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PO Box 496
Fergus Falls, Minnesota 56538-0496
218 739-8200
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April 1, 2014

Dr. Burl W. Haar
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 2013 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2014
Docket No. E017/M-14-____

Dear Dr. Haar:

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 2013 and reliability standards for 2014 pursuant to Minn. R. 7826.0600. Otter Tail's reliability standards for 2013 are found in Section V of the attached 2013 Report.

A copy of this filing has been served on the Office of Energy Securities, the Department of Commerce, the Office of Attorney General, Residential Utilities Division, and a Summary served on the attached Service List.

We are available to provide any additional information or respond to any questions you may have. Feel free to contact me at (218) 739-8395 or email me at jfyhrie@otpco.com, should you have any questions with respect to this matter.

Sincerely,

/s/ JESSICA FYHRIE
Jessica Fyhrie
State Regulatory Compliance Specialist

jce
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 2013 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2014

Docket No. E017/M-14-_____

2013 REPORT AND PROPOSED 2014 RELIABILITY STANDARDS

Summary of Filing

Please take notice that on April 1, 2014, Otter Tail Power Company ("Otter Tail" or "the Company"), filed with the Minnesota Public Utilities Commission ("Commission") its annual Safety, Reliability and Service Quality Report for 2013 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 2014. Otter Tail also provides additional information as ordered by the Commission Orders dated January 13, 2014 in Docket E017/M-13-253, and June 5, 2009 in Docket E999/CI-08-948.

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Otter Tail Power Company's 2013 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Standards for 2014	Docket No. E017/M-14-_____

2013 REPORT AND PROPOSED 2014 RELIABILITY STANDARDS

I. INTRODUCTION

Otter Tail Power Company ("Otter Tail" or "the Company"), submits this filing in compliance of Minnesota Rules 7826.0400, 7826.0500, 7826.0600, subp. 1, and Minnesota Rule 7826.1300. Otter Tail also provides additional information as ordered by the Minnesota Public Utilities Commission ("Commission") Orders dated January 13, 2014 in Docket E017/M-13-253, and June 5, 2009 in Docket No. E999/CI-08-948.

II. GENERAL FILING INFORMATION

Pursuant to Minnesota Rule 7829.1300, subp. 4, 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

Bruce Gerhardson
Associate General Counsel
Otter Tail Power Company
215 South Cascade Street
P. O. Box 496
Fergus Falls, MN 56538-0496
(218) 739-8475

C. Date of Filing and Effective Date

This Report is being filed on April 1, 2014. The proposed reliability standards will be effective for the calendar year 2014.

D. Title of Utility Employee Responsible for Filing

Jessica Fyhrie
State Regulatory Compliance Specialist
Otter Tail Power Company
215 South Cascade Street
P. O. Box 496
Fergus Falls, MN 56538-0496
(218) 739-8395

III. MISCELLANEOUS INFORMATION

A. Service on Other Parties

Pursuant to Minn. Rule 7829.1300, subp. 2 and Minn., Stat. §216.17, subd. 3, Otter Tail has electronically filed this Report and Proposed 2014 Reliability Standards. A summary of the filing has been served on all parties on the attached service list.

B. Summary of Filing

A one-paragraph summary of the Report is attached pursuant to Minnesota Rule 7829.1300, subp. 1.

IV. DESCRIPTION AND PURPOSE OF FILING

A. Annual Reporting

Minnesota Commission 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 2013 Safety, Reliability, and Service Quality Report is attached.

B. Proposed reliability standards for 2013

Minnesota Commission 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

In compliance with the Commission Rules 7826.0600 Subpart 1, Otter Tail's proposed 2014 reliability performance standards are shown in Table 1 below. The development and support for these proposed standards are more fully described in Section V of the attached 2013 Report.

Table 1

Proposed 2014 Standards by CSC			
	SAIDI	**SAIFI**	**CAIDI**
Bemidji	74.40	1.19	62.48
Crookston	68.84	1.14	60.35
Fergus Falls	76.49	1.19	64.04
Milbank	88.78	1.65	53.83
Morris	70.54	1.12	62.91
Wahpeton	56.71	1.34	42.17
MN Total	**72.89**	**1.17**	**62.41**

Additional Reporting Requirements

In compliance with the Commission's January 13, 2014 Order in Docket E017/M-13-253, Otter Tail provides the required information by providing a description of policies, procedures and actions Otter Tail has implemented, and plans to implement, to assure reliability, including information demonstrating proactive management of the systems as a whole, increased reliability and active contingency planning in Section IV. Section II provides summary tables, supporting information throughout the report, that allow the reader to easily asses the overall reliability of the system and identify the main factors that affect reliability. Section VI provides the report on the major causes of outages for major event days.

In compliance with the Commission's June 5, 2009 Order in Docket E999/CI-08-948, Otter Tail provides in Attachment 2 to the Report the required information about Otter Tail's smart grid projects.

V. CONCLUSION

Otter Tail hereby submits its annual Safety, Reliability, and Service Quality Report for 2013, proposed reliability standards for 2014, and additional information required by Commission Orders in Docket No. E017/M-13-253 and Docket No. E999/CI-08-948.

Otter Tail respectfully requests the Commission accept Otter Tail's report and approve Otter Tail's proposed reliability standards for 2014.

Date: April 1, 2014

Respectfully submitted,

By: /s/ JESSICA FYHRIE

Jessica Fyhrie
State Regulatory Compliance Specialist
Otter Tail Power Company
215 South Cascade St., PO Box 496
Fergus Falls, MN 56537
(218) 739-8395

BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Docket No. E017/M-14-____

Otter Tail Power Company's
Safety, Reliability, and Service Quality
Report for 2013,
and
Proposed SAIFI, SAIDI, and CAIDI
Reliability Standards for 2014,

Including Additional Information Required
by Commission Order

April 1, 2014

TABLE OF CONTENTS

I. OTTER TAIL EXECUTIVE MANAGEMENT'S VIEW OF RELIABILITY

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

Management's view of reliability at Otter Tail Power Company (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."

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 quality, availability and delivery of materials and engineering associated with providing electric service to Otter Tail 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 efficient and effective 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 employees, on a monthly basis, with the expectation that all employees remain cognizant of our company's reliability performance.

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.

Customer Satisfaction is also one of Otter Tail's KPIs and has a direct relationship with the reliability of service to our customers. Otter Tail was the highest-rated utility among electric and gas investor-owned utilities measured by the American Customer Satisfaction Index in 2013 with an overall customer satisfaction score of 85 (out of 100). The reliability portion of the survey indicated a score of 90 compared to other investor-owned utilities score of 85.

Otter Tail provides electricity to 423 communities and to rural areas in western Minnesota, northeastern South Dakota, and the eastern two-thirds of North Dakota. The average population of the 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 11 Customer Service Centers ("CSC") throughout our service territory. Otter Tail is committed to utilizing proactive efforts to communicate, investigate, and resolve reliability issues across our approximately 70,000 square mile service territory. This is roughly the size of North Dakota (70,704 square miles).

II. OTTER TAIL 2012 SUMMARY GRAPHS

Minnesota Public Utilities Commission's ("Commission") Order dated January 13, 2014 in Docket No. E017/M-13-253, required Otter Tail to include in its next Safety, Reliability and Service Quality report a summary table 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 6** below provides a brief summary of Otter Tail's overall reliability and service quality for the years 2009 through 2013.

Figure 1 - Historic Minnesota SAIDI and CAIDI

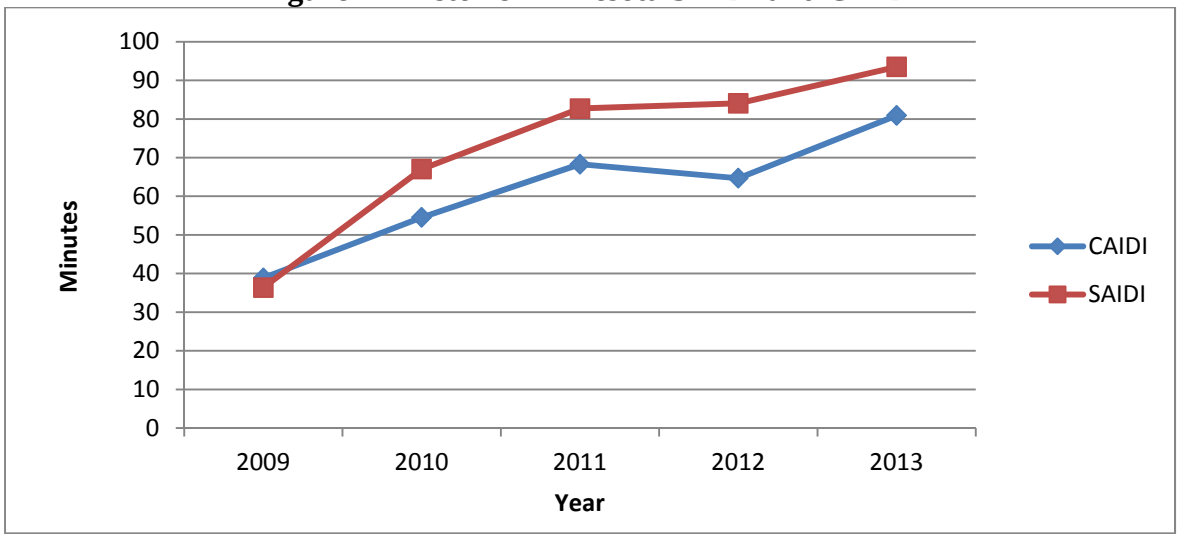


Figure 2 - Minnesota Historic SAIFI

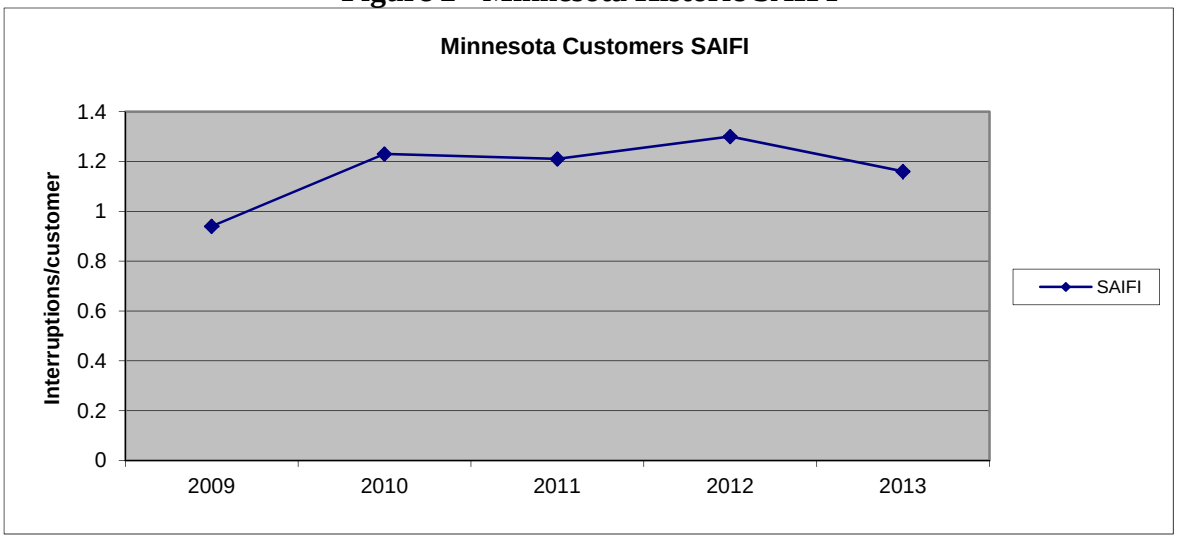


Figure 3 –Historic Expense of Major Critical System Infrastructure Items

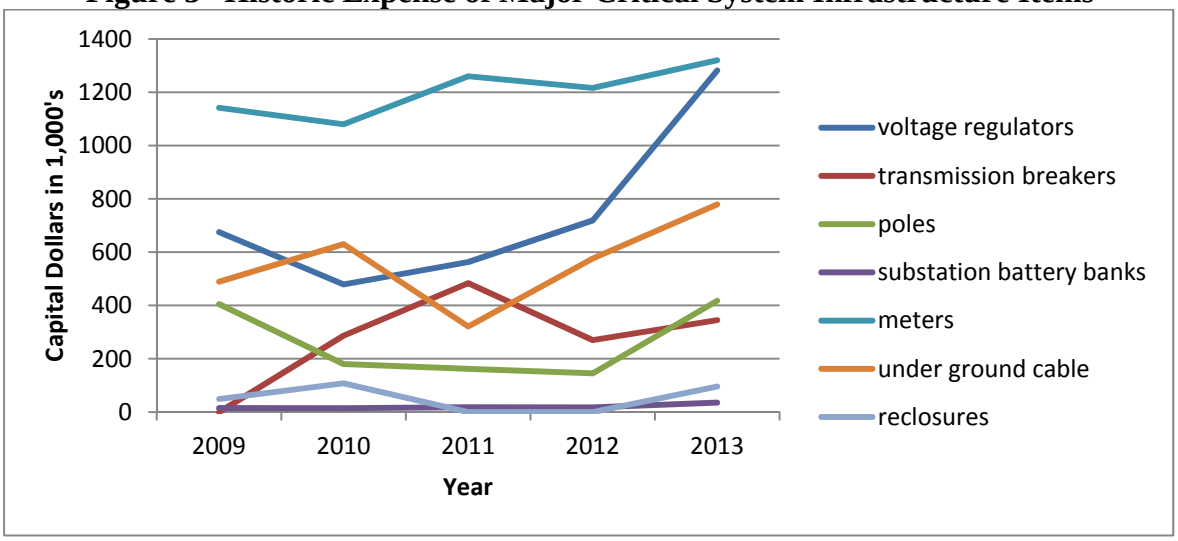


Figure 4 - Otter Tail System MAIFI

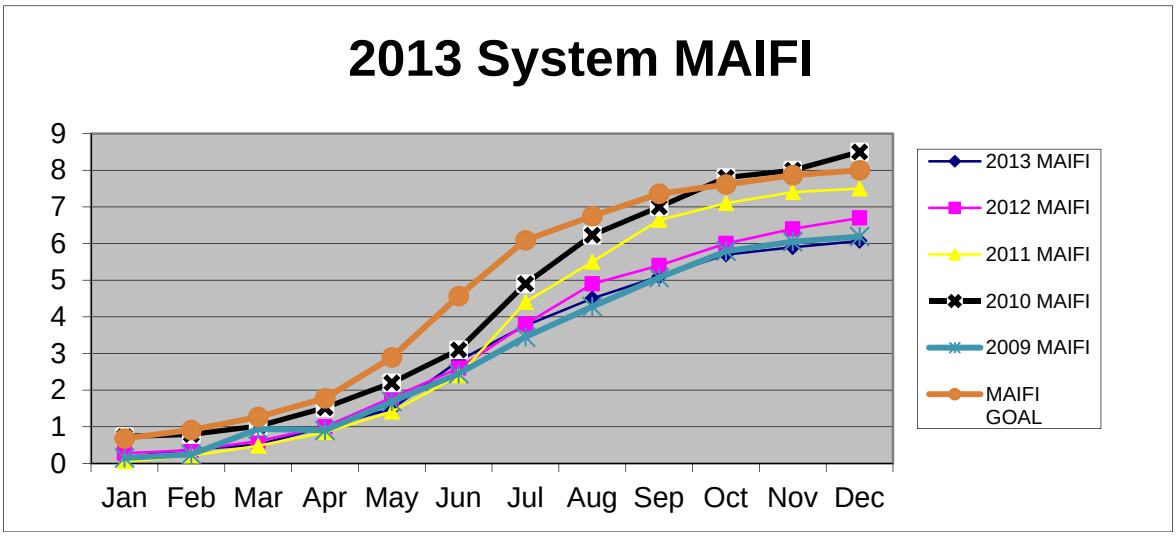


Table 1

MAIFI by MN Customer Service Center

CSC	2013	MAIFI
Bemidji	Actual	2.9
Crookston	Actual	3.4
Fergus Falls	Actual	5.1
Milbank	Actual	8.1
Morris	Actual	5.5
Wahpeton	Actual	16.2
MN Total	Actual	4.7

