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April 2, 2018

VIA ELECTRONIC FILING

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

Re: 2018 Safety, Reliability and Service Quality
Standards Report Docket No. E015/M-18-___

Dear Mr. Wolf:

Minnesota Power hereby submits, via electronic filing, its annual Safety, Reliability and Service Quality Standards Report as required by Minn. Rules 7826.0100-2000.

Please contact me at the number above if you have any questions regarding this filing.

Sincerely,

Jenna Warmuth

JW:sr
Attachment
cc: MP's SRSQ Service List

Safety, Reliability and Service Quality Standards Report in Accordance With Minn. Rule 7826

Docket No. E-999/R-01-1671

Minnesota Power

4/2/2018

Executive Summary

Minnesota Power (or, "the Company") is dedicated to safely and reliably creating and delivering vital energy to enhance security, comfort and quality of life. This includes providing excellent service to all customers and achieving high levels of customer satisfaction. Minnesota Power has been carefully working to modernize its grid, with prudent investments that increase automation, improve the quality of information to customers, strengthen cyber security, and deliver savings to customers. The Company does all of this while also answering the call to help fellow utilities in times of desperate need, as evidenced by the deployment of mutual aid teams to restore power after natural disasters in Florida and Puerto Rico in 2017.

Serving nearly 145,000 electric customers across northeastern and central Minnesota, Minnesota Power's distribution system is comprised of over 5,800 miles of distribution lines, 201 distribution substations, and approximately 125,000 poles owned by Minnesota Power, along with another approximately 25,000 poles used by Minnesota Power but owned by others ("Distribution System"). Minnesota Power's service territory spans over 26,000 square miles from International Falls in the north to Royalton in the south, and from Duluth in the east to as far west as the Long Prairie and Park Rapids communities.

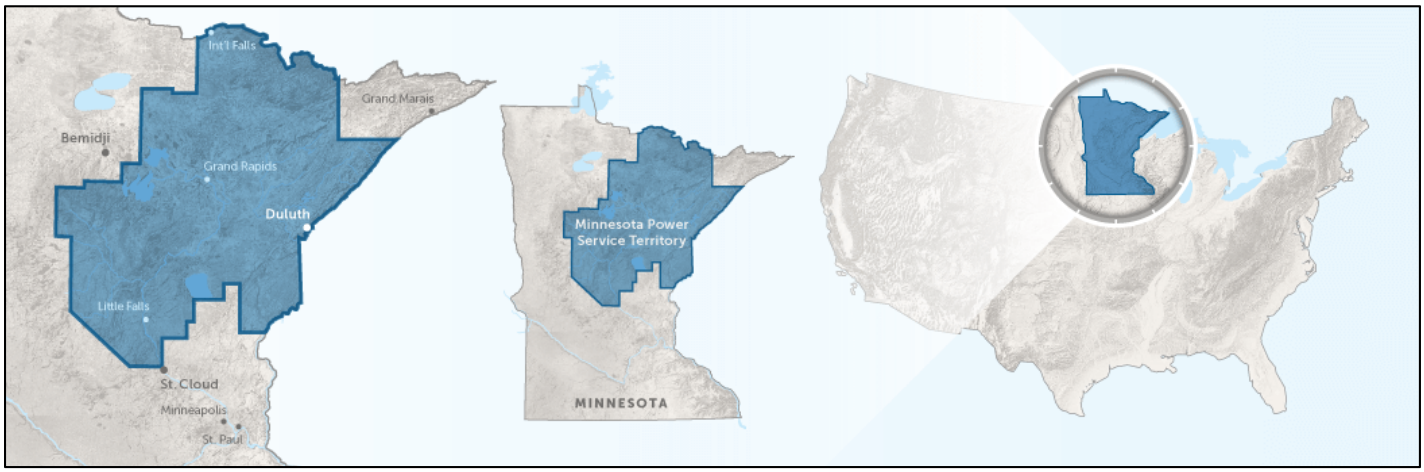

Figure 1: Minnesota Power's Service Territory

Minnesota Power serves customers by making prudent investments in the distribution System to add capacity, maintain and improve reliability, and replace assets as necessary to maintain safe system performance.

Minnesota Power's distribution strategy is comprised of values, technology, innovation, and continuous learning, as depicted in Figure 2. This also includes providing excellent service to customers and achieving high levels of customer satisfaction. Customers expect reliable, affordable, and safe electric service, all of which are part of Minnesota Power's distribution values. In addition, Minnesota Power has been carefully working to modernize its grid, with

prudent investments that increase automation, improve the quality of information shared with customers, strengthen cyber security and deliver savings to customers. This entails deploying distribution technology that is flexible, adaptable, and upgradeable. The Company does all of this while also answering the call to help fellow utilities in times of need, as evidenced by the deployment of mutual aid teams to restore power after natural disasters in Florida and Puerto Rico in 2017.

Minnesota Power has strategically positioned its system for the deployment of emerging distribution technology and employs planning in all areas of its business while maintaining a focus on its distribution values of safety, reliability, and affordability.

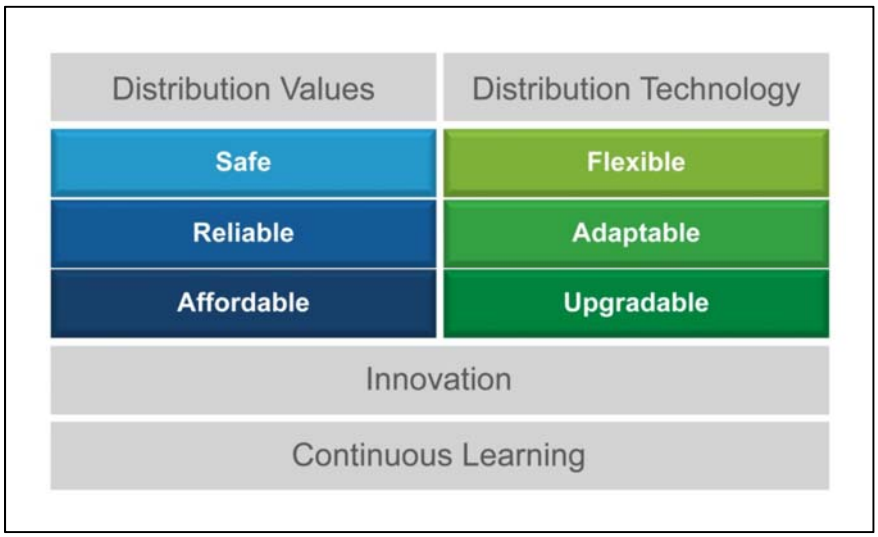

Figure 2: Minnesota Power's Distribution Strategy

The aforementioned distribution values are central to the distribution system planning process which guides thoughtful investments in the system. All system investments must be weighed by cost, number of customers served, and practicality of expected results. Minnesota Power's distribution planning process to-date has followed a traditional planning model. This planning model considers load growth, system age, reliability statistics, customer needs and regulatory objectives. In addition, it entails looking through a specific project planning continuum on a rolling five-year basis, with a larger system-wide outlook subject to a ten year planning window.

Minnesota Power makes prudent investments in the distribution system to add capacity, maintain and improve reliability, and replace assets as necessary to maintain safe system performance. Further, routine maintenance and vegetation management activities on the distribution system lower the cost of operation over the long term and help to mitigate potential reliability issues.

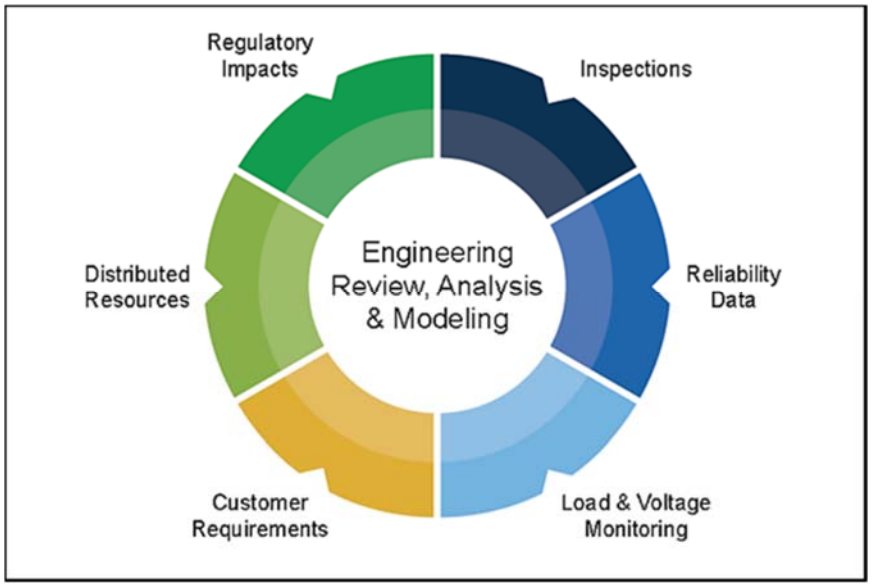

Figure 3: Distribution System Planning Components

In this year's Safety, Reliability and Service Quality Report, Minnesota Power outlines how the Company continuously strives to provide excellent service to all customers and delivers reliable, affordable, and safe electric service across a unique service territory in northeastern and central Minnesota. Additions to this year's report include narratives on disaster recovery for both natural events as well as cyber security events. This report also demonstrates how Minnesota Power makes thoughtful investments and proposals to modernize both its distribution system and the customer experience, how it continues to strengthen its cyber defenses, and how it participates in the mutual aid program so unique to the industry.

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TABLE OF FIGURES:

TABLE OF CHARTS:

2017 Safety, Reliability, and Service Quality Report

I. Introduction & Background

In accordance with Minn. Rule 7826 - ELECTRIC UTILITY STANDARDS, and additional Commission Orders, Minnesota Power submits its fifteenth annual Safety, Reliability and Service Quality Report. Prior orders from the Commission have required Minnesota Power to respond in this filing with additional information not delineated in the administrative rules. For administrative ease, a separate appendix has been provided to specifically respond to the administrative rules which apply to this Report.

Organization of Filing

Minnesota Power respectfully submits this report on its safety, reliability and service quality for 2017 and its corresponding reliability results. This report is organized into several sections. Each section is dependent on information from the other sections, making it appropriate to file the collection of sections as a single document. The sections and information addressed are:

- Introduction & Background
- 2017 Year in Review
- 2017 Summary Graphs
- Reliability Cost Matrix
- System Construction and Protection
- Reconnect Pilot

Minnesota Power submits the following information:

A. Name, Address, and Telephone Number of Utility
(Minn. Rules 7825.3500 (A) and 7829, subp. 3 (A))

Minnesota Power
30 West Superior Street
Duluth, MN 55802
(218) 722-2641

B. Name, Address, and Telephone Number of Utility Attorney
(Minn. Rules 7825.3500 (A) & 7829, subp. 3 (B))

David R. Moeller, Senior Attorney
Minnesota Power
30 West Superior Street
Duluth, MN 55802
(218) 723-3963
dmoeller@allete.com (e-mail)

C. Date of Filing and Date Proposed Rates Take Effect

This petition is being filed on April 2, 2018. Until MPUC approval, the existing reliability results will remain in effect.

D. Statute Controlling Schedule for Processing the Petition

This petition is made pursuant to Minnesota Rules 7826.0400, 7826.0500, 7826.0500, 7826.0600, subp. 1, and 7826.1300.

Furthermore, Minnesota Power's request for approval of its proposed reliability results, and requested Reconnect Pilot program, falls within the definition of a "Miscellaneous Tariff Filing" under Minn. Rules 7829.0100, subp. 11 and 7829.1400, subp. 1 and 4 permitting comments in response to a miscellaneous filing to be filed within 30 days, and reply comments to be filed no later than 10 days thereafter.

E. Utility Employee Responsible for Filing

Jenna Warmuth
Senior Public Policy Advisor
30 West Superior Street Duluth, MN 55802
(218) 355-3448
jwarmuth@mnpower.com (e-mail)

F. Official Service List

Pursuant to Minn. Rule 7829.0700, Minnesota Power respectfully requests the following persons to be included on the Commission's official service list for this proceeding:

David R. Moeller	Jenna Warmuth
Senior Attorney	Senior Public Policy Advisor
Minnesota Power	Minnesota Power
30 West Superior	30 West Superior Street
Duluth, MN 55802	Duluth, MN 55802
(218) 723-3963	(218) 355-3448
dmoeller@allete.com	jwarmuth@mnpower.com

G. Service on Other Parties

Minnesota Power is eFiling this report and notifying all persons on Minnesota Power's CIP Service List that this report has been filed through eDockets. A copy of the service list is included with the filing along with a certificate of service.

H. Filing Summary

As required by Minn. Rule 7829.1300, subp. 1, Minnesota Power is including a summary of this filing on a separate page.

Compliance Requirements

SUMMARY OF FILING REQUESTS

Based on information provided throughout this filing, Minnesota Power requests the following:

From the MPUC:

- Acceptance of its proposed reliability results for the year 2018.
- Approval of the Company's proposed Reconnect Pilot Program.

PROCEDURE AND AUTHORITY

Minnesota Power is submitting this petition in accordance with Minn. Rules 7826.0400, 7826.0500, 7826.0500, 7826.0600, subp. 1, and 7826.1300 and in compliance with MPUC rules and orders relating to annual filings associated with Minnesota Power's Safety, Reliability, Service Quality and proposed reliability results.

This petition constitutes a Miscellaneous Filing as that term is defined in Minn. Rules Chapter 7829 which identifies the time frame and procedures required to process this petition.

II. 2017 Year in Review

As depicted in the graphs on Pages 11 to 14, Minnesota Power's reliability statistics improved markedly in 2017 over 2016 results. While a great improvement was made, the Company failed to meet its 2017 goal for System Average Interruption Duration Index ("SAIDI") by 10 minutes and its goal for System Average Interruption Frequency Index ("SAIFI") by .02. Over 30 percent of the SAIDI minutes can be attributed to 7 events; Thunderstorms on July 6th, 21st and September 22nd as well as a windstorm on October 27th. The other events were attributed to large equipment failures on February 22nd and 23rd in Duluth and December 27th on the I-35 Corridor near Sandstone. In addition to weather related outages, Minnesota Power saw a significant increase in planned outages throughout 2017 as planned outages were the lowest cost options for the safe completion of many capital projects in 2017.

Minnesota Power proposes the following weather-excluded reliability indices options as targets not to exceed in 2018:

	2016 Data Included	2016 Data Replaced with 2012 Data[1]
SAIDI	108.27	101.68
SAIFI	1.12	1.05
CAIDI	96.67	97.02

1: Proposed Reliability Goals

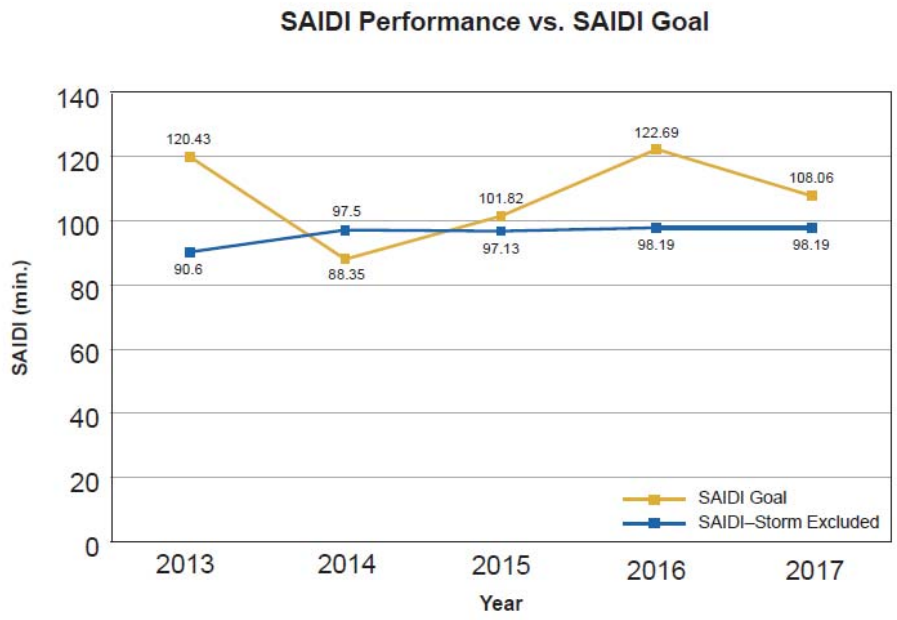
2017 was a year of transformation for Minnesota Power as new assistant engineers were hired to focus on reliability improvements and asset management. These engineers focused on deploying new process improvements, such as service requests, which help Minnesota Power manage trouble issues throughout its system. Additional audits on equipment were also performed, along with preventative maintenance process for distribution switches which will be expanded to other distribution assets in the future including re-closers, regulators, and capacitor banks. In 2017, Minnesota Power also began a trial program to replace traditional fuse cutouts with a new technology (trademarked as "Trip Savers") that replaces a fuse with a vacuum re-closer. Based on early results, the Company is anticipating a measurable increase in reliability where this technology is in use. The major advantage of the technology is that it provides an opportunity to reduce the number of temporary faults that cause permanent outage, resulting in less sustained outages due to normal system issues.

Along with the aforementioned trial program, Minnesota Power has continued its six-year plan for the removal and replacement of approximately seven miles of paper insulated lead cable ("PILC") in the Minnesota Power Distribution System within the City of Duluth. The ducts and manholes requiring replacement are primarily in two-lane downtown streets and requires close coordination with the City with their street projects. The lead cable replacement project is scheduled to be completed by the end of 2019.

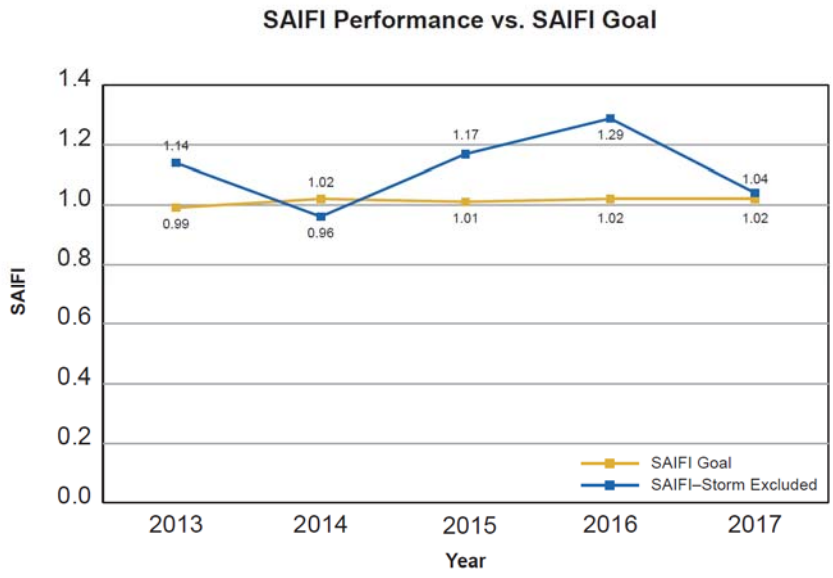
[1] 2012 DATA ADDED TO CONTINUE A 5 YEAR ROLLING AVERAGE

Enhanced actionable information was also a theme that dominated activities in 2017. Reliability learning teams were implemented for all larger outages in order for employees to share lessons learned, find areas of improvement, and to celebrate positive outcomes. The reliability team also presented Company-wide on the particulars of reliability metrics for Minnesota Power during the monthly safety meetings throughout the Company. Lastly, smart sensors were rolled out on 33 circuits to replace the obsolete system that was retired at the beginning of 2017 due to unsupported cellular technology. These new smart sensors are installed on circuits that do not have communication or sensing in order to let service dispatch and operations know immediately when a feeder is out of power. Though 2017 was somewhat challenging, the described processes will continue to be improved upon in 2018 in order to increase and maintain reliability throughout the Company's service territory.

