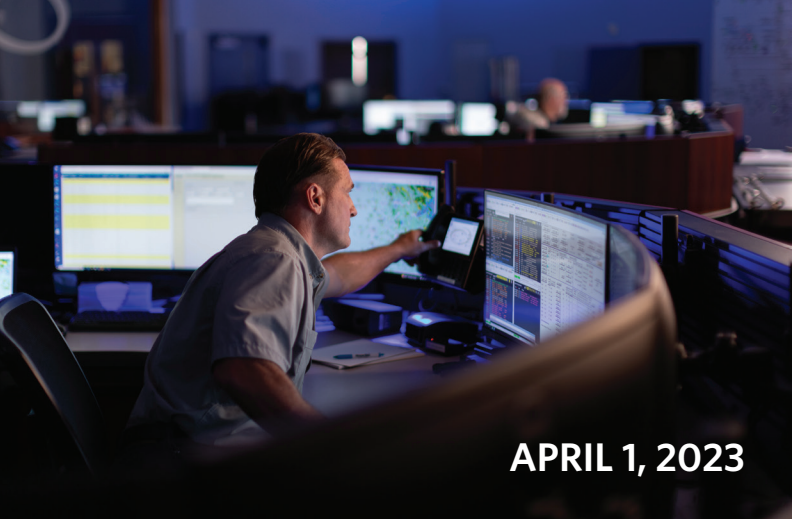


APRIL 1, 2023

Safety, Reliability, and Service Quality Report for 2022

Including Additional Compliance Obligations

OTTER TAIL POWER COMPANY

TABLE OF CONTENTS

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 132,500 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 experienced several severe weather storms in the second quarter of 2022 with 56.53 normalized and 163.53 non normalized minutes of SAIDI/quarter contributed. In terms of both average wind speeds, as well as frequency of wind gusts over 30 mph, 2022 realized the highest numbers across Minnesota in over four decades. Several days realized damaging winds over 50 mph. A derecho hit large parts of our system on May 12 causing massive damage and 92 minutes of SAIDI.

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.

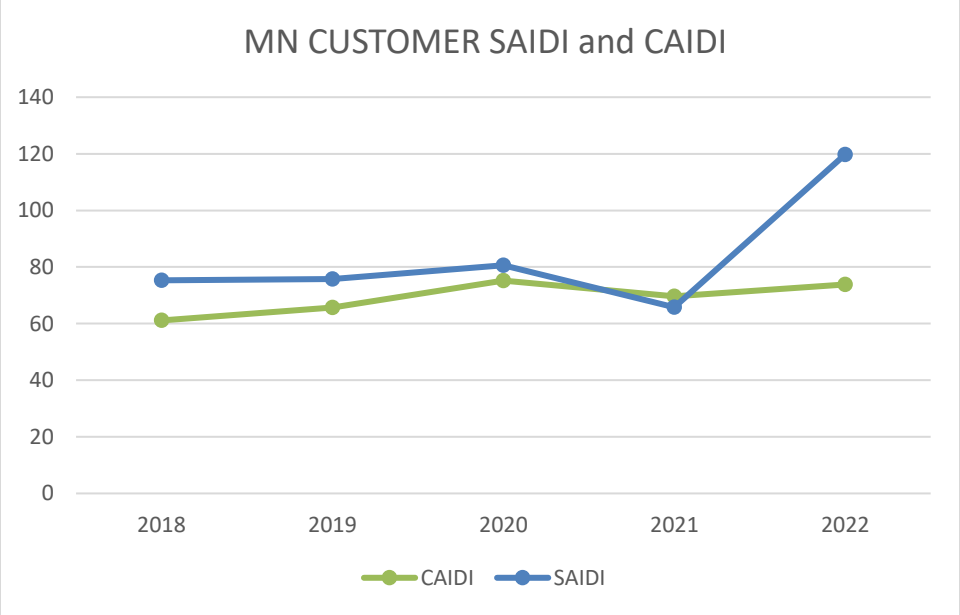
Otter Tail was the recipient of the Edison Electric Institute (EEI) association's Emergency Recovery Award for outstanding restoration efforts during and after the severe storm that hit parts of our company's service area on May 12, 2022. This award recognizes recovery efforts for electric companies following service disruptions caused by extreme weather or other natural events through an international nomination 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. 2022 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 2018 through 2022. It should also be noted that Otter Tail moved from an outdated/obsolete reporting system to a new Interruption Monitoring System (IMS) in 2019. With this change, more granular SAIDI, CAIDI, and SAIFI information is captured. Thus, comparison of 2019 - 2022 data to historical data should not be considered like for like.

Figure 1 – Normalized Historic Minnesota SAIDI and CAIDI



Otter Tail saw normalized performance levels increase for both SAIDI and CAIDI for 2022 compared to 2021 results.

Figure 2 – Normalized Minnesota Historic SAIFI

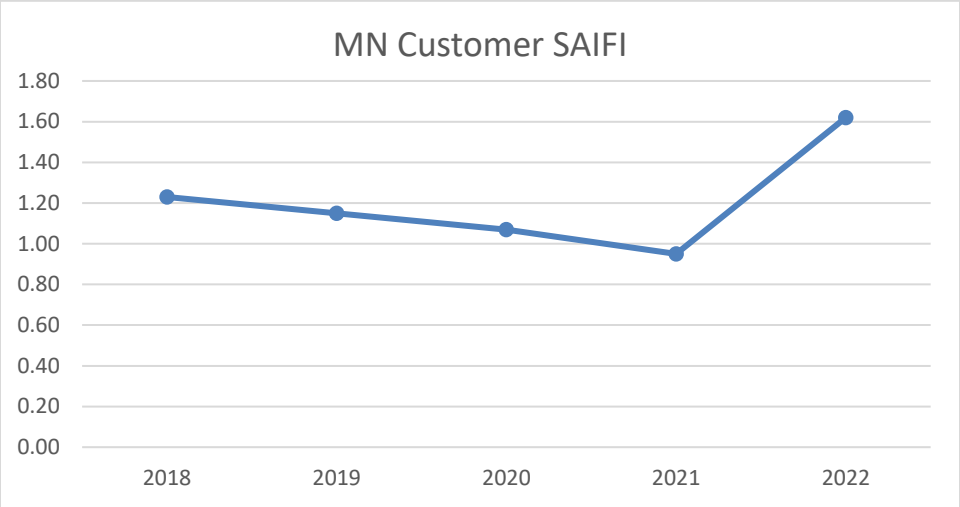


Figure 3 – Normalized Minnesota Historic MAIFI

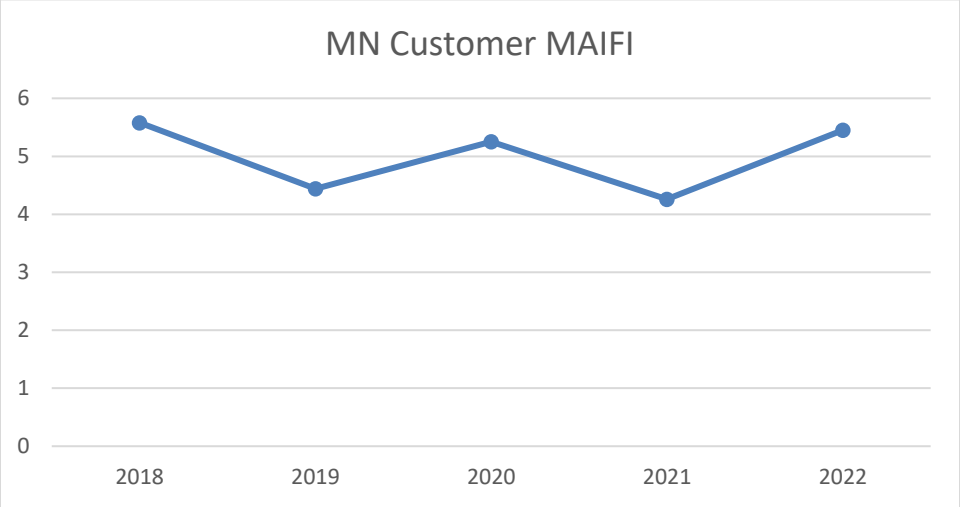


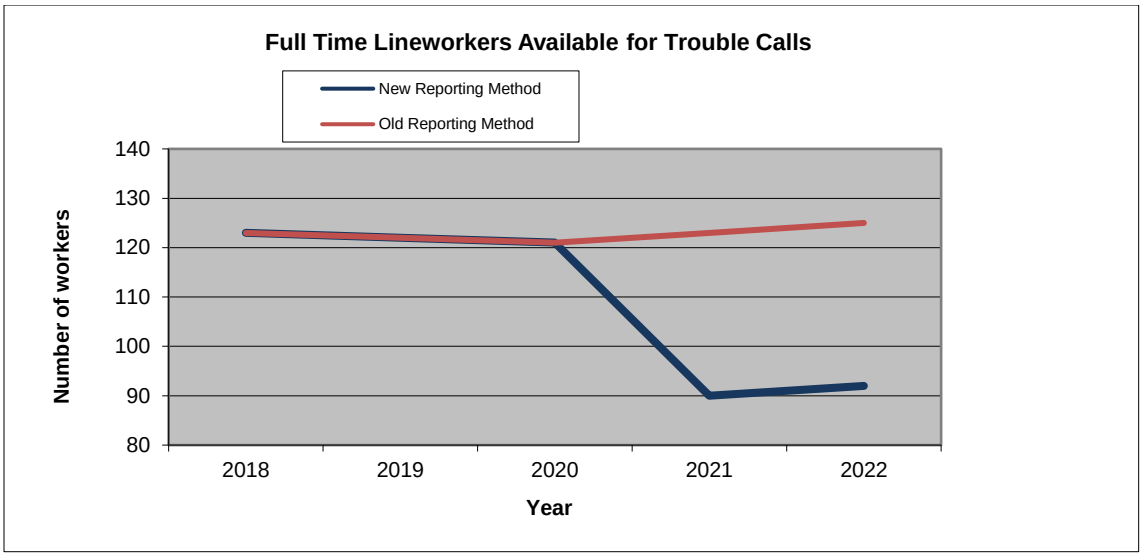
Table 1

Normalized MAIFI by Customer Service Center

CSC 2022	MAIFI
Bemidji	4.68
Crookston	7.24
Fergus Falls	5.19
Morris	5.97
MN Total	5.45

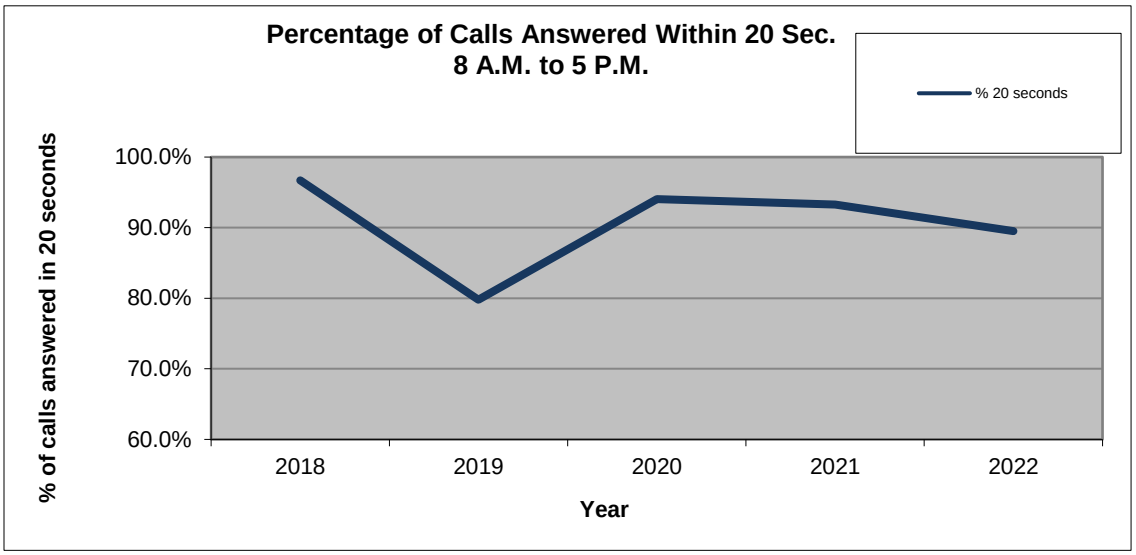
MAIFI is the momentary average interruption frequency index. It is an indication of the average number of momentary interruptions the average customer received over the course of a year, for a particular region. Otter Tail views MAIFI as a leading indicator for future SAIDI and thus tracks and analyzes line sections with excessive momentary interruptions for future capital improvements or possible vegetation management needs. Overall, Otter Tail saw an increase in 2022 results when compared to 2021.

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



Full time lineworkers available for trouble calls has stayed consistent over the last five years. The red line represents our prior lineworker counts. This includes all lineworkers within our Milbank and Wahpeton Customer Service Centers, including those assigned to South Dakota and North Dakota service areas. The blue line illustrates our current lineworkers with assigned Minnesota communities. The delta between the two lines represents a recategorization of the service centers and not a change in lineworker counts on a company-wide basis. See Section IV, J below for additional details.

Figure 5 - Calls Answered within 20 Seconds



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 2022 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	4	1	7

NUMBER OF DAYS	
Total number of days of job transfer or restriction	Total number of days away from work
9	41

INJURY AND ILLNESS TYPES				
Injuries	Skin disorders	Respiratory conditions	Poisonings	All other illnesses
12	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**
There were no instances of personal injury due to system failures in 2022.				