Figure 5 – Full Time Lineworkers available for trouble and for the operation and maintenance of Minnesota distribution lines

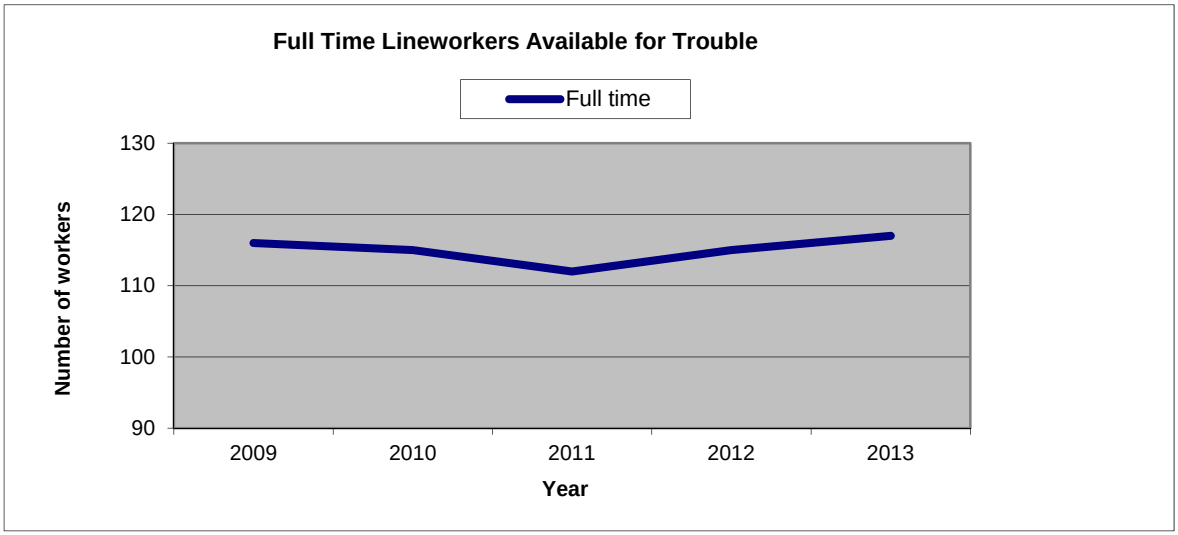
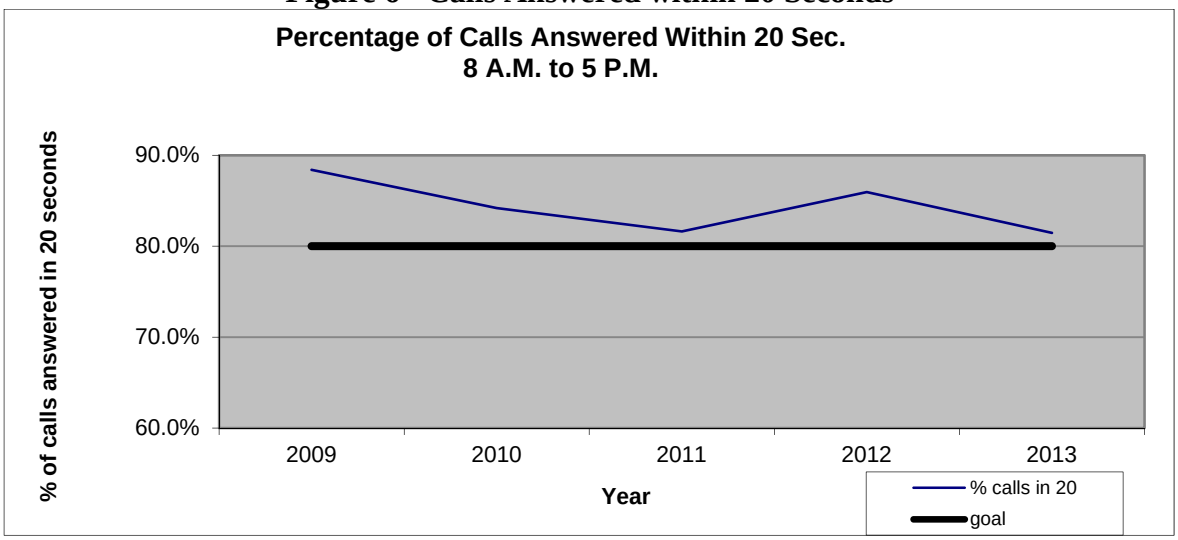


Figure 6 - Calls Answered within 20 Seconds



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 2013 Calendar year.

Table 2

NUMBER OF CASES			
Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	3	4	6
NUMBER OF DAYS			
Total number of days of job transfer or restriction		Total number of days away from work	
147		15	
INJURY AND ILLNESS TYPES			
Injuries	Skin disorders	Respiratory conditions	Poisonings	All other illnesses
13	0	0	0	0

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.

Table 3

ANNUAL SAFETY REPORT				
Date	**Cause**	**Type**	**Action Taken**	**Expense**
8/26/2013	Downed power lines	Property damage	Repaired damage	$632.97
There were no instances of personal injury due to system failures in 2013.				

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.

REPORT OF OTTER TAIL'S SAIDI, SAIFI, AND CAIDI FOR 2012 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.

Otter Tail's previous "storm-normalized data" process (2008 and prior) eliminated interruptions to feeders that exceeded 24 continuous hours when caused by weather.

As a review, in 2009, Otter Tail worked with Telemetric-Sensus, who is the provider of Otter Tail's Interruption Monitoring System (IMS) and the underlying software for the system, to make necessary changes to implement the IEEE 2.5 beta method process to normalizing reliability data. Otter Tail's 2.5 Beta process is based on the following assumptions:

- Telemetric-Sensus calculates annual system T_{med} (SAIDI/Day threshold) based on the previous five years of data.
- The **sys**tem T_{med} is utilized to run our indices for Minnesota and individual Minnesota Customer Service Centers (CSCs) .

Otter Tail Power Company has clarified the 2.5 Beta Parameter application process and will, for 2013 calculations, and all future calculations, apply parameters generated from the previous five years of data, to the next year. Thus, for 2013 reporting, the parameters will be the same as used in 2012.

For 2013 data, the 2.5 beta parameters are as follows:

2.5 Beta Parameters:

Alpha	Beta	Major Event Day
-2.076128527	1.874833326	13.612041263

The application of 2013 2.5 Beta Parameters, had no effect on results for the year, thus, the following storm normalized results are realized:

After applying 2.5 Beta Parameters for 2013, zero days met the criteria to be considered a Major Event Day. The Commissions **January 13, 2014 Order in Docket E017/M-13-253** required Otter Tail report on the major causes of outages for the Major Event Days. Since there were no Major Event Days in 2013, there are no major causes of outages to report.

The Commission's **January 12, 2012 Order in Docket E017/M-11-291** no longer required Otter Tail to provide SAIDI, SAIFI, and CAIDI results based on non-normalized data. Table 4 below shows Otter Tail's 2012 SAIFI, CAIDI and SAIDI results based on the IEEE 2.5 Beta Method for each CSC and the entire Minnesota system.

Table 4

CSC	2013	SAIFI	CAIDI	SAIDI
Bemidji	**OES Goal**	1.26	56.06	70.64
	Actual	1.11	81.43	90.57
Crookston	**OES Goal**	1.19	58.26	69.33
	Actual	0.58	65.24	37.60
Fergus Falls	**OES Goal**	1.11	60.33	66.97
	Actual	1.29	84.29	108.98
Milbank	**OES Goal**	1.82	41.48	75.49
	Actual	0.74	170.94	127.03
Morris	**OES Goal**	1.01	55.23	55.78
	Actual	1.44	81.33	117.51
Wahpeton	**OES Goal**	1.13	50.65	57.24
	Actual	1.28	35.88	45.78
MN Total	**OES Goal**	1.13	57.48	64.95
	Actual	1.16	80.86	93.51

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.** Overall, Otter Tail Minnesota Customers experienced 304 sustained interruptions in 2013. Otter Tail provides the following information regarding its 2013 results.

Otter Tail's 2013 SAIDI standards – In 2013, Bemidji, Fergus Falls, Milbank, and Morris CSCs, did not meet the 2013 SAIDI reliability standards set by the Commission. Below Otter Tail provides a description of events that had the greatest impact and the actions Otter Tail has taken or will take to help minimize future impacts.

Bemidji CSC: The Bemidji CSC experienced 52 sustained interruptions in 2013, resulting in a SAIDI of 90.6 minutes compared to the goal of 70.64. The greatest impact to SAIDI results in the Bemidji CSC were due to a bypass disconnect failure, on May 23rd, at the Bemidji 25th Street Substation. This one event caused twelve sustained interruptions impacting 4829 customers.

Fergus Falls CSC: The Fergus Falls CSC experienced 85 sustained interruptions in 2013 resulting in a SAIDI of 109 minutes compared to the goal of 67. Of the interruptions, 29 were due to several bands of bad weather that west central and southwest central Minnesota experienced June 20 – 22. These weather systems saw 70 mph winds, 2 inch diameter hail, and left parts of the region with six inches of rain. These storm systems caused 47 SAIDI minutes in 2013. Another high impact event occurred on November 27, when the Battle Lake Town Substation caught on fire, causing five sustained interruptions, impacting 1138 customers.

Milbank CSC:
The Milbank CSC experienced six sustained interruptions in 2013, all occurring on June 21st. These interruptions were due to the same storm system that hit the Fergus Falls CSC as described above. This one event pushed SAIDI results for Minnesota customers served out of the Milbank CSC, to 127 minutes, compared to a target of 75.5 minutes. This event caused severe damage to both distribution and transmission systems in the area. There were no other sustained interruptions occurring in 2013 that impacted Minnesota customers within the Milbank CSC.

Morris CSC:
The Morris CSC experienced 115 sustained interruptions in 2013, resulting in a SAIDI of 117.5 minutes compared to a goal of 56 minutes. The severe storm systems on June 21st, described above, accounted for 42 of these interruptions. These storms left nine towns without power in the early morning and by noon crews had restored power to most towns. Later that day, another severe storm system took out a major portion of transmission in the area, leaving 27 towns without power. Overall, the storm events on June 21st contributed 73 minutes towards SAIDI results.

Otter Tail 2013 SAIFI standards –Fergus Falls, Morris, and Wahpeton CSCs did not meet the 2013 SAIFI reliability standards set by the Commission.

Fergus Falls CSC: As previously stated, the Fergus Falls CSC experienced 85 sustained interruptions in 2013, resulting in a SAIFI of 1.29 interruptions, compared to a goal of 1.11 interruptions.

Morris CSC: As previously stated, the Morris CSC experienced 115 sustained interruptions in 2013, resulting in a SAIFI of 1.44 interruptions, compared to a goal of 1.01 interruptions.

Wahpeton CSC: Minnesota customers served out of the Wahpeton CSC experienced six sustained interruptions in 2013, resulting in a SAIFI of 1.28 interruptions, compared to a goal of 1.13 interruptions.

Otter Tail 2013 CAIDI standards – Bemidji, Crookston, Fergus Falls, Milbank, and Morris Customer Service Centers did not meet the 2013 CAIDI reliability standards set by the Commission.

Bemidji CSC: As previously indicated, the Bemidji CSC experienced 52 sustained interruptions in 2013, resulting in a CAIDI of 81.43 minutes, compared to a goal of 56.06 minutes. Thirty of those interruptions had durations greater than the standard set of 56.06 minutes. Two interruptions had the greatest impact on CAIDI results. On July 17th, one of two Bemidji Potlatch Lumber Mill transformers failed and resulted in a six hour and 23 minute interruption. The transformer that failed was owned by Minnkota Power Cooperative. The load was switched over to the other transformer which is owned by Otter Tail Power Company and service was restored. On November 15th, an insulator failure and breaker malfunction at the Bemidji Cass Lake Substation resulted in a four hour and 28 minute interruption to the South Feeder.

Crookston CSC: The Crookston CSC experienced 42 sustained interruptions in 2013, resulting in a CAIDI of 65.24 minutes, compared to a goal of 58.26 minutes. Fourteen of those interruptions had durations greater than the standard set of 58.26 minutes. Two interruptions had

the greatest impact on CAIDI results. On May 19th, a 115 KV to 4160 V transformer, owned by Enbridge Viking, at the Crookston Enbridge Viking Substation failed, resulting in a twelve hour interruption to the Main Feeder. It was determined this transformer failed due to a lightning strike. On November 23rd, the Mentor Substation underground feeder failed, resulting in a six hour and 36 minute interruption. This event contributed to the fact that the Mentor – Main Feeder was the worst performing feeder for the Crookston CSC in 2013, more discussion will follow in the worst performing feeder section of this report.