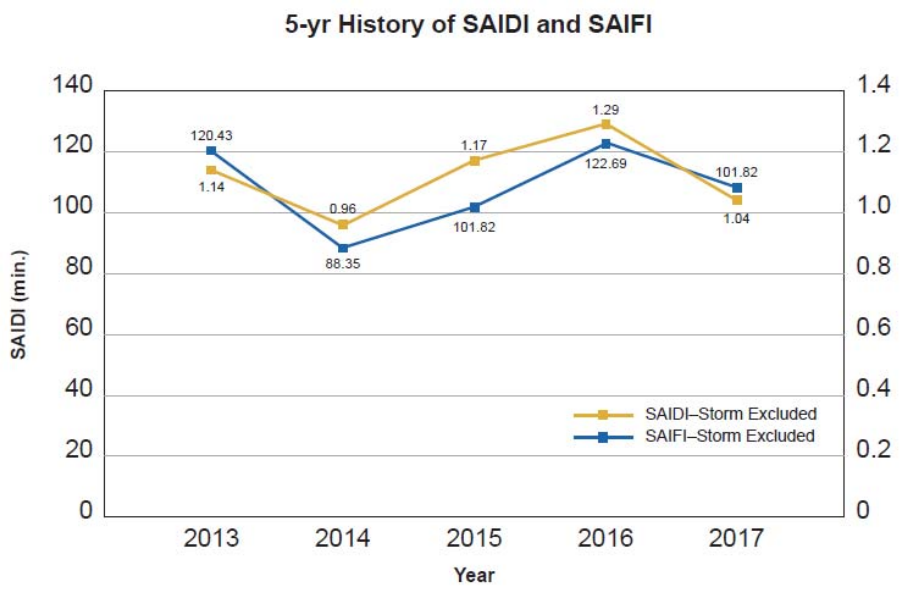
III. 2017 Summary Graphs



SAIDI is the System Average Interruption Duration Index. SAIDI provides the duration, in minutes, of the average time customers are interrupted.



SAIFI is the System Average Interruption Frequency Index. SAIFI provides the frequency of sustained power outages (longer than five minutes) experienced by the average customer.



SAIFI is an indication of how many outages an average customer experiences and SAIDI is an indication of how long the average customer is without power.

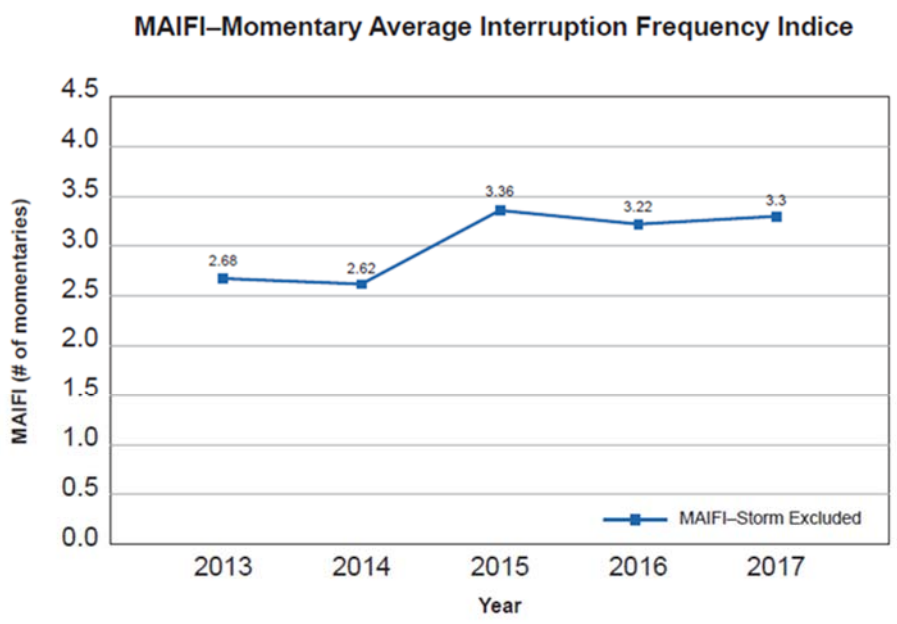
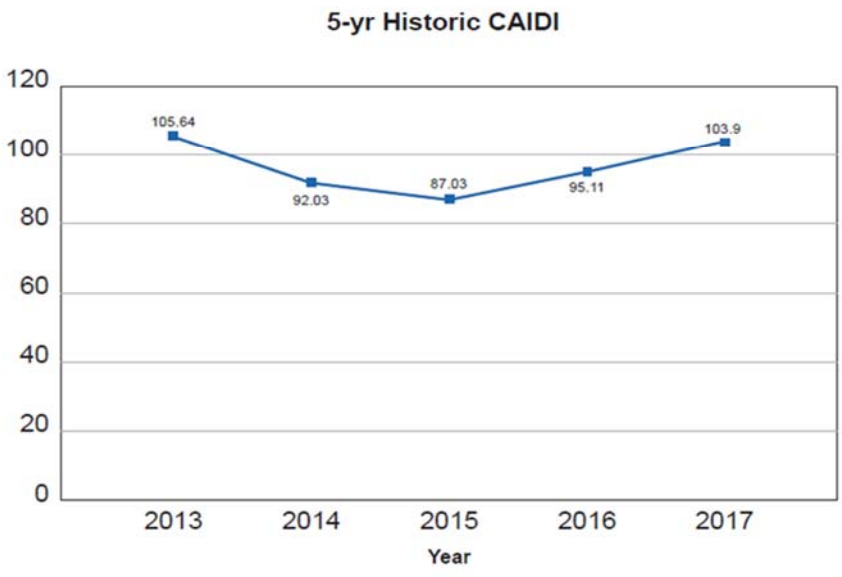
Minnesota Power resolves power quality issues on a case by case basis. When a customer calls with a complaint or questions regarding a power quality issue, Minnesota Power investigates and resolves all problems found to be caused by the Company. In the event of complaints regarding low voltage or high voltage, Minnesota Power will do an investigation of the customer's service and check for loose or overheated connections. If no problem is found or if the problem is intermittent, the Company will install a recording voltmeter. This meter allows for monitoring of the voltage over time and under various customer and system loading conditions. If those recordings demonstrate that the Company is not meeting its prescribed voltage standards, Minnesota Power performs the required maintenance in order to bring the voltage within the limits stated in its Distribution Standards. There are seldom requests from customers for power quality studies. The Company has observed that customers seem to experience fewer power quality issues than in years past.

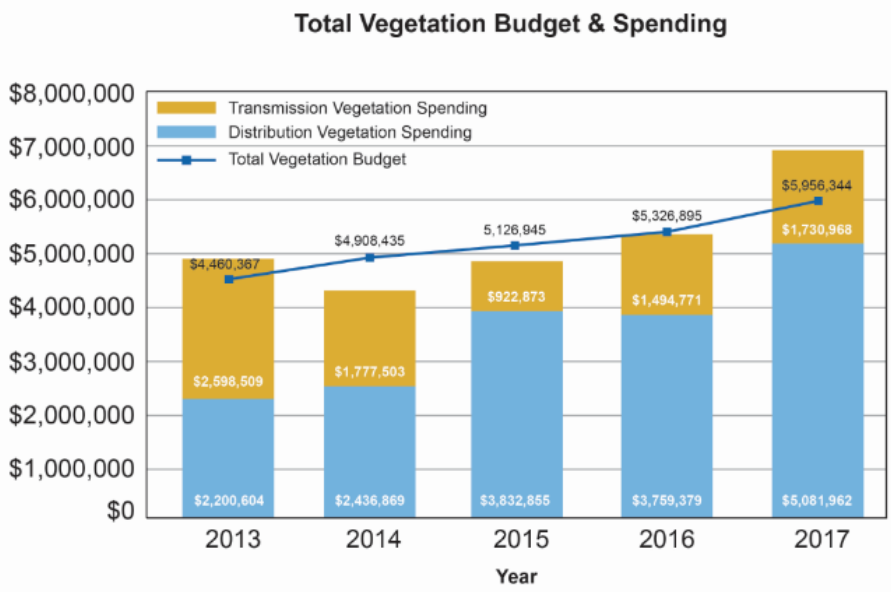
MAIFI

The Momentary Average Interruption Frequency Index ("MAIFI") index provides a measure of the average number of short outages, an interruption of electrical service that Minnesota Power defines as lasting less than five minutes that an average customer experiences in a year. While Minnesota Power has tracked MAIFI statistics for the last decade, it has done so with the knowledge that the Company's MAIFI data collection is and will continue to be incomplete without a significant investment in the technology necessary to enable Minnesota Power to collect and report all momentary outages. The accuracy of the MAIFI index will increase as incident tracking technologies continue to develop and are deployed across the distribution system. The Company continues to evaluate the cost of implementation versus the potential

benefits. As the capability to collect momentary information improves, the performance trend of the statistics may likely appear to degrade.

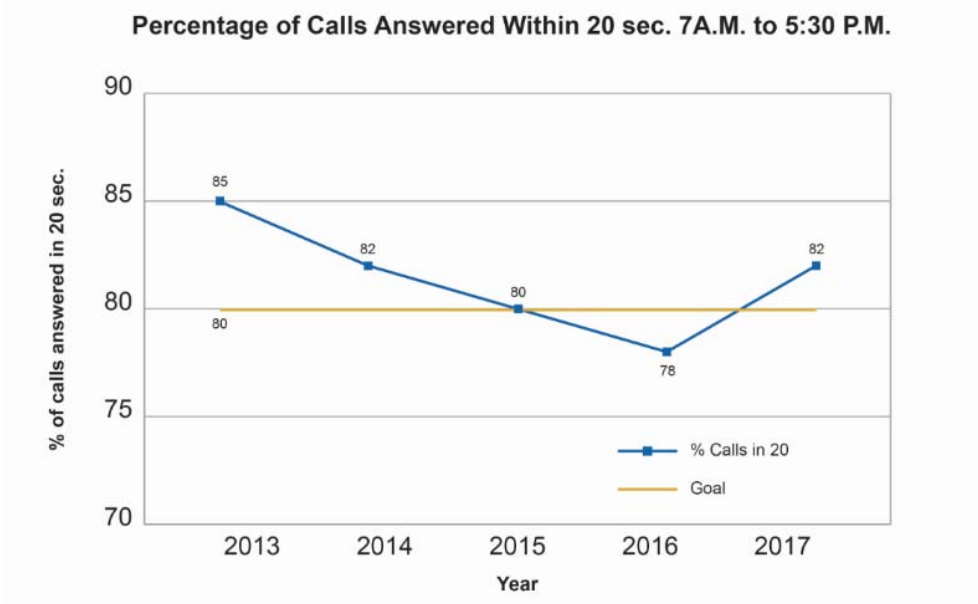
Momentary outage data is collected a few ways. About 30 percent of Minnesota Power's systems report through supervisory control and data acquisition ("SCADA"). The remaining data is collected manually. Some is collected to satisfy a specific customer request, and some is collected when device maintenance is done. The rest is collected in the Outage Management System ("OMS") from customer phone calls reporting a brief interruption.

	MAIFI is the Momentary Average Interruption Frequency Index.
	Customer Average Interruption Duration Index ("CAIDI") is derived by dividing SAIDI by SAIFI. The statistic generally speaks to the amount of time needed to respond to an outage.

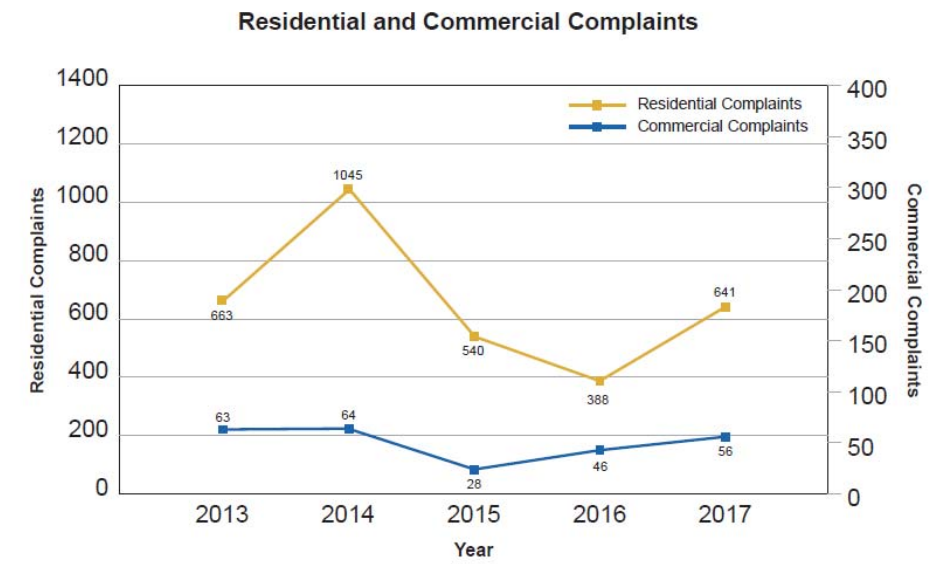


Total vegetation budget and spending on the Minnesota Power's system for 2013-2017.

The following tables outline information related to customer care and response. Detailed information can be found in Appendix A of this Report.

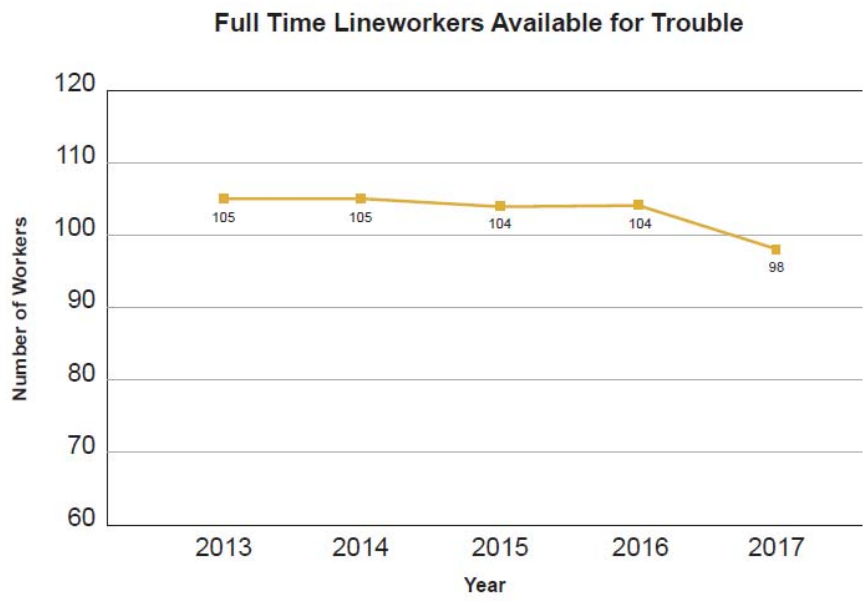


Answering a call in 20 seconds generally equates to three rings. The standard, as defined in Minn. Rule 7826.1200, is 80 percent of calls answered in 20 seconds.



Customer complaints are generally tracked for potential billing errors, possible inaccurate metering, wrongful disconnection, service extension intervals, service restoration intervals, etc.

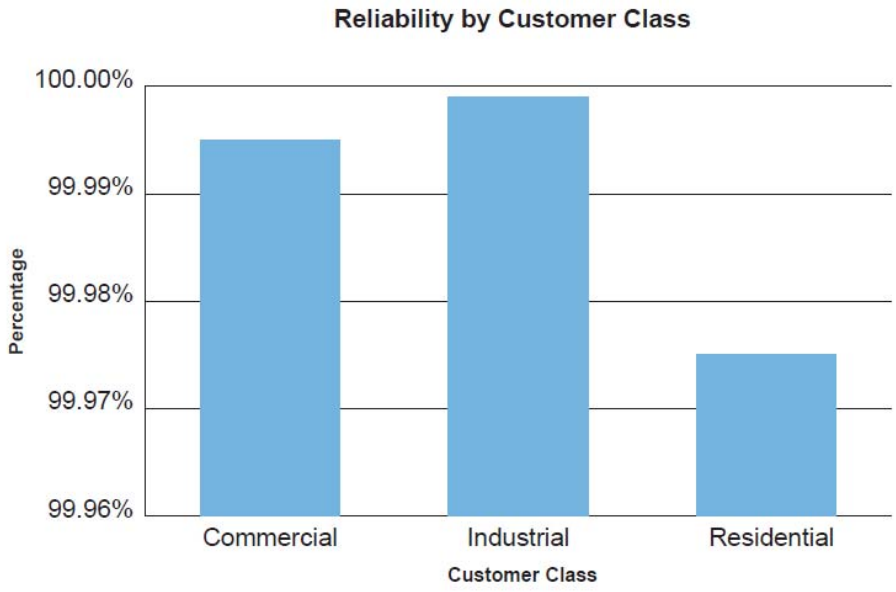
It is important to note that the residential complaints uptick is due in part to increased training surrounding how to track and code customer complaints. The Company also implemented interim rate increases for its Rate Review[2] in 2017.



Minnesota Power had 96 full-time equivalent employees in Field Operations during 2017.

There was continued attrition in the lineworker department in 2017. The Company is carefully monitoring the necessary staffing levels in order to serve its customers in the most reliable and cost effective means possible.

[2] In the Matter of the Application of Minnesota Power for Authority to Increase Rates for Electric Service in Minnesota, Docket No. E015/GR-16-664

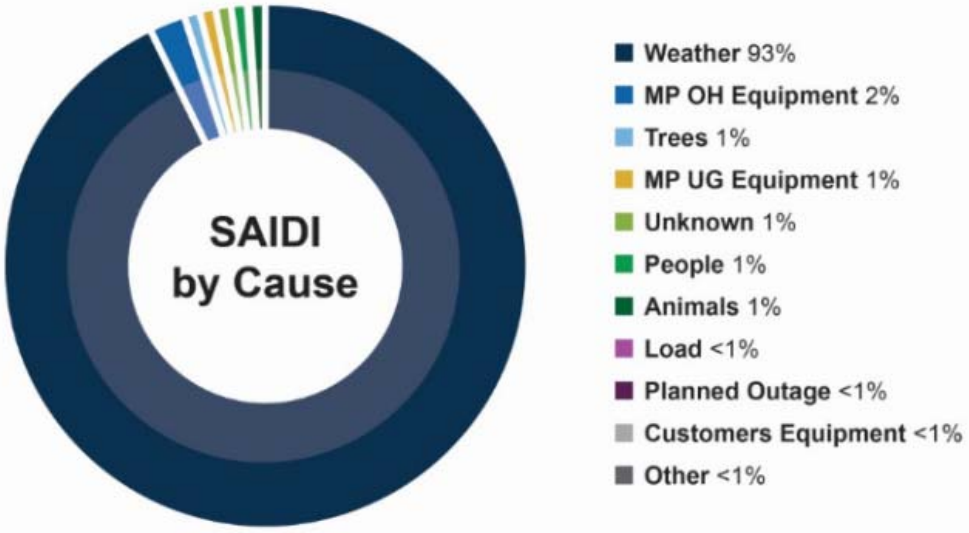


Average reliability by customer class. New requirement in 2017[3]. These averages were calculated by taking outage numbers from each class and determining their overall reliability by time served.

[3] Order Docket No. E015/M-17-252

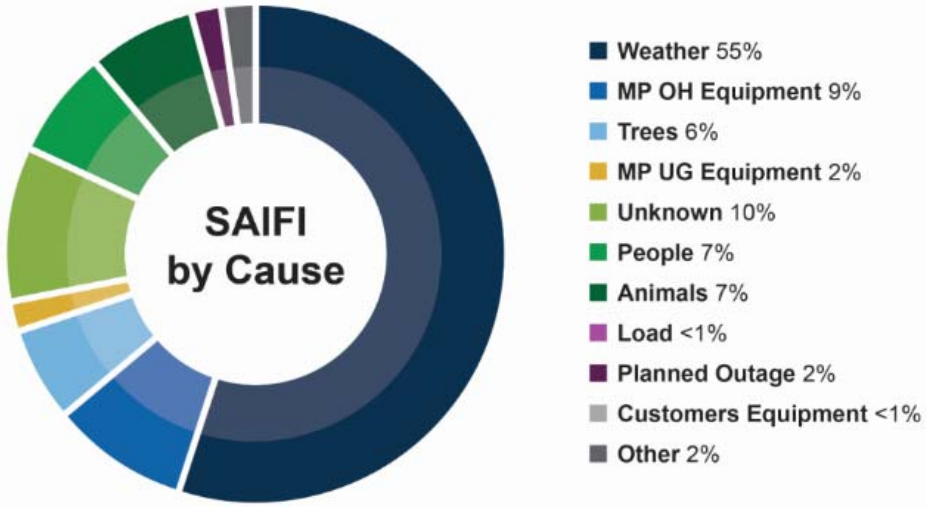
IV. Reliability Cost Matrix

Minnesota Power has provided summary information to assist stakeholders in understanding the Company's overall system reliability and the main factors that affect reliability. The Company has prepared the charts and graphs below in an effort to convey what it believes are the main contributing factors that can impact the long-term reliability metrics of the distribution system. The graphs and charts below show the contributing factors to SAIDI and SAIFI and the relationship between operational performance and cost. The Company strives to provide information in an easily understandable format.