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 2022 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.

In 2016, Otter Tail selected Itron to replace Otter Tail's end of life interruption monitoring system with a new Interruption Monitoring System (IMS), including working with Itron to incorporate the IEEE 2.5 beta method process to normalize reliability data. System installations began in late 2016, with completion in late 2018. 2019 was the first entire year with the new IMS. Otter Tail's 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, 2017 - 2021.
- The system T_{med} is utilized to run our indices for Minnesota and individual Minnesota Customer Service Centers (CSCs).

For 2022 data, the 2.5 beta parameter assumptions are as follows:

2.5 Beta Parameters:

Alpha	Beta	Major Event Day
-2.13	1.80	10.75

After applying 2.5 Beta Parameters for 2022, two days met the criteria to be considered an MED, May 12, 2022 and June 20, 2022.

- May 12, 2022 – Severe weather caused prolonged interruptions to 24,000 customers in our system due to extensive equipment damage including 250+ broken poles. The SAIDI/day system accumulation was 91 minutes.
- June 20, 2022 – Severe weather caused prolonged interruptions to Bemidji, Fergus Falls, and Morris customers due to extensive equipment damage and several broken transmission structures. The SAIDI/day system accumulation was 16 minutes.

Table 4 shows Otter Tail's 2022 SAIFI, CAIDI, and SAIDI normalized results based on the IEEE 2.5 Beta Method for each CSC and the entire Minnesota system. 2022 results were gathered by our Itron Interruption Monitoring System, implemented in 2019.

Due to the fact that the 2022 IEEE Reliability Benchmarking Report will not be completed until the August 2023 timeframe, 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 2022 Benchmark Reliability Survey results are completed.

Table 4

2.5 Beta 2022

CSC	SAIFI	SAIDI	CAIDI
Bemidji	1.65	141.28	85.55
Crookston	1.78	151.18	84.97
Fergus Falls	1.47	100.44	68.25
Morris	2.09	141.09	67.51
MN Total	1.62	119.77	73.83

Table 4a shows Otter Tail's 2022 SAIFI, CAIDI, and SAIDI non-normalized results for each CSC and the entire Minnesota system.

Table 4a

Non-Normalized 2022

CSC	SAIFI	SAIDI	CAIDI
Bemidji	1.96	180.54	92.03
Crookston	1.98	160.95	81.11
Fergus Falls	1.7	167.17	98.2
Morris	2.92	493.25	168.91
MN Total	2	235.04	117.33

Reliability Standard Summary

When compared to 2021, Otter Tail's 2022 overall Minnesota reliability performance realized an increase in SAIFI, SAIDI, CAIDI and MAIFI. As described in last year's filing, our system (first utilized for 2019 recording) captures more interruptions and duration with monitoring meters on all three phases, when compared to our prior system. Otter Tail attributes poorer results in 2022 to several severe weather storms in the second quarter with 56.53 normalized and 163.53 non normalized minutes of SAIDI/quarter contributed.

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 will come from our Outage Management System (OMS), implemented on December 20, 2022 and be far more inclusive, including distribution interruption cause data.

Table 5
2022 MN Sustained Interruption Summary
by CSC and cause

	Bemidji	Crookston	Fergus Falls	Morris	Work Center Totals
Animal	4	2	6	3	15
Equip Fail Arrester			1	1	2
Equip Fail Conductor	1	5		20	26
Equip Fail Cutout			5	1	6
Equip Fail Fuse unknown cause		1			1
Equip Fail Insulator	9	19	1	14	43
Equip Fail Other		13		12	25
Equip Fail Pole		1		5	6
Equip Fail Substation	1		6		7
Equip Fail Transformer				1	1
Equip Fail Underground	1	3	1		5
Flood		1			1
Lightning		8		4	12
Other		1	17		18
Planned	1	9	6	1	17
Investigated and unknown		7	1		8
Vegetation	4	17	1	5	27
Vehicle Accident		5	1	2	8
Weather	7	22	15	87	131
Grand Total	28	114	61	156	359

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.**

In compliance with the Commission's **December 20, 2012 Order in Docket No. E017/M-12-325**, Otter Tail submitted a compliance filing on February 4, 2013 describing Otter Tail's action plans to address not meeting the 2011 reliability standards set by the Commission. In that filing, Otter Tail described several enhanced or 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 are planned throughout 2023. In summary, the OMS will drastically improve the way in which outage information is organized and summarized. This will allow for Otter Tail crews to respond to outages more efficiently which will improve restoration times. In addition, the more granular information from an OMS, when compared to today's IMS, will show future increases in reported SAIFI, SAIDI, MAIFI and likely CAIDI when Otter Tail utilizes that system for annual SRSQ reporting. However, this does not necessarily 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-21-382[1].

2. **Customer Service and Asset Management Joint Monthly Team Meetings:** Otter Tail's Customer Service and Asset Management cross functional team meets monthly 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 monthly meetings. In a similar process, local CSC operation management and engineering staff meet monthly to discuss any reliability concerns as well.

[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.

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 2022.

4. **Lightning Tracking System:** Otter Tail implemented a lightning tracking system eleven years ago. It 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. In 2019, the integration of the lightning data with our GIS was completed. Now strike data can be tracked in comparison 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 will be completed in second quarter of 2023. 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:** In 2014 Otter Tail began installing remote real-time power quality monitors in the field to assist with investigating interruption events and power quality issues. Today, Otter Tail has 100 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.

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 2022 calendar year, Otter Tail reports that there were four bulk power supply interruptions, all causing sustained interruptions to MN customers. Three of these bulk power supply interruptions occurred on May 12, 2022, which was one of our two Major Event Days.

On May 12, 2022, derecho winds hit Otter Tail's south-central territory causing 250+ downed structures (both T&D) and many trees blown into lines. The Bigstone to Marietta 115KV, Burr to Marietta 115KV, and the Bigstone to Blair 230KV line sections suffered extensive structure damage. The loss of these facilities contributed to several long interruptions to the Morris and Fergus Falls CSC customers. The Morris CSC alone recorded 313 minutes of SAIDI accumulation during this event.

On May 30, 2022, high winds and possible tornado (Forada, MN tornado track) took out several structures on the Alexandria to XCEL Douglas County 115KV line section.

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.

The first event listed for May of 2022 in this attachment includes numerous communities and outage times. What is included here matches the updated report that was submitted on May 17, 2022, to the Consumer Affairs Office. Due to the impact that this storm had on our communities, we included all customers with service interruptions that met the one-hour threshold.

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. Three years ago, Otter Tail changed the criteria for the purpose of identifying the worst performing circuit. In previous years, we defined a circuit as a distribution feeder and the criterion that was used to identify the worst performing circuit was customer minutes. Otter Tail now 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 are including momentary customer interruptions as conditions due to the fact that we believe this is "forward looking" 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.

Table 6
2022 MN Worst Performing Feeders

Service Center	Substation Name	Feeder Description	Customer Count	Total Sustained Customer Minutes	SAIFI	SAIDI	CAIDI	MAIFI
BEMIDJI	Twin Valley	Maine Feeder	721	70922	3	98.37	32.79	13
CROOKSTON	Crookston Barrette St	South Feeder	834	199144	4	238.78	59.68	6
FERGUS FALLS	Ottertail City	North Feeder	876	333063	2.43	380.21	156	20.1
MORRIS	Morris NE	Prairie Inn Feeder	1058	53567	2	50.63	25.28	13.01

Bemidji CSC: The Main Feeder fed from the Twin Valley Substation was the worst performing feeder in 2022 for the Bemidji CSC. This feeder experienced three sustained and 13 momentary interruptions impacting 721 customers in 2022. The cause of the sustained interruptions was largely due to wind and severe weather.

This feeder was last trimmed in 2021 as part of our vegetation management process. Otter Tail has plans to investigate vegetation and provide more tree trimming/clearing at the distribution level in 2023. Also in 2023, the 41.6KV transmission line to the substation will be upgraded. This work will include replacing insulators and poles.

Crookston CSC: The South Feeder fed from the Crookston Barrette Street Substation was the worst performing feeder in 2022 in the Crookston CSC. This feeder experienced five sustained and six momentary interruptions impacting 834 customers. Causes of the interruptions included weather/strong winds with branches and trees blown into the lines, strong winds and icing causing the lines to gallop, and flooding of the Red Lake River.

This feeder was last trimmed in 2018 as part of our vegetation management process. It is scheduled to be trimmed again in 2023. In 2023 portions of the overhead will be converted to underground. Also, as a result of this circuit's 2022 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 2022 for the Fergus Falls CSC. This feeder was also the worst performer in 2021 out of the Fergus Falls CSC. This feeder experienced four sustained and 21 momentary interruptions, impacting 876 customers in 2022. The causes of the interruptions include, vegetation, animals, equipment failure, and weather.

This feeder, which resides in a heavily wooded area was last trimmed late summer/fall of 2021 as part of our vegetation management process. 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 completed in 2022. However, supply chain issues have delayed delivery of padmount transformers to complete this project. Otter Tail anticipates delivery of the transformers in 2023 to allow completion of this upgrade. It is expected that this upgrade will provide much improvement in service due to the heavily wooded area and feeder surroundings. Investigations into additional proactive maintenance activities continue to improve this feeder's performance in the future.

Morris CSC: The Prairie Inn Feeder fed from the Morris Northeast Substation was the worst performing feeder in 2022 for the Morris CSC. This feeder experienced two sustained and 13 momentary interruptions impacting 1058 customers in 2022.

This feeder was last trimmed in 2019 as part of our vegetation management process. It is scheduled to be trimmed again in 2024. Upgrades were completed on this line in late 2022 including several pole replacements. 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.

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	Main Feeder	1	4
Bemidji	Downtown Feeder	0	1
Bemidji	Feeder	0	2
Bemidji	South_Feeder	0	1
Bemidji	North Feeder	1	0
Bemidji	North Feeder	1	0
Bemidji	South Feeder	0	2
Bemidji	Main Feeder	0	2
Bemidji	Feeder	0	2,536
Bemidji	Main Feeder	0	66
Bemidji	Main Feeder	0	1
Bemidji	Main Feeder	0	6
Bemidji	Main Feeder	1	95
Bemidji	East Feeder	0	14
Bemidji	West Feeder	0	22
Bemidji	North Feeder	2	4
Bemidji	South Feeder	0	5
Bemidji	Main Feeder	0	38
Bemidji	Main Feeder	1	88
Bemidji	Main Feeder	2	158
Bemidji	Main Feeder	4	33
Bemidji	Feeder	0	1
Bemidji	Main Feeder	0	4
Bemidji	Main Feeder	1	1
Bemidji	Feeder	0	4
Bemidji	Feeder	0	3
Bemidji	Main Feeder	1	13
Bemidji	Main Feeder	0	1
Bemidji	Main Feeder	0	1
Bemidji	Main Feeder	5	128
Bemidji	Main Feeder	0	5
Bemidji	Main Feeder	0	70
Bemidji	Main Feeder	0	6
Bemidji	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	Feeder	0	2,091
Crookston	Feeder	117	3
Crookston	Main Feeder	1	0
Crookston	North Feeder	0	29
Crookston	South Feeder	0	10
Crookston	Main Feeder	0	26
Crookston	Feeder	2	10
Crookston	Rural_East Feeder	0	8
Crookston	Rural_North Feeder	0	15
Crookston	Main Feeder	0	32,682
Crookston	North Feeder	0	7
Crookston	South Feeder	0	3
Crookston	Main Feeder	0	5
Crookston	Main Feeder	0	12,321
Crookston	Feeder	0	1
Crookston	East_and_South Feeder	2	0
Crookston	South_Main_ Feeder	0	2
Crookston	South_Main_Feeder	0	9
Crookston	South_Main_ Feeder	0	12
Crookston	South_Main_ Feeder	0	2
Crookston	South_Main_ Feeder	1	9
Crookston	Main Feeder	5	64
Crookston	Main Feeder	0	6
Crookston	Rural_Main Feeder	0	1
Crookston	Main Feeder	0	60
Crookston	East Feeder	0	37
Crookston	West Feeder	0	23
Crookston	South Feeder	0	2
Crookston	Main Feeder	0	29
Crookston	Main Feeder	0	400
Crookston	Main Feeder	2	32
Crookston	Main Feeder	0	3,730
Crookston	North Feeder	0	4,474
Crookston	South Feeder	0	381
Crookston	Main Feeder	0	49
Crookston	Main Feeder	0	3
Crookston	MainFeeder	4	73
Crookston	Main Feeder	0	3