Fergus Falls CSC: Of the 85 sustained interruptions experienced by customers served out of the Fergus Falls CSC, 46 interruptions had durations greater than the standard of 60.33 minutes. The resultant CAIDI was 84.29 minutes compared to a goal of 60.33 minutes. The severe weather systems, during June 20-22, were the greatest contributor to the CAIDI performance level. CAIDI for those three days was equal to 127.4 minutes/interruption. Additionally the Battle Lake substation transformer that failed on November 27th had a large impact on CAIDI as the Town Feeder was out of service for seven hours and 23 minutes. This event contributed to the fact that the Battle Lake – Town Feeder was the worst performing feeder for the Fergus Falls CSC in 2013, more discussion will follow in the worst performing feeder section of this report.

Milbank CSC: As previously indicated, the Milbank CSC experienced six interruptions in 2013. All six were due to the severe storm systems in the region on June 21st. Durations of these interruptions were well above the target CAIDI of 41.48 minutes. The resultant CAIDI due to this one event was 170.94.

Morris CSC: Of the 115 sustained interruptions experienced by MN customers served out of the Morris CSC, 35 of those interruptions had duration greater than the standard set of 55.23 minutes. The resultant CAIDI was 81.33 minutes compared to a goal of 55.23 minutes. The severe weather system, occurring on June 21st, was the greatest contributor to an excessive CAIDI level. CAIDI for June 21, 2013 was 137.71 minutes.

Reliability Standard Summary:

When compared to 2012, Otter Tail's 2013 Minnesota reliability performance realized an improvement in both frequency indices, SAIFI and MAIFI. SAIDI and CAIDI both saw increases for the year. In 2013, Otter Tail's Minnesota customers experienced 301 sustained interruptions, compared to 384 in 2012, thus supporting the improvement in our frequency indices. The June 20-22, 2013 weather events had very large impact on our year-end results and narrowly missed exclusion during the application of the 2.5 Beta Storm Normalization Process. Reliable service is one of our top priorities and we are cognizant that improvements in reliability will happen over longer periods of time and must be done cost effectively.

Table 5 provides a summary identifying the different types of interruptions causes that affect overall system reliability.

Table 5

2013 MN Sustained Interruption Summary by CSC and cause

	Bemidji	Crookston	Fergus Falls	Milbank	Morris	Wahpeton	Work Center Totals
Bulk Power Loss							0
Transmission			4		15		
Flood							0
Animal	4	1					5
Vehicle Accident	3	10	4		2		19
Equipment Failure	22	12	17		24	2	77
Vandalism							0
Trees	7	12	2		2		23
Overload	4						4
Human error							0
Underground	2		3				5
Bird							0
Arrestor/Insulator failure			13		4		17
Fuse	1						
weather related	4	4	36	6	62	4	116
investigated and unknown	3	1			2		6
Other		2	1		1		4
Unknown			4				4

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 2013 calendar year Otter Tail reports that it did not have any sustained interruptions to a Minnesota Bulk Power Supply Facility.

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.**

Pursuant to Minnesota Rule 7826.0500, Subpart 1g, Otter Tail provides as Attachment 1, a copy of each report filed under part 7826.0700, reporting major service interruptions.

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, SIAFI, 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** below shows the worst performing circuit for each of Otter Tail's six CSC's. For the purpose of identifying the worst performing circuit, we defined a circuit as a distribution feeder and the criterion that was used to identify the worst performing circuit was total customer minutes. **Table 7** below shows the interruptions that contributed to the feeders being the worst performing circuit for each CSC. Below Table 7, Otter Tail provides a description of the operational changes we have made, we are considering or intend to make to improve each feeder's performance.

Table 6
MN Worst Performing Feeders

Service Center	Substation Name	Feeder ID	Customer Count	Total Sustained Customer Minutes	SAIFI	CAIDI	SAIDI
BEMIDJI	BEMIDJI 25TH ST	NORTH OCR #45	1013	237295.3	2	117.125	234.25
CROOKSTON	MENTOR	MAIN FEEDER	357	155104.6	3	144.8222	434.467
FERGUS FALLS	BATTLE LAKE	TOWN FEEDER	647	400417.5	7	88.4119	618.883
MILBANK	MARIETTA	MARIETTA	151	51249.4	2	169.7	339.4
MORRIS	MORRIS 115 KV SUB	EAST FEEDER	777	258637.4	3	110.9556	332.867
WAHPETON	WHEATON	HIGH SCHOOL	628	23372.07	1	37.22	37.22

Table 7
MN Worst Performing Feeders Details

Interruption Date	State	Service Center	Substation Name	Feeder	Cause	Duration
5/23/2013 4:05	MN	BEMIDJI	BEMIDJI 25TH ST	NORTH OCR #45	Equipment Failure	2:03:24
5/23/2013 1:43	MN	BEMIDJI	BEMIDJI 25TH ST	NORTH OCR #45	Equipment Failure	1:50:51
11/23/2013 2:10	MN	CROOKSTON	MENTOR	MAIN FEEDER	Equipment Failure	6:36:31
10/20/2013 8:54	MN	CROOKSTON	MENTOR	MAIN FEEDER	Trees	0:07:09
1/10/2013 8:43	MN	CROOKSTON	MENTOR	MAIN FEEDER	Vehicle Accident	0:30:48
11/27/2013 14:50	MN	FERGUS FALLS	BATTLE LAKE	TOWN FEEDER	Equipment Failure	0:05:04
11/27/2013 14:32	MN	FERGUS FALLS	BATTLE LAKE	TOWN FEEDER	Equipment Failure	0:15:03
11/27/2013 14:13	MN	FERGUS FALLS	BATTLE LAKE	TOWN FEEDER	Equipment Failure	0:16:45

Interruption Date	State	Service Center	Substation Name	Feeder	Cause	Duration
11/27/2013 6:49	MN	FERGUS FALLS	BATTLE LAKE	TOWN FEEDER	Equipment Failure	7:23:24
6/21/2013 5:17	MN	FERGUS FALLS	BATTLE LAKE	TOWN FEEDER	Weather - includes: rain, lightning, wind, storm, etc.	1:12:07
6/21/2013 2:29	MN	FERGUS FALLS	BATTLE LAKE	TOWN FEEDER	Weather - includes: rain, lightning, wind, storm, etc.	0:54:25
6/21/2013 2:13	MN	FERGUS FALLS	BATTLE LAKE	TOWN FEEDER	Weather - includes: rain, lightning, wind, storm, etc.	0:12:05
6/21/2013 5:07	MN	MILBANK	MARIETTA	MARIETTA	Weather - includes: rain, lightning, wind, storm, etc.	3:33:37
6/21/2013 2:00	MN	MILBANK	MARIETTA	MARIETTA	Weather - includes: rain, lightning, wind, storm, etc.	2:05:47
10/4/2013 23:05	MN	MORRIS	MORRIS 115KV SUB	EAST FEEDER	Weather - includes: rain, lightning, wind, storm, etc.	4:08:10
8/31/2013 16:55	MN	MORRIS	MORRIS 115KV SUB	EAST FEEDER	Weather - includes: rain, lightning, wind, storm, etc.	1:16:26
6/21/2013 1:25	MN	MORRIS	MORRIS 115KV SUB	EAST FEEDER	Weather - includes: rain, lightning, wind, storm, etc.	0:08:16
6/21/2013 17:14	MN	WAHPETON	WHEATON	HIGH SCHOOL	Weather - includes: rain, lightning, wind, storm, etc.	0:37:13

Bemidji:
The worst performing feeder in the Bemidji CSC was the North OCR #45 feeder fed from the Bemidji 25th St. Substation. This feeder experienced two sustained interruptions, impacting 1013 customers, due to one event. On May 23rd, a bypass disconnect failed at the Bemidji 25th St. Substation. Work is underway and progressing to upgrade the Bemidji CSC distribution system due to load growth. These interruptions occurred during this activity. While work was being done to install a new express feeder to connect the Nymore Substation with the 25th Street Substation, one of the feeders out of the Nymore Substation needed to be switched/connected to an alternate feeder fed from the Birchmont Substation. This extra load caused the bypass disconnect to fail. During the restoration process, all three bypass disconnects were replaced.

Crookston:
The worst performing feeder in the Crookston CSC was Main Feeder fed out of the Mentor Substation. This feeder experienced three sustained interruptions, impacting 357 customers, due to three separate events. On January 10th, a truck hit and damaged a distribution pole. Pole replacement resulted in a 30 minute interruption. On October 20th, a tree branch got into a 115 KV transmission line, resulting in eight sustained interruptions, in five different communities around the region, including a seven minute interruption to the Main Feeder. On November 23rd,

the underground conductor leading out of the Mentor Substation failed, resulting in a six hour and 37 minute interruption. Following repair of the cable an investigation was conducted. Even though this was the first recorded fault for this cable section, a recommendation was made to add this underground line section to Otter Tail's Proactive UG Replacement project list for future replacement.

Fergus Falls:
The worst performing feeder in the Fergus Falls CSC was the Town Feeder fed out of the Battle Lake Substation. This feeder experienced seven sustained interruption, impacting 647 customers, due to two separate events. Three of the interruptions were due to the severe storm system that passed through the Fergus Falls CSC region on June 21st. Strong winds, hail, and much rain caused interruptions of twelve and 54 minutes, and another lasting one hour and twelve minutes.

The transformer in the Battle Lake Substation was scheduled for replacement as part of a new substation upgrade during 2014. On November 27th the transformer failed. Upon failure, Otter Tail expedited installation of its mobile substation. The resultant interruption lasted seven hours and 23 minutes. This feeder saw three more short interruptions of five, 15, and 17 minutes, as the mobile substation was synched with the system.

The Battle Lake Town Feeder substation historic inspection criteria fell within Otter Tail's *Substation Maintenance Guideline*. Otter Tail is in the process of building a new substation as planned prior to failure. This substation will upgrade the distribution voltage from 4.16 KV to 12.5 KV, essentially increasing load capacity by three times.

Milbank:
The worst performing feeder in the Milbank CSC was the Marietta fed from the Marietta Substation. This feeder experienced two interruptions which impacted 151 customers, due to one event. As previously described, this event was caused by the severe weather system, occurring on June 21st that impacted the entire region damaging both distribution and transmission systems. If not for this event, MN customers served out of the Milbank CSC would not have realized a sustained interruption in 2013.

Morris:
The worst performing feeder in the Morris CSC was East Feeder fed from the Morris 115 KV Substation. This feeder experienced three interruptions which impacted 777 customers. All three interruptions were due to three separate weather related events. On October 4th, the feeder experienced an interruption lasting four hours and eight minutes resulting from a lightning storm in the area. Lightning struck a three phase power bank in Morris causing the breaker to lockout. The cutout was replaced and the system was inspected for other damage, prior to service restoration. On August 31st, a storm producing high winds, lightning and hail caused a tree branch to be blown into two phases located in an alley behind 318 Atlantic Ave. The resultant interruption lasted one hour and 16 minutes. Post outage patrols were conducted and analysis showed that this feeder had been completely trimmed during the year to proper vegetation clearances. On June 21st, the feeder experienced an interruption lasting eight minutes, during the severe weather system that hit the region.

Wahpeton:
The worst performing feeder in the Wahpeton CSC was High School Feeder fed from the Wheaton Substation which serves 628 customers. This feeder experienced one sustained interruptions in 2013. Again, this interruption occurred on June 21st, due to the severe weather systems in the area. The interruption lasted 37 minutes. This feeder will be given an extensive patrol in 2014.

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 8** 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 and are mostly pipelines.

Table 8
Feeders and Number of Occurrences – Voltage fell outside the ANSI Voltage Range

Unit ID	CSC	Substation	Feeder	Low OV Count	Mid UV Count
16374	BEMIDJI	BEMIDJI 25TH ST	MALL OCR #15	1	0
16404	BEMIDJI	BEMIDJI 25TH ST	NORTH OCR #45	1	0
16406	BEMIDJI	BEMIDJI HYDRO	MAIN FEEDER	26	0
16379	BEMIDJI	CASS LAKE SOUTH	MAIN FEEDER	10	0
26999	BEMIDJI	CLEARBROOK	MAIN FEEDER	334	0
27075	BEMIDJI	CLEARBROOK MN	MAIN FEEDER	446	0
16275	Bemidji	ERSKINE	WEST OCR 1	42	0
27005	Bemidji	ULEN	MAIN FEEDER	145	0
16368	BEMIDJI	WILTON PIPELINE	MAIN FEEDER	448	0
16510	CROOKSTON	BROOKS	MAIN FEEDER	682	0
16709	CROOKSTON	CROOKSTON PORTAL PIPELINE	MAIN FEEDER	514	0
17381	CROOKSTON	DONALDSON LAKE	MAIN FEEDER	467	0
26386	CROOKSTON	GARY	MAIN FEEDER	0	1451
16344	CROOKSTON	HOLT JCT	MAIN FEEDER	0	1
16934	CROOKSTON	PLUMMER	MAIN FEEDER	341	0
16936	CROOKSTON	RED LAKE FALLS EAST	NORTH OCR 1	1	0
16701	CROOKSTON	STRANDQUIST	MAIN FEEDER	0	1
16694	CROOKSTON	VIKING	MAIN FEEDER	327	0
16082	FERGUS FALLS	AUDUBON	NORTH FEEDER	3	0
16778	FERGUS FALLS	BATTLE LAKE	TOWN FEEDER	30	0

Unit ID	CSC	Substation	Feeder	Low OV Count	Mid UV Count
16771	FERGUS FALLS	EVANSVILLE	WEST #2	92	0
16774	FERGUS FALLS	FOXHOME	MAIN FEEDER	33	0
16081	FERGUS FALLS	LAKE PARK	MAIN FEEDER	1	0
16780	FERGUS FALLS	OTTER OUTLET	EAST FEEDER	0	2
17576	FERGUS FALLS	PERHAM	#4-OCR	1	1
16085	FERGUS FALLS	POKEGAMA	MAIN FEEDER	29	0
16152	MORRIS	FARWELL	MAIN FEEDER	31	0
16104	MORRIS	GHENT	MAIN FEEDER	0	3
16492	MORRIS	HANCOCK	MAIN FEEDER	1	0
26389	MORRIS	IVANHOE	EAST 2	146	0
16596	MORRIS	JOHNSON	MAIN FEEDER	0	1
23515	MORRIS	LAKE BENTON	EAST FEEDER	0	1
29009	MORRIS	LOUISBURG JCT	NORTHWEST FEEDER	13	0
16139	MORRIS	MURDOCK	MAIN FEEDER	3	0
23523	MORRIS	ORTONVILLE COLD SPRING	COLD SPRINGS GRANITE CO.	6	0
16125	MORRIS	ORTONVILLE COLD SPRING	ORTONVILLE STONE CO.	57	0

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, 2012 are shown in **Table 9** below.