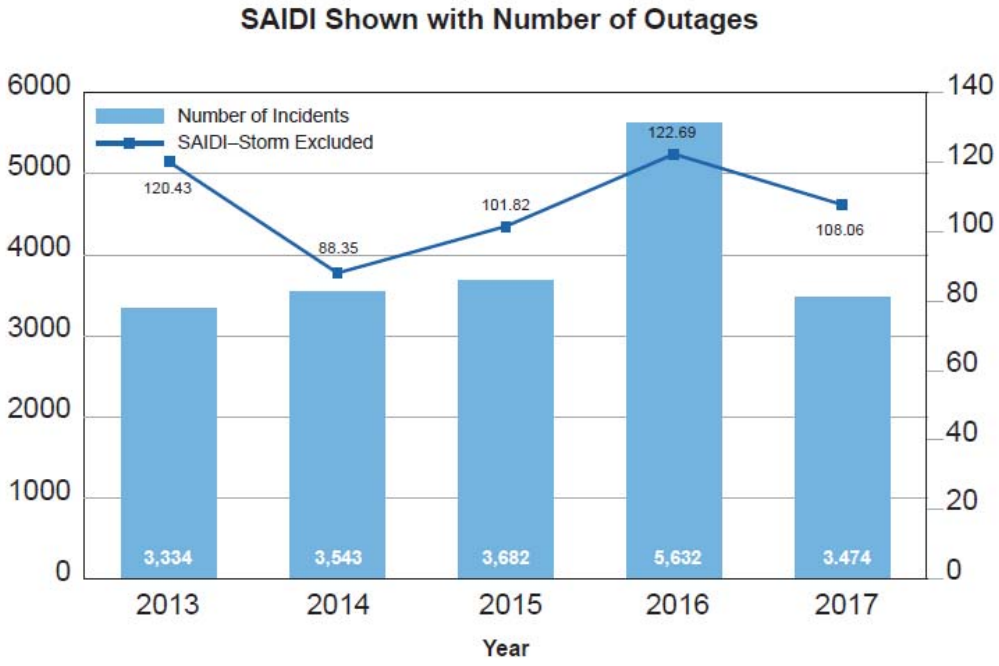
This chart demonstrates the percentage of Company non-storm excluded SAIDI reported by each of the identified causes.

OH – Overhead
UG – Underground

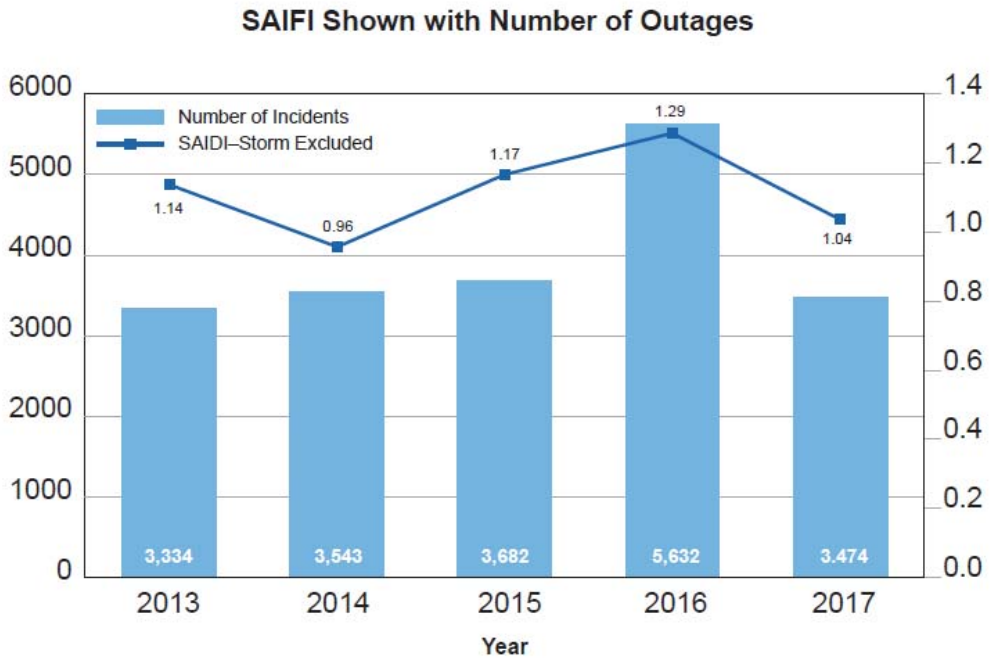


This chart demonstrates the percentage of Company non-storm excluded SAIFI reported by each of the identified causes.

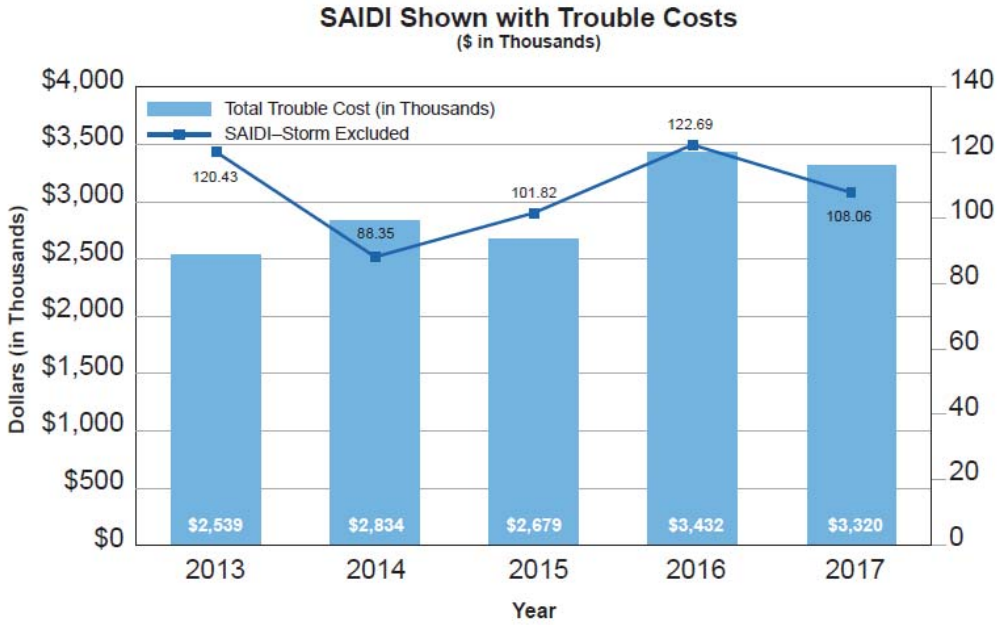
OH – Overhead
UG – Underground



This chart presents SAIDI against Minnesota Power's historic number of outages 2013-2017.

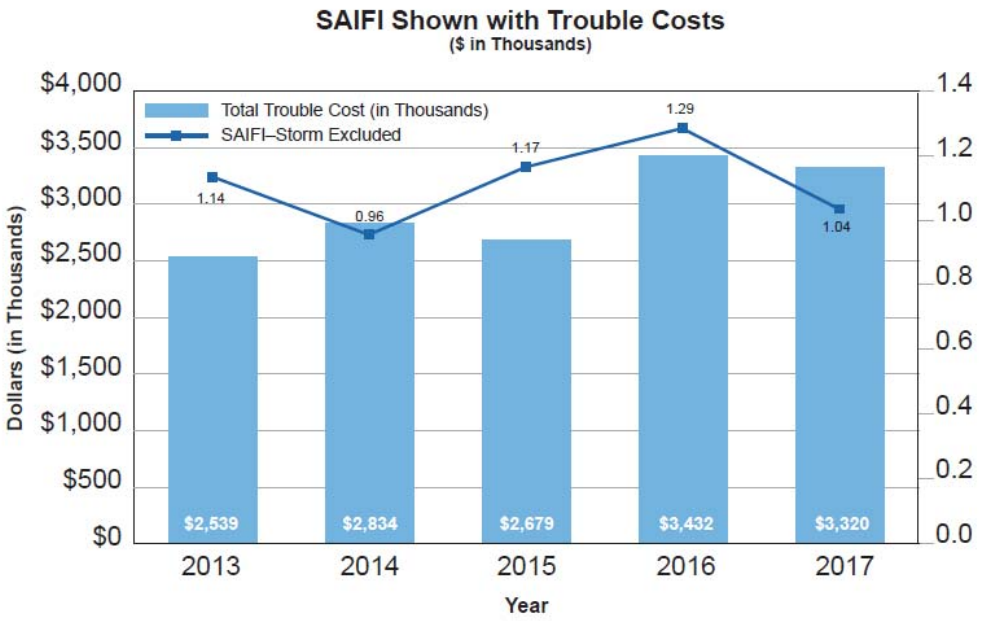


This chart presents SAIFI against Minnesota Power's historic number of outages 2013-2017.



This chart shows SAIDI with operation & maintenance dollars spent on trouble calls 2013-2017.

This is unplanned work done without the replacement of capital assets.



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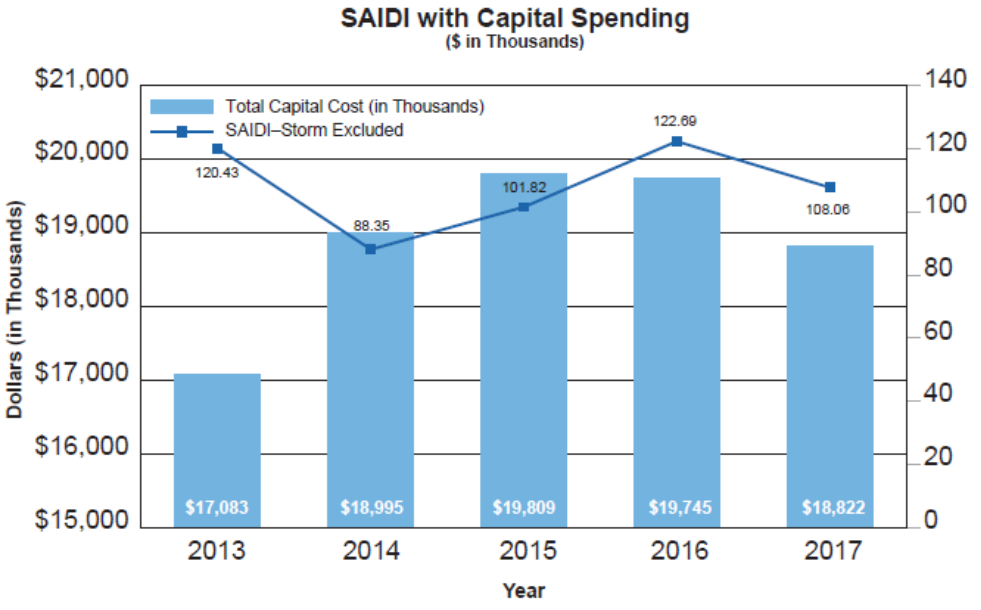
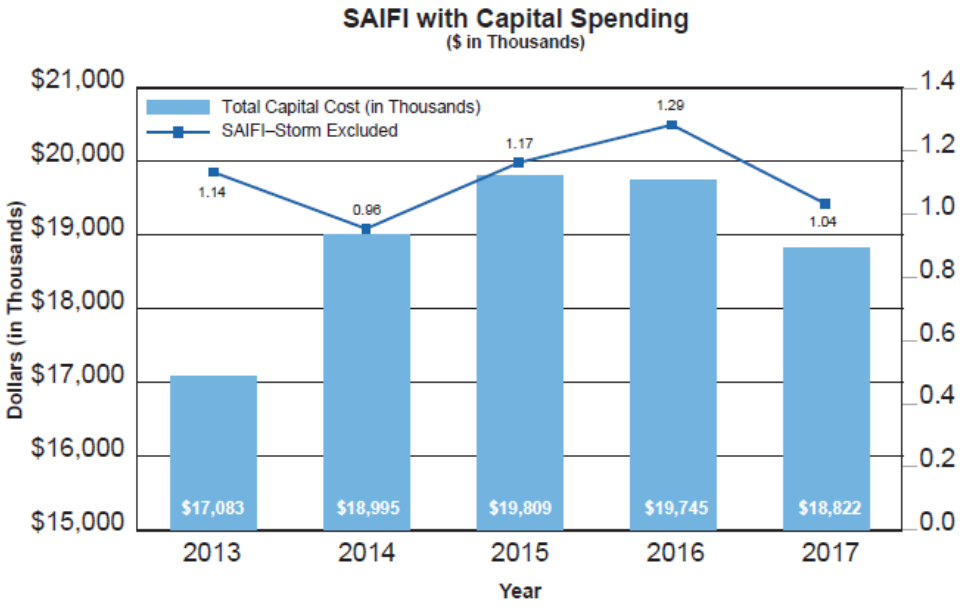


This chart shows SAIDI compared to capital dollars spent on distribution system 2013-2017.



This chart shows SAIFI compared to capital dollars invested on distribution system 2013-2017.

Customer Service

Customer Care

Overall, Minnesota Power is dedicated to providing excellent service to all customers and to achieving high levels of customer satisfaction. The Company recognizes that, above all else, customers continue to expect reliable, affordable, and safe services (Figure 4 on Page 23).

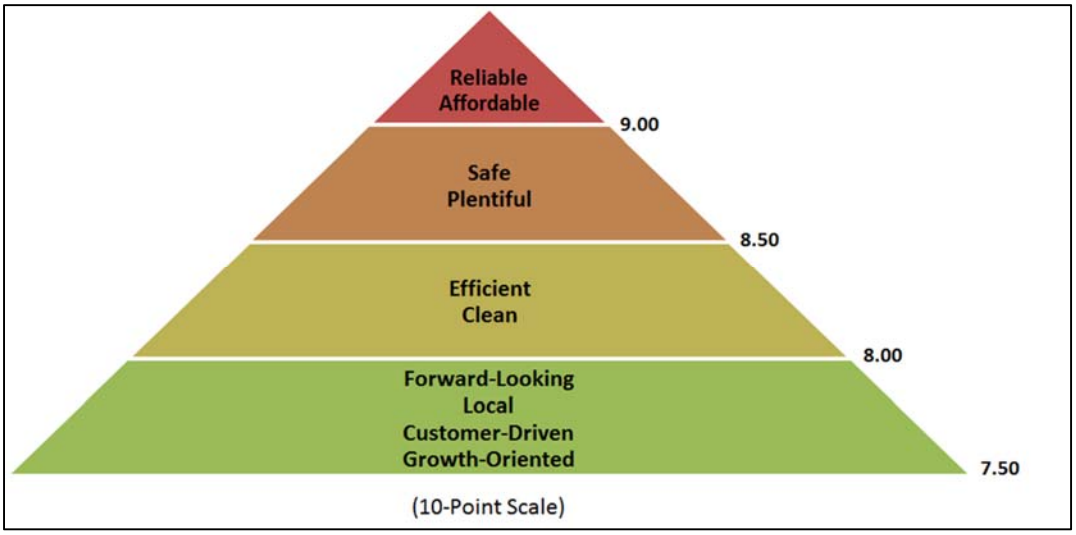


Figure 4: Customer Expectations[4]

Minnesota Power's approach to customer service is to continue to provide the core services customers count on as effectively as possible, leveraging technology advances where applicable and practical to meet the modern day needs of customers. In addition, Minnesota Power searches for opportunities to continuously improve upon services and the customer experience through day-to-day interactions with the Call Center, online tools, efficiency programs, and field operations, as well as through a multitude of offerings in which customers can participate. The Company draws upon customer insights gained through interactions, satisfaction surveys, and benchmarking tools, as well as emerging industry best practices, to ensure that we provide energy solutions that meet the needs and expectations of customers today and into the future.

In addition to providing reliable, affordable, safe, and environmentally-conscious electricity as a general matter, Minnesota Power offers a wide range of services that impact how customers receive, manage, and pay for their electricity. For example, the Company offers multiple rate options and a robust, highly successful conservation program portfolio for residential, commercial, and low-income customers. Beyond its core offerings, the Company has

[4] Minnesota Power Residential Customer Survey, HIMLE RAPP & CO., INC. (2013).

also introduced numerous options for customers, including a Commission-approved residential discount rate called the Customer Affordability for Residential Electricity ("CARE") program;[5] expanded solar rebate programs and free solar energy analysis;[6] an LED street lighting rate, a Time-of-Day with Critical Peak Pricing Pilot ("Time-of-Day Rate"),[7] and the recently-launched community solar garden pilot program[8] – the first in Northeastern Minnesota. Minnesota Power has also expanded online tools for both residential and commercial customers to give them greater access to information about how they use energy and how they can use it more effectively. These types of product and service offerings require continued investment in the infrastructure needed to efficiently and effectively support them, such as an adaptable customer billing system, advanced metering, a meter data management system, and additional communication tools.

Minnesota Power has achieved above-average customer satisfaction ratings according to region-specific customer research and the J.D. Power surveys, ranking in the first quartile on corporate citizenship and in the second quartile on overall customer satisfaction index, power quality and reliability, price, and communications (Figure 5 on Page 25). The Electric Utility Residential Customer Satisfaction Study conducted by J.D. Power, now in its 19th year, measures customer satisfaction with electric utility companies by examining six factors: power quality & reliability; price; billing & payment; corporate citizenship; communications; and customer service. The study is based on responses from 99,145 online interviews conducted from July 2016 through May 2017 among residential customers of the 138 largest electric utility brands across the United States, which collectively represent more than 98 million households.