Customer Service Center	Feeder	Events - Instantaneous Voltage	
		Number of Volt(RMS) Below Threshold Events (E6)	Number of Volt(RMS) Above Threshold Events (E7)
Crookston	East Feeder	1	0
Crookston	West Feeder	0	3
Crookston	Main Feeder	0	11
Crookston	Feeder	2	0
Crookston	Main Feeder	0	1
Crookston	East_North Feeder	0	26,278
Crookston	East_South Feeder	0	15,068
Crookston	East Feeder	0	21,573
Crookston	SW_ Feeder	0	1
Crookston	SW_Southeast Feeder	0	5
Crookston	Rural_Main Feeder	0	3
Crookston	Main Feeder	0	10
Fergus Falls	Jct_Main Feeder	0	8
Fergus Falls	Rural _Feeder	1	0
Fergus Falls	North Feeder	0	237
Fergus Falls	South Feeder	0	446
Fergus Falls	Town Feeder	1	26
Fergus Falls	Town Feeder	0	24
Fergus Falls	Main Feeder	1	475
Fergus Falls	Jct_Main Feeder	0	1
Fergus Falls	Main Feeder	0	60
Fergus Falls	Jct_Feeder	19	2
Fergus Falls	Jct_Feeder	7	4
Fergus Falls	Main Feeder	0	1
Fergus Falls	NW_Rural_Main Feeder	0	1,124
Fergus Falls	Rural_Main Feeder	0	1
Fergus Falls	Feeder	11	2
Fergus Falls	Feeder	8	4
Fergus Falls	Main Feeder	0	2
Fergus Falls	Main Feeder	0	6
Fergus Falls	Main Feeder	0	1,329
Fergus Falls	East Feeder	0	3
Fergus Falls	West Feeder	0	2
Fergus Falls	Feeder	0	4
Fergus Falls	Feeder	0	63
Fergus Falls	Feeder	0	6
Fergus Falls	Feeder	0	524
Fergus Falls	Feeder	0	7

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	Northeast Feeder	0	6
Fergus Falls	Northeast_Avenue Feeder	0	6
Fergus Falls	Northeast_Feeder	0	539
Fergus Falls	Main Feeder	0	10,367
Fergus Falls	North Feeder	2	0
Fergus Falls	South Feeder	1	8
Fergus Falls	South Feeder	1	474
Fergus Falls	Town Feeder	0	12,379
Fergus Falls	Feeder	3	11
Fergus Falls	Rest_Home Feeder	718	259
Fergus Falls	Main Feeder	0	11
Fergus Falls	Main Feeder	0	1
Fergus Falls	Rural Feeder	0	2
Fergus Falls	Feeder	0	6
Fergus Falls	North Feeder	1	1
Fergus Falls	South Feeder	1	4
Fergus Falls	Outlet_East Feeder	0	87
Fergus Falls	Outlet_North Feeder	0	102
Fergus Falls	City_North Feeder	1	5,808
Fergus Falls	City_South Feeder	1	7,271
Fergus Falls	East Feeder	0	1
Fergus Falls	Rural Feeder	4	1
Fergus Falls	West Feeder	0	1
Fergus Falls	West_East Feeder	1	0
Fergus Falls	Feeder	0	12
Fergus Falls	Feeder	0	8
Fergus Falls	Feeder	0	19
Fergus Falls	Feeder	0	1
Fergus Falls	SE_Southeast Feeder	0	3
Fergus Falls	South Feeder	0	7
Fergus Falls	Feeder	4	16
Fergus Falls	West Feeder	0	9
Fergus Falls	Main Feeder	0	297
Fergus Falls	Main Feeder	0	12
Fergus Falls	Main Feeder	0	12,682
Fergus Falls	Feeder	23	5,819
Fergus Falls	Town Feeder	0	1
Fergus Falls	Main Feeder	0	6

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	Main Feeder	4	0
Fergus Falls	Main Feeder	1	8
Fergus Falls	Main Feeder	1	3
Morris	NW_North Feeder	0	10
Morris	East Feeder	0	222
Morris	West Feeder	0	96
Morris	Main Feeder	87	0
Morris	North Feeder	4	111
Morris	South Feeder	4	185
Morris	Main Feeder	3	0
Morris	NE_East Feeder	0	44
Morris	NE_West Feeder	0	6
Morris	S_Rural_Main Feeder	1	3
Morris	SE_Rural_Main Feeder	0	2
Morris	SW_East Feeder	0	3,632
Morris	SW_Elevator Feeder	0	4,905
Morris	SW_West Feeder	0	3,213
Morris	Main Feeder	0	9
Morris	East Feeder	0	3
Morris	West Feeder	0	3
Morris	East Feeder	16	328
Morris	Rural 265	0	2
Morris	Rural	0	5
Morris	West Feeder	0	193
Morris	Main Feeder	0	1
Morris	Main Feeder	2	31
Morris	Main Feeder	0	93
Morris	Main Feeder	0	13
Morris	Town Feeder	3	9
Morris	Main Feeder	0	1
Morris	West Feeder	1	2
Morris	Main Feeder	0	8
Morris	Main Feeder	11	423
Morris	North Feeder	0	1
Morris	East Feeder	1	6
Morris	West Feeder	0	4
Morris	Feeder	0	17
Morris	Main Feeder	3	72

Customer Service Center	Feeder	Events - Instantaneous Voltage	
		Number of Volt(RMS) Below Threshold Events (E6)	Number of Volt(RMS) Above Threshold Events (E7)
Morris	East Feeder	2	980
Morris	West Feeder	0	262
Morris	East Feeder	0	230
Morris	West Feeder	0	121
Morris	Northwest Feeder	5	0
Morris	South Feeder	2	0
Morris	West_Rural Feeder	0	1
Morris	East Feeder	1	7
Morris	Main Feeder	3	89
Morris	West Feeder	1	2
Morris	NE	6	9
Morris	NE_Feeder	0	11
Morris	S_115_East Feeder	3	3
Morris	S_115_ Feeder	0	23
Morris	S_115_South West Feeder	1	3
Morris	Main Feeder	0	1
Morris	Main Feeder	0	408
Morris	South Feeder	0	5,348
Morris	Feeder	4	0
Morris	Main Feeder	0	5
Morris	Feeder	0	4
Morris	Town Feeder	1	0
Morris	Main Feeder	0	33
		1,137	204,683

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, 2022, are shown in **Table 8** below.

Table 8

	Department	Type	Total
	Bemidji	Field	17
		Office	3
	Bemidiji Total		20
	Crookston	Field	18
		Office	1
	Crookston Total		19
	Fergus Falls	Field	22
		Office	3
	Fergus Falls Total		25
	Morris	Field	20
		Office	4
	Morris Total		24
	Operations Support	Field	4
		Office	2
	Operations Support Total		6
	Trans Constr/Maintenance	Field	11
		Office	1
	Trans Constr/Maintenance Total		12
	Customer Care and Relations	Office	31
12/31/2022			137

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.

Transmission Construction and 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 31.

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.

With the inclusion of the Outage Management System Operators, the overall employee count for Customer Care and Relations remained consistent. As of December 2022, Customer Care and Relations had seven open positions within the CSR role. By January 2023 we have filled all open CSR positions.

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 MN only line workers (new reporting method). The red line includes all MN line workers, ND, and SD, line workers located in our Wahpeton and Milbank Customer Service Centers as previously reported (old reporting method). We moved Wahpeton (2 feeders serving MN Customers) into the Fergus Falls CSC and moved Milbank (2 feeders serving MN customers) into the Morris CSC. We've included this additional line for comparison purposes.

Figure 6

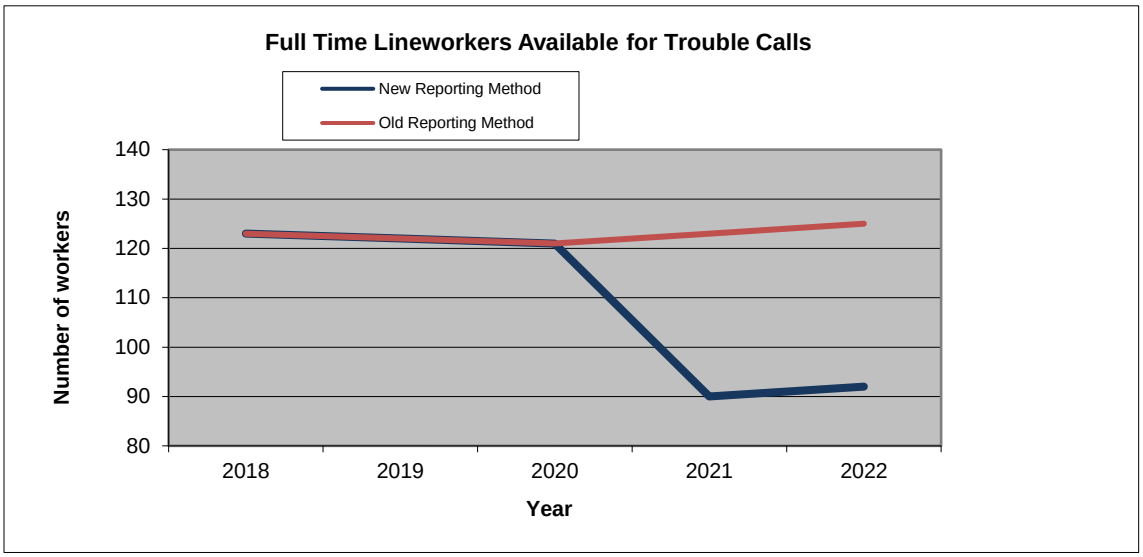


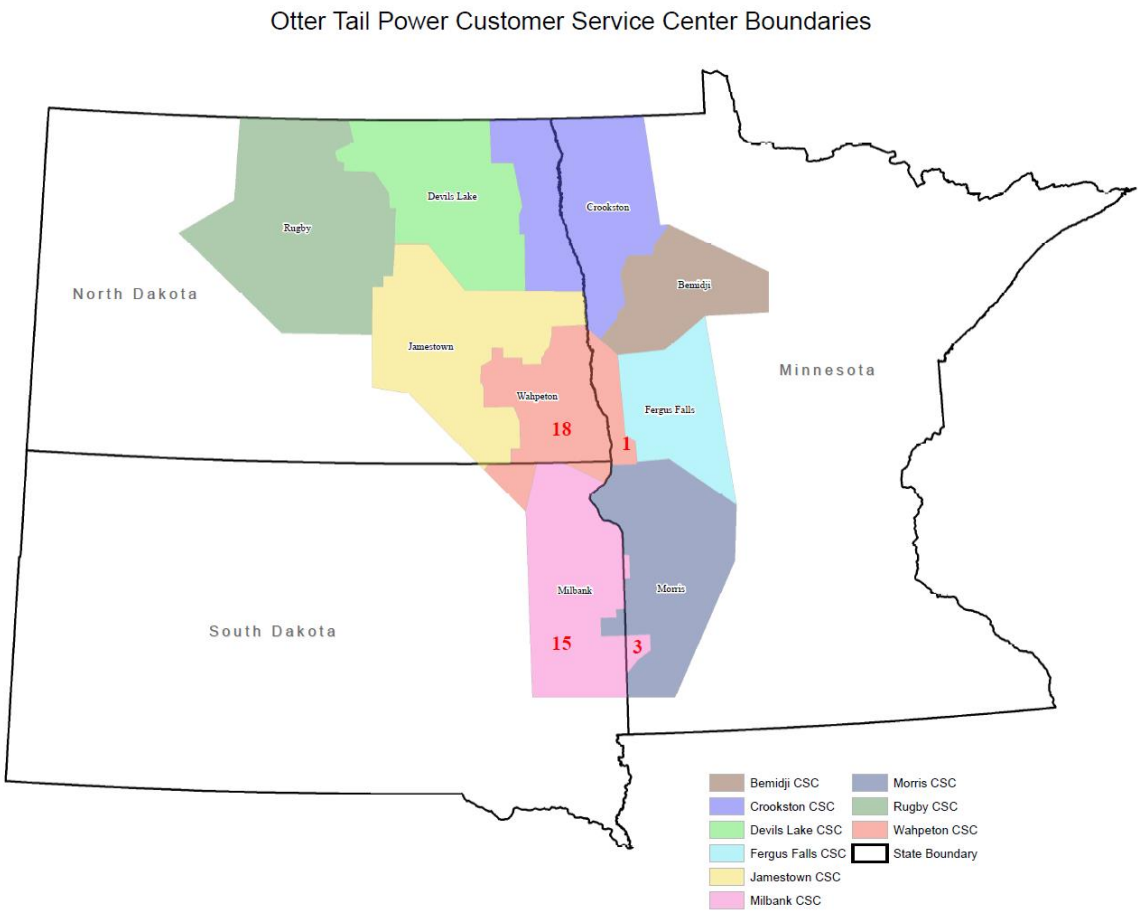
Table 8a is a comparison of our old method of reporting (2020 and prior) and the new method of reporting of field personnel (2021 to present). As previously stated, the old method included field personnel assigned to ND and SD service territories and the new method includes field personnel assigned to only MN service territories.

Table 8a

Column1	2020	2021 Old	2021 New	2022 Ol	2022 Ne
Wahpeton CSC	16	18	18	19	19
Total Wahpeton Field Personnel **ND** Assigned Communities included within SRSQ	15	17	0	18	0
Total Wahpeton Field Personnel - MN Assigned Communities	1	1	1	1	1
Total Field Fergus Falls CSC	21	21	21	21	21
Total Field Fergus Falls CSC After Inclusion of Wahpeton - MN Assigned Communities	0	0	22	0	22
Total Employee Count Included within SRSQ	37	39	22	40	22
	2020	2021 Old	2021 New	2022 Old	2022 New
Milbank CSC	18	19	19	18	18
Total Milbank Field Personnel **SD** Assigned Communities included within SRSQ	15	16	0	15	0
Total Milbank Field Personnel - MN Assigned Communities	3	3	3	3	3
Total Field Morris CSC	17	17	17	17	17
Total Field Morris CSC After Inclusion of Milbank - MN Assigned Communities	0	0	3	0	20
Total Employee Count Included within SRSQ	35	36	20	35	20

The rows highlighted in green in Table 8a illustrates the number of employees we were including within our prior reporting process. We have removed them from our report as they are not assigned to Minnesota communities. These are also depicted on the map in **Figure 6a**.