Table 9

Month-Year	Department	Type	Total
December-13	Bemidji	Field	15
		Office	5
	Bemidji Total		20
	Crookston	Field	17
		Office	5
	Crookston Total		22
	Delivery Maintenance*	Field	8
	Delivery Maintenance Total		8
	Fergus Falls	Field	25
		Office	8
	Fergus Falls Total		33
	Milbank**	Field	16
		Office	6
	Milbank Total		22
	Morris	Field	18
		Office	4
	Morris Total		22
	Operations Support***	Field	4
		Office	1
	Operations Support Total		5
	Wahpeton****	Field	14
		Office	4
	Wahpeton Total		18
12/31/13 Total			**150**

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

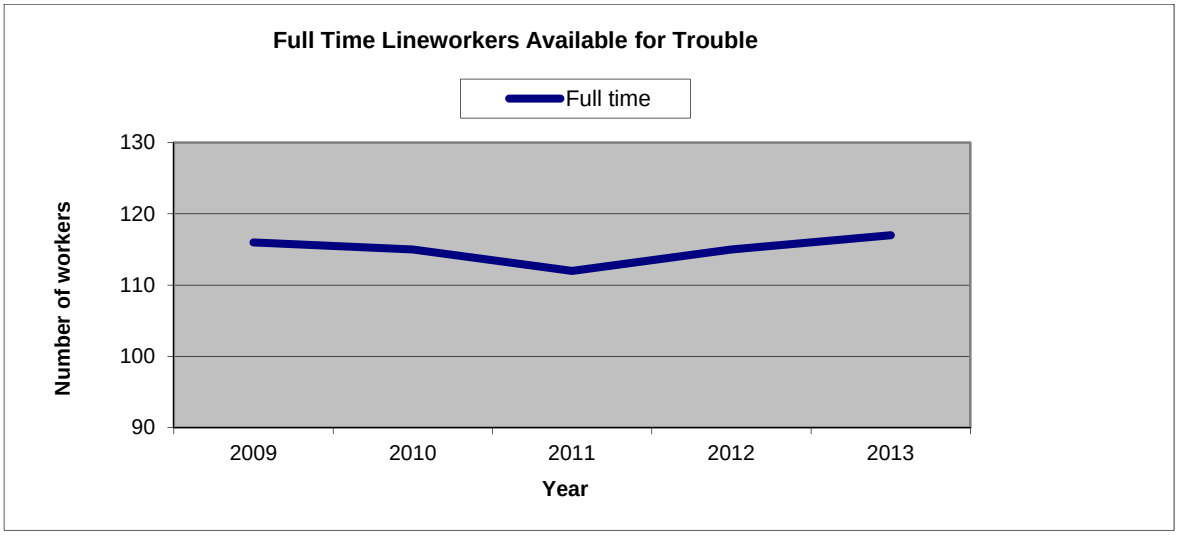
**The Milbank CSC serves customers in both Minnesota and South Dakota and the number of employees indicated represents all employees located in the CSC.

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

****The Wahpeton CSC serves customers in Minnesota, North Dakota, and South Dakota and the number of employees indicated represents all employees located in the CSC.

Figure 7 below depicts by year the number of full time line workers available for trouble and for the operation and maintenance of distribution lines.

Figure 7



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

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.** Otter Tail reports that it continues to optimize usage of its Interruption Monitoring System, IMS.

In 2014, the company will continue to maximize utilization of its IMS for interruption/outage root cause analysis and problem area identification. In 2013, the company realized nearly 100% compliance with interruption cause identification data entry into the system. This has and continues to ensure proper focus of resources towards specific areas needing improvement. Also in process is the setup of all electric technicians to receive voltage alarms for their respective feeders to proactively identify system regulator issues.

As a review, the IMS was fully implemented in 2005. Since then, subsequent upgrades and enhancements to the system have increased its capabilities. Otter Tail provides the following information relating to its IMS and overall reliability.

1. **Interruption Monitoring System Improvements:** Otter Tail continues to increase its use of the IMS and its capabilities. Internal employees can view interruption activity on a graphical map of our entire service territory. The addition of our interruption mapping capability has greatly increased employee awareness (at all levels) of our reliability as it relates to customer interruptions.

   In 2014, the system alarms for all service personnel on all interruptions to improve service response times. Alarm setup for all electrical technicians is in process to proactively identify voltage regulator issues.

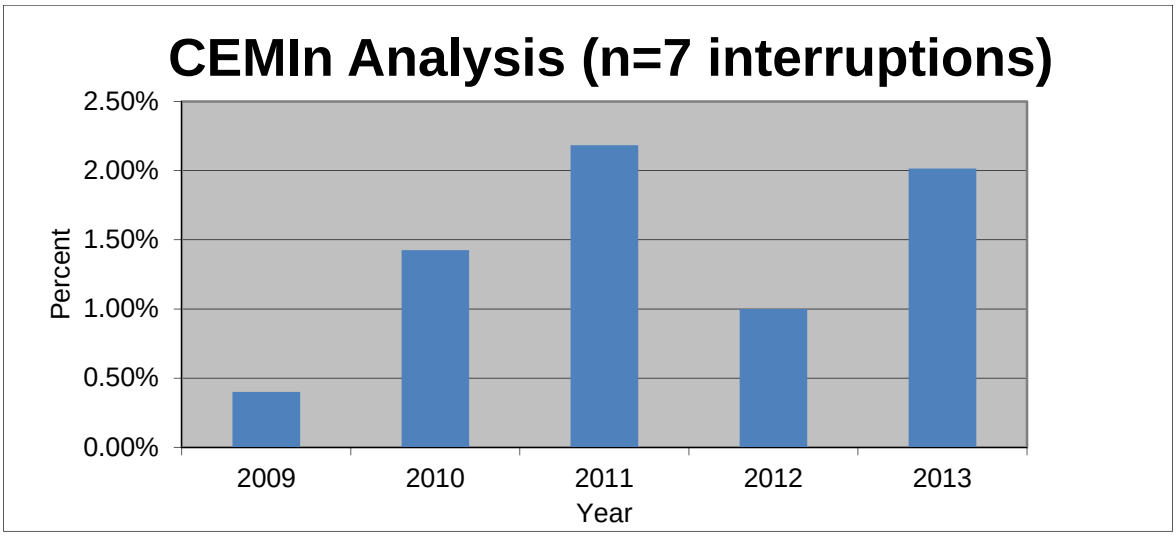
2. **Challenges in achieving reliability:** Otter Tail has the unique challenge of delivering reliable services to its customers across a large rural service territory; which has tremendous exposure to hazards such as vegetation, lightning, wind, and other weather related issues. Our IMS continues to provide optimized and focused deployment of our vegetation management resources to specific areas that are identified by the outage data collected within the IMS.

3. **Status update regarding wireless coverage within Otter Tail's Service Territory and impacts to the Interruption Monitoring System:** Otter Tail expects service life of the IMS to reach 2020, beyond the identified fall off of 2G commercial wireless communications infrastructure. Otter Tail will be migrating all voltage meters towards Verizon's CDMA 1XRTT communication protocol and replacing all GSM GPRS devices over the next three years to ensure reliable communications until 2020. Otter Tail is currently investigating the next generation of interruption monitoring solutions for beyond 2020.

4. **Measuring reliability:** Otter Tail continues to calculate the Customers Experiencing Multiple Interruptions (CEMIn) index. The CEMIn index is an excellent indicator of how system improvements directly affect customer service.

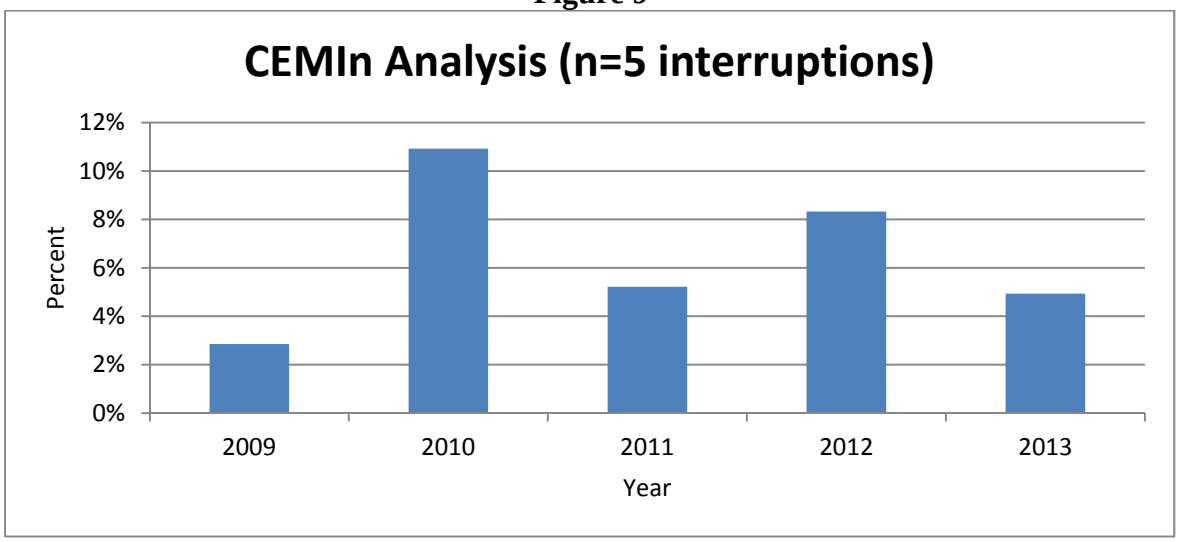
Deployment of resources on worst performing circuits has direct effects on the reliability indices and customer reliability. **Figure 8** shows the CEMIn results from 2009 to 2013. This graph shows how many customers on a company-wide basis experienced seven or more interruptions. For example in 2013 the percentage of customers experiencing seven or more interruptions was 2 percent.

Figure 8



During 2012, Otter Tail began to track and analyze CEMI5 data. We believe the threshold of five allows us to better identify and consider actions to be taken to improve performance of transmission and distribution line sections. **Figure 9** below shows the percentage of customers on a company-wide basis who have experienced five or more sustained interruptions.

Figure 9



Figures 10, 11, and 12. The following graphs show Otter Tail's SAIDI, SAIFI and CAIDI for the period of 2005 through 2013. When compared to 2012 results, Minnesota customers experienced an increase in overall SAIDI and CAIDI and a decrease in SAIFI.