[5] Docket No. E015/M-11-409
[6] Docket No. E015/M-16-485
[7] Docket No. E015/M-12-233
[8] Docket No. E015/M-15-825

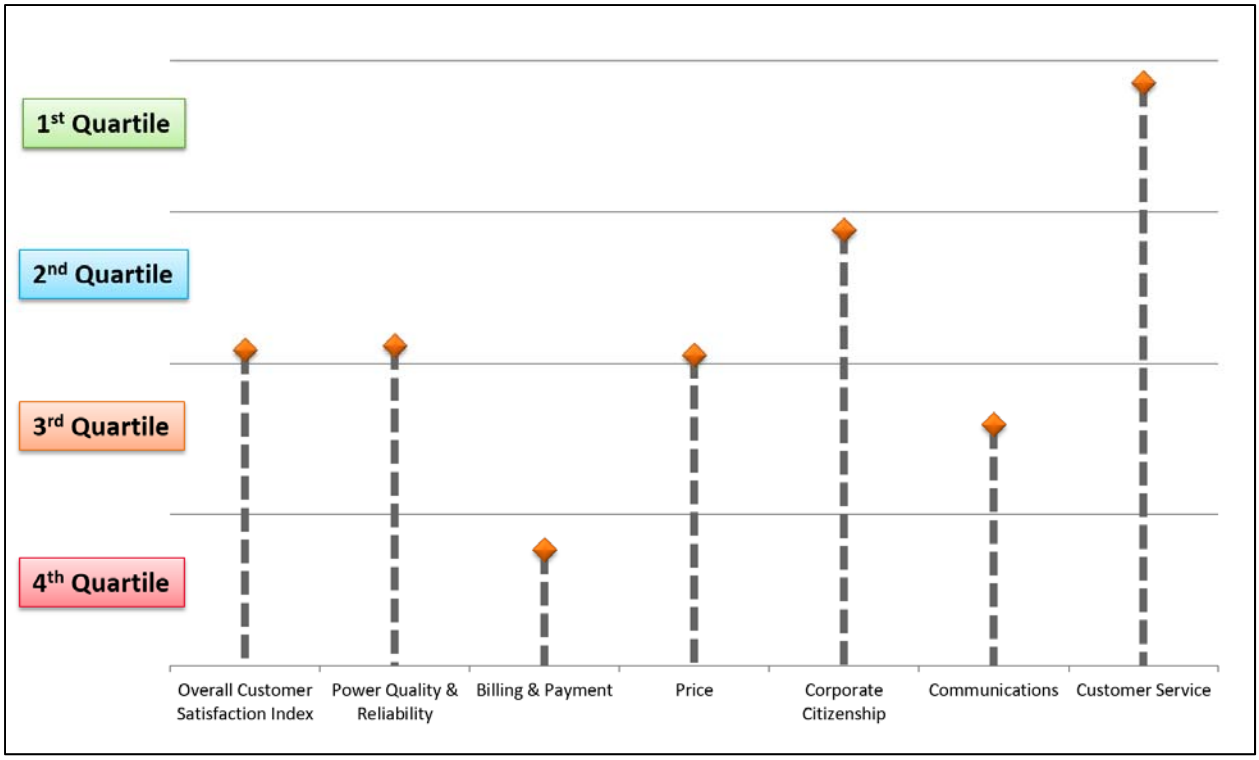


Figure 5: 2017 Electric Residential Percentile - Minnesota Power vs. National[9]

Minnesota Power's trends since the Company first participated in the J.D. Power Electric Utility Residential Customer Satisfaction Study have largely remained steady. Figure 6 on Page 26 illustrates Minnesota Power's performance over the past few years, depicting the six factors for measuring customer satisfaction on the x axis and the index scores on the y axis. Across all six factors, the largest shifts in index scores have been in pricing and customer service. This information, combined with the Company's national quartile rankings, suggests that the greatest opportunities for improvement are in the areas of billing and payment options, including online or mobile communication platforms, as well as communications.

[9] .D. Power 2017 Electric Utility Residential Customer Satisfaction Study.SM

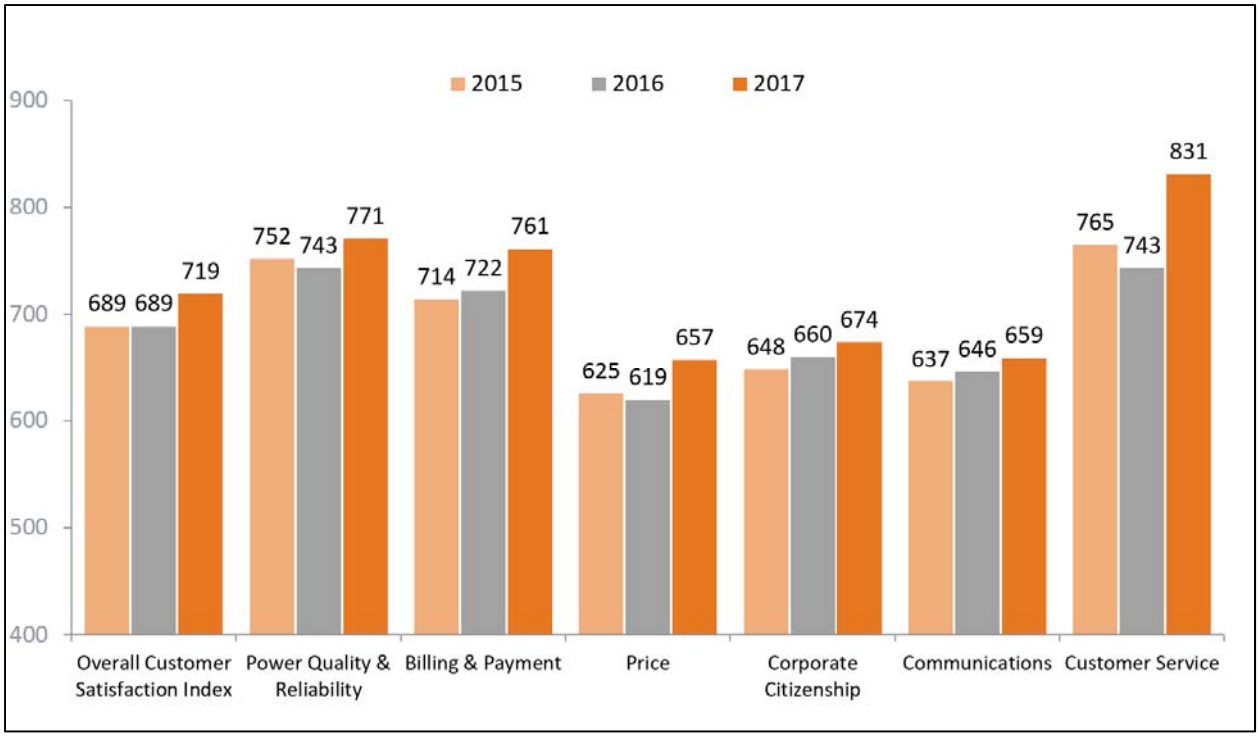


Figure 6: Minnesota Power Overall CSI and Factor Performance – Year-Over-Year[10]

Minnesota Power reviews the quantitative and qualitative information provided through J.D. Power and periodically augments it with regional survey research and focus groups that can provide additional qualitative context about the core opinions that shape customer satisfaction, customer perceptions, and customer service.

[10] J.D. Power 2017 Electric Utility Residential Customer Satisfaction Study.SM

V. System Construction and Protection

Voltage Monitoring

Smart Grid line sensors replaced obsolete line voltage and outage monitors in 2017. The new technology improves system monitoring including outages, voltage levels (under or over), current levels, and power quality. Alarms and profiles will help identify areas that may be experiencing momentary outages or have temporary voltage drop or rise outside of normal operating limits.

Vegetation Management

Vegetation Management is a cost effective and essential way in which to improve reliability and reduce momentaries on the distribution system. System reliability can be adversely impacted by many external environmental factors. Vegetation encroachments are one of the more significant factors that can impact the Company's system. A coordinated and systematic vegetation management program is a key component of Minnesota Power's distribution reliability effort. Minnesota Power has designed a vegetation management program to address each distribution line approximately every six years and transmission lines every seven years. Vegetation management benefits the system in various ways.

- Reduces momentary outage events due to vegetation contact
- Improves system performance by reducing wildlife contacts
- Improves restoration as circuits are easier to access

Minnesota Power's vegetation management program for its distribution system has 339 electrical circuits spanning 4,780 miles of distribution right-of-way. Routine vegetation management activities are typically scheduled on a six year timetable, but this schedule may be advanced or delayed depending on actual conditions. Since vegetative growth depends on many conditions such as: precipitation, temperature, length of growing season, type of vegetation, soil fertility, and the time of year the circuit was previously maintained; the actual maintenance schedule may be longer or shorter than six calendar years.

Vegetation maintenance is normally accomplished through tree trimming, tree removal and/or application of herbicide. In addition to routine vegetation maintenance, Minnesota Power responds directly to tree concerns from its customers. When a customer calls with a tree concern, a Minnesota Power representative visits the customer's property to investigate the situation. In cases where the vegetation creates a potential electrical hazard due to its proximity with the electric facilities, Minnesota Power eliminates the hazard. However, it should be noted that trees can fall onto lines that are well outside of the prescribed vegetation management limits addressed as part of the regular maintenance cycle.

Minnesota Power plans to continue diligent management of the vegetation on its distribution system on a targeted 6 year basic cycle. The Company's vegetation management program utilizes a credentialed forester and two certified arborists in determining the actual vegetative growth, environmental conditions, reliability performance and growing seasons for

each circuit. After examining these factors, the Company determines the timing of circuit clearing activities. This approach has aided in providing customers with reliable service for many years.

Table 2 on Page 28 lists the individual circuits scheduled to receive routine maintenance that have not had vegetation maintenance in the six years prior to December 31, 2017. Together, they represent 7 percent of the Company's distribution system by line miles. 38 percent of these lines miles will be completed in 2018. The remaining 62 percent of these line miles will be completed in 2019.

Sub Feeder	Circuit Name	Mileage	Last Completed	Plan Year	Number of years
AUN-1	Aurora 1	4.4	2011	2018	7
AUN-2	Aurora 2	17.3	2011	2018	7
AUR-313	Aurora 313	3.0	2011	2018	7
BAB-1	Babbitt 1	11.9	2011	2018	7
BAB-2	Babbitt 2	4.8	2011	2018	7
BIW-1	Giants Ridge 1	4.9	2011	2018	7
ESS-1	Eveleth 1	4.8	2011	2018	7
ESS-2	Eveleth 2	1.5	2011	2018	7
HML-1	Half Moon Lake 1	2.3	2011	2018	7
HYN-1	Hoyt Lakes 1	3.1	2011	2018	7
HYN-2	Hoyt Lakes 2	10.6	2011	2018	7
INJ-1	Iron Junction 1	29.9	2011	2018	7
PZG-1	Pierz - Genola 1	1.1	2011	2018	7
RVD-1	Riverton 1	7.6	2011	2018	7
RVT-505	Riverton 505 (46kV)	10.1	2011	2018	7
RVT-506	Riverton 506 (46kV)	24.2	2011	2018	7
RVT-530	Riverton 530 (46kV)	11.8	2011	2018	7
RVT-532	Riverton 532 (46kV)	7.0	2011	2018	7
STC-1	St. Croix 1	2.8	2011	2018	7
STC-2	St. Croix 2	16.3	2011	2018	7
TWN-1	Tower Soudan 1	4.8	2011	2018	7
TWN-2	Tower Soudan 2	13.0	2011	2018	7
HNS-229	Haines Road 229	13.4	2012	2019	7
HNS-236	Haines Road 236	48.8	2012	2019	7
HNS-237	Haines Road 237	28.8	2012	2019	7
WRN-411	Wrenshall 411	53.2	2012	2019	7
CLQ-412	Cloquet 412	2.4	2012	2019	7
Total		**344.0**			

2: Circuits outside of 6-year trimming cycle.

Line Inspection Program

Minnesota Power has an active line inspection program which includes the inspection of each pole on a ten year cycle. Poles that are 20 years and older are bored and checked internally for structural integrity. Approximately 15,000 poles, or ten percent, are inspected annually. Depending on what is found during the pole inspection, one of the following actions is taken:

1) Poles found to be compliant with inspection criteria are identified as needing no work pending the next ten year inspection; or
2) If insects or decay within the pole are found and treatable, action is taken to stop further effects from the insect or decay; or
3) If the pole is beyond treatment or stubbing, it is replaced.

Along with poles, line inspectors also visually inspect electrical equipment and other attachments to the pole, as well as ground mounted equipment looking for potential problems. The line inspectors are given Minnesota Power contact information that allows them to resolve issues requiring immediate response in the field. Other items are addressed through a standardized Groundline Resolution program. Minnesota Power is currently in the second year of its second complete ten year cycle. The Company estimates that the average age of the poles in its service territory are 35 years old and the average age of a replaced pole is approximately 50 years old. Minnesota Power has found this to be a prudent and logical way of evaluating and replacing the poles on its system.

Emergency Preparedness and Mutual Aid

Mutual aid is the cooperation between utilities to provide labor and vehicles to a utility so profoundly affected by outages that it is unlikely they will have the ability to restore power to all of their customers within four to seven days. A robust protocol has been developed between the Midwest Mutual Assistance Group (“MMAG”) which is comprised of 34 investor owned utilities. Generally, a utility calls upon Mutual Aid when they face a week or more of outage times and multiple weeks of restoration work. To begin the process, Mutual Aid member representatives are contacted via e-mail, text message and finally a call by an interactive voice response unit. Each company has a minimum of two (and most have three) Mutual Aid representatives so attendance by each utility on the conference call is virtually guaranteed. At the beginning of a Mutual Aid call, the moderator references a spreadsheet with all of the utility names and their representatives. The moderator will work utility by utility obtaining and recording system status, utility needs and utility resources. After all of the utilities have reported, the most effective response coordination is formulated and finalized. New in 2017 to the MMAG is the implementation of the RAMP UP tool. This is an application that eliminates, in most cases, the need for a conference call and allows utilities to quickly input resource requests or availability of crews to help others through any smart device. The support you can request, or offer, is defined by resources experienced in transmission, distribution, vegetation or damage assessors. Through the mutual aid agreements, requesting companies are required to reimburse responding companies for all costs and expenses incurred in providing mutual aid.

Florida Power and Light requested assistance through the Midwest Mutual Aid Group in September of 2017 in the aftermath of Hurricane Irma – the strongest Atlantic basin hurricane ever recorded outside the Gulf of Mexico, the storm left approximately 1.3 million Floridians without power in the first four hours after Irma made landfall.[11]The Hurricane Irma mutual aid team dispatched from Minnesota Power included 31 lineworkers, underground cable splicers and support staff. The team also included a fleet of equipment consisting of bucket trucks, tracked vehicles, pickups, and trailers. The Edison Electric Institute ("EEI") presented Minnesota Power and Superior Water, Light and Power with the association's "Emergency Assistance Award" for their outstanding work assisting customers affected by Hurricane Irma.

Figure 7: Accepting EEI Emergency Assistance Award

Tim Lauepple, manager of line operations, holds EEI's Emergency Assistance Award. With him are Chris Fleege, senior vice president MP operations, and Brad Oachs, ALLETE senior vice president and president of regulated operations.

The award is presented to EEI member companies to recognize an outstanding response in assisting other electric companies in power restoration efforts after service has been disrupted by severe weather conditions or other natural events. The winners were chosen by a panel of judges following an international nomination process, and the awards were presented during EEI's Winter Board and CEO meeting in Scottsdale, Arizona.

[11] Miller, Brandon. "All the Records Irma Has Already Broken." CNN. September 10, 2017. www-m.cnn.com/2017/09/10/us/irma

Minnesota Power also responded to the restoration efforts needed in Puerto Rico following Hurricane Maria (and, in fact, recently sent a second wave of employees to aid in the relief efforts). Preparations began in December for Minnesota Power's response to the Puerto Rico mutual aid call-out. Relief efforts are continuing in 2018 and details will be outlined in the Company's next annual report. The mainland industry response to restore power in Puerto Rico, a U.S. territory, includes about 1,100 lineworkers who will support the overall hurricane response led by the Puerto Rico Electric Power Authority, also known as PREPA, and the Army Corps of Engineers. EEI organized the industry effort after PREPA requested EEI's help in late October.

Figure 8: Minnesota Power Crews in Puerto Rico

Minnesota Power crews donned T-shirts and took a quick photo after arriving in Puerto Rico.

Cybersecurity

Since the July 12, 2016 visit by Commissioners to Duluth, Minnesota Power has continued building out a multi-layered cyber security program based on the Center for Internet Security's internationally accepted Critical Security Controls for Effective Cyber Defense framework to prevent, limit the impact of, and ultimately recover from long term outages caused by cyber threats. In practice, Minnesota Power's cyber security program addresses:

Dedicated Cyber Security Program and Leadership – A seven person Cyber Security & Compliance department led by a Manager focused solely on cyber security and compliance has been created to continuously refine its cyber security strategy, advocate for its adoption, engage

Minnesota Power employees on the importance of cyber security, communicate/raise awareness of cyber security best practices, and prioritize/follow-through on cyber security improvement initiatives.

External Sensing – Minnesota Power actively augments its cyber security expertise/intelligence with information obtained from multiple external sources. Examples include: active interaction with North American Electric Reliability Corporation ("NERC"), Electricity Information Sharing and Analysis Center ("E-ISAC"), Downstream Natural Gas Information Sharing and Analysis Center ("DNG-ISAC"), EEI, North American Transmission Forum, Electricity Subsector Coordinating Council Cyber Mutual Assistance ("ESS CMA") program, and various other resources via the internet; retention of a third party cyber security services firm to continuously monitor and analyze the Company's internal cyber environment; biannual engagement of external cyber security firms to assess Minnesota Power's cyber environment vulnerabilities and, starting in 2018, perform penetration testing against it; and the performance of regular audits of the bulk electrical system cyber environment/practices by the Midwest Reliability Organization ("MRO") and financial cyber environment/practices by Price Waterhouse Coopers.

Internal Sensing – Minnesota Power actively monitors the state of its internal cyber security posture to determine where further cyber security investments should be made. External and internal vulnerability assessments with both broad and targeted objectives are performed approximately bi-annually, and each year Minnesota Power's Internal Audit department performs multiple targeted independent audits of the company's cyber environment. Minnesota Power's executive leadership and Board of Directors are actively monitoring the current state of the company's cyber security posture and progress made on the execution of its cyber security strategy.

Intrusion Prevention – Minnesota Power's approach to preventing cyber intrusions is multilayered. First, the Company trains its employees on a recurring basis to practice good cyber security hygiene to improve their recognition of suspicious activity and reduce their risk of inadvertently introducing malware to its system. This training's effectiveness is measured on a recurring basis through a simulated phish testing tool. Second, the Company designs its cyber environment to be hardened against cyber intrusions. This means a) its entire internal network is segmented off from the internet, b) operational technology is further segmented off within the internal network, c) a network access control system is in place that prevents unauthorized devices from connecting to its internal network, d) cyber systems are regularly patched, e) all cyber systems deployed on its internal network require strong passwords to access them, f) e-mail attachments are scanned for viruses, g) employee access to malicious web sites is blocked based on information received from a third party (Web Sense), and h) operational technology consoles are not allowed to access e-mail services or the internet. Third, the Company has implemented a vulnerability management system (Tenable) that is aware of the cyber technology deployed in its environment, informs the Company when external sources indicate it contains vulnerabilities, and recommends which patches to apply to mitigate those vulnerabilities.

Intrusion Mitigation – Minnesota Power's cyber intrusion mitigation program consists of nine primary components. First, Minnesota Power employs multiple layers of embedded segmentation within its cyber environment. If a cyber intrusion gets past the preventative defenses, its impact is limited only to the segment that was compromised. Furthermore, breaching a network segment does not provide automatic access to the devices located on it – their local access control measures must first be overcome. Second, the Company is part way through an initiative to encrypt stored and in transit data. This means that even if a network segment and its associated devices were compromised, the intruder would not be able to read/interpret/use the data stored/traveling on it. Third, the Company has implemented multiple Security Information and Event Monitoring ("SIEM") tools that utilize different methods to detect suspicious activity on its networks, desktops, and servers. Fourth, to further enhance its monitoring capability, the Company has retained an external party to monitor its cyber environment and assist in identifying suspicious activity. Fifth, the Company is able to import cyber security alerts provided to us by external sources into its monitoring tools to rapidly determine if the cyber threat is present in its cyber environment. Sixth, the Company has implemented a tool (Carbon Black) that enables it to rapidly quarantine infected devices and remotely cleanse them. Seventh, all critical Minnesota Power cyber systems are regularly backed up. Eighth, all data center based cyber systems can be recovered to an alternative Minnesota Power data center. In the case of the Company's Energy Management System, this failover is part of a larger operational plan for controlling the power grid from a backup facility. Lastly, Minnesota Power hones its ability to rapidly respond to and recover from cyber-attacks through active participation in NERC's GridEx simulation. This broadly-scoped recurring exercise tests Minnesota Power's Cyber Security Incident Response Plan, builds proficiency in its execution and continuously improves it.

Taken together, the above areas of focus provide Minnesota Power's cyber security program with a solid foundation on top of which many layers of defense are built. They ensure its critical vision, leadership, external sensing, internal sensing, intrusion prevention, and intrusion mitigation aspects are accounted for, strategically addressed, and continuously improved.

VI. Reconnect Pilot

As a part of this SRSQ Report and in accordance with the guidance provided by the Commission in Minnesota Power's rate case,[12] Minnesota Power hereby resubmits its proposal for a Reconnect Pilot Program. Under this Pilot, customers would have a more efficient and cost-effective way to get reconnected in the event that their service has been disconnected for non-payment. The basis for this proposal is three-fold:

1. Timelier reconnection once terms, consistent with Minnesota rules, statutes, and the Electric Service Regulations of Minnesota Power, have been met by the affected customer.
2. Safety for the customer and Minnesota Power field service personnel.
3. Leveraging available technology to streamline services and decrease costs for the customer and Minnesota Power.