Figure 6a



Otter Tail also has a reliability engineer who supports system reliability related functions. This individual is not included in the above staffing level information. Additionally, Otter Tail has engineers in its Asset Management area who, due to the nature of their roles, support reliability on a daily, weekly, monthly, and annual basis.

Late in 2022 and early in 2023, we hired additional line workers through our entire service territory to account for the volume of future attrition and retirements. This was a prudent planning step to ensure our customers receive consistent service by maintaining adequate staffing and to build the requisite level of experience. To date Otter Tail has hired 17 additional line workers throughout our entire service territory and have two additional positions available. Of these additional line workers ten of them are located within our Minnesota service territory.

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 third 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 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 monitors at the feeder level.

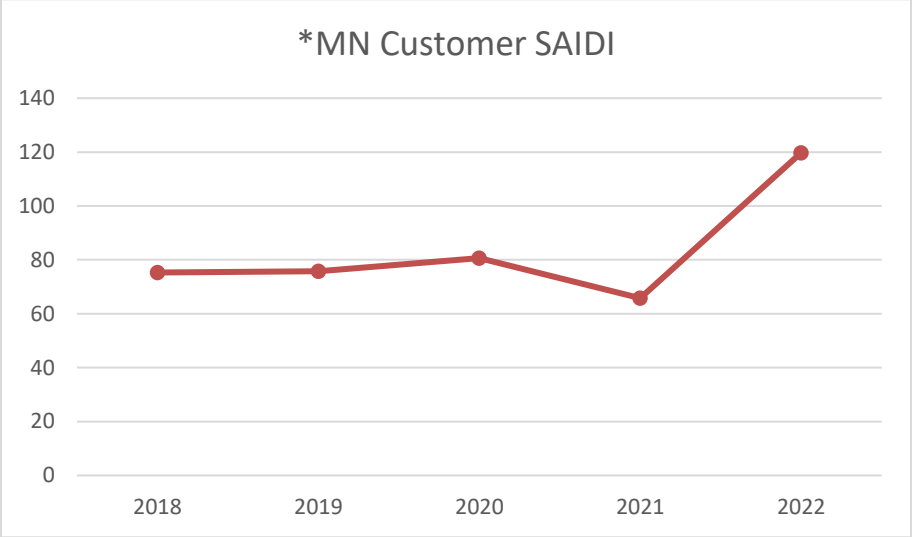
2. **Challenges in achieving reliability:** Otter Tail has the unique challenge of delivering reliable services to its customers across a large rural service territory, which has tremendous exposure to hazards such as vegetation, lightning, wind, and other weather-related issues. Our OMS deployment and 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 will be implementing system wide AMI meter technology with estimated completion in 2025/2026. This technology implementation will provide advanced grid analytic capabilities. Otter Tail plans to expand the reliability engineering workforce to focus on this new technology.

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 has 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. Indices reporting from our new OMS will likely occur in our 2024 SRSQ filing.

4. **SIRI Initiative:** Through the company's strategic planning process, Otter Tail's leadership identified the need for an initiative to focus on improving the electrical network and infrastructure to meet three strategic objectives; improve reliability, improve customer engagement, and improve business efficiency while looking forward to the future. The initiative was developed to help address aging infrastructure, as well as prepare for future system needs and technology. This information is further discussed in Otter Tail's Integrated Distribution Plan filing (Docket No. E017/RP-21-339[2]).

Figures 7, 8, and 9. The following graphs show Otter Tail's Normalized(*) SAIDI, SAIFI and CAIDI for the period of 2018 through 2022. When compared to 2021 results, Minnesota customers experienced an increase in overall SAIDI, SAIFI, and CAIDI. As previously discussed, early in 2022, an issue was discovered with Itron's Major Event Day (MED) calculation methodology. Corrections were performed by Itron in their system. The results presented in the figures below include these corrections for 2019 and 2020 data.

Figure 7



[2] In the matter of Otter Tail Power Company's Application for Resource Plan Approval 2022-2036 filed on September 1, 2021 in Docket No. E017/RP-21-339.

Figure 8

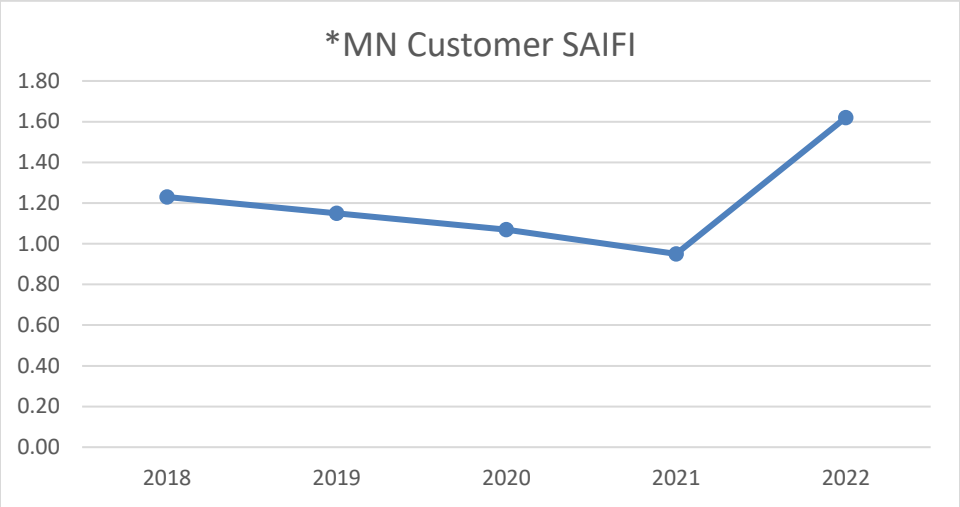
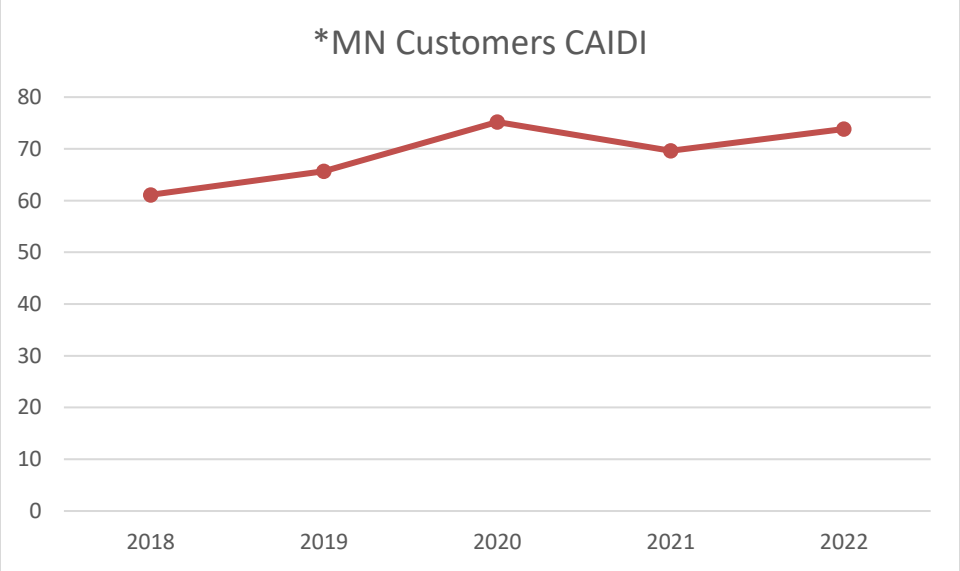


Figure 9



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.

    b. **Additional reporting:** Otter Tail will continue to evaluate and track other indices in 2023 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. Within the SIRI initiative, Otter Tail funding for the Underground Replacement program has greatly increased.

d. Cut-Out Replacement Program: In 2022, Otter Tail will be kicked off a cut-out replacement program to replace failing porcelain cut-outs as well as add animal protection to poles and other distribution assets. Work continues on this initiative. This program is also a part of the SIRI initiative and is discussed in the IDP.

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 shown below in section c, at Table 9 and 9a. 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.*

Table 9

2.5
normalized

CSC 2022	MAIFI
Bemidji	4.68
Crookston	7.24
Fergus Falls	5.19
Morris	5.97
MN Total	5.45

Table 9a

Non-normalized

CSC 2022	MAIFI
Bemidji	4.81
Crookston	7.47
Fergus Falls	6.11
Morris	7.43
MN Total	6.26

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

Table 10

2022 system normalized CEMI

CEMI4	13.75%
CEMI5	7.57%
CEMI6	3.28%

Table 10a

2022 system non-normalized CEMI

CEMI4	17.99%
CEMI5	11.64%
CEMI6	4.72%

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 Ottertail City Substation (Fergus Falls CSC worst performing circuit) was the feeder experiencing the most interruptions. This feeder had four sustained and 21 momentary interruptions.

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

Table 11

2022 system normalized CELID

CELID24	0.11%
CELID12	0.55%
CELID6	2.94%

Table 11a

2022 system non-normalized CELID

CELID24	2.76%
CELID12	6.86%
CELID6	12.10%

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

The Northwest Feeder fed from the Louisburg Lac Qui Parle Substation experienced the longest duration interruption lasting 51 hours and 20 minutes on May 12, 2022. May 12 was an MED with 91 minutes of SAIDI recorded across the entire system. 24,000 customers in MN and SD experienced prolonged interruptions with significant equipment damage including 250+ broken poles due to severe weather.

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. OTP 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 historically has not had the capability to estimate restoration times. Otter Tail implemented an OMS at the start of 2023. The new OMS does have the ability to track estimated and actual restoration times and associated accuracies. Thus, future reporting will include estimated restoration time accuracies fulfilling this requirement.

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

In the past, it has not been feasible for Otter Tail to provide performance by customer class as we monitored reliability at the feeder level and in many cases had multiple classes on the same feeder. The implementation of an OMS this year should make reporting by customer class possible for next year's reporting. Otter Tail is currently developing the requirements for this task and will be working with our OMS provider to bring this capability to fruition.

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 will begin AMI installations in 2023 as part of the AMI project discussed in the EUIC filing.

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 12

Percentage Uptime		
	General Website	99.27%
	Payment Services	99.88%
	Third-party web payment services	100.00%
	Outage map &/or Outage Info page	99.27%
Error Rate Percentage		
	Payment Services	0.125%

Otter Tail's Outage Map and Outage Information page is included within our general website uptime percentage. We did take down our outage map late in 2022 as we transitioned to our new outage map that went live in mid-December 2022 when we implemented our new Outage Management System.

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 13 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 13

Service Request Type	Count
Mailing address Changes	700
Start Service	1302
Submit meter readings	5542
Grand Total	7544

Table 14 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 2022 Contact Us emails by topic.

Table 14

Contact Us Topic	Topic Count
Otter Tail Investments	7
Turn on/ turn off/ transfer service	89
Generation interconnection	8
Help with technical issue	61
Business Energy Expert	8
Other	311
Send copy of my last bill	19
Enroll in EMP	456
Payment programs/ arrangements	172
Street light/ security light	40
Energy control	31
Economic development	5
Jobs	18
My account	627
Tree trimming request	75
Rebates/ programs/ financing	85
Tell us how we're doing	23
Grand Total	2035

Table 15 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 15

2022 Electronic Customer Communications		
Website	1,370,745	Webpage Views
Facebook	39,321	Page Visit
	1,396	New Page Likes
	364,431	Page Reach
Twitter	38,846	Total Profile Visits
LinkedIn	7,868	Page Views
	2,969	Unique Visitors
	532	New Followers
My Account	44,543	

Otter Tail's website visits are lower than previous reports. We monitor our website visits via Google Analytics. Early in January 2022, the code needed to provide the analytics broke. We were unaware of the break until late May 2022, at which time we consulted with our third-party web service vendor. The code was repaired on June 3, 2022. For this period of time, we are not able to report the number of website visits.

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 2022 Public Facing Summary is included as Attachment 2 and has been published on our website at otpco.com/help-center/. 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 2022 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 2022 Public Facing Summary is included as Attachment 2 and has been published on our website at otpco.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 increases in SAIDI, SAIFI, CAIDI and MAIFI 2022 results, compared to 2021. The increase in indices was largely due to an exceptionally high number of severe spring, summer, fall weather events.

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, MAIFI, and possible increases to 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. 2022 goals will be set on the 2022 IEEE Benchmark Survey results.

The current year report historically is completed, and results posted, the third quarter of the following year. As done in 2022, Otter Tail will provide a supplemental filing within 30 days from when IEEE's 2022 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 16-19** for its meter reading performance for 2022.