Figure 10

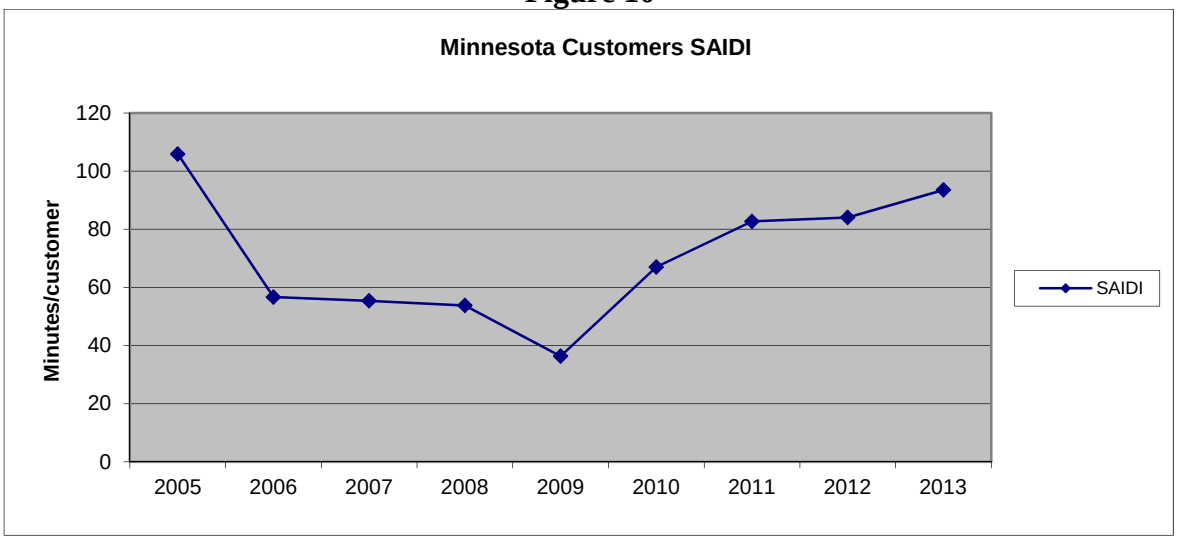


Figure 11

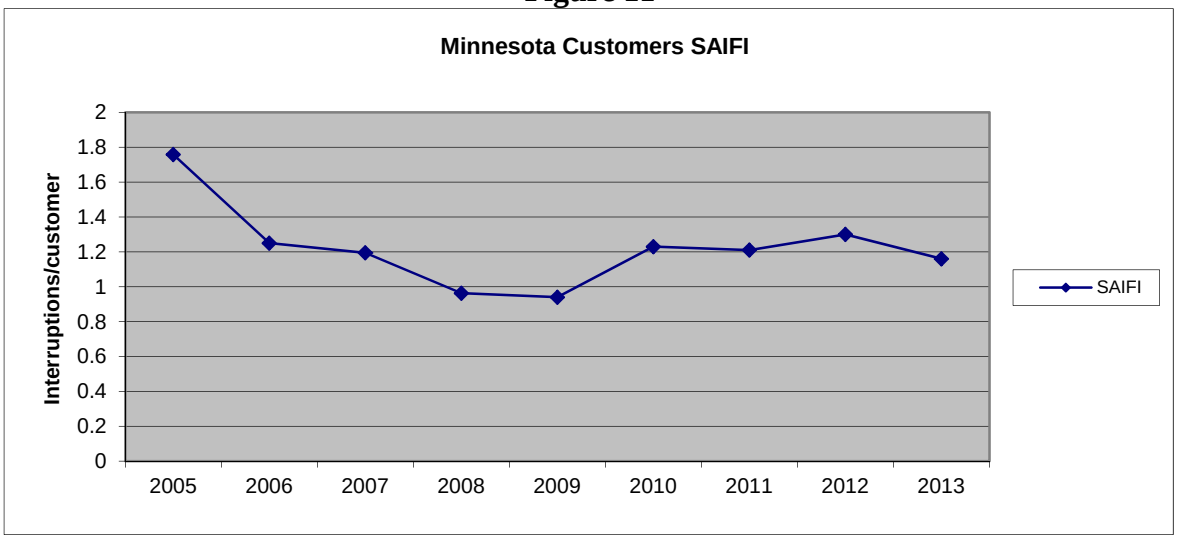
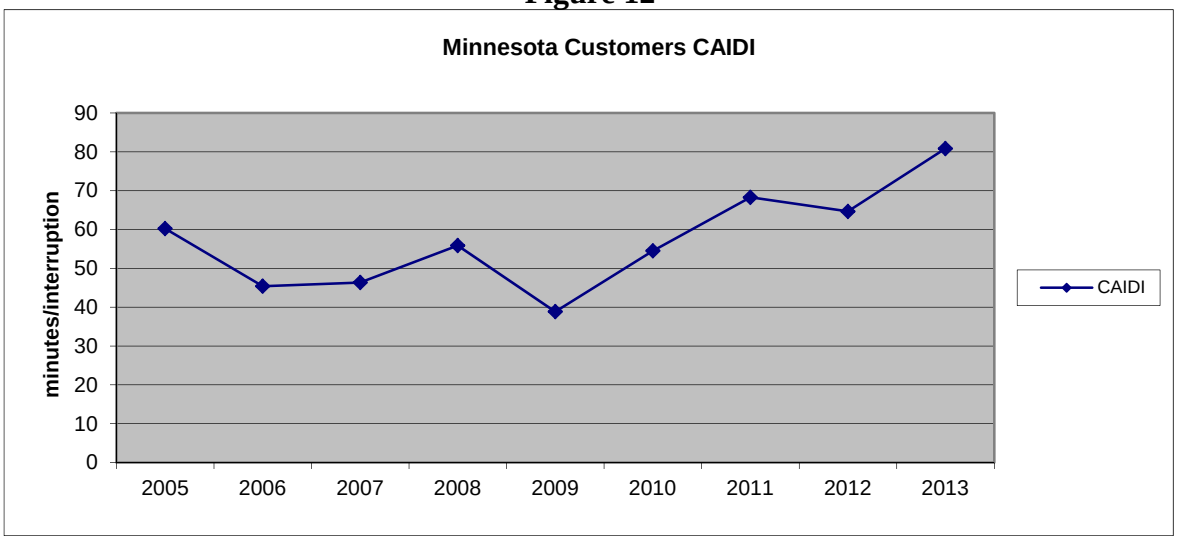


Figure 12



OTTER TAIL POLICIES, PROCEDURES, AND ACTIONS

In Compliance with the Commission's Order dated January 13, 2014 in Docket No. E017/M-13-253, Otter Tail provides the following description of the policies, procedures, and actions that it has previously implemented, and continues to utilize to improve reliability.

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. **Weekly feeder reports:** Otter Tail publishes weekly feeder reports to area engineering and customer service staff that indicate worst performing circuits in relation to both momentary and sustained interruptions. The report classifies circuits by CSC and identifies worst performing feeders by week, month, 6-month, and one-year intervals. Area Engineering and Operations Management departments review these reports to determine what steps should be taken. Some cases require immediate action and others require a line patrol to determine the cause of an outage and the problem to be addressed. If an upgrade is required, Area Engineering will gather data and follow through with a capital budget request. The ultimate goal is to remove the worst performing circuits from future lists of reoccurring incidents.
    b. **Monthly Transmission breaker operations report:** Otter Tail publishes and circulates to Area Engineering and CSC operations personnel on a monthly basis a list of the worst performing line sections determined by the number of circuit breaker operations. Area Engineering and Operations Management departments review these reports to determine whether any follow-up action is required. If the cause of the breaker operation is not known, a line patrol will be initiated.

c. **Monthly Reliability Report:** Otter Tail distributes to all transmission and distribution management and supervisors an overall summary of system performance as compared to internal KPI's. This report shows SAIDI, SAIFI, CAIDI, and MAIFI for the system, as well as CAIDI by CSC.
d. **Additional reporting:** Otter Tail also tracks CEMI on an annual basis and has internal KPI's that are reported and published to Otter Tail's Asset Management department.

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 are 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. In 2008, we began inspection and treatment of distribution poles as well.
   c. **Underground Replacement:** Otter Tail continues its focus on replacing outdated and failing underground conductors. Area Engineering proactively identifies areas of concern and budgets for replacement during the following year. Potential replacement candidates are identified and included in PTP's Proactive UG Replacement project listing.

Additionally, on February 4, 2013 Pursuant to the Commission's **December 20, 2012 Order in Docket No. E017/M-12-325**, Otter Tail submitted its compliance filing 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. Following is an updated status of those action items and processes:

1. **Reliability Improvement Initiative Team Meetings:** Our Reliability Improvement Initiative cross functional team continues to meet monthly with the purpose of conducting a comprehensive overview of system reliability. This process has been very beneficial in providing increased focus and attention to reliability related issues.

2. **Electronic Tracking Process for Transmission Patrol Reports and Maintenance Activities:** Electronic tracking of internal reports will be implemented in 2014. When complete, this will allow the Company to more effectively schedule and manage maintenance activities based on historic and current maintenance data and allow for more efficient prioritization of resources.

3. **Lightning Tracking System:** Otter Tail's lightning tracking system has been in service for two years. It is used to track lightning activity within Otter Tail's service territory. It has been very beneficial in identifying remote areas hit by lightning, thus allowing for follow up patrols and inspections for any and all damage identification. Future

enhancements of lightning tracking alert messages will help reduce response times to addresses interruptions that may have been caused by lightning strikes.

4. **Interruption Monitoring System sustained interruption cause information investigation:** For the past two years, Otter Tail has implemented a requirement that more detailed information regarding the primary cause of all sustained interruptions at the feeder level and above be entered into the IMS. To date, cause investigation has improved providing post analysis and capital improvement planning improvements.

5. **Interruption Mapping:** Otter Tail implemented a manual process to graphically map interruption locations for worst performing line sections and graphically plotting the interruption data on a map of Otter Tail's transmission lines. This manual process was implemented two years ago. Otter Tail will be integrating the manual process of mapping problem areas into GIS with a goal of completing this integration by mid-2015.

6. **Fleet Vehicle Tracking:** Otter Tail is currently conducting a pilot program for vehicle tracking. This program was initiated in 2012. Otter Tail will continue evaluating available providers and identify the best source to meet all of Otter Tail's requirements. More information regarding the Fleet Vehicle Tracking pilot program is included in Attachment 2 of this report.

Otter Tail believes these action plans will help contribute to cost effective improvement of the Company's overall system reliability. Overall system improvements will happen 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.

Additional Items: 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

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.

For Otter Tail's 2013 reliability standards, Otter Tail proposes to use a 5-year average for SAIDI and SAIFI, and the resultant calculation for CAIDI for all CSC's that serve Minnesota customers.

Otter Tail's 5-year history of reliability results and 2014 proposed reliability standards are provided in the **Table 10** below.

Table 10

Bemidji	SAIDI	SAIFI	CAIDI
2009	46.26	1.65	28.04
2010	54.5	0.99	55.01
2011	71.86	1.08	66.61
2012	108.81	1.12	97.15
2013	90.57	1.11	81.43
Five year average	**74.40**	**1.19**	**65.57**
2014 Proposed standards	**74.40**	**1.19**	**62.48**

Crookston	SAIDI	SAIFI	CAIDI
2009	25.75	0.78	32.91
2010	45.97	0.92	49.76
2011	94.99	1.18	80.49
2012	139.89	2.24	62.45
2013	37.60	0.58	65.24
Five year average	**68.84**	**1.14**	**58.15**
2014 Proposed standards	**68.84**	**1.14**	**60.35**

Fergus Falls	SAIDI	SAIFI	CAIDI
2009	34.25	0.74	46.05
2010	91.04	1.37	66.45
2011	93.11	1.45	64.35
2012	55.05	1.12	49.15
2013	108.98	1.29	84.29
Five year average	**76.49**	**1.19**	**62.04**
2014 Proposed standards	**76.49**	**1.19**	**64.04**

Milbank	SAIDI	SAIFI	CAIDI
2009	54.99	0.78	70.85
2010	105.9	3.26	32.49
2011	74.73	2.21	33.79
2012	81.25	1.26	64.48
2013	127.03	0.74	170.94
Five year average	**88.78**	**1.65**	**74.54**
2014 Proposed standards	**88.78**	**1.65**	**53.83**

Morris	SAIDI	SAIFI	CAIDI
2009	42.72	0.95	45.03
2010	52.74	1.27	41.6
2011	72.61	0.91	79.75
2012	67.12	1.03	65.17
2013	117.51	1.45	81.33
Five year average	**70.54**	**1.12**	**62.62**
2014 Proposed standards	**70.54**	**1.12**	**62.91**

Wahpeton	SAIDI	SAIFI	CAIDI
2009	29.83	0.26	114.73
2010	108.93	2.48	43.93
2011	64.59	1.65	39.11
2012	34.41	1.05	32.77
2013	45.78	1.28	35.88
Five year average	**56.71**	**1.34**	**53.26**
2014 Proposed standards	**56.71**	**1.34**	**42.17**

Minnesota System	SAIDI	SAIFI	CAIDI
2009	36.35	0.94	38.85
2010	67.02	1.23	54.51
2011	83.54	1.21	69.00
2012	84.05	1.30	64.65
2013	93.51	1.16	80.86
Five year average	**72.89**	**1.17**	**61.58**
2014Proposed standards	**72.89**	**1.17**	**62.41**

Five year Average by CSC	SAIDI	SAIFI	CAIDI
Bemidji	74.40	1.19	65.57
Crookston	76.49	1.19	62.04
Fergus Falls	76.49	1.19	62.04
Milbank	88.78	1.65	74.54
Morris	70.54	1.12	62.62
Wahpeton	56.71	1.34	53.26
MN Total	**72.89**	**1.17**	**61.58**

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 the following for its meter reading performance for 2012.

A. The number and percentage of customer meters ready by utility personnel.

Table 11

Otter Tail Power Company Meter Reading Performance
January 1, 2013 to December 31, 2013
Utility Personnel Read Meters - MN

	RESIDENTIAL	SMALL COMMERCIAL	INDUSTRIAL	TOTAL	TOTAL ESTIMATE READS	TOTAL SELF-READ	Otter Tail System Total	% read by utility personnel
January	59,860	13,525	1,376	74,761	1,448	1,458	77,667	96.26%
February	59,023	13,532	1,380	73,935	2,269	1,456	77,660	95.20%
March	59,193	13,419	1,374	73,986	2,157	1,458	77,601	95.34%
April	59,743	13,587	1,378	74,708	1,490	1,460	77,658	96.20%
May	60,115	14,199	1,385	75,699	1,281	1,464	78,444	96.50%
June	60,645	14,236	1,367	76,248	2,109	1,466	79,823	95.52%
July	60,553	14,248	1,370	76,171	2,182	1,465	79,818	95.43%
August	61,228	14,280	1,382	76,890	1,547	1,465	79,902	96.23%
September	61,583	14,329	1,382	77,294	1,183	1,469	79,946	96.68%
October	60,340	14,228	1,386	75,954	1,900	1,470	79,324	95.75%
November	59,403	14,063	1,379	74,845	2,188	1,468	78,501	95.34%
December	59,557	13,614	1,385	74,556	1,947	1,466	77,969	95.62%

B. The number and percentage of customer meters self-read by customer.

Table 12

Otter Tail Power Company Meter Reading Performance
January 1, 2012 to December 31, 2012
Customer Self Read Meters - MN

	RESIDENTIAL	SMALL COMMERCIAL	INDUSTRIAL	TOTAL	Otter Tail System Total	% read by customer
January	994	464	.	1,458	77,667	1.88%
February	992	464	.	1,456	77,660	1.87%
March	994	464	.	1,458	77,601	1.88%
April	996	464	.	1,460	77,658	1.88%
May	998	466	.	1,464	78,444	1.87%
June	1,000	466	.	1,466	79,823	1.84%
July	1,002	463	.	1,465	79,818	1.84%
August	1,001	464	.	1,465	79,902	1.83%
September	1,002	467	.	1,469	79,946	1.84%
October	1,003	467	.	1,470	79,324	1.85%
November	1,003	465	.	1,468	78,501	1.87%
December	1,001	465	.	1,466	77,969	1.88%

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 2013, Otter Tail had two customers' accounts, which were not read for a period of 6-12 months. One is a small general service meter located in the basement of a former business, in which gaining access depends on the customer's willingness to come to the business and allow the service rep access to read the meter. This arrangement has been challenging as the customer has been inflexible in meeting the service rep to gain access. The second is a residential customer whose meters are inside their dwelling. We do not have access to the meters. The customer has been asked to be a self-read customer, but is not providing readings to us. Access to the meter is dependent upon customer's availability. There were no meters that were not read for a time period of greater than 12 months.

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

Table 13

CSC	Title	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bemidji	Service Rep	8	8	8	8	8	8	8	8	8	8	8	8
Crookston	Service Rep	11	10	10	10	10	10	10	10	10	10	10	10
Fergus Falls	Service Rep	16	16	16	16	16	16	16	16	16	16	16	16
*Milbank	Service Rep	9	9	9	9	9	9	9	9	9	9	9	9
Morris	Meter Reader	1	1	1	1	1	1	1	1	1	1	1	1
	Service Rep	14	13	13	14	14	14	14	14	14	14	14	14
**Wahpeton	Service Rep	10	10	10	10	10	10	10	10	10	10	10	10
Grand Total		69	67	67	68	68	68	68	68	68	68	68	68

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:

Bemidji, MN	Battle Lake, MN	Clearbrook, MN
Campbell, MN	Climax, MN	Crookston, MN
Doran, MN	Eldred, MN	Gonvick, MN
Fergus Falls, MN	Fisher, MN	Gully, MN
Kent, MN	Frazee, MN	Clitherall, MN
Oklee, MN	Mahnomen, MN	Shevlin, MN
Solway, MN	Tenney, MN	Trail, MN
Twin Valley, MN	Ulen, MN	Vergas, MN
Vining, MN	Waubun, MN	Wilton, MN

*The Milbank CSC serves customers in both Minnesota and South Dakota and the number of employees represents all employees for the CSC.

**The Wahpeton CSC Center serves customers in Minnesota, North Dakota and South Dakota and the number of employees represents all employees for the CSC.