Timeliness in Reconnecting Service

The Reconnect Pilot utilizes advanced metering infrastructure ("AMI") with remote technology capability to implement a more automated reconnection process, making it possible to reconnect customers in a timelier manner. Under this pilot, residential customers with the applicable meter capability will be given the option to be reconnected remotely. A customer service representative would initiate the reconnection and stay on the line with the customer to walk them through the process and affirm the reconnection. By using this process, a truck would not have to be sent for reconnection. Depending on customer location, time of day, and day of week, this could mean the difference between reconnection in minutes versus potentially days.

The standard reconnection fee of $20 would apply to any daytime (normal business hours) reconnection. Under this pilot, a discounted fee for after-hours reconnection would be offered to those customers with this meter capability at their premises. The reconnection fee is currently $100 for after hours (after 4:30 PM, before 8:00 AM and on Saturdays, Sundays, and legal holidays). The primary basis for the current difference in charges for reconnection after hours is that there are decreased staffing levels during this timeframe and a reconnection would generally entail increased labor costs that involve overtime pay. If a remote reconnection option is available, accessible after-hours staff would presumably be able to conduct this service from the office or service center without calling in additional resources or rolling a truck to the customer site.

[12] In the Matter of the Application of Minnesota Power for Authority to Increase Rates for Electric Service in Minnesota, Docket No. E015/GR-16-664

Time	Reconnection Fee
8:00 am – 4:30 pm M-F	$20
After 4:30 pm, before 8:00 am, Saturdays, Sundays, and legal holidays[13]	$100
Any time (Reconnect Pilot proposal)[14]	$20

3: Reconnection Fee Timeframes

Through the Reconnect Pilot, a significantly reduced fee of $20, which is consistent with the normal business hours fee, would be offered (refer to red-lined tariff sheets in Appendix C). This represents reconnection cost savings for affected customers of 80 percent, which in turn leaves more customer dollars available to pay for energy services or non-energy-related expenses the customer may have.

Safety

Safety is a core value of Minnesota Power and part of its operational and corporate culture. As such, opportunities to leverage technology that will further ensure safety of customers and employees should be explored in earnest for effectiveness and efficiency. Remote reconnection eliminates the need to send a Minnesota Power employee on site, thus reducing the amount of time needed to complete the reconnection and/or avoiding the potential hazards that may exist on site. For example, personnel trying to access the meters physically encounter issues where the meters are blocked by items stacked around or against the side of houses. Also, in the winter there is often a large amount of snow with no clear path for access and potential slip/trip/fall hazards with the snow and resulting ice from melting and dripping off the roof. In addition to field hazards, there are equipment wear and tear concerns, particularly where more frequent disconnection activity is observed. Meter sockets, which are the customer's responsibility to maintain and replace, will have a shortened life in instances where disconnections and subsequent reconnections occur more frequently. The costs to replace a meter socket can range from $700 - $2,000, which represents a significant investment, especially for those where energy affordability is already a challenge. As wear and tear occurs, other safety hazards can emerge as well. For instance, wear and tear can result in failing sockets that can present a fire hazard.

AMI meters have the capability to detect voltage on the load side of the meter if they are in a disconnected state. They will not reconnect if voltage on the load side is present. This is a safety precaution to ensure the Company is not reconnecting while a generator is running or any other source is energizing the customer's equipment (such as an extension cord from the neighbor's house).

Of those meters with advanced metering infrastructure, not all have the remote reconnect capability. It would not be economical to automatically configure all installed AMI technology with this capability, as there is an increased cost of nearly 28 percent per meter. At

[13] Legal Holidays observed: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, Christmas Day

[14] Limited to those with these metering capabilities.

this time, and based on the percentage of customers who are affected by disconnections (refer to Appendix A for further information regarding disconnections), and subsequent reconnections, the Company has determined that, based on current costs, it makes sense to incur the incremental cost only where the communications infrastructure is in place and where the level of disconnect/reconnect activity warrants the investment. Customers with frequent disconnections (four or more over a five year period), difficult access, hazardous location, and threats such as a dog or other potential unsafe condition would be prioritized for the Pilot, as this would represent the best fit and the greatest savings opportunities for both the customers and the Company from a fee and operational perspective, respectively. As technology advances and incremental costs potentially decrease, the availability to offer this capability to its customers will likely expand. Completing this Pilot in advance of that will help to ensure that systems and processes are in place to scale this offering. Given the limited nature of this pilot and that the cost savings are primarily realized by customers affected, there are no material rate impacts. The metering technology needed to conduct the pilot is currently available and either in place or ready to be installed using existing inventory supplies. Customer cost savings are realized by those affected by disconnections and who request after-hours reconnection.

Leveraging Technology

The reason Minnesota Power is proposing this as a pilot is that this type of metering capability is not widely or uniformly deployed throughout its service territory. As discussed in Appendix A to this Report, over 40 percent of Minnesota Power's meters are currently AMI. Minnesota Power is deploying AMI throughout its service territory currently at a rate of approximately 6-8 percent per year, continuing over the next several years. As this infrastructure is not available everywhere, a pilot of this nature will provide insight regarding the customer experience and timeliness of reconnection, scalability and effectiveness of solution, operational savings, and safety benefits. Further, the meter capabilities to allow for such functionality are an additional cost.

The Pilot would help to inform the overall benefits realized from an increased investment in this technology as compared to the incremental cost increases. Anticipated benefits are first and foremost for the affected customers. In short, it is a faster, safer, and potentially less expensive way to reconnect the customer after hours, providing for more timely restoration of service at a lower cost. While the majority of reconnections occur during normal business hours, after-hours reconnections are generally more distressing for customers and an increased reconnection fee can exacerbate the circumstances. Minnesota Power believes this Pilot is an initiative worth exploring. The Company will be able to leverage technological capability in the field, while capturing savings potential for the Company and the rest of its customers because the transaction would not require rolling an additional truck roll to reconnect the customer. It is a faster and safer way to reconnect customers and is an excellent example of how technology modernization can improve processes, increase safety, save time, and minimize expenditure of resources.

In order for remote reconnection to work, a remote disconnection signal would have to have been sent to the meter. Minnesota Power appreciates that this may draw some concern or criticism. It is important to recognize that disconnection processes, per the disconnection rules and processes outlined in Minn. Stat. §§ 216B.096, 216B.0976, and 216B.098, and Minn. R. 7820.1000 through 7820.1300 and 7820.2400 through 7820.3000, must be followed regardless of technology used. These procedures are also described in the Electric Service Regulations of Minnesota Power that are part of the Company's Commission approved tariffs. This includes, but is not limited to, working with customers to identify payment agreements in an effort to avoid disconnection, a personal visit where personal contact is attempted, and on site personnel at the time of disconnection with the ability to accept payment. While an argument could be made regarding the costly nature of existing processes, this is not within the scope of this pilot proposal nor is it within the scope of the SRSQ filing itself. Rather those types of changes would require rulemaking and/or legislative action.

Commission Action Required

Commission approval is needed to offer the reduced reconnection fee proposed under this Pilot because it entails a change to the electric service regulations of Minnesota Power and represents a cost difference that would only be available on a limited basis to a subset of customers with this meter capability. Redlined and clean versions of the proposed changes[15] are provided as Appendix C. Commission approval is not required for the use of these meters in the field so long as disconnection rules and statute are followed. [16]

VII. Conclusion

Minnesota Power appreciates the opportunity to provide relevant information regarding its distribution system. This information can be utilized by stakeholders to gain a better understanding of the Company's distribution system and the holistic planning that goes into maintaining the system's robustness and resilience. The multitude of factors that affect the system necessitates a nimble and forward-looking planning process. Minnesota Power works towards the goal of meeting stakeholders' needs while also maintaining the core tenants of a safe, affordable and reliable grid. Minnesota Power respectfully submits information on its Safety, Reliability and Service Quality metrics and requests Commission approval of its Reconnect Pilot Program, which aims to make service reconnections more timely, affordable and safe.

[15] Section VI, page 3.5, Regulation 20.A, Revision 17

[16] Minn. Stat. §§ 216B.096, 216B.0976, and 216B.098, and Minn. R. 7820.1000 through 7820.1300 and 7820.2400 through 7820.3000

Annual Safety Reporting in Accordance With Minn. Administrative Rule 7826

(Docket No. E-999/R-01-1671)

Safety, Reliability and Service Quality Standards Report

Contents

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ANNUAL SAFETY REPORT: 7826.0400

A. *Summaries of all reports filed with United States Occupational Safety and Health Administration and the Occupational Safety and Health Division of the Minnesota Department of Labor and Industry during the calendar year.*

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	10	6	15

Total number of days of job transfer or restriction	Total number of days away from work
629	139

Injuries	Skin disorders	Respiratory conditions	Poisonings	All other illnesses
31	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 electrical system failures and all remedial action taken as a result of any injuries or property damage described.*

There were no incidents in 2017 in which injuries requiring medical attention occurred as a result of downed wires or other electrical system failures.

A listing of all incidents in which property damage resulting in compensation occurred as a result of downed wires or other electrical system failures and the remedial actions taken is included in the following table:

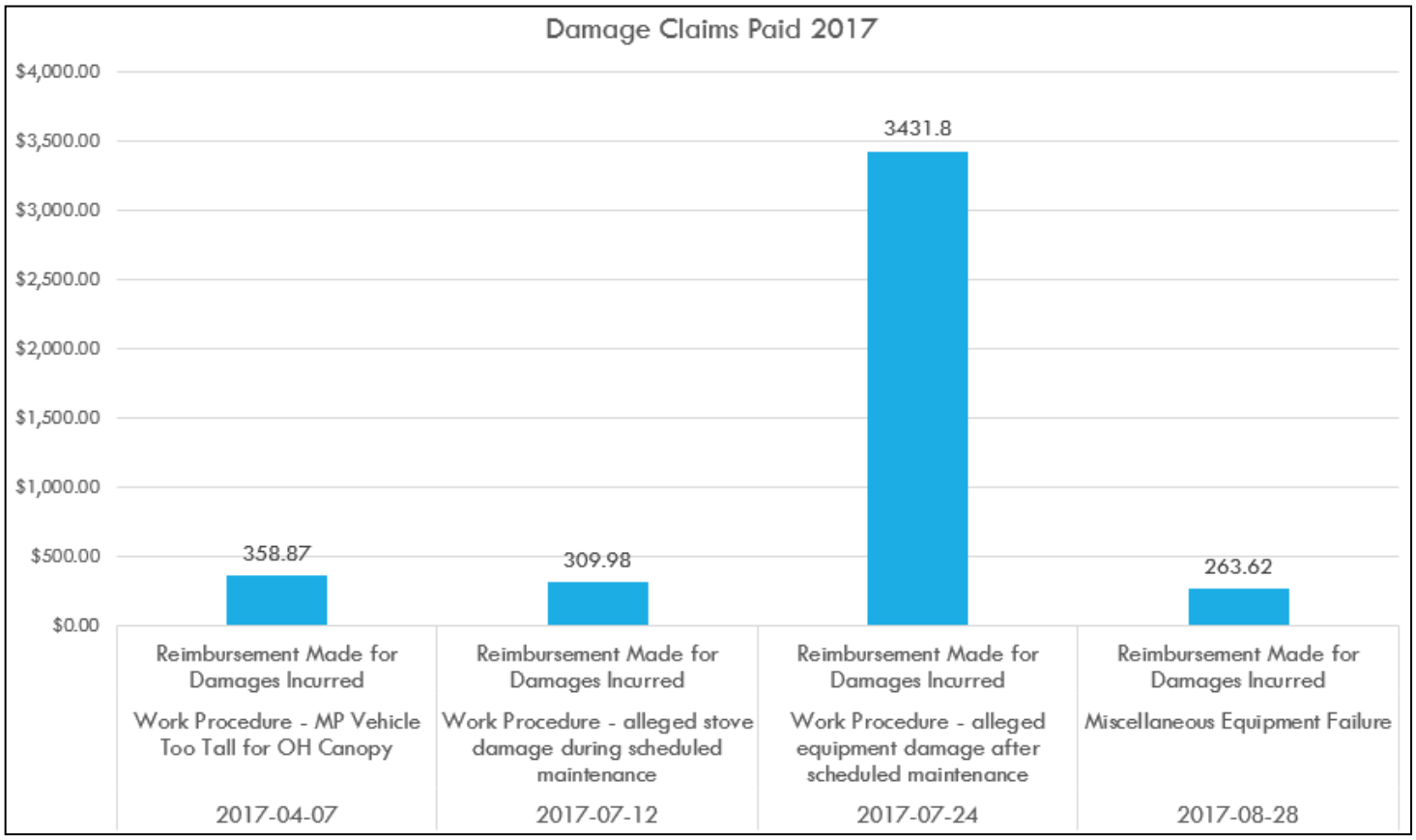

FIGURE 1: DAMAGE CLAIMS PAID 2017

Reliability Reporting Requirements: 7826.0500

Subpart 1. Annual reporting requirements. On or before April 1 of each year, each utility shall file a report on its reliability performance during the last calendar year. This report shall include at least the following information:

The utility's SAIDI, SAIFI and CAIDI are calculated using the data excluded by the IEEE 2.5 beta method (data from major event days). Included are the causes of outages occurring on major event days as well as the outage data using two different methods and detailed explanations of the differences: A major event is excluded based on the 2.5 beta method defined by the IEEE Standard for Distribution Reliability. The normalization process is designed to remove all outage records attributed to a specific, major event such as a large storm. Non-Major Event normalized means that all major events such as a wind storms, ice storms, etc, are included in the reliability calculations. Since there were three excluded events in 2017, these values are different from the Major Event normalized values.

A. The utility's SAIDI for the calendar year by work center and for its assigned service area as a whole:

SAIDI (in minutes) **2017**	108.06

SAIDI calculated from Major Event Excluded data:

SAIDI (in minutes) **2017**	47.04

Major Event normalized using the IEEE 2.5 Beta method:

SAIDI (in minutes) **2017**	108.06

Non-Major Event normalized:

SAIDI (in minutes) **2017**	155.10

B. The utility's SAIFI for the calendar year by work center and for its assigned service area as a whole.

SAIFI (# of outages) **2017**	1.04

SAIFI calculated from Major Event Excluded data:

SAIFI (# of outages) **2017**	0.20

Major Event normalized using the IEEE 2.5 Beta method:

SAIFI (# of outages) **2017**	1.04

Non-Major Event normalized:

SAIFI (# of outages) **2016**	1.24

C. The utility's CAIDI for the calendar year by work center and for its assigned service area as a whole:

CAIDI (outage min/customer) **2017**	103.90

CAIDI calculated from Major Event Excluded data:

CAIDI (outage min/customer) **2017**	236.03

Major Event normalized using the IEEE 2.5 Beta method:

CAIDI (outage min/customer) **2017**	103.90

Non-Major Event normalized:

CAIDI (outage min/customer) **2017**	125.15

D. *an explanation of how the utility normalizes its reliability data to account for major storms;*

In 2017, there were three major events excluded based on the 2.5 beta method defined by the IEEE Standard for Distribution Reliability. The normalization process is designed to remove all outage records attributed to a specific major event, such as a large storm. At Minnesota Power, normalization is performed only when the following criterion is met for a major event:

Event SAIDI is greater than the Threshold for Major Event Days:

As storms occur, customers call into Minnesota Power representatives and/or the Interactive Voice Response ("IVR") system to report outages. Those calls are then used to create trouble orders using a prediction engine within our Outage Management System ("OMS"). That information, along with information from other sources, is entered into a database for comparison. Often the weather event will have been detected by multiple sources. Duplications are eliminated and an accurate time and duration for each event is calculated.

Once all data streams have been combined and duplications have been eliminated, the resulting database is analyzed by the Reliability Engineer. The database is queried to look for timeframes when the Company SAIDI has incurred an incremental increase above the Threshold for Major Event Days. When sets of data are discovered that meet the criterion discussed above, that data is flagged and set aside. What remains is Minnesota Power's Storm Normalized Data.

Threshold for Major Event Day calculation description:

A Threshold for a major event day (T_{med}) is computed once per year. First, assemble the 5 most recent years of historical values of daily SAIDI and discard any day with a SAIDI value

of zero. Then, compute the natural log of each SAIDI value and compute the average (alpha) and standard deviation (beta) of the natural logarithms. The major event day threshold can then be found by using this equation: T_{med} = exp (alpha + 2.5*beta). If any day in the next year has SAIDI greater than T_{med}, it qualifies as a major event day. Note that an excluded event is not limited to a single day and may span consecutive days depending on the severity of the event.

As stated earlier, storm normalization is designed to exclude data from rare, major events that may skew the overall data. In the last 5 years, there were generally an average of 1-3 major events excluded. 2016 is an outlier in that it saw 7 major storm events excluded.

Year	Number of Excluded Events
2017	3
2016	7
2015	2
2014	3
2013	1

TABLE 1: MAJOR EVENT TOTALS BY YEAR

It is important to note that Minnesota Power's Geographic Information System mapping system was completed in 2004. This updated version shows all of the Company's customers by electric continuity (feeders), whereas the older version was simply a drawing without the electric continuity. In the older version the margin of error for counting customers affected by an outage was much greater. The addition of electric continuity will assist the Reliability Engineer in accurately determining a true customer count for the purposes of calculating SAIDI, SAIFI, etc.

In addition to the GIS improvements noted above, Minnesota Power implemented GE's PowerOn as an OMS in 2007. Minnesota Power is committed to providing the personnel and financial resources necessary to continually improve reliability reporting and response to outages.

E. An action plan for remedying any failure to comply with the reliability standards set forth at part 7826.0600 or an explanation as to why non-compliance was unavoidable under the circumstances:

Minnesota Power did not meet the MPUC thresholds for both SAIDI and SAIFI in 2017. The majority of the outages throughout 2017 were attributed to weather and equipment failure. Minnesota Power has placed an increased focus on distribution equipment maintenance and replacement in 2017 and will continue to develop these programs into the future. Two Assistant Engineers were hired in May 2017 to develop a trouble order tracking and remediation system. This system was put into place in the fall of 2017. These assistant engineers were also responsible for implementing a switch replacement blanket and they have started auditing the Company's system to improve its asset management preventative maintenance program throughout our service territory. This preventative maintenance program will be fully developed in 2018 and is anticipated to increase the reliability of distribution assets installed throughout Minnesota Power's electrical system.

F. To the extent technically and administratively 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:

33 Line –

- **February 21, 2017 -** 33L locked out due to a failed recloser on a GRE line that is tied to this bulk distribution feeder. The outage lasted 66 minutes while crews worked to safely switch around the GRE tie. No follow up required.

59 Line –

- **March 3, 2017** - 59L locked out due to a vehicle accident. Crews were able to switch around and isolate the damage. Due to this switching 1,916 customers were restored after 44 mins, 327 customers were restored after 141 minutes for an average of 59 minutes. Crews replaced the pole that was broken by the vehicle. No further action is necessary.

- **March 7, 2017** - 59L locked out due to a large wind storm that affected most of Minnesota Power's service territory. Crews were able to switch to restore 1,230 customers after 37 minutes, 327 customers out 48 minutes, then restore the remaining 1,073 customers after 597 minutes. Crews

worked to fix the damage caused by the falling branches and no further action is needed.

- **December 27, 2017** - A static wire broke loose and wrapped around 59L causing it to lock out. Crews switched around to restore 852 customers after 348 minutes, and 1,061 customers after 402 minutes, for an average of 294 minutes. Crew had a hard time finding the damage as it was on a stretch that was difficult access. Once found they fixed the damage and restored power in a normal state. Line crews worked with clearing crews to make sure the right-of-way was cleared to make future access as easy as possible.

23 Line --

- **July 12, 2017** - 23L locked out due to a storm causing all customers to be out of power for 68 minutes while the crews worked to fix damage done to the feeder. Once complete all customers were restored. No further action is necessary.

G. *a copy of each report filed under part 7826.0700*;

These reports are provided as Appendix B to this Report.