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 16
Otter Tail Power Company Meter Reading Performance
January 1, 2022 to December 31, 2022
Residential – MN

Residential							
Month	Meters Read	%	Meters Estimated	%	Self Read	%	Total Meters
1	63,157	96.50%	1,414	2.16%	874	1.34%	65,445
2	63,328	96.80%	1,211	1.85%	882	1.35%	65,421
3	63,681	97.06%	1,030	1.57%	896	1.37%	65,607
4	63,644	97.17%	973	1.49%	883	1.35%	65,500
5	61,959	94.04%	3,021	4.59%	904	1.37%	65,884
6	63,793	95.58%	2,020	3.03%	931	1.39%	66,744
7	64,193	96.38%	1,479	2.22%	932	1.40%	66,604
8	64,674	96.84%	1,210	1.81%	899	1.35%	66,783
9	64,947	97.39%	865	1.30%	877	1.32%	66,689
10	64,377	96.94%	1,174	1.77%	860	1.29%	66,411
11	63,580	95.96%	1,771	2.67%	904	1.36%	66,255
12	61,364	93.77%	3,264	4.99%	816	1.25%	65,444
	762,697	96.23%	19,226	2.43%	10,658	1.34%	792,581

Table 17
Otter Tail Power Company Meter Reading Performance
January 1, 2022 to December 31, 2022
Small Commercial – MN

Small Commercial							
Month	Meters Read	%	Meters Estimated	%	Self Read	%	Total Meters
1	12,904	97.40%	340	2.57%	5	0.04%	13,249
2	12,984	98.21%	230	1.74%	7	0.05%	13,221
3	13,043	98.45%	201	1.52%	5	0.04%	13,249
4	13,096	98.61%	175	1.32%	9	0.07%	13,280
5	12,826	95.92%	543	4.06%	3	0.02%	13,372
6	12,882	95.68%	578	4.29%	4	0.03%	13,464
7	13,178	97.82%	289	2.15%	5	0.04%	13,472
8	13,317	98.60%	183	1.35%	6	0.04%	13,506
9	13,330	98.86%	147	1.09%	7	0.05%	13,484
10	13,275	98.73%	168	1.25%	3	0.02%	13,446
11	13,118	97.96%	267	1.99%	6	0.04%	13,391
12	12,741	95.60%	582	4.37%	4	0.03%	13,327
	156,694	97.65%	3,703	2.31%	64	0.04%	160,461

Table 18
Otter Tail Power Company Meter Reading Performance
January 1, 2022 to December 31, 2022
Large Commercial – MN

Large Commercial							
Month	Meters Read	%	Meters Estimated	%	Self Read	%	Total Meters
1	819	98.91%	9	1.09%	-		828
2	825	99.04%	8	0.96%	-		833
3	825	98.68%	11	1.32%	-		836
4	831	99.52%	4	0.48%	-		835
5	826	98.45%	13	1.55%	-		839
6	796	95.56%	37	4.44%	-		833
7	813	98.67%	11	1.33%	-		824
8	812	98.90%	9	1.10%	-		821
9	812	99.02%	8	0.98%	-		820
10	812	98.66%	11	1.34%	-		823
11	807	98.41%	13	1.59%	-		820
12	798	96.84%	26	3.16%	-		824
	9,776	98.39%	160	1.61%	-		9936

Table 19
Otter Tail Power Company Meter Reading Performance
January 1, 2022 to December 31, 2022
Total – MN

System							
Month	Meters Read	%	Meters Estimated	%	Self Read	%	Total Meters
1	76,880	96.68%	1,763	2.22%	879	1.11%	79,522
2	77,137	97.06%	1,449	1.82%	889	1.12%	79,475
3	77,549	97.31%	1,242	1.56%	901	1.13%	79,692
4	77,571	97.43%	1,152	1.45%	892	1.12%	79,615
5	75,611	94.40%	3,577	4.47%	907	1.13%	80,095
6	77,471	95.59%	2,635	3.25%	935	1.15%	81,041
7	78,184	96.64%	1,779	2.20%	937	1.16%	80,900
8	78,803	97.16%	1,402	1.73%	905	1.12%	81,110
9	79,089	97.65%	1,020	1.26%	884	1.09%	80,993
10	78,464	97.25%	1,353	1.68%	863	1.07%	80,680
11	77,505	96.32%	2,051	2.55%	910	1.13%	80,466
12	74,903	94.11%	3,872	4.86%	820	1.03%	79,595
	929,167	96.49%	23,089	2.40%	10,722	1.11%	962,978

In reviewing the logic for this requirement, we believe our prior method for extracting the data was counting the register reads for each meter rather than counting if a meter was read. For example, a meter can have multiple types of register reads each month depending on the rate the customer is on. For example, a customer that's billed with demand would have two register reads, one for kWhs and another for demand. Our prior logic counted this as two reads. This logic change for 2022 is showing fewer meters read compared to 2021.

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 2022, 10 meters for customers of Otter Tail were not read by utility personnel for a period of 6 months to 12 months. Otter Tail had two meters 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 20

Row Labels	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Bemidji	**9**	**9**	**9**	**9**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
Service Representative	9	9	9	9	8	8	8	8	8	8	8	8
Crookston	**13**	**12**	**12**	**12**	**12**	**12**	**13**	**13**	**13**	**13**	**13**	**13**
Apprentice Service Representative							1	1	1	1	1	1
Service Representative	13	12	12	12	12	12	12	12	12	12	12	12
Fergus Falls	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**14**	**15**
Service Representative	15	15	15	15	15	15	15	15	15	15	14	15
Morris	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**
Service Representative	16	16	16	16	16	16	16	16	16	16	16	16
Grand Total	**53**	**52**	**52**	**52**	**51**	**51**	**52**	**52**	**52**	**52**	**51**	**52**

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

In 2022, we did increase the number of towns being read by our third-party meter reader by Otter Tail allowing our third party to read the following communities:

Alexandria MN	Evansville MN	Miltona MN
Ashby MN	Forada MN	Odessa MN
Brandon MN	Garfield MN	Parkers Prairie MN
Callaway MN	Hitterdal MN	Urbank MN
Carlos MN	Mentor MN	White Earth MN
Elizabeth MN	Millerville MN	

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 21

Month	Large Commercial	Residential	Small Commercial	Grand Total
January	21	4069	355	4445
February	15	4047	303	4365
March	18	4403	370	4791
April	14	4156	323	4493
May	13	3761	328	4102
June	20	3926	360	4306
July	13	3374	301	3688
August	11	2234	207	2452
September	15	2949	249	3213
October	14	3285	272	3571
November	16	3705	301	4022
December	15	3823	304	4142
Grand Total	185	43732	3673	47590

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 22

Month	Customers who sought Cold Weather Rule Protection in 2022	Number Granted Cold Weather Protection in 2022
January	85	72
February	52	44
March	23	20
April	2	2
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
October	94	79
November	91	77
December	97	85
Grand Total	444	379

*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.

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

Table 23

Month	Customer Class	Disconnected For more than 24 hours	Service Restored within 24 hours	Grand Total
January	Residential	5	10	15
	Small Commercial	0	0	0
January Total		5	10	15
February	Residential	15	22	37
	Small Commercial	1	0	1
February Total		16	22	38
March	Residential	20	17	37
	Small Commercial	6	3	9
March Total		26	20	46
April	Residential	26	18	44
	Small Commercial	0	6	6
April Total		26	24	50
May	Residential	123	111	234
	Small Commercial	3	1	4
May Total		126	112	238
June	Residential	60	68	128
	Small Commercial	1	0	1
June Total		61	68	129
July	Residential	64	37	101
	Small Commercial	1	0	1
July Total		65	37	102
August	Residential	79	52	131
	Small Commercial	1	2	3
August Total		80	54	134
September	Residential	64	50	114
	Small Commercial	1	4	5
September Total		65	54	119
October	Residential	0	2	2
	Small Commercial	0	0	0
October Total		0	2	2
November	Residential	1	5	6
	Small Commercial	0	6	6
November Total		1	11	12
December	Residential	1	3	4
	Small Commercial	0	1	1
December Total		1	4	5
Grand Total		472	418	890

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

Table 24

Month	Residential	Small Commercial	Large Commercial	Total
January	3	0	0	3
February	5	0	0	5
March	0	0	0	0
April	2	1	0	3
May	10	0	0	10
June	22	0	0	22
July	10	1	0	11
August	14	1	0	15
September	8	0	0	8
October	1	0	0	1
November	2	0	0	2
December	1	0	0	1
Total	78	3	0	81

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.

Residential – Not Previously Served

Figure 10

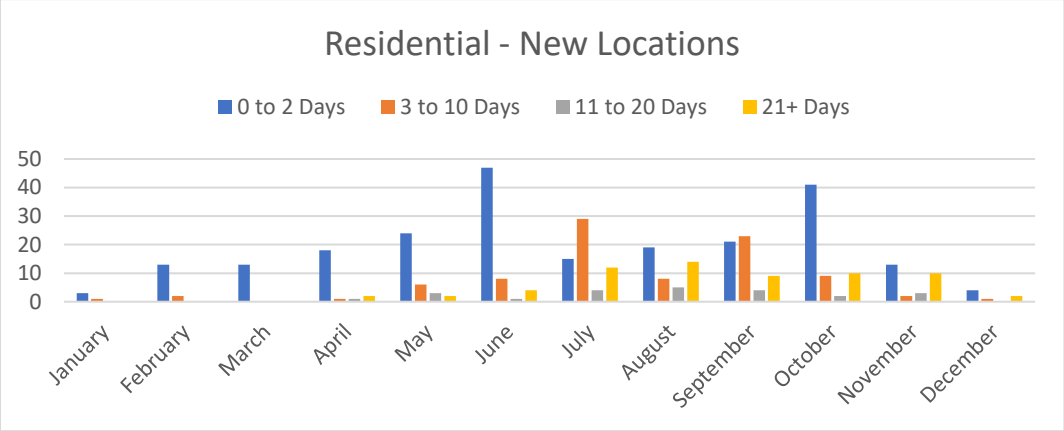


Table 25

Month	0 to 2 Days	3 to 10 Days	11 to 20 Days	21+ Days	Grand Total
January	3	1			4
February	13	2			15
March	13				13
April	18	1	1	2	22
May	24	6	3	2	35
June	47	8	1	4	60
July	15	29	4	12	60
August	19	8	5	14	46
September	21	23	4	9	57
October	41	9	2	10	62
November	13	2	3	10	28
December	4	1		2	7
Grand Total	**231**	**90**	**23**	**65**	**409**

Small Commercial – Not Previously Served

Figure 11

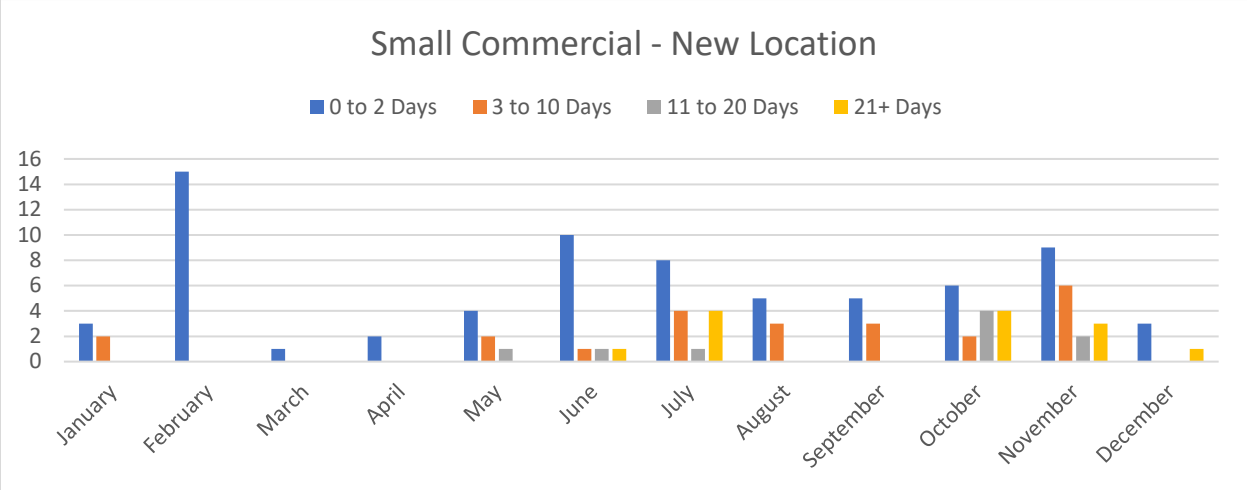


Table 26

Month	0 to 2 Days	3 to 10 Days	11 to 20 Days	21+ Days	Grand Total
January	3	2			5
February	15				15
March	1				1
April	2				2
May	4	2	1		7
June	10	1	1	1	13
July	8	4	1	4	17
August	5	3			8
September	5	3			8
October	6	2	4	4	16
November	9	6	2	3	20
December	3			1	4
Grand Total	**71**	**23**	**9**	**13**	**116**