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 14

Month	Large Commercial	Residential	Small Commercial	Grand Total
January	26	3,329	401	3,756
February	30	3,309	457	3,796
March	35	3,468	458	3,961
April	32	3,245	458	3,735
May	40	3,785	466	4,291
June	27	3,118	380	3,525
July	35	3,231	339	3,605
August	30	3,638	372	4,040
September	26	3,275	325	3,626
October	29	3,718	380	4,127
November	27	2,712	334	3,073
December	27	3,085	352	3,464
Grand Total	364	39913	4722	44,999

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 15

Month	Customers who sought Cold Weather Rule Protection	Number Granted Cold Weather Protection
January	376	372
February	270	268
March	238	238
April	87	87
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
October	241	239
November	331	330
December	245	242

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

Table 16

7826.1500 Subpart C - Customers involuntarily disconnected 2013				
Month	**Customer Class**	**Disconnected For more than 24 hours**	**Service Restored within 24 hours**	**Grand Total**
January	Residential	46	67	113
	Small Commercial	2	0	2
January Total		48	67	115
February	Residential	22	105	127
	Small Commercial	4	1	5
February Total		26	106	132
March	Residential	39	89	128
	Small Commercial	2	0	2
March Total		41	89	130
April	Residential	55	52	107
	Small Commercial	6	1	7
April Total		61	53	114
May	Residential	138	77	215
	Small Commercial	6	1	7
May Total		144	78	222
June	Residential	73	46	119
	Small Commercial	1	1	2
June Total		74	47	121
July	Residential	89	32	121
	Small Commercial	3	3	6
July Total		92	35	127
August	Residential	86	33	119
	Small Commercial	6	2	8
August Total		92	35	127
September	Residential	94	57	151
	Small Commercial	2	0	2
September Total		96	57	153
October	Residential	65	44	109
	Small Commercial	1	0	1
October Total		66	44	110
November	Residential	21	13	34
	Small Commercial	3	1	4
November Total		24	14	38
December	Residential	17	29	46
	Small Commercial	0	1	1
December Total		17	30	47
Grand Total		781	655	1436

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

Table 17

Month	Residential	Small Commercial	Large Commercial	Total
January	2	0	0	2
February	4	0	0	4
March	3	0	0	3
April	1	0	0	1
May	0	0	0	0
June	0	0	0	0
July	1	0	0	1
August	0	0	0	0
September	0	0	0	0
October	5	0	0	5
November	5	0	0	5
December	2	0	0	2
Totals	23	0	0	23

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 **Table 18** below its 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 read for service.

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.

Table 18

7826.1600 - Otter Tail Power Company Service Extension Request Response Time report - 2013

Month		Days	Large Commercial	Residential	Small Commercial	Grand Total
January	**Locations not previously served**	**0**	2	1	5	8
	Locations previously served	**0**		80	10	90
January Total			**2**	**81**	**15**	**98**
February	**Locations not previously served**	**0**		4	6	10
	Locations previously served	**0**		81	3	84
February Total				**85**	**9**	**94**
March	**Locations not previously served**	**0**		2	1	3
	Locations previously served	**0**		78	10	88
March Total				**80**	**11**	**91**
April	**Locations not previously served**	**0**		4	2	6
	Locations previously served	**0**	1	144	35	180
		1		1		1
		3		1		1
April Total			**1**	**150**	**37**	**188**
May	**Locations not previously served**	**0**	1	25	9	35
	Locations previously served	**0**		297	52	349
		1		3	2	5
May Total			**1**	**325**	**63**	**389**
June	**Locations not previously served**	**0**		23	7	30
	Locations previously served	**0**		182	9	191
		1			1	1
June Total				**205**	**17**	**222**

Table 18						
7826.1600 - Otter Tail Power Company Service Extension Request Response Time report - 2013						
Month		**Days**	**Large Commercial**	**Residential**	**Small Commercial**	**Grand Total**
July	**Locations not previously served**	**0**		65	11	76
	Locations previously served	**0**	1	231	19	251
July Total			**1**	**296**	**30**	**327**
August	**Locations not previously served**	**0**	1	17	18	36
	Locations previously served	**0**		272	24	296
		1		1		1
		2		1		1
August Total			**1**	**291**	**42**	**334**
September	**Locations not previously served**	**0**		20	15	35
	Locations previously served	**0**		184	20	204
		1		1		1
September Total				**205**	**35**	**240**
October	**Locations not previously served**	**0**		26	16	42
	Locations previously served	**0**		201	14	215
		1		1		1
October Total				**228**	**30**	**258**
November	**Locations not previously served**	**0**		15	17	32
	Locations previously served	**0**	1	122	17	140
		1		1		1
November Total			**1**	**138**	**34**	**173**
December	**Locations not previously served**	**0**	1	8	11	20
	Locations previously served	**0**		78	12	90
		12		1		1
December Total			**1**	**87**	**23**	**111**
Grand Total			**8**	**2,171**	**346**	**2,525**

IX. REPORTING CALL CENTER RESPONSE TIMES 7826.1700

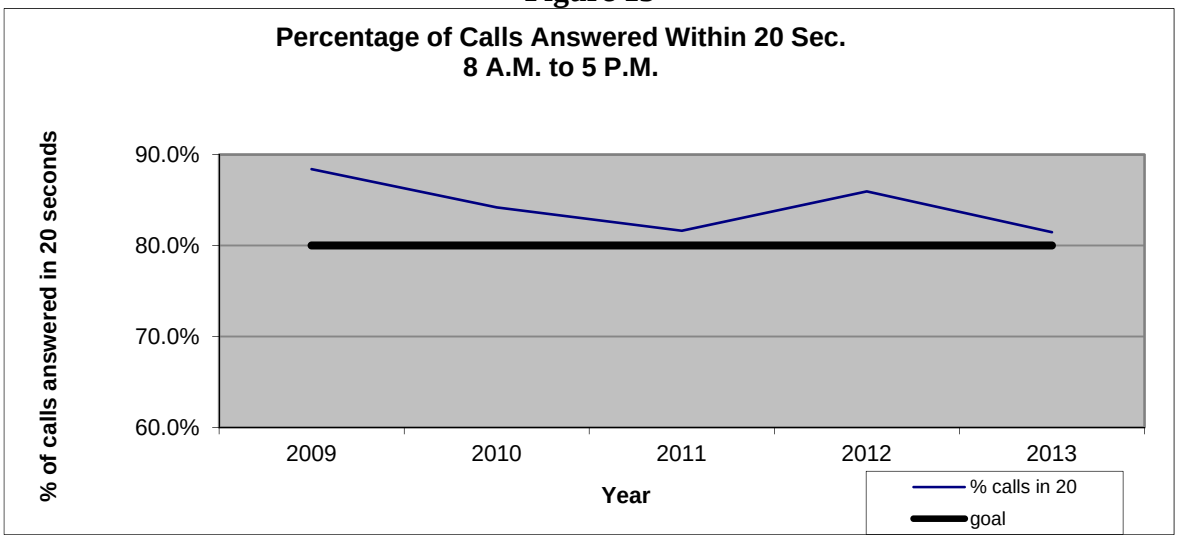
Minnesota Rule 7826.1700, **Reporting Call Center Response Times, requires utilities to provide a detailed report on call center response times, including calls to the business office and calls regarding service interruptions. The report must include a month-by-month breakdown of information.** In compliance with this rule, Otter Tail provides its report of call center response times for 2012 in **Table 19**. **Figure 13** shows a historical graph showing the percent of calls answered within 20 seconds.

Table 19

	(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-2013	4,430	48	537	3,845	86.79%
February-2013	3,879	7	429	3,443	88.76%
March-2013	3,848	9	374	3,465	90.05%
April-2013	4,231	17	402	3,812	90.10%
May-2013	4,486	65	843	3,578	79.76%
June-2013	4,341	67	743	3,531	81.34%
July-2013	4,316	74	716	3,526	81.70%
August-2013	4,160	133	855	3,172	76.25%
September-2013	3,932	37	737	3,158	80.32%
October-2013	4,430	63	914	3,453	77.95%
November-2013	3,586	89	1,020	2,477	69.07%
December-2013	3,759	61	866	2,787	74.14%
Total	49,398	670	8,436	40,247	81.47%

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

Figure 13



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 2013, Otter Tail had 22 Minnesota customers request emergency medical account status. Otter Tail granted this status to all 22 customers.

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 895 customers were required to make a deposit as a condition of receiving service during 2013. The number of deposit requests increased by 48 when compared to 2012.

XII. REPORTING CUSTOMER COMPLAINTS 7826.2000

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 2013.

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 20

Complaint Type	Total	Percent of Total
Alleged billing errors	23	17%
Inaccurate metering	0	0%
Wrongful disconnection	18	14%
High bills	12	9%
Inadequate Service	1	1%
Service extension	2	2%
Service restoration	6	5%
Other	71	53%
	133	100%

*Other – this category contains any complaints not included within the various complaint sections in our Customer information System. The types of complaints included in the "Other" category include such things as property damage, tree trimming, and area and street light issues.

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

Table 21

Resolved by	**Total**	**Percentage**
(1) Resolved on Initial Inquiry	123	92.04%
(2) Resolved within 10 days	7	5.15%
(3) Resolved in greater than 10 days	3	2.81%
Total	**133**	**100.00%**

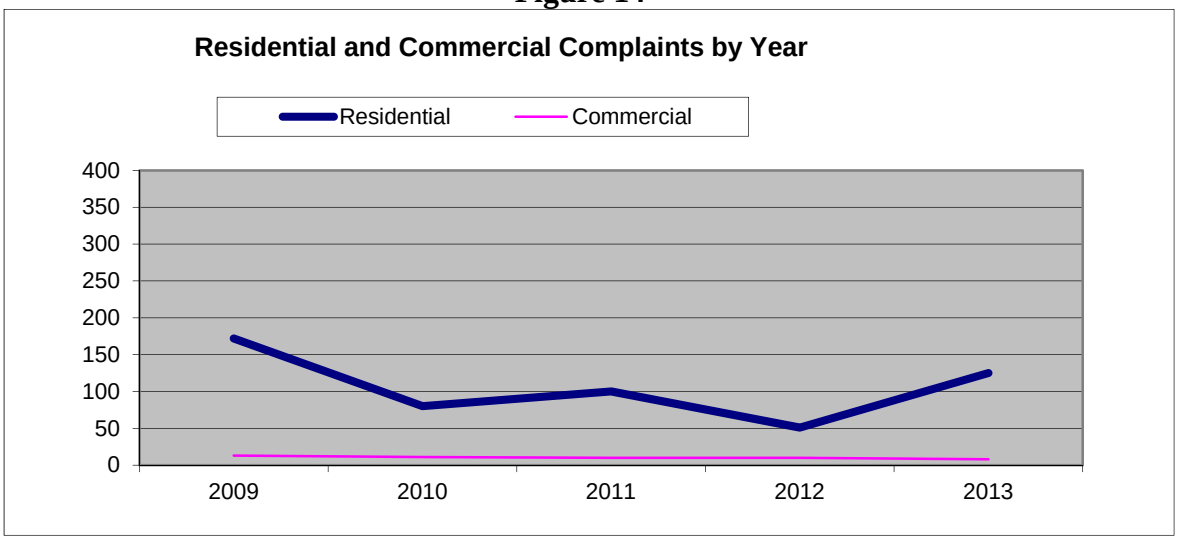
D. The number and percentage of all complaints resolved by taking any of the following actions: (1) taking the action the customer requested; (2) taking an action the customer and the utility agree is an acceptable compromise, (3) providing the customer with information that demonstrates that the situation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

Table 22

Action	Total	Percent of Total
Taking the action the customer requested	27	21.34%
Taking an action the customer and the utility agree is an acceptable compromise	42	28.45%
Providing the customer with information that demonstrates that the situation is not reasonably within the utility's control	23	14.66%
Refusing to take the action the customer requested	41	35.55%
Total	133	100.00%

Figure 14 below is a graph showing complaints by customer class for the previous five years.

Figure 14



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

Otter Tail received 6 customer complaints in 2013 that were forwarded from the Commission's Consumer Affairs Office, all of which have been resolved. The number of complaints received in 2013 was increased by two when compared to 2012.

Otter Tail provides the following information as ordered by the Commission Order dated June 5, 2009 in Docket E999/CI-08-948. The Commission ordering paragraph 1. A. required that beginning on April 1, 2010, and annually thereafter, utilities shall file reports on past, current, and planned smart grid projects, with a description of those projects, including: total costs, cost effectiveness, improved reliability, security, system performance, and societal benefit, with their electric service quality reports. In compliance with the Commission Order, Otter Tail provides information on Smart Grid projects in **Attachment 2**. Otter Tail also filed this report in Docket E999/CI-08-948.

Date 2/22/2013

Outage Reporting Fax and Email form

Your Name:	Christine Ross	
CSC in which outage occurred :	**Crookston**	
State where the outage occurred:	**MN**	
Substation Name (or Bus#):	East Substation in Red Lake Falls	
Breaker Number (or Feeder):	St Hilaire Feeder and Detroiter	
Number of customers that were affected?	922	
Approximate outage start date/time:	**Date**	**Time**
	February 22, 2013	4:00 AM
Approximate restoration date/time:	**Date**	**Time**
	February 22, 2013	5:12 AM
Outage location (be specific):	North part of Red Lake Falls and all of St. Hilaire	
Outage cause (Give a brief description):	Outage required to make emergency repairs at the East Substation in Red Lake Falls	

Additional Comments: _____

Fyhrie, Jessica

From: Fyhrie, Jessica
Sent: Tuesday, March 26, 2013 9:21 AM
To: staff, cao (PUC) (consumer.puc@state.mn.us)
Cc: Regulatory
Subject: Otter Tail reporting major service interruptions - Bemidji MN

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Minnesota

We apologize for the delay in reporting this interruption, described below. Please contact me if you have any questions.

Bemidji MN
Location: Airport Substation – Airport Feeder, East 15th St OCR, Hwy 2 OCR
Date: March 24, 2013
Interruption time: 11:22 AM – 12:42 PM
Cause: Squirrel caused relay to open
Customers affected: 516
Duration of interruption: 1 hour 20 minutes

Thanks!!

Jess

Jessica Fyhrie | **Otter Tail Power Company**
Tariff Specialist, Tariff Application and Compliance

Office (218) 739-8395
Email: jfyhrie@otpco.com

Fyhrie, Jessica

From: Stay, Maureen
Sent: Thursday, May 23, 2013 11:10 AM
To: Regulatory; 'consumer.puc@state.mn.us'
Subject: Minnesota Major Service Interruption Notification

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Minnesota

Otter Tail Power Company outage information for May 23, 2013

Location: Bemidji, MN; 25th St Substation – all OCRs, Birchmont North and South feeder; Bemidji Nymore Sub Lavinia OCR
Date: May 23, 2013
Interruption time: 1:43am
Cause: Equipment failure
Customers affected: 3845
Duration: 2hr, 1min

Second Outage information:

Location: Bemidji, MN; 25th St Substation north feeder; Birchmont North and South feeder; Bemidji Nymore Sub Lavinia OCR
Date: May 23, 2013
Interruption time: 4:05am
Cause: Equipment failure
Customers affected: 2281
Duration: 2hr, 3min

Please feel free to contact me if there are questions.