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

Section H requires that Minnesota Power report on the Company's worst performing circuit for each work center. Since Minnesota Power considers our entire service area a single work center, this would result in only one circuit being reported. As in the past, rather than listing only one feeder, the four worst performing feeders (2 urban and 2 rural) are identified. This is done in recognition of how reliability indices are affected by differing characteristics of feeder length and quantity of customers.

The feeder evaluation process utilized high feeder SAIDI and high total customer-minutes of outage (i.e. # customers X SAIDI) as criteria for selection of two urban and two rural feeders. The following table clarifies the selections:

Criteria	***Circuit***	***# of Customers***	***SAIDI***	***SAIFI***	***CAIDI***
High Feeder SAIDI (Urban)	Nisswa 2	138	1638.55	3.98	411.70
High Customer Outage Minutes (Urban)	Colbyville 242	2,253	370.15	2.27	163.06
High Feeder SAIDI (Rural)	Nisswa Pumping Station	597	1015.52	4.03	251.99
High Customer Outage Minutes (Rural)	Denham 6431	1,073	1004.17	5.12	196.13

TABLE 2: WORST PERFORMING FEEDERS USING MAJOR EVENT NORMALIZED DATA

Nisswa 2

Major Outage Events:

- July 17, 2017 - Parent feeder Pequot Lakes 531 locked out due to weather this affected all step down transformers. Nisswa 2 was affected for 5 hours and 48 minutes.
  - Crews had to wait until it was safe to fix damage and restore customers.
- September 20, 2017 - Storms caused trees to go through lines. A few medium sized outages lasted for an average of 14 hours and 23 minutes.
  - Crews waited until conditions were safe to go out to fix the damage and restore the customers.

Colbyville 242

Major Outage Events:

- February 22 and 23, 2017 - Due to switch maintenance on this feeder, it was tied to another feeder. This tie caused overloading on the supply

feeder. All customers on this feeder were affected on the 22nd for an average of 203 mins and the 23rd for an average of 121 minutes.
    - Crews worked to switch to off load the supply feeder. Engineering looked into the settings on the protective devices to avoid overloading them.
- November 2, 2017 - Cutouts that failed non-catastrophically causing 148 customers to be out of power for 6 hours and 1 minute.
    - Due to the type of failure, identifying the defective equipment was a more complex process. Once found, the crews changed out the cutouts and restored power.

Nisswa Pumping Station

Major Outage Events:

- July 17, 2017 - Parent feeder Pequot Lakes 531 locked out due to weather which affected all step down transformers. Nisswa Pumping Station was affected for 3 hours and 24 minutes for the whole feeder with smaller outages still ongoing due to downed trees.
    - Crews waited until conditions were safe to fix the damage and restore customers.

Denham 6431

Major Outage Events:

- March 3, 2017 - Parent feeder 59L locked out due to a vehicle accident. This affected all step downs for an average of 59 minutes.
    - Crews fixed the damaged caused by the vehicle and power was restored.
- March 7, 2017 - 59L locked out due to a massive wind storm. This affected all step downs for an average of 294 minutes.
    - Crews fixed the damage and restored the customers.
- May 17, 2017 - Denham 6431 locked out due to storms. On average customers were out of power for 241 minutes.
    - Crews had to wait out the storm for safety before fixing the damage to restore customers.
- December 27, 2017 - 59L locked out due to a broken static wire wrapping around the feeder wires. This affected all customers for 390 minutes.
    - Crews fixed the damage and restored customers.

I. *Data on all known instances in which nominal electric service voltages on the utility's side of the meter did not meet the standards of the American National Standards Institute for nominal system voltages greater or less than voltage range B.*

There were 11 reported instances of ANSI voltage violations in 2017.

Date	Account #	Trouble Order
4/7/2017	5333415127	333059
7/6/2017	4788310000	338233
7/20/2017	6621431629	339673
7/31/2017	0083541140	340464
8/24/2017	9582520000	341874
10/19/2017	5300619898	345596
11/28/2017	5111800000	348348
11/28/2017	2715891190	248349
12/4/2017	0539900000	348676
12/12/2017	5097975899	349040
12/27/2017	0035649150	349952

TABLE 3: REPORTED INSTANCES OF ANSI VOLTAGE VIOLATIONS

Minnesota Power continues to experience high turnover in its service dispatch department in 2017. As such, three new dispatchers were hired in 2017. Our process for recording and tracking ANSI voltage violations has improved but Minnesota Power is still working on the best solution as to recording and storage of this data. The current method is to record violations in a separate field on the trouble orders within our Outage Management System. That being said, there is an existing process that our staff complete on paper that captures the voltage recordings that are taken on the Minnesota Power-side of the meter which would possibly rule out some of the reported incidents in 2017 as being customer-related non-reportable events.

J. *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.*

Minnesota Power had on average 114 full-time equivalent field employee positions in 2017, 98 of which are lineworkers responsible for responding to trouble calls and for the operation and maintenance of distribution lines.

K. *Any other information the utility considers relevant in evaluating its reliability performance over the calendar year.*

Minnesota Power has no additional information to report at this time.

RELIABILITY STANDARDS: 7826.0600

Subpart 1

On or before April 1 of each year, each utility shall file proposed reliability performance standards in the form of proposed numerical values for the SAIDI, SAIFI, and CAIDI for each of its work centers. These filings shall be treated as "miscellaneous tariff filings" under the Commission's rules of practice and procedure, part 7829.0100, subp. 11.

Minnesota Power proposes the following weather-excluded reliability indices options as targets not to exceed in 2018:

	2016 Data Included	2016 Data Replaced with 2012 Data[1]
SAIDI	108.27	101.68
SAIFI	1.12	1.05
CAIDI	96.67	97.02

The SAIDI target is calculated as an average of the last five years of actual SAIDI performance.

The SAIFI target is calculated as an average of the last five years of actual SAIFI performance.

The CAIDI target is calculated as SAIDI divided by SAIFI.

[1] 2012 DATA ADDED TO CONTINUE A 5 YEAR ROLLING AVERAGE

REPORTING METER-READING PERFORMANCE: 7826.1400

Advanced Metering Infrastructure ("AMI"):

Since 2011, the Outage Management System ("OMS") has been integrated with the Company's AMI system. This integration provides real-time messages from the AMI system when the power goes out at the customer service and when the power is restored to a customer service. The AMI-OMS integration also allows service dispatchers to "ping" individual customer meters to verify power restoral and service status manually. This feature is integrated into the current OMS screens utilized by the dispatchers.

Overall, where the AMI system is deployed, it allows efficient metering access and enhanced communication and situational awareness between Minnesota Power and its customers. With the meters acting as "smart nodes" on each premise, a multitude of benefits can be derived, including: efficient deployment of advanced time-based customer rate offerings, outage notifications, and notification of service issues (such as low/high voltage and tamper warnings), improved load control, more frequent customer usage data, and the ability to more quickly reconnect customers who may have been involuntarily disconnected due to non-payment. The expansion of Minnesota Power's AMI capabilities lays the groundwork for further Smart Grid initiatives and improvements to the customer experience.

Minnesota Power continues the process of implementing its AMI meter installation. By the end of 2017 the Company had installed more than 60,000 AMI meters. The current AMI population is currently more than 40% percent, and quickly approaching 50%, of the overall meter population. The Company replaces meters at a rate of roughly 6-8% per year, depending on meter type and budgets. Minnesota Power estimates full deployment of all AMI meters by the end of 2025. Along with the AMI meter deployment, Minnesota Power is also expanding its Radio Frequency ("RF") AMI network. The full radio communications infrastructure is expected to be in place by year-end 2018. Minnesota Power estimates having all technology fully deployed system-wide by 2025.

Equipment	Percent in Use[2]	Description
Mechanical Meters	Less than 1%	Traditional electro-mechanical meter that records kWh usage.
AMR – Mechanical Hybrid	51%	Traditional Electro-mechanical meters that are retro-fitted with a one-way electronic automatic meter reading (AMR) module capable of reporting multiple quantities including kWh, kW, and outage count.
AMR – Solid State	4%	Modern Solid State electronic meters integrated with a one-way AMR module or retrofitted with an external AMR unit. Capable of reporting multiple quantities including kWh, kVARh, kW, and outage count.
AMI – Solid State	44%	Modern solid state devices integrated with a two-way AMI communication module. Capable of multiple measurement functions including Time of Use (TOU), kW, kWh, KVA, kVAh, kVAR, kVARh, instantaneous and average voltage, two channel load profile, and remote disconnect. Also capable of remote firmware, program, and display updates.

TABLE 4: METER EQUIPMENT AND PERCENTAGE DEPLOYED

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[2] As of 1/1/2018

The annual service quality report shall include a detailed report on the utility's meter-reading performance, including, for each customer class and for each calendar month:

A. *The numbers and percentages of customer meters read by utility personnel.*

In 2017 Minnesota Power read an average of 98.63% of residential meters, 99.3% of commercial meters and 100% of industrial, municipal pumping, and lighting meters.

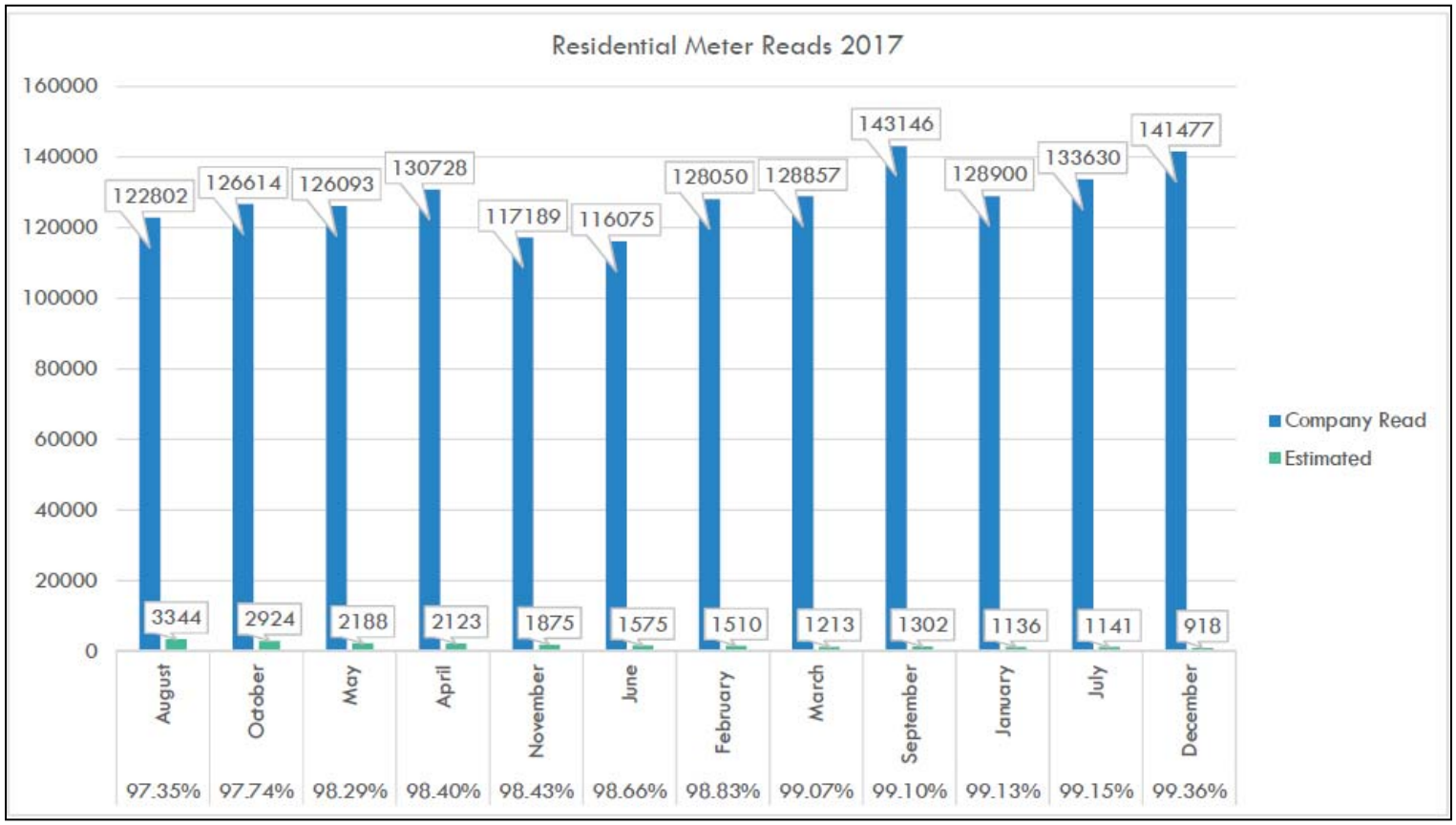

FIGURE 2: RESIDENTIAL METER READS – UTILITY 2017

In 2017 Minnesota Power read an average of 99.93% of commercial meters.

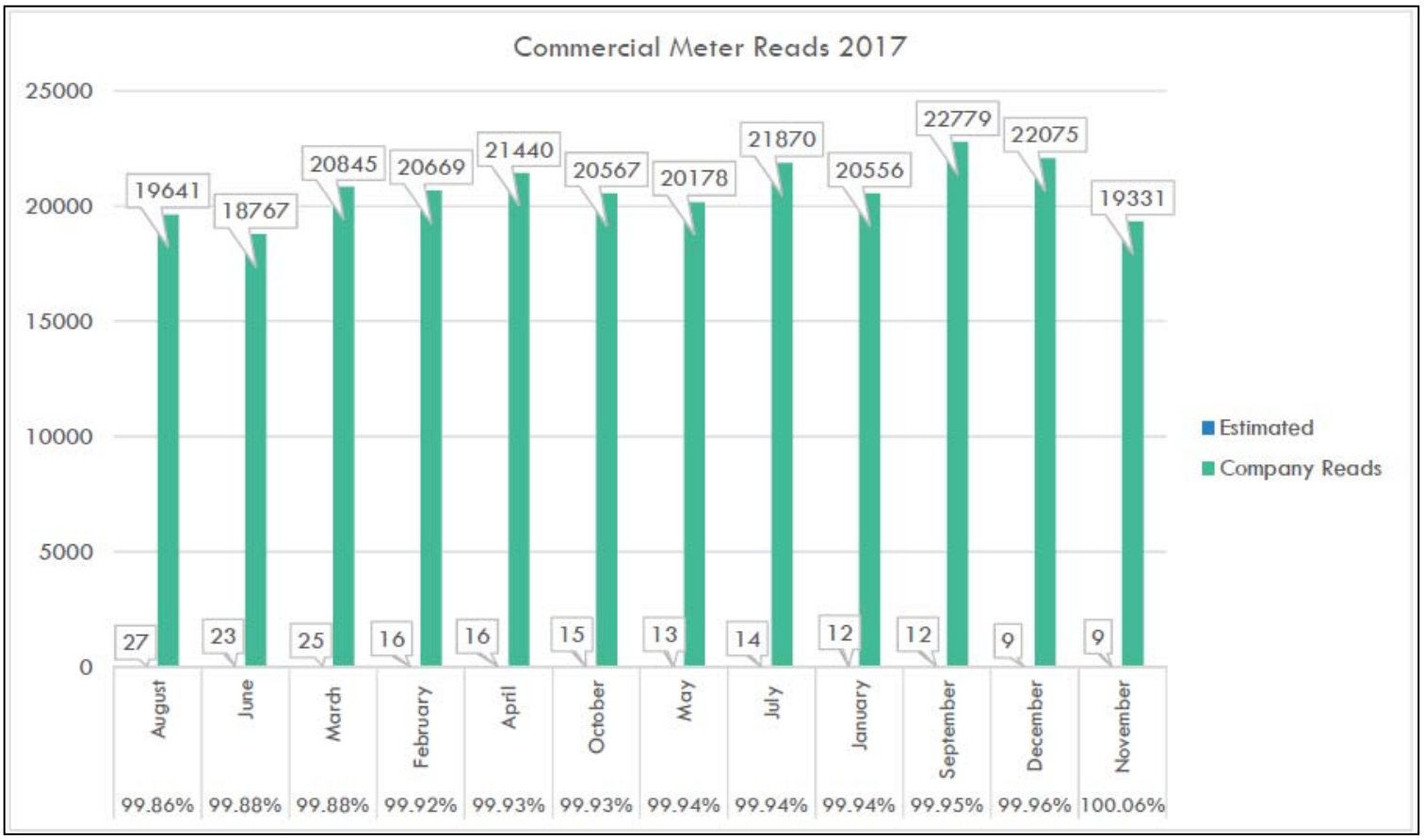

FIGURE 3: COMMERCIAL METER READS – UTILITY 2017

Industrial

In 2017 Minnesota Power read an average of 100% of industrial meters.

Municipal Pumping

In 2017 Minnesota Power read an average of 100% of 287 municipal meters.

Lighting

In 2017 Minnesota Power read an average of 100% of 347 lighting meters.

B. *The numbers and percentages of customer meters self-read by customers*

Customer reads averaged .04% of the system total in 2017, of those Minnesota Power received an average of 92.58% of reads.

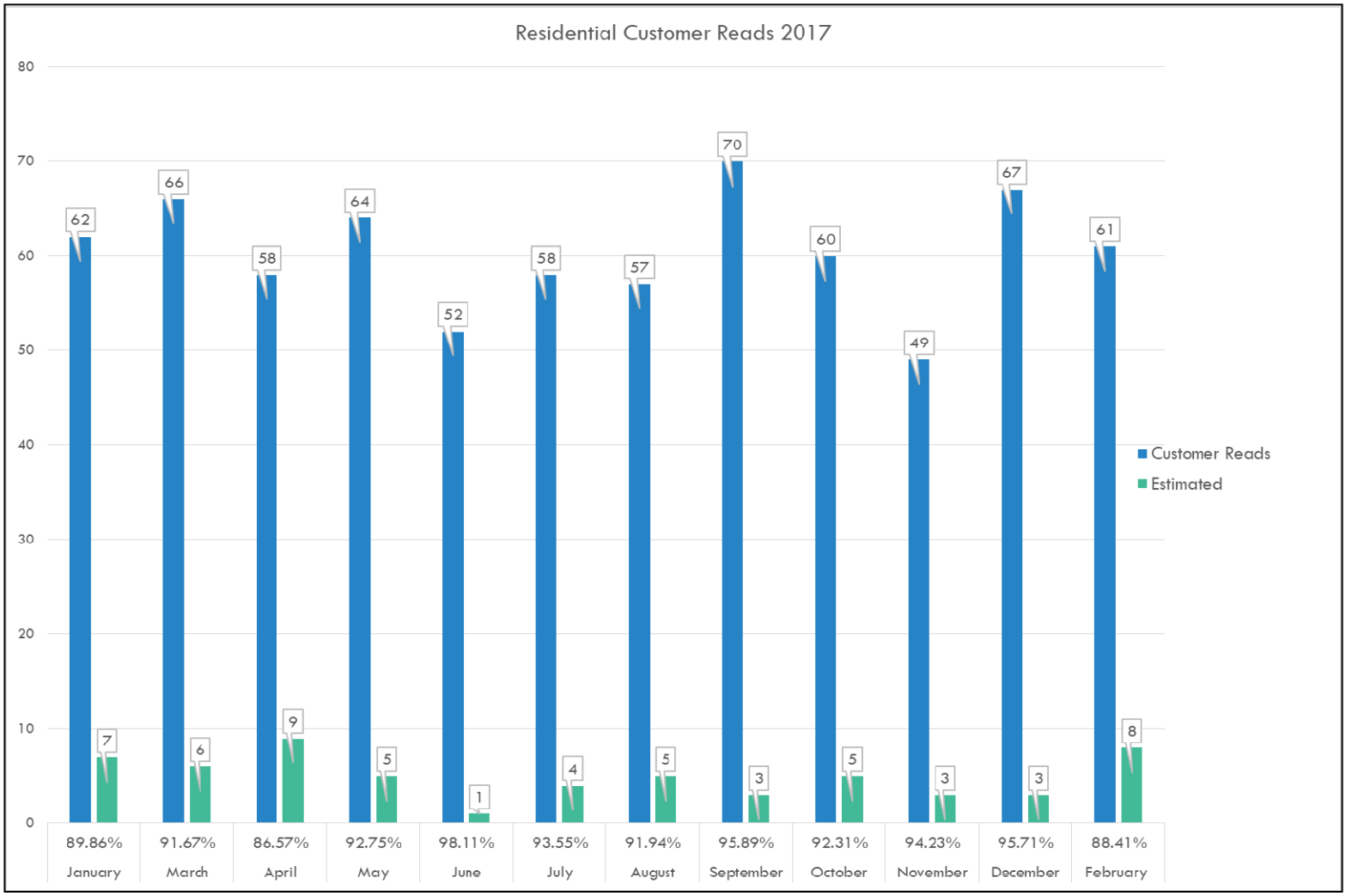

FIGURE 4 : RESIDENTIAL METER READS – SELF-READ 2017

Customer reads averaged .01% of the system total in 2017, of those Minnesota Power received an average of 95.57% of reads.