Large Commercial – Not Previously Served

Figure 12

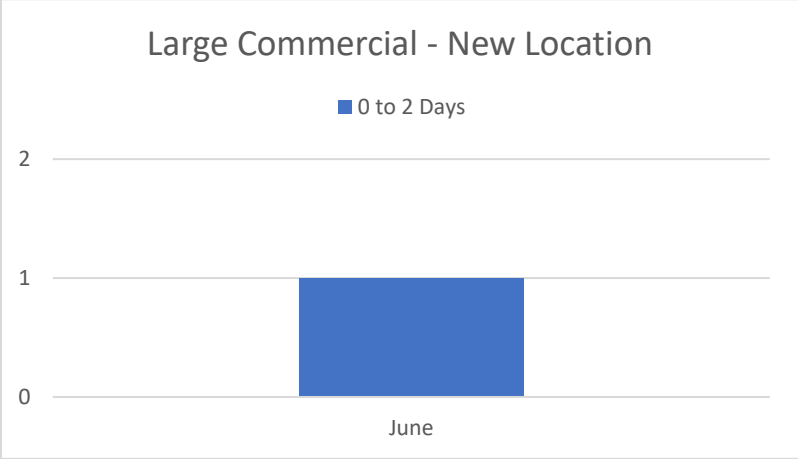


Table 27

Month	0 to 2 Days	Grand Total
June	1	1
Grand Total	**1**	**1**

Government – Not Previously Served

Figure 13

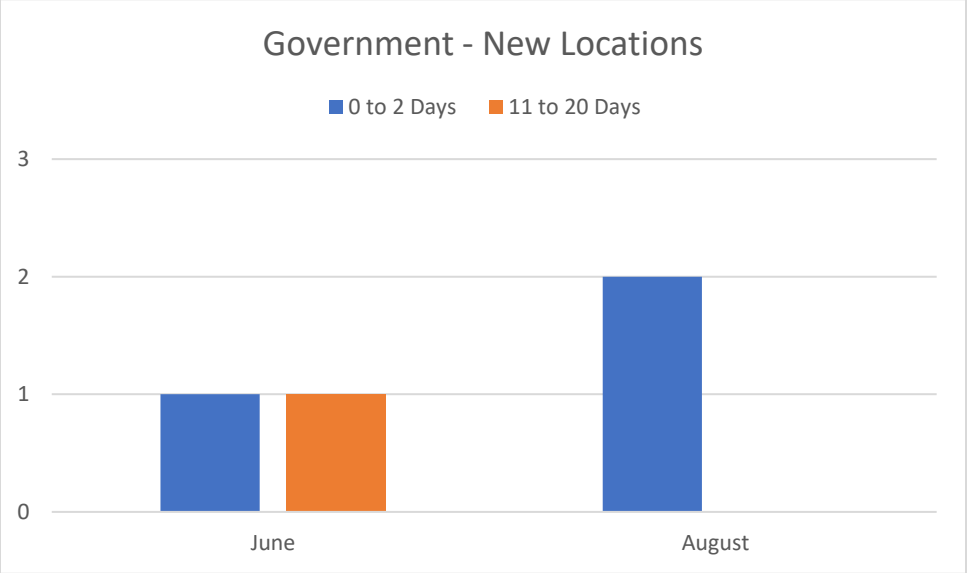


Table 28

Month	0 to 2 Days	11 to 20 Days	Grand Total
June	1	1	2
August	2		2
Grand Total	**3**	**1**	**4**

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

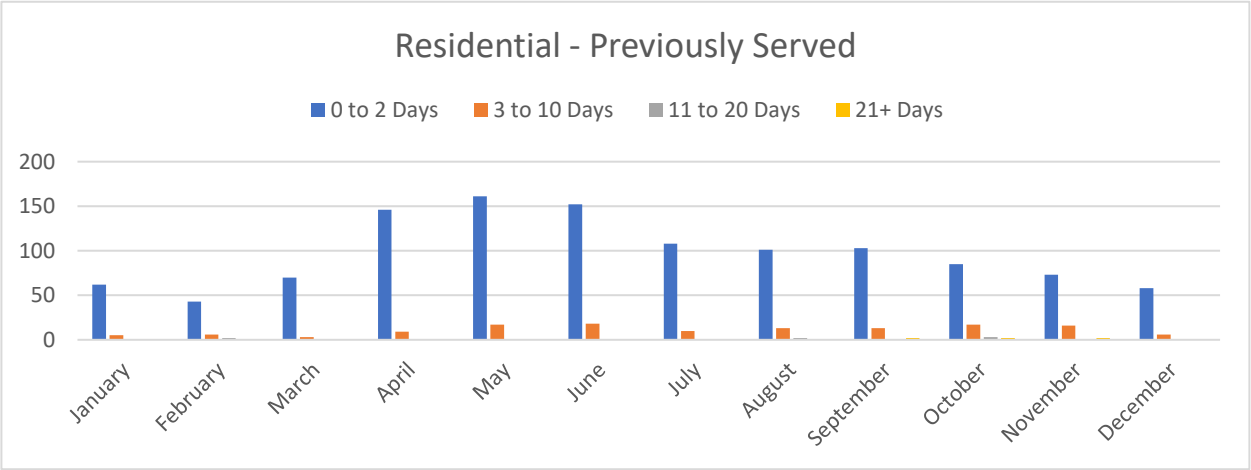


Table 29

Month	0 to 2 Days	3 to 10 Days	11 to 20 Days	21+ Days	Grand Total
January	62	5		1	68
February	43	6	2		51
March	70	3			73
April	146	9			155
May	161	17			178
June	152	18	1		171
July	108	10			118
August	101	13	2	1	117
September	103	13		2	118
October	85	17	3	2	107
November	73	16	1	2	92
December	58	6			64
Grand Total	**1162**	**133**	**9**	**8**	**1312**

Small Commercial – Previously Served

Figure 15

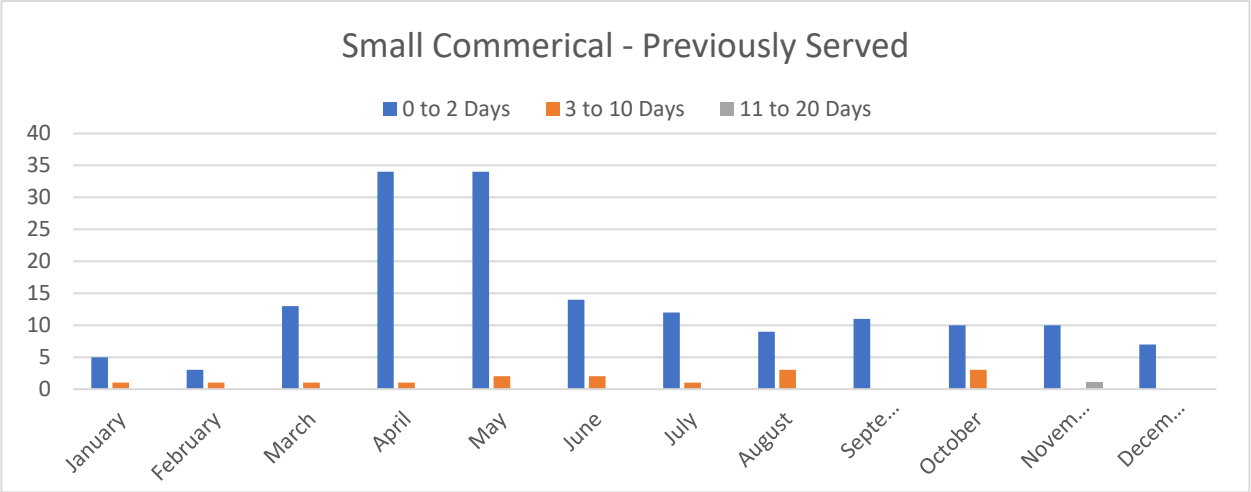


Table 30

Month	0 to 2 Days	3 to 10 Days	11 to 20 Days	Grand Tota
January	5	1		6
February	3	1		4
March	13	1		14
April	34	1		35
May	34	2		36
June	14	2		16
July	12	1		13
August	9	3		12
September	11			11
October	10	3		13
November	10		1	11
December	7			7
Grand Total	**162**	**15**	**1**	**178**

Large Commercial – Previously Served

Figure 16

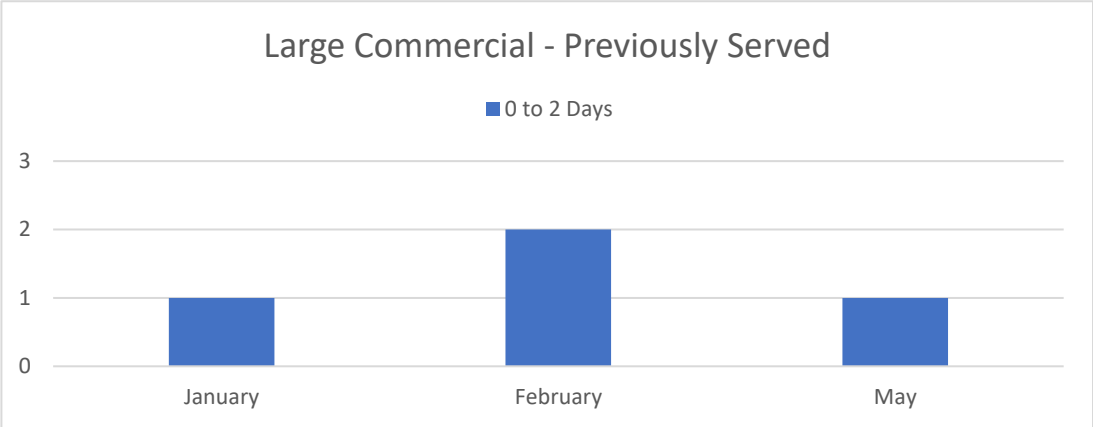


Table 31

Month	0 to 2 Days	Grand Total
January	1	1
February	2	2
May	1	1
Grand Total	**4**	**4**

Government – Previously Served

Figure 17

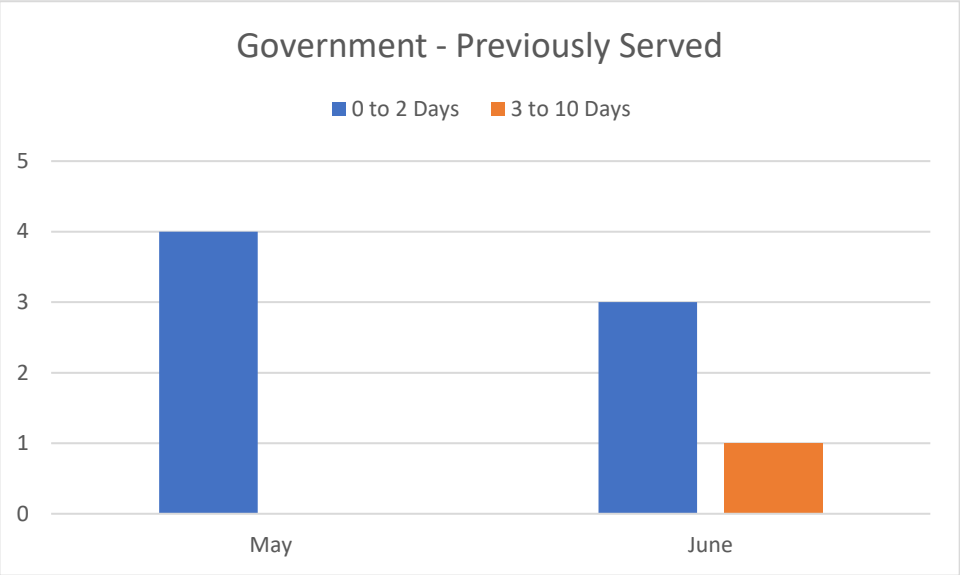


Table 32

Month	0 to 2 Days	3 to 10 Days	Grand Total
May	4		4
June	3	1	4
Grand Total	**7**	**1**	**8**

In 2022 we did opt to make a change in how we are displaying data for the requirement. We appreciate the illustration that Minnesota Power utilized in their 2021 SRSQ report and modeled our data in a similar fashion.

As reported in our 2021 report we made enhancements within our New Location process to better illustrate the number of days to complete the requests. We have seen improvements within our reporting however we are researching adding specific questions within our Mobile Workforce Management tool that our field personnel would answer to narrow the dates.

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 2022 in **Table 33**. **Figure 18** shows a historical graph of the percent of Minnesota calls answered within 20 seconds.

Table 33

	(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	3,957	20	221	3,716	93.91%
February	3,567	21	212	3,334	93.47%
March	4,175	4	111	4,060	97.25%
April	4,204	11	236	3,957	94.12%
May	6,187	84	831	5,272	85.21%
June	5,750	55	576	5,119	89.03%
July	4,661	37	439	4,185	89.79%
August	6,700	36	563	6,101	91.06%
September	5,235	56	732	4,447	84.95%
October	4,280	20	376	3,884	90.75%
November	3,908	167	537	3,204	81.99%
December	3,398	45	624	2,729	80.31%
Total	56,022	556	5,458	50,008	89.26%

[1]*Column (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 for reporting purposes only.

In 2022 Otter Tail agents operated our call center well as we encountered multiple large outage events in May and June that spanned throughout our service territory, and we experienced increased call volumes for longer durations.

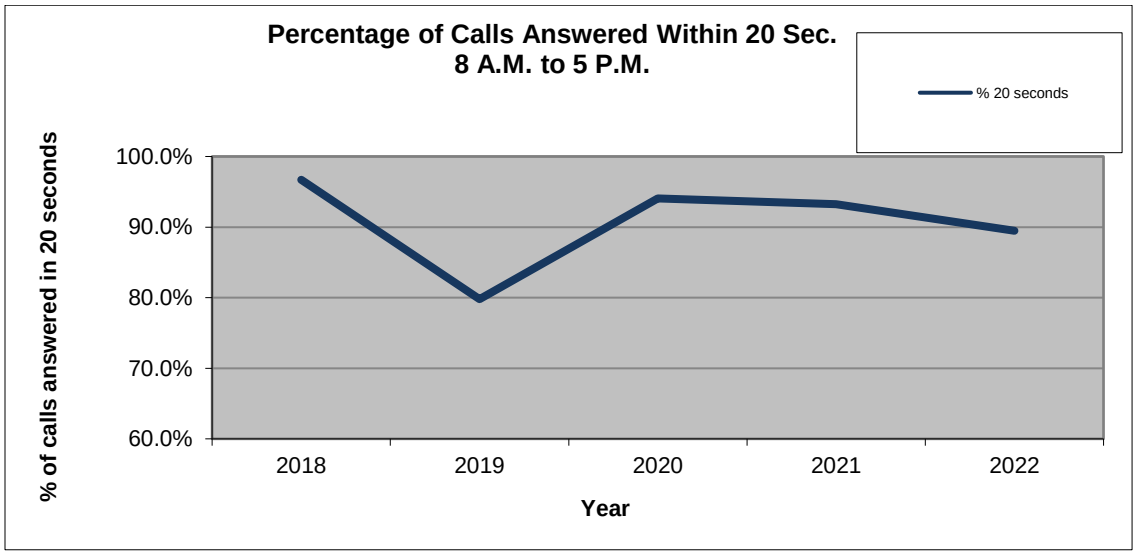
We were faced with staff turnover in quarter four of 2022 and quarter one of 2023. Otter Tail had a total of seven open Customer Service Representative (CSR) positions out of our

twenty total CSRs. The roles were filled in late December 2022. These vacancies did make our customers susceptible to longer wait times for November and December. Four of our new CSRs completed training and were placed on the phone in mid-February 2023 and the remaining three CSR positions completed their training and began answering customer calls in March of 2023.