Maureen Stay
Otter Tail Power Co.
Manager, Customer Service
Bemidji/Crookston CSC
218-739-8233

Fyhrie, Jessica

From: Stay, Maureen
Sent: Monday, June 03, 2013 8:56 AM
To: Regulatory; consumer.puc@state.mn.us
Subject: Outage information - Bemidji, MN

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Minnesota

The following outage occurred June 1, 2013

Location: BEMIDJI 115KV SUB/DOWNTOWN OCR #25, Bemidji, MN
Date: 6-1-13
Interruption time: 3:41am
Cause: equipment failure, burned pole top
Customers affected: 636
Duration of interruption: 1:22:28 hours

Please feel free to contact me if there are questions.

Maureen Stay
Otter Tail Power Co.
Manager, Customer Service
Bemidji/Crookston CSC
218-739-8233

Fyhrie, Jessica

From: Fyhrie, Jessica
Sent: Friday, June 21, 2013 12:50 PM
To: staff, cao (PUC) (consumer.puc@state.mn.us)
Cc: Regulatory
Subject: Otter Tail Power Company Major Service Interruption notice

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Minnesota

Location: Perham #3-OCR South Feeder – affecting customers in the following cities: Southside of Perham, Richville and Dent
Date: 6/20/13
Interruption time: 11:43:56 PM
Cause: Storm damage
Customers affected: 539
Duration of interruption: 3:38:46

Location: Otter Outlet – East Feeder – affecting customers in the Otter Tail Lake and Blanche Lake areas.
Date: 6/20/13
Interruption time: 11:59:59 PM
Cause: Storm damage
Customers affected: 672
Duration of interruption: 1:58:50

Location: Battle Lake – Town Feeder—affecting customers in the City of Battle Lake and the surrounding area.
Date: 6/21/13
Interruption time: 05:17:54 AM
Cause: Storm damage
Customers affected: 647
Duration of interruption: 1:12:07

All outages were a result of wind and tree damage caused by the storm that affected the area beginning late Thursday evening through Friday morning.

Thanks!!

Jess

Jessica Fyhrie | **Otter Tail Power Company**
Tariff Specialist, Tariff Application and Compliance

Office (218) 739-8395
Email: jfyhrie@otpco.com

Fyhrie, Jessica

From: Kremeier, Collin
Sent: Friday, June 21, 2013 6:33 AM
To: 'consumer.puc@state.mn.us'
Cc: Regulatory
Subject: FW: MN - MILBANK: Major service interruption - PUC report required

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Minnesota

Location: Morris MN SW Feeder
Date: 6-21-13
Interruption time: 1:06am
Cause: Storms
Customers affected: 682
Duration of interruption: 1 hour and 6 minutes

I understand the information is limited.
Thank you
Collin

Subject: MN - MILBANK: Major service interruption - PUC report required

MORRIS 115 KV SUB/SOUTHWEST FEEDER has been out of service for 01:17:32 hour(s) and has affected 682 customers. See policy sheet 651C for the proper reporting procedure (device id # 16735).

Fyhrie, Jessica

From: Kremeier, Collin
Sent: Friday, July 05, 2013 2:03 PM
To: 'consumer.puc@state.mn.us'
Cc: Regulatory; Ellefson, Jacob
Subject: FW: MN - MILBANK: Major service interruption - PUC report required

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Minnesota

Location: Appleton MN
Date: 7-4-13
Interruption time: 8:50am
Cause: The Conductor has weatherproofing on it and the weatherproofing acts as an insulator. Over time we had a tree that was brushing the conductor and over time the weatherproofing/insulation wore off in the one spot causing the line to burn off.
Customers affected: 233. The entire Appleton East feeder was not out. It was just the N Hering sub feeder with 233 customers that were affected.
Duration of interruption: 1 hour and 49 seconds.

Thank you
Collin
Customer Service Manager
Milbank/Morris CSC

-----Original Message-----
From: PowerVistaNotifications@sensus.com [mailto:PowerVistaNotifications@sensus.com]
Sent: Thursday, July 04, 2013 9:53 AM
To: Jensen, Rodney; Spangler, Ron; Regulatory; Hoff, Jeff; Reiter, Damian; Van Voorhis, Mike; Kremeier, Collin; Fyhrie, Jessica; Stay, Maureen; Hoff, Stephanie
Subject: MN - MILBANK: Major service interruption - PUC report required

APPLETON/EAST FEEDER has been out of service for 01:00:49 hour(s) and has affected 742 customers. See policy sheet 651C for the proper reporting procedure (device id # 16129).

Fyhrie, Jessica

From: Kremeier, Collin
Sent: Monday, October 07, 2013 9:43 AM
To: 'consumer.puc@state.mn.us'
Cc: Regulatory
Subject: PUC Report for Morris 115 KV Sub East Feeder

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Minnesota

Location: Morris 115 KV Sub East Feeder
Date: 10-4-13
Interruption time: 11:05pm
Cause: Lightning struck a power bank causing a cut out to break in half, another cut out to blow, and lightning arrestors to blow.
Customers affected: 777
Duration of interruption: 4 hours and 8 minutes.

Collin Kremeier
Manager, Customer Service | Otter Tail Power Company
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Fyhrie, Jessica

From: Fyhrie, Jessica
Sent: Wednesday, November 27, 2013 9:17 AM
To: staff, cao (PUC) (consumer.puc@state.mn.us)
Cc: Regulatory; Erstad, Sue
Subject: Otter Tail Power Company interruption on November 27, 2013

Categories: Minnesota

MAJOR SERVICE INTERRUPTION REPORT

Date: November 27, 2013

Location of the service interruption: City of Battle Lake, Minnesota

Time of service interruption: outage began at 6:49am on November 27, 2013

Cause of service interruption: substation equipment failure

Number of customers affected: 647

Estimate duration of the service interruption: 6 hours

For further information please contact Otter Tail Power Company's Regulatory department at OTPRegulatory@otpco.com or by calling Jessica Fyhrie at 218-739-8395.

Thanks!!

Jess

Jessica Fyhrie | **Otter Tail Power Company**
State Regulatory Compliance Specialist

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BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Docket No. E999/CI-08-948

Otter Tail Power Company's

2013 Smart Grid Investments
and
Information Report

April 1, 2014

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Past, Current and Planned Smart Grid Technology at Otter Tail Power Company

The Minnesota Public Utilities Commission ("Commission") Order dated June 5, 2009, in Docket No. E999/CI-08-948 included the following requirement at ordering paragraph 1.A.:

> "Beginning on April 1, 2010 and annually thereafter, utilities shall file reports on past, current, and planned smart grid projects, with a description of those projects, including: total costs, cost effectiveness, improved reliability, security, system performance, and societal benefit, with their electric service quality reports."

In the same Order the Commission adopted the following definition of smart grid:

> "A Smart Grid encompasses information and control technology to improve the reliability, security, and efficiency of the electric grid. A smart grid allows deployment and integration of distributed and renewable resources, "smart" consumer devices, automated systems, and electricity storage and peak-shaving technologies."

Otter Tail Power Company ("Otter Tail" or "the Company") has used technology to improve employee productivity and customer service for many years. Smart grid investments occur in many aspects of the Company's work. Otter Tail's philosophy supports the smart grid concept, as stated in the Company's 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 area in which we do business."*

The following is a list of some of the smart grid type applications that are in use at Otter Tail and are further described in the following sections.

- Peak-Shaving Technologies
- Energy Storage Systems
- Time-varying Rates
- Electricity Metering
- Protective Relaying
- Power Profiler
- Interruption Monitoring System
- Mobile Data
- Bill Analyzer
- Opower Energy Reporting
- Fleet Tracking
- Geographic Information System (GIS)

Peak-Shaving Technologies

Otter Tail has a long history of installing peak-shaving technologies at customer premises. This legacy started with electric water heaters back in the 1940s that were controlled with time-clocks set to avoid energy usage during the morning and evening highest load periods each day. In the 1980's this legacy system was updated with a radio control system. Beginning in 2003, Otter Tail began to replace the radio control system with an updated radio control system. This update was completed in 2007. The updated system allows Otter Tail to send a signal out to groups of customers during periods of high demand, which includes capacity constraints or high energy prices. When the signal is received by a radio typically near the customer's meter socket, the customer's system automatically reduces their controllable load.

Several peak-shaving tariff options are available to work with various technologies installed by customers and controlled by Otter Tail. Technologies include: electric storage water heaters, dual fuel heating systems, thermal storage systems, heat pumps, air conditioning systems, and whole-house residential demand controllers, and commercial demand control.

The system and supporting tariff that allows the most flexibility for the customer is the Residential Demand Controller ("RDC"). A radio receiver mounted near the customer meter socket receives the signal when system demand is high. A demand controller installed in the home reacts to this signal by reducing the customer demand to a level preselected by the customer. A set station installed in the living area identifies that the customer is being controlled, shows the demand level that is being maintained by the demand controller, and in cases where the connected load does not reduce home demand to the preselected level, the set station signals to the customer that further action is required to reduce non-controlled load. At this point the customer has the choice to either increase their preselected demand or reduce demand by turning off lights, electric appliances, or any heating equipment that may not be connected to the demand controller. Customers are billed based on their highest winter-season demand level measured during a control event. The RDC rate is under evaluation because it was originally designed to reduce winter capacity needs whereas now, Otter Tail is participating in MISO, which is summer peaking.

Otter Tail has an average of 40,839 meters installed associated with demand response tariffs and has demonstrated over 130 MW of control during the coldest days in the winter. Winter demand response total capacity is based on the load management events and system tests and varies by month and season. Otter Tail accredited through MISO 90 MW of demand response capacity for January and 18 MW of demand response capacity for the 2013 summer season, June through September. Otter Tail's internal costs directly related to marketing and sales to grow demand response participation are approximately $1 million each year.

Energy Storage Systems

As noted above, Otter Tail's Peak-Shaving Technologies include Energy Storage Systems which are most commonly known as "Thermal Storage" or "Deferred Load" systems. These include water heating, under floor heating, brick storage furnaces, and brick storage room heaters. Customers and contractors are advised to size storage systems to heat or cool adequately during the maximum control period allowed by the tariff on which it is installed (14-16 continuous hours depending on the tariff used). These systems store energy by charging during off-peak

periods, and heat is available for discharge into the home or business as needed. Otter Tail continues to explore opportunities associated with distributed energy storage systems.

Time-varying rates

Otter Tail's definition of time-varying rates includes any tariff that charges based on when electricity is used and/or controlled. Table 1 below presents the rates, tariff sections, and average number of meters by state currently provided by Otter Tail. As shown, there are on average 1,185 meters on Time of Use Rates and 738 of these are served in Minnesota.

Table 1: Time of Use Rates

Time of Use Rate	Tariff Section	MN Average Meter Count	ND Average Meter Count	SD Average Meter Count	Total Average Meter Count	Program Started
General Service Time-of-Use	10.03 MN, SD; 10.04 ND	44	1	0	45	1978
Large General Service - Time of Day	10.05	27	1	3	31	1993
Standby Service - Option A Firm	11.01	0	1	0	1	1993
Irrigation Service	11.02	200	32	12	244	1974
Real Time Pricing Rider	14.02	0	1	0	1	1996
Fixed Time of Delivery Service	14.07	468	320	76	863	1996
Total Time of Use		**738**	**356**	**91**	**1,185**	**NA**

Demand response tariffs require the customers to limit or stop usage during peaking periods in response to an automated control system signal provided by Otter Tail. Otter Tail may require a control period in response to capacity, economic, or reliability conditions. Table 2 below presents tariffs that are part of Otter Tail's accredited demand response and the meter count by state that for each tariff. Otter Tail's direct control demand response consists of 40,839 meters across the Company's service territory, of which 18,938 are in Minnesota.

Table 2: Direct Control Rates[1]						
Direct Control Rate	**Tariff Section**	**MN Average Customer Count**	**ND Average Customer Count**	**SD Average Customer Count**	**Total Average Customer Count**	**Program Started**
Water Heating - Controlled Service (Off-Peak)	14.01	8,529	6,395	2,236	17,160	Before 1970 – with subsequent revisions
Controlled Service, Interruptible Load, CT Metering Rider ("Large Dual Fuel")	14.04	197	280	30	507	1980s – with subsequent revisions
Controlled Service, Interruptible Load, Self Contained Metering Rider ("Small Dual Fuel")	14.05	6,073	6,955	935	13,962	
Controlled Service Deferred Load Rider ("Thermal Storage")	14.06	842	703	185	1,730	
Residential Service-Controlled Demand	9.02	2,393	3,482	424	6,300	
Air Conditioning Control Rider	14.08	904	199	77	1,180	2006
Total Direct Control		**18,938**	**18,014**	**3,887**	**40,839**	**NA**

Electricity Meters

As of December 31, 2013, Otter Tail had 170,448 active retail electricity meters across a three state area that includes Minnesota, North Dakota and South Dakota. Nearly all of the meter readings are collected by Otter Tail employees or contracted meter readers by entering meter readings into a handheld meter reading processor. The handheld processor also has a probe that allows the meter reader to collect time of day meter readings electronically by attaching the probe to a port on the face of the meter.

Otter Tail has installed 60 meters with an encoder receiver transmitter ("ERT") register that allows the handhelds with a special transmitter receiver module to read meters as the meter reader walks by the area, which is an example of a mobile Automated Meter Reading ("AMR") application. These special meters have been installed in areas where access to the customers meter was difficult and time consuming.

[1] With the exception of Residential Demand Control, all customer counts shown in Table 2 are based on meter counts for direct control rates.

Over several years, Otter Tail has developed a group of AMR type meters that can be read remotely using cell phones or land lines to collect interval kWh and demand meter information. These meter installations allow Otter Tail to contact the meter and download meter interval data on a daily, weekly or monthly basis. There are 453 meters that are read remotely and, of these, 98 meters are used for billing data. The remaining meters are for measuring other loads such as generation, substation, and tie metering. The data is used for calculating and reporting Otter Tail's load to MISO, as well as tracking voltage data at Company substations, observing anomalies in load behavior, and forecasting day-ahead loads. The cost to support these AMR devices in 2013 was $136,630 for software and labor.