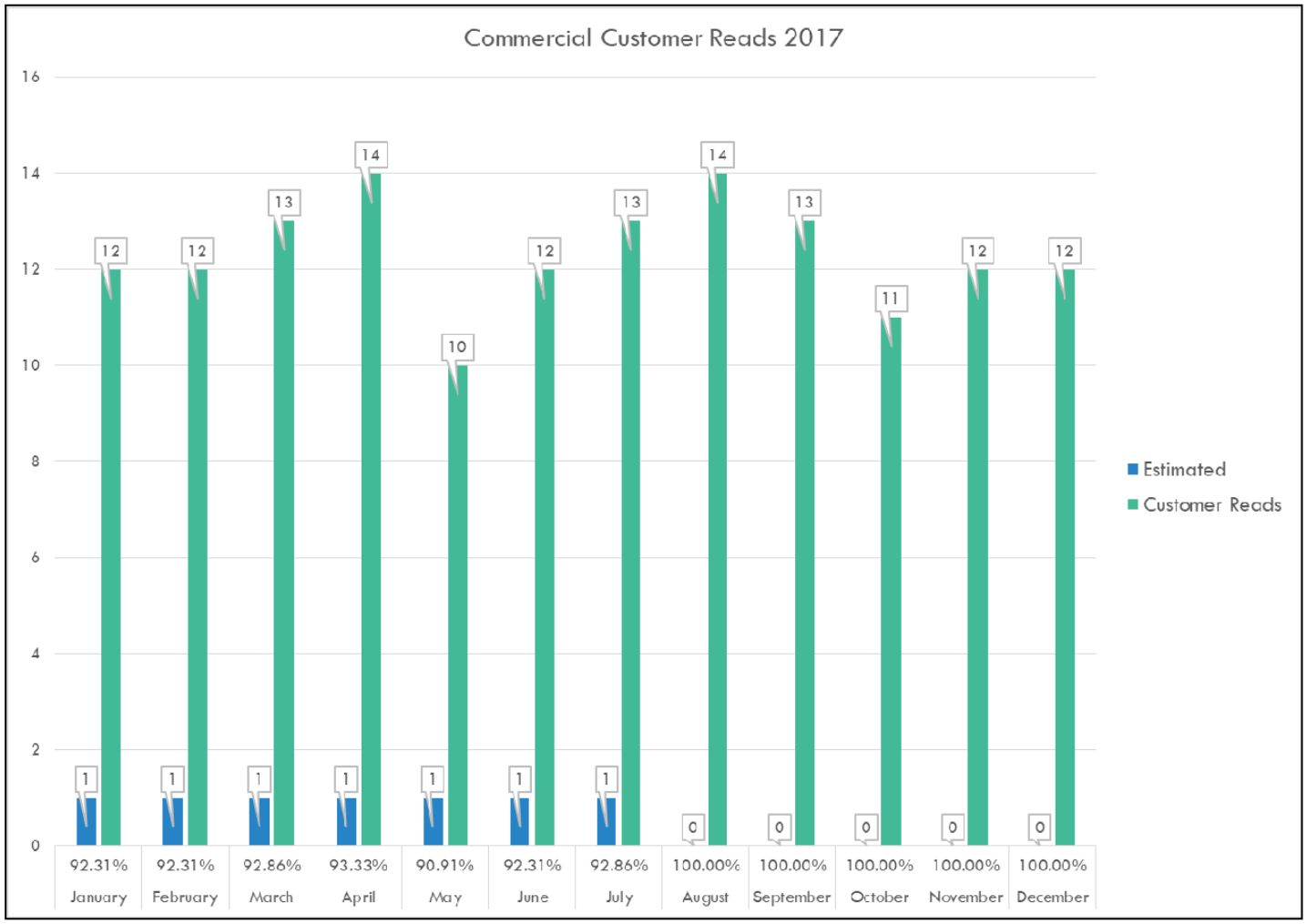

FIGURE 5: COMMERCIAL METER READS – SELF-READ 2017

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

Months Estimated	Company Read Service Points	% of Total	Not Read Reason	Customer Read Service Points	% of Total	Not Read Reason
6 Months	3	0.002%	No Access/AMR	2	0.001%	No Access
7 Months	3	0.002%	No Access/AMR	0	0.000%	No Access
8 Months	0	0.000%	No Access/AMR	0	0.000%	No Access
9 Months	0	0.000%	No Access/AMR	0	0.000%	No Access
10 Months	0	0.000%	No Access/AMR	0	0.000%	No Access
11 Months	1	0.001%	No Access/AMR	0	0.000%	No Access
12 Months	0	0.000%	No Access/AMR	0	0.000%	No Access
12+Months	0	0.000%	No Access/AMR	0	0.000%	No Access
Totals:	**7**			**2**	**0**	

TABLE 5: METERS NOT READ 6-12 MONTHS 2017

Minnesota Rules 7820.3300 requires that meters are read annually. Customers with Company read meters that are not read for six to twelve months are left reminder notices at the home and/or are sent reminder letters of the utility's need to access the meter. A similar process is used for customer read meters not read for over twelve months. In addition, phone calls are made to each customer in an attempt to schedule a meter reading. Disconnection warnings are issued for unresponsive accounts. In accordance with the Cold Weather Rule, no disconnections for unread meters are performed during the Cold Weather Rule months.

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

Minnesota Power currently staffs 7 full time collectors. In 2017, the Company also employed a full time temporary collector from April 17th until October 14th.

REPORTING INVOLUNTARY DISCONNECTIONS: 7826.1500

The annual service quality report must include a detailed report on involuntary disconnections of service, including, for each customer class and each calendar month:

A. *the number of customers who received disconnection notices;*

Disconnection Notices in 2017			
Month	*Residential*	*Commercial*	*Industrial*
January	1446	94	2
February	1237	85	1
March	1290	97	4
April	1095	81	1
May	2028	136	1
June	2317	143	1
July	1342	84	1
August	1601	112	1
September	823	63	0
October	1632	113	2
November	1615	106	0
December	1028	102	2
Total	***17454***	***1216***	***16***

TABLE 6: DISCONNECTION NOTICES IN 2017

The above table indicates the number of disconnection notices sent. A single account could receive multiple notices in a given year. As a proxy, 14 percent or less of residential accounts received a disconnect notice in 2017. Approximately 5 percent of commercial customer accounts received a disconnect notice during 2017. For industrial customers, about 4 percent of the accounts received a disconnect notice in 2017. Out of the total residential, commercial, and industrial customers, roughly 13 percent received a disconnect notice in 2017.

B. *the number of customers who sought cold weather rule protection under chapter 7820 and the number who were granted cold weather rule protection;*

	Customers who sought CWR Protection	***Customers granted CWR Protection***
Month	*Residential*	*Residential*
January	*564*	*564*
February	*423*	*423*
March	*406*	*406*
April	*119*	*119*
May	*1*	*1*
June	*0*	*0*
July	*1*	*1*
August	*2*	*2*
September	*0*	*0*
October	*564*	*564*
November	*853*	*853*
December	*542*	*542*
Total	***3475***	***3475***

TABLE 7: CUSTOMERS WHO SOUGHT AND WERE GRANTED CWR PROTECTION 2017

Minnesota Power granted Cold Weather Rule protection to 100% of customers who requested such protection. Minnesota Power does not require income verification to receive CWR protection. With the exception of income verification, Minnesota Power adheres to the requirements of Minnesota Statute § 216B.096, Subd. 5(a) which states that during the CWR period, "a utility may not disconnect and must reconnect utility heating service of a customer whose household income is at or below 50 percent of the state median income if the customer enters into and makes reasonably timely payments under a mutually acceptable payment plan with the utility that is based on the financial resources and circumstances of the household; provided that, a utility may not require a customer to pay more than ten percent of the household income toward current and past utility bills for utility service." Minnesota Power works with the customer to get their

suggestions regarding acceptable payment amounts and, since income verification is not conducted, customers are essentially self-declaring what they feel are attainable payments within their income constraints.

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

	Customer Disconnected Involuntarily			***Customers Restored within 24 Hours***		
Month	Residential	Commercial	Industrial	Residential	Commercial	Industrial
January	94	2	1	47	0	0
February	86	12	0	49	3	0
March	167	8	0	92	3	0
April	244	9	0	107	2	0
May	262	10	0	119	1	0
June	622	15	0	272	4	0
July	326	6	0	143	1	0
August	362	12	0	177	3	0
September	215	4	0	123	0	0
October	132	13	0	64	5	0
November	99	11	0	58	1	0
December	59	5	0	33	2	0
Total	**2668**	**107**	**1**	**1284**	**25**	**0**

TABLE 8: CUSTOMERS DISCONNECTED INVOLUNTARILY AND RESTORED W/IN 24 HOURS 2017

Out of the 18,686 total customer accounts who received disconnect notices in 2017, 14 percent had service disconnect involuntarily. As a reflection of Minnesota Power's total residential, commercial, and industrial customer count, less than 2 percent of customers were ultimately disconnected involuntarily. Less than 1 percent of total residential, commercial and industrial customers were disconnected for longer than 24 hours. This is not considering that the same account may be disconnected more than one time in a given year. Minnesota Power believes it is important to work with customers to avoid disconnection of service and, in the event that disconnection does occur, to work with

customers on timely reconnection. Minnesota Power follows the disconnection rules and processes as outlined in Minn. Stat. §§ 216B.096, 216B.0976, and 216B.098, and Minn. R. 7820.1000 through 7820.1300 and 7820.2400 through 7820.3000. These procedures are described in the Electric Service Regulations of Minnesota Power, Minnesota Power Electric Rate Book, Section VI, most specifically on pages 3.4 and 3.17.

Minnesota Power follows all rules and regulations, including notices and the option of a payment agreement, prior to disconnection. A high level depiction of the process is summarized in Figure 14, beginning with the billing, followed by past due bill notices, the credit and collections process, and ultimately potential disconnection. This is not a strictly linear process. Rather, Minnesota Power works with customers to identify payment options that are attainable while also working to keep account balances as current as possible and out of collections.

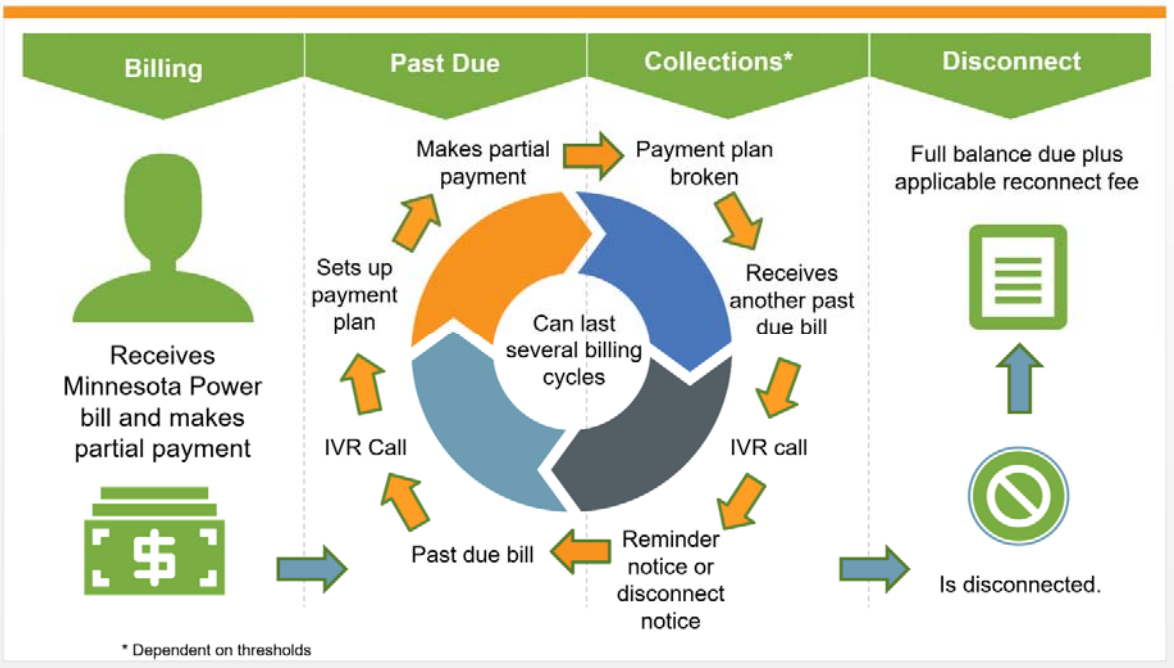

FIGURE 6: DISCONNECTION & COLLECTIONS OVERVIEW

Minnesota Rules 7820.2400 are very explicit in terms of the notice requirements before disconnection can occur, as is Minn. Stat. § 216B.096 regarding disconnections when Cold Weather Rule ("CWR") protections are in effect. According to these requirements, "notices shall contain the date on or after which disconnection will occur, reason for disconnection, and methods of avoiding disconnection in normal, easy-to-understand language." Notices must also be mailed by first class mail or delivered by a representative of the utility. Disconnection, according Minn. R. 7820.2500, must be "in conjunction with a personal visit by a representative of the utility" and "the representative of the utility shall at all times be capable of receiving payment, if nonpayment is the cause of the

disconnection of service." Similar requirements exist under the CWR in terms of disconnection notices. Additionally, the Company would offer the customer the CWR protection and reconnect the customer if a payment agreement is established and will not disconnect a customer protected by CWR as long as the customer makes "reasonably timely payments."

There are many factors that may affect the duration of this process, including CWR and change in customer circumstances. The greatest flexibility is prior to disconnection and customers are strongly encouraged to keep Minnesota Power informed of any changes in circumstances that may warrant a revised payment agreement. Of note and consequence is the important balance between avoiding disconnection and keeping customer balances, including arrears, and related payment agreements, within ranges that are attainable by the customer and that satisfy amounts due for services rendered and received. This is in part the basis for Minn. Rules to explicitly define permissible service disconnection reasons.

D. *the number of disconnected customers restored to service by entering into a payment plan*

Month	***Residential***	***Commercial***	***Industrial***
January	57	1	0
February	58	3	0
March	97	2	0
April	122	3	0
May	150	3	0
June	376	4	0
July	201	3	0
August	235	4	0
September	168	0	0
October	96	5	0
November	78	5	0
December	42	3	0
Total	**1680**	**36**	**0**

TABLE 9: CUSTOMERS RESTORED VIA PAYMENT PLAN 2017

In light of some recent corrections to previously reported figures, Minnesota Power reviewed its reporting process for disconnections and reconnections and revised the process for improved accuracy. In the past, some reports used the date the disconnection

was completed in the system to count disconnections, while others used the date the disconnection notice occurred in the field. In addition, there were situations when one customer was disconnected and another was started at the same location, and this type of customer could have been missed or the wrong customer could have been counted. Also, in months where a disconnection occurred with a payment plan created under CWR in that same month, disconnections were not included in previous counts. During times when the CWR applies, a customer may be reconnected if they enter into a payment plan.

For uniformity and accuracy in determining the number of disconnections, going forward the Company will use the date the disconnection was completed in the field when determining the customer affected. With this change, the number of disconnections that had been communicated before in any previous report/information request could be different than the numbers provided in the Company's April 1, 2018 Report.

SERVICE EXTENSION REQUEST RESPONSE TIMES: 7826.1600

The annual service quality report must include a detailed report on service extension request response times, including, for each customer class and each calendar month:

A. *The number of customers requesting service to a location not previously served by Minnesota Power 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*.