To increase our availability for our customers late in 2022 and early in 2023, we offered overtime for CSRs and had managers and the training staff answer customer calls. We are in the process of hiring two additional CSRs to account for future attrition within the workgroup. We are confident our answer rate within 20 seconds will raise to more historic levels for our customers.

We are monitoring this requirement in 2023 to ensure our answer rate meets and exceeds the requirement in 2023. Currently our answer rate is lower than we would expect however, we are seeing an upward trend that we expect to continue as more new CSRs have transitioned to answering customer calls. With our new CSR transitioning to answering customer calls, call durations will be longer until our new CSRs become more comfortable on the phone.

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 2022 Otter Tail had six Minnesota customers request emergency medical account status. Otter Tail granted this status to all six customers. This is the same number of customers that requested and were granted emergency medical account status in 2021.

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 2022. The number of deposit requests did not change when compared to 2021. 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 2022.

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 34

Complaint Type	Total	Percent of Total
Alleging Billing Errors	9	8.26%
Inaccurate Meter reading	0	0.00%
Wrongful Disconnection	6	5.50%
High Bills	33	30.28%
Inadequate Service	3	2.75%
Service Extension Intervals	0	0.00%
Service Restoration Intervals	3	2.75%
Other	55	50.46%
Total	109	100.00%

Other – Contains complaints such as planned outages, third-party meter readers, payment or payment options, property damage, and reliability. We look forward to the future reporting enhancements to complaint reporting agreed upon in our working session described below.

Summary of 2021 Complaint Category Working Session

Commission Staff, including the Consumer Affairs Office, convened a work group meeting on Monday, March, 1, 2021 with the Department of Commerce, Xcel Energy, Minnesota Power, and Otter Tail to review and discuss current complaint categories used in annual Safety, Reliability, and Service Quality ("SRSQ") reports. Minnesota Rule 7826.2000 was reviewed along with the current categories used by each of the utilities and the Consumer Affairs Office. The group agreed to work together to further refine definitions for existing categories to allow for greater specificity and seek consistency, where possible.

Additional work group meetings were held in June 2021, January 2022, and March 2022 to further discuss and compare the complaint reporting for commonalities. In the March 2022 meeting, the utilities each brought further details regarding the practical application of complaint categories their respective organizations used. These were discussed in detail to find consensus categories and application, where possible, for reporting in annual service quality reports, including category definitions and timing for any changes determined as part of the work group process. Ultimately, parties agreed to additional detail for reporting of the category "Inadequate Service," as listed in Minnesota Rule 7826.2000.

Inadequate Service is a broad topic and separating this category further will assist in the overall depiction of the types of complaints reported. Utilities will break out Inadequate Service into:

- Inadequate Service – Field/Operations
- Inadequate Service – Customer Service
- Inadequate Service – Programs and Services
- Inadequate Service – Cold Weather Rule Protection

Parties in the work group generally agreed that, beginning with the 2023 SRSQ Annual Report, filed in April of 2024, the utilities would report on the customer complaint categories agreed to by consensus. Beginning with those SRSQ reports, the utilities will include a table of the agreed upon complaint categories, definitions of what falls into those categories, and count of complaints by category.

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

Table 35

2022		
Resolved by	**Total**	**Percentage**
(1) Resolved on Initial Inquiry	89	82%
(2) Resolved within 10 days	15	14%
(3) Resolved in greater than 10 days	5	5%
Grand Total	109	100%

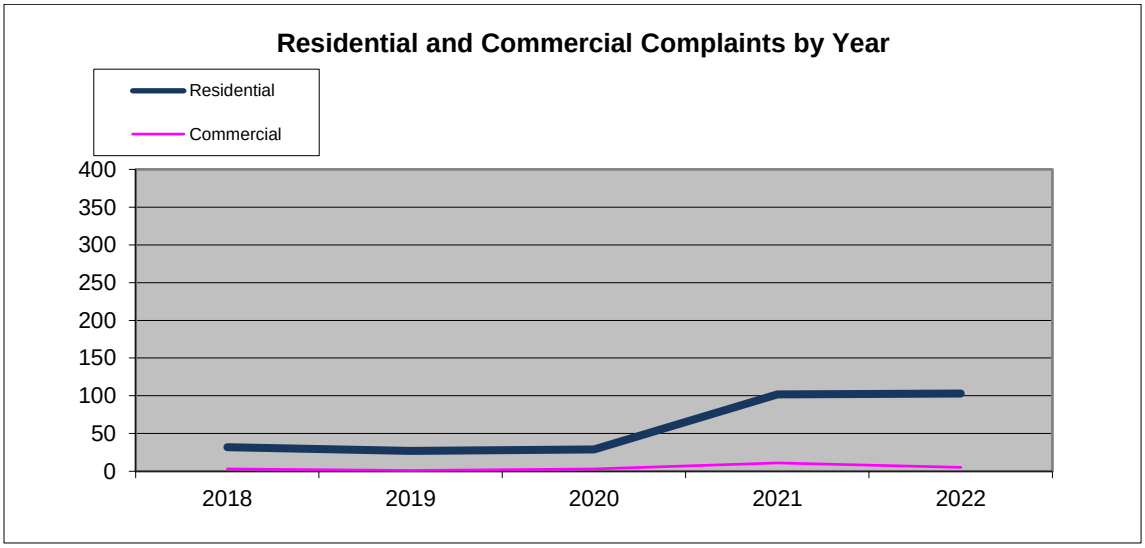
D. The number and percentage of all complaints resolved by taking any of the following actions: (1) taking the action the customer requested; (2) taking an action the customer and the utility agree is an acceptable compromise, (3) providing the customer with information that demonstrates that the situation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

Table 36

Action Taken	Total	Percentage
(1) Took action the Customer requested	44	40%
(2) Provided the customer with information that demonstrates that the situation complained of is not reasonably within the control of Otter Tail	23	21%
(3) Took an action the customer and the utility agree is an acceptable compromise	31	28%
(4) Refused to take action the customer requested	11	10%
Grand Total	109	100%

Figure 19 is a graph showing complaints by customer class for the previous five years. In 2021 and 2022, Otter Tail did see an increase in the overall volume of complaints when compared to prior years. Otter Tail enhanced our complaint reporting process within our customer information system. Training on the enhanced process was completed which included a refresher training on complaint definitions.

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 seven customer complaints in 2022 that were forwarded from the Commission's Consumer Affairs Office. Otter Tail resolved six of these complaints. We continue to work with the Consumer Affairs office to resolve the remaining complaint. The number of complaints received in 2022 is the same in comparison to 2021.

Table 37

	2021	2022
Customer Complaints	7	7

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 eight (8) reportable complaints during 2022. Otter Tail resolved seven 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 - 2022

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 = 0 total qualifying events, 0 events with no email								
MARCH = 0 total qualifying events, 0 events with no email								
APRIL = 2 total qualifying events, 0 events with no email								
1	Morris		4/5/2022 3:33	4/5/2022 5:00	1:27:00	529		x
2	Brooks		4/12/2022 23:10	4/13/2022 12:20	13:10:00	74		x
	Erskine		4/12/2022 23:10	4/13/2022 12:20	13:10:00	311		x
	Mentor		4/12/2022 22:10	4/13/2022 3:00	16:50:00	435		x
MAY = 9 total qualifying events, 0 events with no email								
1	Dawson		5/12/2022 3:44	5/12/2022 8:49	5:05:29	329		x
	Brandon		5/12/2022 16:22	5/12/2022 17:32	1:09:39	6		x
	Verdi		5/12/2022 17:30	5/13/2022 3:23	9:52:40	42		x
	Lake Benton		5/12/2022 17:36	5/13/2022 2:00	8:24:28	454		x
	Canby		5/12/2022 17:53	5/12/2022 20:36	2:43:39	60		x
	Nassau		5/12/2022 17:55	5/14/2022 1:04	31:09:12	112		x
	Marietta		5/12/2022 17:55	5/14/2022 14:19	44:23:22	0		x
	Marietta		5/12/2022 17:55	5/14/2022 21:11	51:15:41	34		x
	Minneota		5/12/2022 17:55	5/12/2022 22:40	4:44:27	524		x
	Taunton		5/12/2022 17:56	5/12/2022 19:15	1:19:21	143		x
	Ghent		5/12/2022 17:57	5/12/2022 19:11	1:14:20	220		x
	Louisburg_LacQuiParle		5/12/2022 18:18	5/14/2022 21:38	51:20:20	27		x
	Odessa_Bellingham		5/12/2022 18:19	5/13/2022 10:23	16:04:25	123		x
	Milan		5/12/2022 18:21	5/14/2022 19:42	49:20:47	261		x
	Holloway		5/12/2022 18:24	5/13/2022 22:34	28:10:26	13		x
	Appleton		5/12/2022 18:28	5/14/2022 12:51	42:23:24	330		x
	Danvers		5/12/2022 18:28	5/12/2022 23:25	4:56:38	67		x
	Alberta		5/12/2022 18:35	5/13/2022 16:05	21:29:56	67		x
	Johnson		5/12/2022 18:35	5/12/2022 23:38	5:02:55	54		x
	Chokio		5/12/2022 18:35	5/13/2022 18:55	24:19:50	154		x
	Murdock		5/12/2022 18:35	5/12/2022 19:47	1:12:34	176		x
	DeGraff		5/12/2022 18:35	5/13/2022 22:13	27:37:39	39		x
	Clontarf		5/12/2022 18:35	5/12/2022 22:41	4:05:15	98		x
	Hancock		5/12/2022 18:35	5/14/2022 19:19	48:44:00	184		x
	Kerkhoven		5/12/2022 18:41	5/13/2022 0:18	5:37:50	7		x
	Salem		5/12/2022 18:41	5/12/2022 22:45	4:04:07	10		x
	Kerkhoven		5/12/2022 18:41	5/13/2022 0:19	5:37:38	1		x
	Morris		5/12/2022 18:45	5/13/2022 0:53	6:07:25	944		x
	Morris		5/12/2022 18:49	5/13/2022 11:31	16:42:29	1634		x
	Cyrus		5/12/2022 18:49	5/13/2022 21:38	26:48:55	193		x
	Morris		5/12/2022 18:49	5/13/2022 0:53	6:04:25	3		x
	Ivanhoe		5/12/2022 19:02	5/13/2022 5:37	10:34:06	209		x
	Barrett		5/12/2022 19:03	5/13/2022 0:50	5:47:15	350		x
	Kensington		5/12/2022 19:03	5/13/2022 17:27	22:23:22	210		x
	Farwell		5/12/2022 19:04	5/13/2022 17:22	22:18:16	33		x
	Hoffman		5/12/2022 19:04	5/13/2022 15:09	20:05:05	13		x
	Ashby		5/12/2022 19:04	5/12/2022 23:56	4:51:17	18		x
	GRE_Alexandria		5/12/2022 19:05	5/13/2022 2:40	7:34:41	390		x
	Holmes City		5/12/2022 19:07	5/13/2022 11:09	16:02:07	1		x
	Urbank		5/12/2022 19:14	5/13/2022 5:00	9:45:17	48		x
	Millerville_Leaf Valley		5/12/2022 19:15	5/13/2022 5:00	9:45:15	16		x
	Evansville		5/12/2022 19:21	5/13/2022 1:21	5:59:11	187		x
	Miltona		5/12/2022 19:23	5/13/2022 21:47	26:24:08	24		x
	Dalton		5/12/2022 19:25	5/12/2022 23:53	4:28:16	342		x
	Dayton Hollow		5/12/2022 19:25	5/12/2022 20:52	1:26:48	48		x
	Foxhome		5/12/2022 19:25	5/12/2022 21:33	2:07:49	92		x
	Elizabeth		5/12/2022 19:34	5/13/2022 2:04	6:30:14	185		x
	Rothsay		5/12/2022 19:34	5/12/2022 21:38	2:03:45	257		x