Approximately 0.30 percent of Otter Tail electricity metering is operating in a way that Otter Tail would describe as AMR. Table 3 below presents the category of meters based on how they are read, the number of meters in each category, and the corresponding percentage that each category is of the total meters. Otter Tail has no Advanced Metering Infrastructure ("AMI") or two-way capable meters. The Company has been actively investigating AMR/AMI technology and evaluating the potential costs and benefits of a system-wide investment.

Table 3

Category of Meters	Number of Meters	% of Total Meters
Automated Meter Reading (AMR) - read from general office using landline, cellular, or TCP/IP communications	453	0.26%
AMR – drive or walk by (mobile)	60	0.03
Manually read meters	169,935	99.70%
Total Meters	170,448	100%

In 2014, Otter Tail will conduct a pilot of 10 AMI meters. The purpose of the pilot will be to explore the reliability of cellular coverage for meter reading, understand the customer portal and tools related to usage, trial the head-end AMI and back-end Meter Data Management (MDM) systems, perform load management measurement and verification, and assess reliability measurement and reporting capabilities. The cost of the pilot is being paid by the vendor.

Protective Relaying

The first "smart" protective relays were developed and installed in the mid 1980's. Otter Tail was involved with the first installation on high voltage transmission lines of the devices designed by Schweitzer Engineering Labs ("SEL"). These devices provided system data during faults, giving personnel information on fault location. The SEL relays also provide sub-cycle information about the fault that enables engineers to review the fault record and evaluate whether the relay tripped the breaker properly. This information is used by the Company's System Operations department to isolate the faulted line section quickly and reduce outage duration on the Company's transmission system.

Before the use of the SEL fault locating relays, each time a line tripped, it required a long process of switching and re-energizing the line section by section to determine which section of the transmission line experienced the fault.

The technology used for remote communication to protective relays in Otter Tail's substations has improved greatly since the mid 1980's, allowing advance monitoring of the transmission grid by Otter Tail and the Midwest Independent System Operator ("MISO").

Otter Tail has been participating in the North American SynchroPhasor initiative by installing special relays and related communications in one substation in 2010, two substations in 2011, five substations in 2012, and five substations in 2013/2014. This reliability project is being coordinated by MISO for the region. Otter Tail incurred costs of about $325,000 in 2013/2014. This initiative expires on March 31, 2014. These costs will be reimbursed to Otter Tail by the Department of Energy through MISO's coordination.

Synchrophasors are precise grid measurements now available from monitors called Phasor Measurement Units ("PMU"). PMU measurements are taken at high speed, typically 30 observations per second compared to one observation every four seconds using conventional technology. Each measurement is time-stamped according to a common time reference. Time stamping allows synchrophasors from different utilities to be time-aligned (or "synchronized") and combined together providing a precise and comprehensive view of the entire interconnection. Synchrophasors enable a better indication of grid stress and can be used to trigger corrective actions to maintain reliability.

Power Profiler

The Power Profiler is a fee-based on-line program offered to customers with interval metering. Commercial or industrial customers are the main users of this program.

The program allows "day after", "week after" or "month after" 15-minute interval energy and demand usage to be displayed in a variety of graphical formats. Otter Tail's larger customers have found this data to be valuable to identify and reduce demand peaks by fine-tuning equipment operation and altering work schedules.

The Power Profiler has nine detailed reports as bar graphs, line graph or data output.

- Peak day demand
- 24 hour profile
- kVA / power factor
- Daily peaks
- Detail profile
- Daily totals
- Peaks report
- Statistics report
- Comparison graph

Customers using Power Profiler are learning how to manage their energy and demand profiles based on information from this online tool. Otter Tail's ongoing charge by the software vendor for system maintenance and updating Power Profiler was $9,543 for 2013.

Interruption Monitoring System

In order to monitor and improve the reliability of Otter Tail's electrical system, an Interruption Monitoring System ("IMS") was installed and commissioned in mid-2004. Voltage and interruption monitoring devices manufactured by Sensus have been installed on each of the 725 distribution feeders in the Otter Tail system. These intelligent field devices report interruptions, over and under voltage alarms and power reliability status using the commercial cellular networks (GPRS and 1XRTT).

Web based analysis and application tools allow reporting, alarm notifications and graphical status updates. As of 2012, all service representatives receive interruption alarms when feeders they are responsible for, experience an outage. Otter Tail's reliability engineer uses the IMS for reporting reliability indices and for further analysis as he works with the Company's Area Engineers to propose projects to improve reliability. These devices are also utilized for power quality analysis at some of Otter Tail's industrial and commercial customer locations to aid in the investigation of power quality issues and allow for alarm notifications to be sent directly to customers.

Otter Tail also has the capability of providing graphical interruption information to all customers on Otter Tail's web site. Graphical data, at the feeder level, is merged with Google Maps and linked to the home website.

The current IMS communication platform utilizes 2G commercial cellular network. The supplier (Sensus) has no plans for upgrading the current monitors to 3G or 4G networks. Otter Tail has begun investigating NextGen IMS solutions for implementation in the 2017-2020 timeframe. Several options are being investigated.

Operating costs associated with the IMS for 2013 were for maintenance and communications. Maintenance dollars dealt with the replacement of defective devices as well as GPRS device replacement with 1XRTT. Network solution replacements will intensify in the future due to transition from GPRS to 1XRTT availability. Costs totaled $130,000 and are detailed below:

2013 IMS Maintenance:	$40,000
2013 IMS Communications:	$70,000
2013 IMS Software maintenance and updates:	$20,000

Mobile Data

The vehicles used to move information among employees and between employees and customers is changing. The original scope of our mobile data project was limited to email communications for Service Representatives, but the availability and capability of technology has evolved quickly, as have the needs of employees and customers.

Service Representatives and Line Crews
The goal of this project continues to be to improve productivity and efficiency while enhancing customer satisfaction by providing Service Representatives with "real time" information with the use of mobile technologies. The development of Smartphones and tablets will allow the

Company to provide information beyond the truck, giving us the ability to access information at the meter, customer premise, substation, or other site.

Service Representatives currently use laptops, voice only phones, and hand held meter reading devices to perform work in a mobile environment. Laptops provide employees remote access through Citrix, a secure channel, to the Company network. These laptops are reaching end-of-life, prompting the Company to evaluate an asset replacement plan. Therefore, Otter Tail is evaluating alternative hardware combinations beyond the laptop, including smart phones and tablets. Considerations around security, employee uses, and Company requirements make the evaluation complex and highlight the need for the Company to prepare thoughtfully for the future. Mobile app solutions, Mobile Work Force Management solutions, and other mobile services such as Mobile Device Management software, are all factors that must be considered prior to selecting and implementing an asset replacement plan. In addition, considerations of data systems that the mobile device can tie to and the potential capability of those systems, such as CIS or GIS, are also being evaluated.

Current data available through the laptops includes:

- Company email
- Customer Information Systems (the Company's billing system)
- Customer Service Guide
- Geographic Information System (GIS)
- Load management real time control information
- Interruption monitoring system
- Ability to display and update maps and prints of Otter Tail's electrical system
- Otter Tail Power Company website
- Bill Analyzer, and other on-line tools

Issues with the present mobile solutions for field personnel have included lack of network connectivity, speed of the connection, getting "dropped" when working online, varying computer skill levels and the need for training and support.

Technicians

Otter Tail has several groups of technicians that perform a variety of work in Communications, Electrical System Maintenance, and Metering. A small pilot of a mobile app on iPad mini devices is being deployed in 2014 for four meter technicians to perform CT Meter Testing. The application was developed in-house using Fulcrum, an Apple approved application. The cost of this pilot in 2014 is expected to be roughly $5,400. Through this project, the Company aims to reduce vehicle drive time, optimize routing, eliminate paper processes, illuminate "dark data" that previously was filed on hard copies in filing cabinets, error-proof the testing process as much as possible, and eliminate redundant site visits. The Company also aims to learn about the iPad and its strengths and weaknesses for other Company uses by the technicians.

Bill Analyzer

Bill Analyzer is a program that is available to residential customers through the Otter Tail website, which allows customers to analyze their energy usage and billing, input home profile data, and compare their usage with other comparable customers. The purpose of this tool is to

help residential customers, who have the desire to better understand their energy bill, to understand what steps they could take to reduce energy use and manage cost.

After a simple registration process a customer can review 25 months of billing history, provide personal information about their home, appliances, and living habits, and review payment information. The analytic engine uses weather data and customer provided information to calculate probable reasons for changes in usage. By entering their home profile, the customer can determine how their usage is broken out by applications and see how their usage compares to other customers with comparable size homes. Bill analyzer is an Aclara tool and features include:

Bill center - Customer account with amount due, due date, last payment, and graphs to compare energy use.

Bill highlights - Factors that may have contributed to a change in the electric bill. If customers need more details they can dig deeper with bill analysis.

Bill history and analysis - Provides 25 months of history and allows customers to compare statements from any two billing cycles.

My energy center - Includes an energy audit for the home. After the audit is complete, customers can create a plan to save energy.

A counterpart to the Bill Analyzer web self-service tool is a version used by Customer Service employees to answer customer questions about energy use and billing.

Results
In 2010, 2012, and 2013 Otter Tail contracted with Integral Analytics to conduct measurement and verification of energy savings associated with the Bill Analyzer program.

- The 2010 evaluation indicated that Bill Analyzer saved an average 296 kWh per year per participant overall, or approximately 1.5 to 2 percent of their energy usage.
- The 2012 evaluation refined participation levels and indicates savings of 529 kWh per participant or approximately 3 percent of their energy use.
- The 2013 evaluation indicates Bill Analyzer saved an average of 715 kWh per year per participant, or approximately 4 percent of a customer's annual energy usage.

Opower Energy Reporting

Otter Tail has contracted with Opower to procure its patented Home Energy Reporting System for use with Minnesota residential customers as a part of a pilot program included in the company's Conservation Improvement Program. The Home Energy Reporting System is a vetted energy efficiency program that leverages large-scale consumer engagement to drive measurable, predictable, and sustainable demand reduction.

The Home Energy Reporting System is based on a software platform that combines energy usage data with customer demographic, housing, and geographic information data to benchmark energy

use and develop specific, targeted recommendations that educate and motivate consumers to reduce their energy consumption.

Home Energy Reports are delivered through direct mail to selected residential customers. The reports provide specific, personalized, evaluative information and recommendations to motivate recipients to reduce their energy consumption.

Otter Tail sent out the first reports to customers in June of 2011. In 2012 a total of 28,286 Minnesota residential customers received reports. Results for 2012 showed energy savings of 163 kWh per participant household. In 2013 a total of 33,649 Minnesota residential customers received the report. The evaluation reflects energy savings of 144 kWh per participant household.

Bill Analyzer (see Bill Analyzer section above) and Opower are included in the Energy Feedback Pilot program with a combined budget of $391,400 for 2013. In 2014, the combined annual budget for Opower and Bill Analyzer is $370,600.

Fleet Tracking

Otter Tail owns many vehicles that are used by employees for the purposes of servicing our electrical system. In 2012, a sample group of these vehicles were equipped with a fleet tracking device as part of a three year pilot project to provide real time geospatial information on Company vehicles. Vehicles selected for the pilot included some vehicles that are assigned to Otter Tail field meter technicians, communications specialists, the hot line crew, project management, and electrical technicians. Overall, 39 mobile devices (27 in Minnesota) are in the field; 38 vehicles and one light tower/trailer have been upgraded with this capability for purposes of the pilot study. In 2013, the Company spent $14,737 on fleet tracking services.

Fleet tracking enhances reliability by assisting in dispatch decisions to optimize the Company's responses to service interruptions or service needs. Fleet tracking also enhances safety by providing the ability to know the current location and identification of staff when they are in the field working on Otter Tail's electrical system. The ability to track Company vehicles is also an additional tool for managers to manage staff and enables the Company to decrease operation and maintenance expenses and optimize work allocation. Fleet tracking has provided reports that accurately present mileage for tax purposes to each state for qualifying vehicles, ensuring the Company pays exactly what is owed, not more or less. Otter Tail will continue to evaluate the benefits, challenges, and usefulness of the fleet tracking service over the course of the pilot project. Upon successful pilot completion, the Company will look to expand the implementation of fleet tracking throughout the system and integrate it with several key activities and systems at Otter Tail, specifically:

- System operations' dispatch activities,
- A potential outage management system,
- The evolving GIS, and
- Customer service applications for premise visits.

Geographic Information System (GIS)

Otter Tail has developed a Geographic Information System to track and manage Company assets. In 2012, the Company pursued converting nearly 4,000 maps from an AutoCAD format to GIS and the conversion of these maps was completed in January 2013. Also in 2012, Otter Tail developed applications in anticipation of a fully developed GIS for use in future ground line inspections, line patrols, and vegetation management activities. The GIS development activities in 2013 cost $299,386 and included the charges for the conversion of the 4,000 CAD maps, geospatial cleanup, and required survey efforts, as well as the development of tools to perform tax reporting, export data for distribution electrical studies, and to apply attributes to assets connected geometrically. Mapping services from the GIS were published for Company use in the first half of 2013 and have displaced the previous CAD mapping service. The GIS is used to track units of property for every circuit for use in determining tax deduction eligibility for repair work.

The goal of the GIS is to enhance communication with employees and customers, leverage existing data systems to track and manage the Company's assets more efficiently, and provide geo-spatial information of the Company's assets along with related attributes and detail. The GIS will ultimately provide a single, interactive map for asset information thereby eliminating inefficiencies related to having information in disparate locations. Because maps will be electronic and linked to the GIS, data will be more current than the existing paper maps.

Spatial business intelligence through the GIS is expected to provide a platform for data management, strategic planning and analysis, and engineering and operational support. Longer-term, the Company envisions the GIS as a foundational tool for automating work flow management, distribution automation and outage management, and providing enhanced situational awareness.

For 2014, the GIS will continue to be cleaned and maintained. New survey data will be added and the GIS will be used for tax reporting, publishing maps for field work, and electrical studies.

CERTIFICATE OF SERVICE

RE: In the Matter of Otter Tail Power Company 2013 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2014
Docket No. E017/M-14-___

I, Jana Emery, hereby certify that I have this day served a copy of the following, or a summary thereof, on Dr. Burl W. Haar and Sharon Ferguson by e-filing, and to all other persons on the attached service list by electronic service or by First Class mail.

Otter Tail Power Company
Annual Report

Dated this **1st** day of **April**, **2014**

/s/ JANA EMERY
Jana Emery
Regulatory Filing Coordinator
Otter Tail Power Company
215 South Cascade Street
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(218) 739-8879

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