	Feeder	Primary Event #	Begin Time	Completion Time	Duration HH/MM/SS	Customers Out	Region	Email sent to CAO
	Erhard		5/12/2022 19:34	5/12/2022 21:38	2:03:44	89		x
	Diversion		5/12/2022 19:35	5/12/2022 21:00	1:24:50	249		x
	Brandon		5/12/2022 20:01	5/13/2022 12:28	16:26:54	3		x
	Murdock		5/12/2022 21:36	5/13/2022 3:07	5:31:00	176		x
	Barry		5/12/2022 22:38	5/13/2022 1:23	2:44:43	20		x
	Browns_Valley		5/12/2022 22:39	5/13/2022 1:09	2:30:16	395		x
	Beardsley		5/12/2022 23:01	5/13/2022 1:23	2:21:50	183		x
	Nashua_Tintah		5/13/2022 0:18	5/13/2022 1:24	1:05:32	67		x
	Herman		5/13/2022 0:18	5/13/2022 2:22	2:04:00	24		x
	Barrett		5/13/2022 1:01	5/13/2022 2:06	1:05:08	232		x
	Parkers Prairie_Rose City		5/13/2022 2:52	5/13/2022 5:06	2:13:34	36		x
	Herman		5/13/2022 3:49	5/14/2022 9:57	30:07:09	24		x
	Morris		5/13/2022 4:48	5/13/2022 6:16	1:27:39	944		x
	Minneota		5/13/2022 13:02	5/13/2022 14:24	1:22:07	944		x
	Red Lake Falls		5/13/2022 14:42	5/13/2022 16:56	2:14:24	765		x
	Red Lake Falls		5/13/2022 14:42	5/13/2022 16:56	2:14:24	796		x
	Plummer		5/13/2022 14:42	5/13/2022 16:56	2:14:06	201		x
	Gentilly		5/13/2022 14:42	5/13/2022 16:57	2:15:35	1		x
	Trail		5/13/2022 14:44	5/13/2022 16:09	1:24:10	2		x
	Gully		5/13/2022 14:45	5/13/2022 16:09	1:24:10	64		x
	Oklee		5/13/2022 14:55	5/13/2022 16:25	1:30:01	401		x
	Morris		5/13/2022 19:04	5/13/2022 20:15	1:10:47	944		x
2	Dalton		5/14/2022 10:58	5/14/2022 13:14	2:16:05	342		x
	Dawson		5/14/2022 11:52	5/14/2022 14:21	2:29:47	196		x
3	Nassau		5/16/2022 7:49	5/16/2022 13:44	5:55:30	112		x
	GRE_Alexandria		5/16/2022 9:35	5/16/2022 10:59	1:23:33	390		x
4	Brandon		5/17/2022 20:21	5/17/2022 23:05	2:44:38	6		x
	Brandon		5/17/2022 20:21	5/17/2022 22:44	2:23:20	15		x
5	Erdahl Melby Ashby		5/30/2022 16:16	5/30/2022 20:31	4:14:53	177		x
	Erdahl Melby Ashby		5/30/2022 16:16	5/30/2022 20:31	4:14:52	358		x
	Evansville		5/30/2022 16:16	5/30/2022 20:31	4:14:52	196		x
	Erdahl Melby Ashby		5/30/2022 16:16	5/30/2022 20:31	4:14:52	176		x
	Evansville		5/30/2022 16:16	5/30/2022 20:31	4:14:52	90		x
	Evansville		5/30/2022 16:16	5/30/2022 20:31	4:14:49	173		x
6	Elizabeth Carlisle		5/30/2022 16:22	5/30/2022 19:01	2:38:49	43		x
	Elizabeth Feeder		5/30/2022 16:22	5/30/2022 19:01	2:38:49	51		x
	Elizabeth		5/30/2022 16:22	5/30/2022 18:59	2:36:43	94		x
	Elizabeth		5/30/2022 16:22	5/30/2022 18:59	2:36:41	94		x
	Diversion		5/30/2022 16:23	5/30/2022 18:59	2:35:36	249		x
7	Battle Lake		5/30/2022 16:41	5/30/2022 17:46	1:04:33	881		x
8	Hancock		5/30/2022 18:23	5/30/2022 20:59	2:35:28	413		x
	Clontarf		5/30/2022 18:23	5/30/2022 20:59	2:35:28	99		x
9	Twin Valley		5/31/2022 11:36	5/31/2022 12:49	1:12:33	721		x
	Fertile		5/31/2022 11:36	5/31/2022 12:40	1:03:39	537		x
JUNE = 3 total qualifying events, 0 events with no email								
1	Oklee		6/20/2022 16:47	6/20/2022 21:26	4:39:27	401		x
	Erskine		6/20/2022 16:28	6/20/2022 18:16	1:47:57	310		x
	Mentor		6/20/2022 16:28	6/20/2022 18:16	1:47:42	435		x
	Brooks		6/20/2022 16:28	6/20/2022 18:16	1:47:41	74		x
	Battle Lake		6/20/2022 19:46	6/20/2022 23:20	3:33:14	495		x
	Waubun		6/20/2022 19:31	6/20/2022 21:07	1:35:52	321		x
	Bejou		6/20/2022 19:31	6/20/2022 21:07	1:35:51	74		x
	Winger		6/20/2022 19:31	6/20/2022 21:07	1:35:50	211		x
	Fergus Falls		6/20/2022 18:36	6/20/2022 19:45	1:08:36	780		x
	Battle Lake		6/21/2022 10:38	6/21/2022 2:07	1:57:07	495		x
	Clitherall		6/20/2022 23:40	6/21/2022 11:16	11:36:08	392		x
	Dalton		6/20/2022 23:27	6/21/2022 1:03	1:35:16	343		x
	Ottertail		6/21/2022 23:13	6/22/2022 0:45	1:32:11	1268		x
	Ottertail		6/20/2022 23:54	6/21/2022 4:48	4:54:01	5961		x
2	Wheaton		6/20/2022 22:51	6/21/2022 1:26	2:35:07	1474		x
	Tyler		6/20/2022 22:51	6/20/2022 23:59	1:08:34	39		x
	Fairmount		6/20/2022 22:51	6/20/2022 0:00	1:08:44	279		x
	Fairmount		6/20/2022 22:51	6/21/2022 0:00	1:08:44	57		x

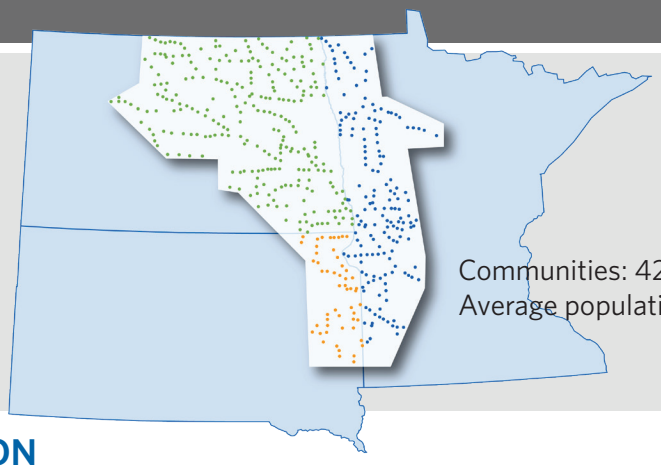
	Feeder	Primary Event #	Begin Time	Completion Time	Duration HH/MM/SS	Customers Out	Region	Email sent to CAO
	Dumont		6/20/2022 22:51	6/21/2022 12:19	13:27:44	89		x
3	McIntosh		6/22/2022 18:20	6/22/2022 20:19	1:59:14	526		x
JULY = 2 total qualifying events, 0 events with no email								
1	Bemidji		7/12/2022 16:21	7/12/2022 17:34	1:12:28	1254		x
2	Bemidji		7/17/2022 6:23	7/17/2022 7:24	1:01:27	3561		x
AUGUST = 1 total qualifying event, 0 events with no email								
1	Appleton		8/21/2022 8:15	8/21/2022 12:18	4:03:09	900		x
	Appleton		8/21/2022 8:15	8/21/2022 10:00	1:44:48	468		x
NOVEMBER = 2 total qualifying events, 0 events with no email								
1	Pelican Rapids		11/6/2022 16:43	11/6/2022 17:50	1:07:07	510		x
2	Pelican Rapids		11/10/2022 12:54	11/10/2022 14:08	1:13:46	1425		x
	Diversion		11/10/2022 12:54	11/10/2022 15:14	2:19:43	249		x
	Elizabeth		11/10/2022 12:54	11/10/2022 14:53	1:59:17	185		x
	Erhard		11/10/2022 12:54	11/10/2022 14:53	1:59:09	72		x
	Rothsay		11/10/2022 12:54	11/10/2022 15:55	3:00:35	257		x
	Fertile		11/10/2022 19:58	11/10/2022 21:26	1:27:47	537		x
	Crookston		11/11/2022 1:35	11/11/2022 2:59	1:24:38	1364		x
DECEMBER = 2 total qualifying events, 0 events with no email								
1	Bemidji		12/10/2022 10:41	12/10/2022 13:09	2:28:28	1311		x
2	Parkers Prairie		12/16/2022 9:37	12/16/2022 12:24	2:47:16	888		x

2022 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.



Communities: 422
Average population: 400

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.

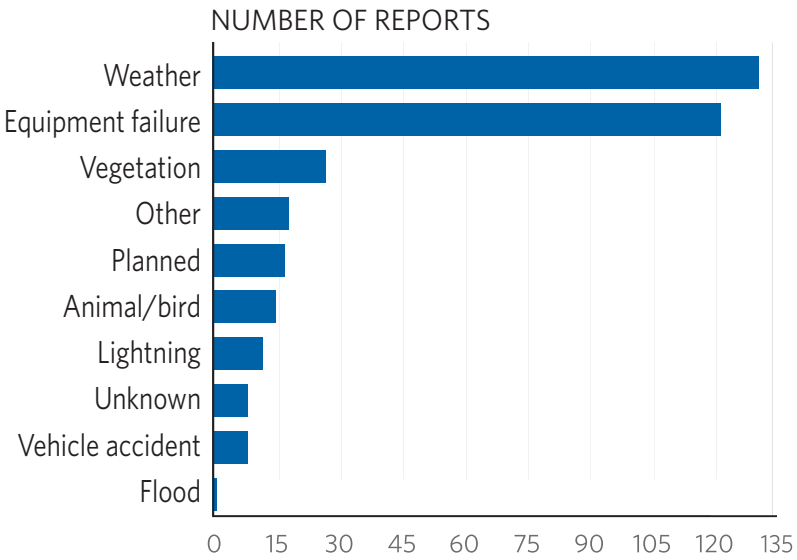
Two of the ways we measure our reliability include the average number of interruptions and average length of time our customers are without power.

2.94% of our customers experienced an interruption greater than **six hours**.

13.75% of our customers experienced four or more interruptions lasting greater than **five minutes**.

SAFETY

In 2022 no injury-related incidents were reported that required medical attention as a result of downed wires or other electrical system failures.



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 2022.

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.
- Expanding continuous improvement workshops to improve efficiencies and processes.

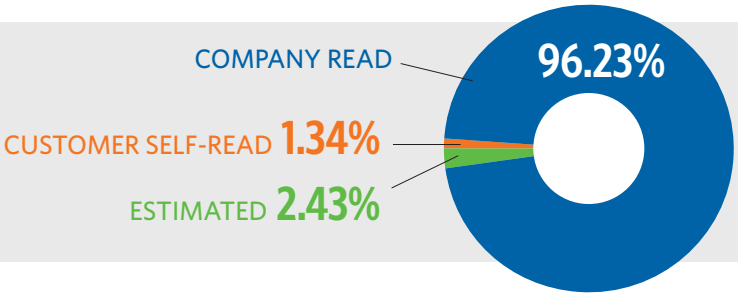
CUSTOMER SERVICE TEAM

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. **168 linemen and service representatives** were available to safely and quickly restore power to our customers in 2022.

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 **24 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 2022 our team received over **56,000 customer calls** during business hours. Of those, we answered **89%** 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!

91%

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

800-257-4044 or **218-739-8877**
or visit **otpco.com**

OTTER TAIL POWER COMPANY

Facebook.com/OtterTailPowerCo
Twitter.com/OtterTailPwrCo
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

ANNUAL SUMMARY OF CUSTOMER COMPLAINTS
For Year Ending 12/31/2022
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

	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	3	2	1	1	1				
C. Rate				1	1				
D. Rules									
Total Complaints	6	5	1	2	2	0	0	0	0

NUMBER OF DISCONNECTS FOR NON-PAYMENT (by month)

	1	2	3
Jan	15	0	0
Feb	37	1	0
Mar	37	9	0
Apr	44	6	0
May	234	4	0
Jun	128	1	0
Jul	101	1	0
Aug	131	3	0
Sep	114	5	0
Oct	2	0	0
Nov	6	6	0
Dec	4	1	0
Total	853	37	0

1. Residential
2. Commercial & Industrial
3. Interruptible

		Residential	Commercial & Industrial	Interruptible
II.	A. Number of Disconnections for Non-Payment	853	37	0
	B. Number of Escrow Forms Filed	0	0	0
III.	A. Total Number of Customers (year end)	50,717	11,208	0
	B. Number of Customers Added During Year	107	86	0

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@otpco.com and wolson@otpco.com

CERTIFICATE OF SERVICE

RE: In the Matter of Otter Tail Power Company 2021 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2023
Docket No. E017/M-23-76

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 **3rd** day of **April**, **2023**

/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_2023 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_2023 SRSQ
James C.	Erickson	jericksonkbc@gmail.com	Kelly Bay Consulting	17 Quechee St Superior, WI 54880-4421	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2023 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_2023 SRSQ
Jessica	Fyhrie	jfyhrie@otpco.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_2023 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_2023 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_2023 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_2023 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_2023 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_2023 SRSQ

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Matthew	Olsen	molsen@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_2023 SRSQ
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_2023 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_2023 SRSQ
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350 Saint Paul, MN 55101	Electronic Service	No	GEN_SL_Otter Tail Power Company_Otter Tail Power Company_2023 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_2023 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_2023 SRSQ