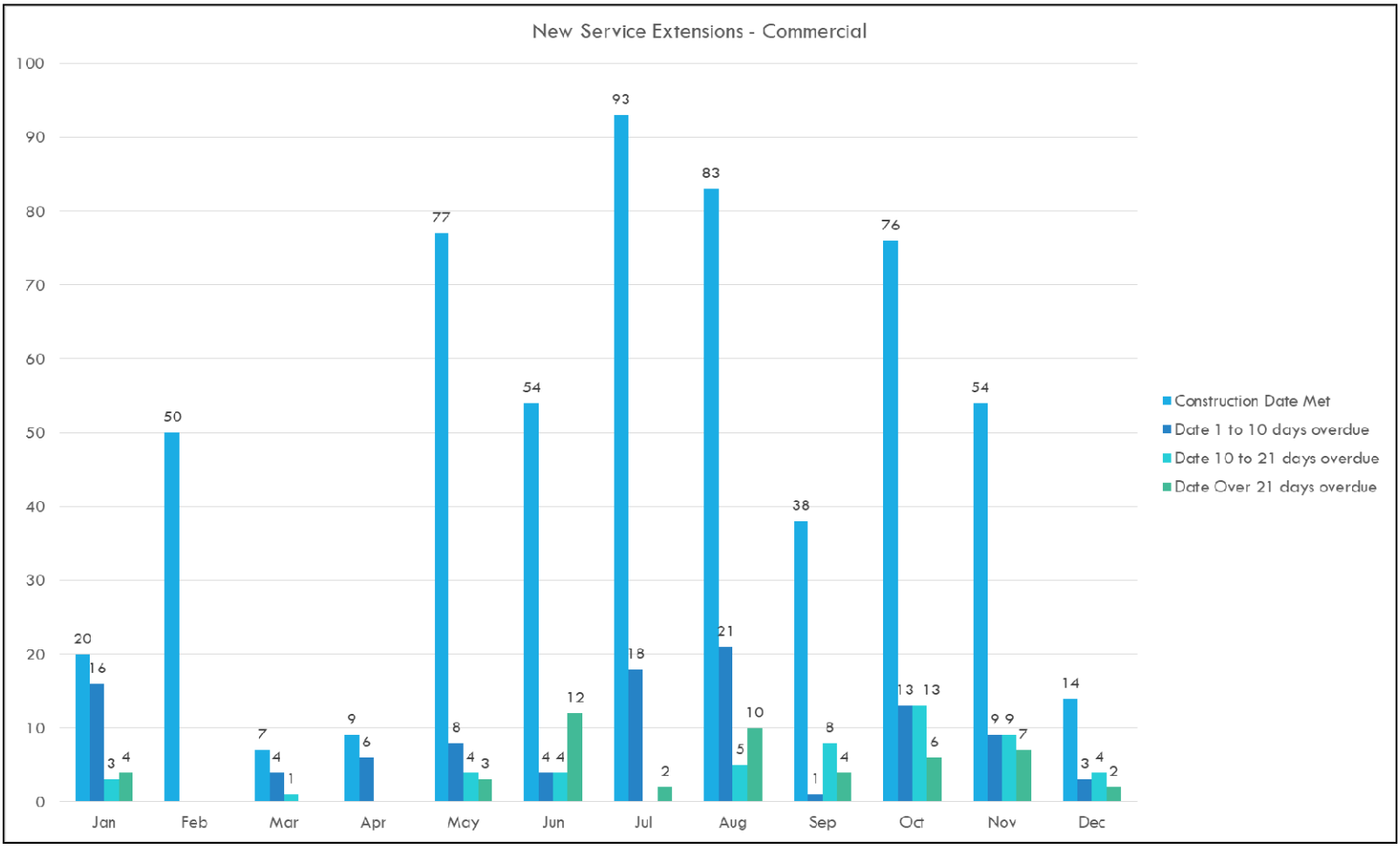

FIGURE 7: NEW SERVICE EXTENSIONS – COMMERCIAL 2017

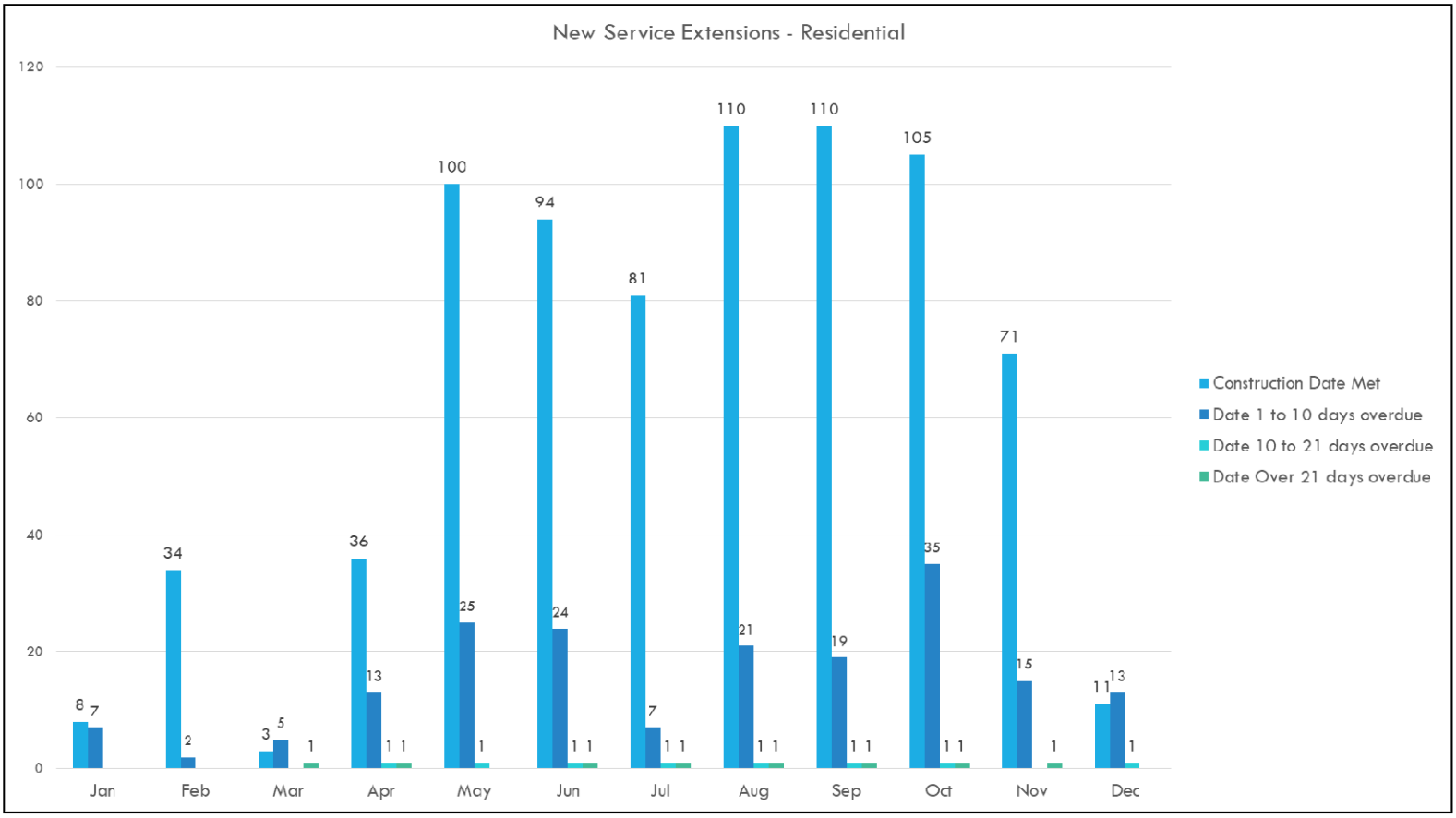

FIGURE 8: NEW SERVICE EXTENSIONS – RESIDENTIAL 2017

There were only 3 new industrial extensions completed in 2017 and all fell into the 10-20 days overdue category.

The following chart lists the number and percentage of locations not previously served by Minnesota Power where the service was installed later than the in-service date requested by the customer or the date the premises were ready for service and the reason for the delay:

The three largest, and most significant reasons, for a delay in meeting in-service date in 2017 were: dates not updated for project (38%), Minnesota Power delay due to workload (30%), and the customer not ready for work to be performed (15%).

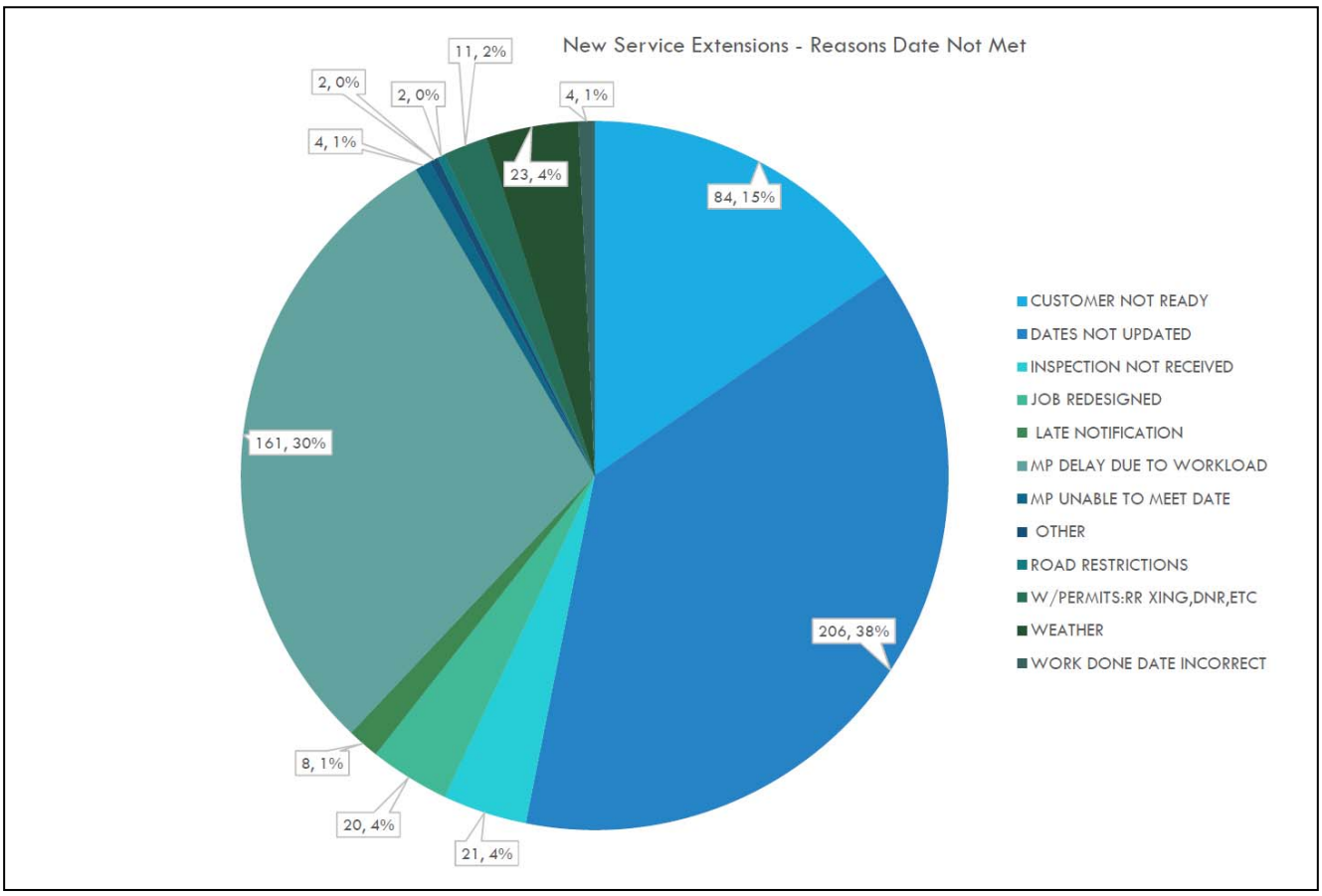

FIGURE 9: NEW SERVICE EXTENSIONS – REASONS DATES NOT MET 2017

The number of customers requesting service to a location previously served by Minnesota Power, 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.

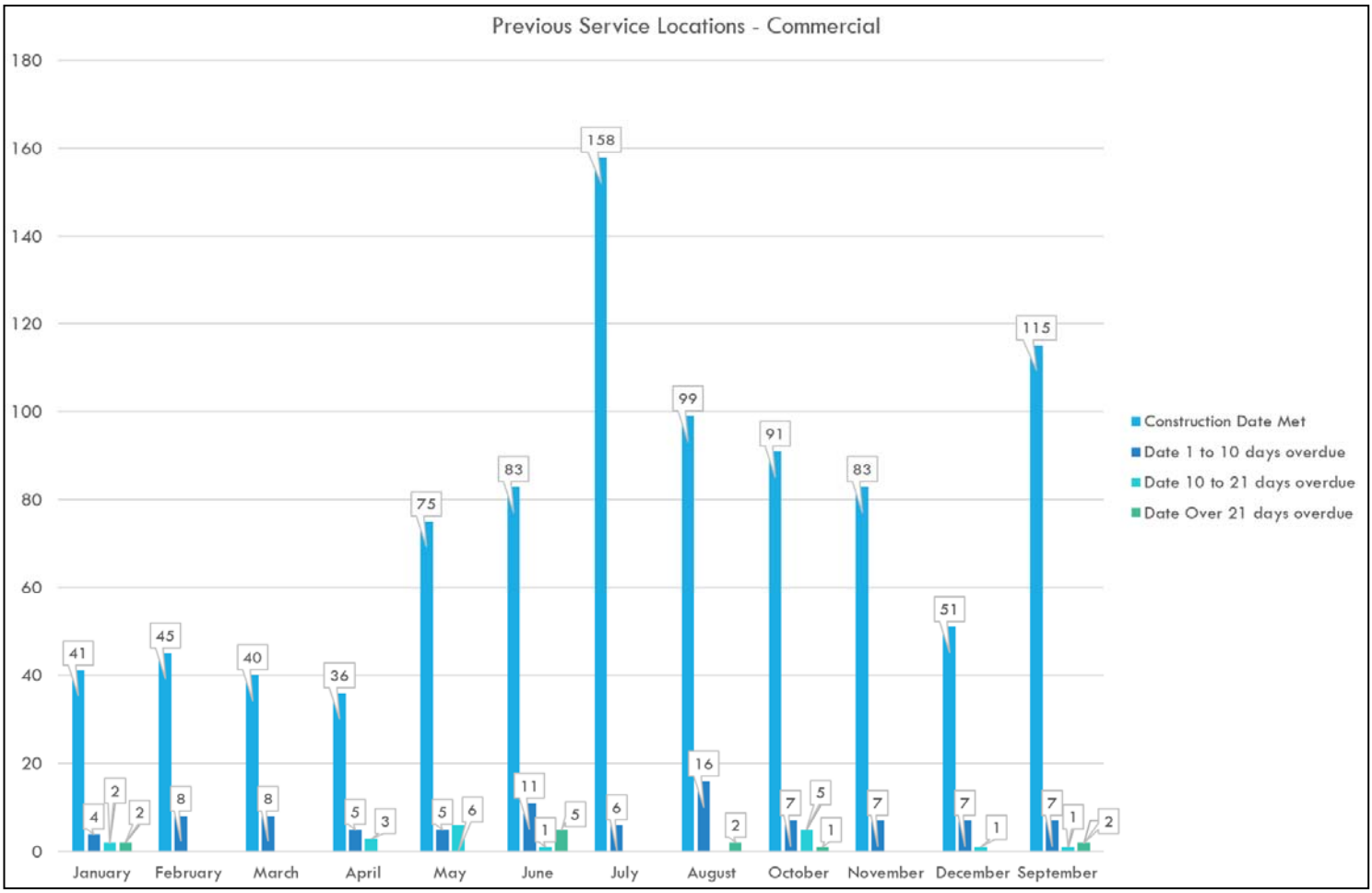

FIGURE 10: PREVIOUS LOCATIONS - COMMERCIAL 2017

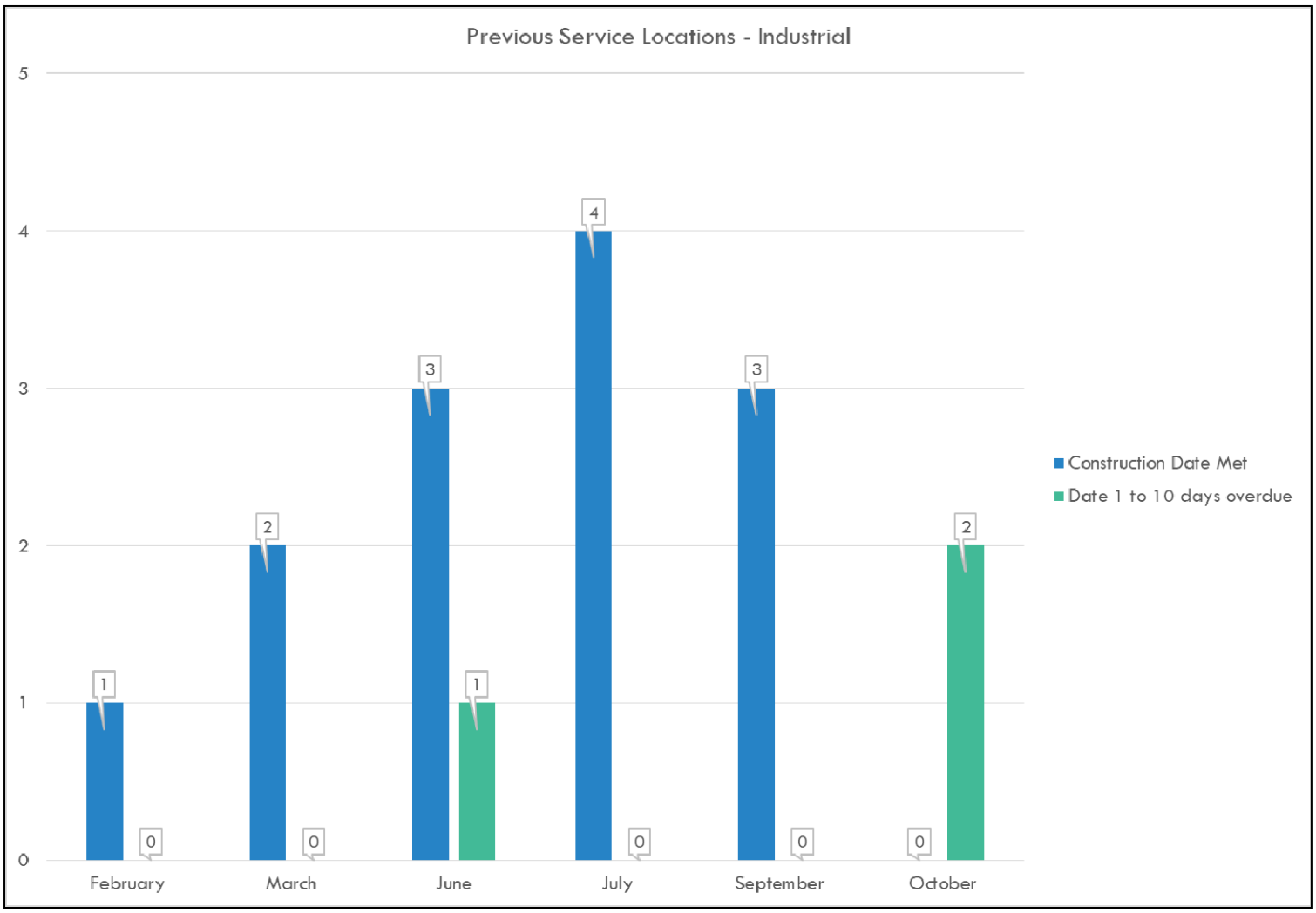

FIGURE 11: PREVIOUS SERVICE LOCATIONS – INDUSTRIAL 2017

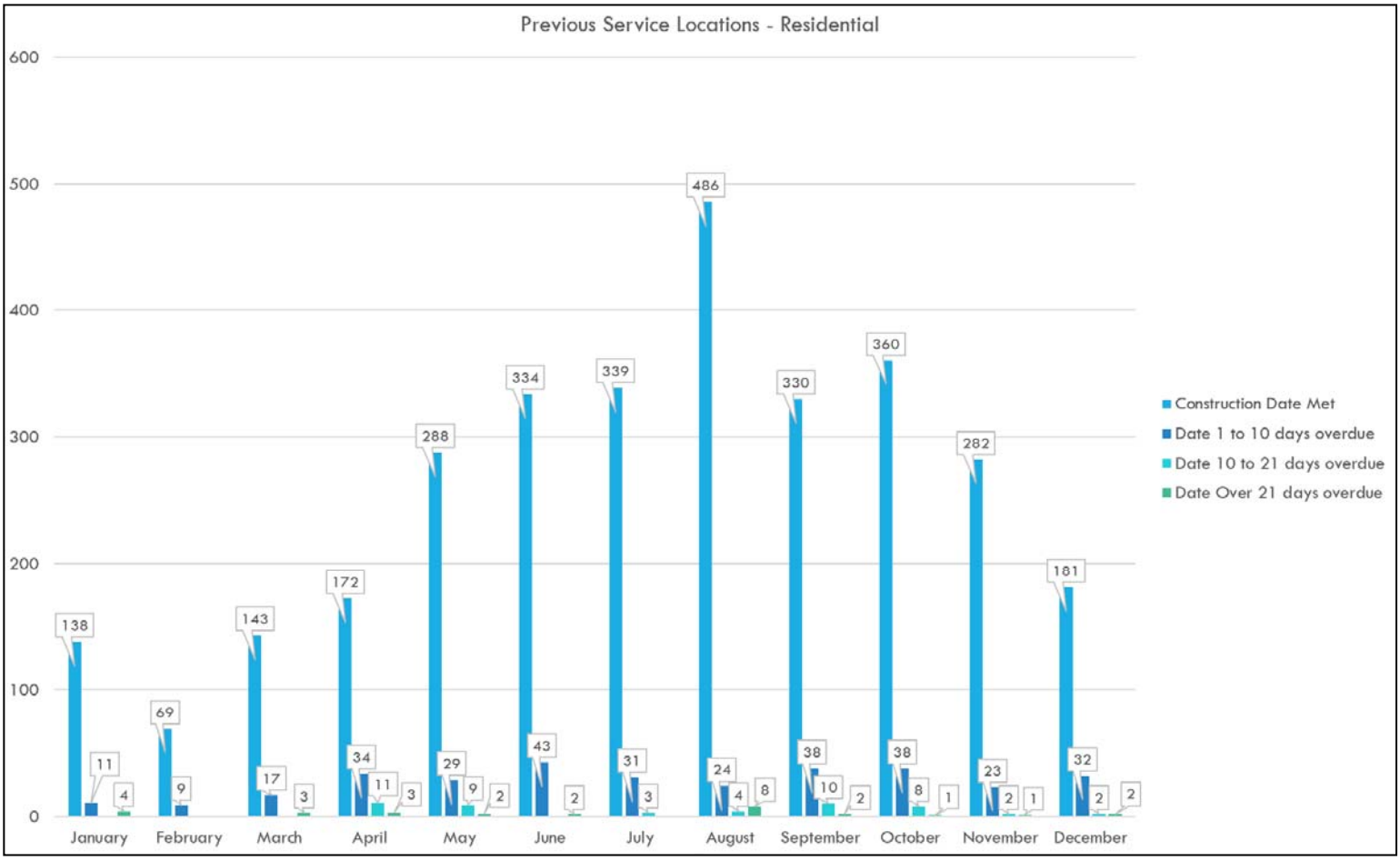

FIGURE 12: PREVIOUS SERVICE LOCATIONS – RESIDENTIAL 2017

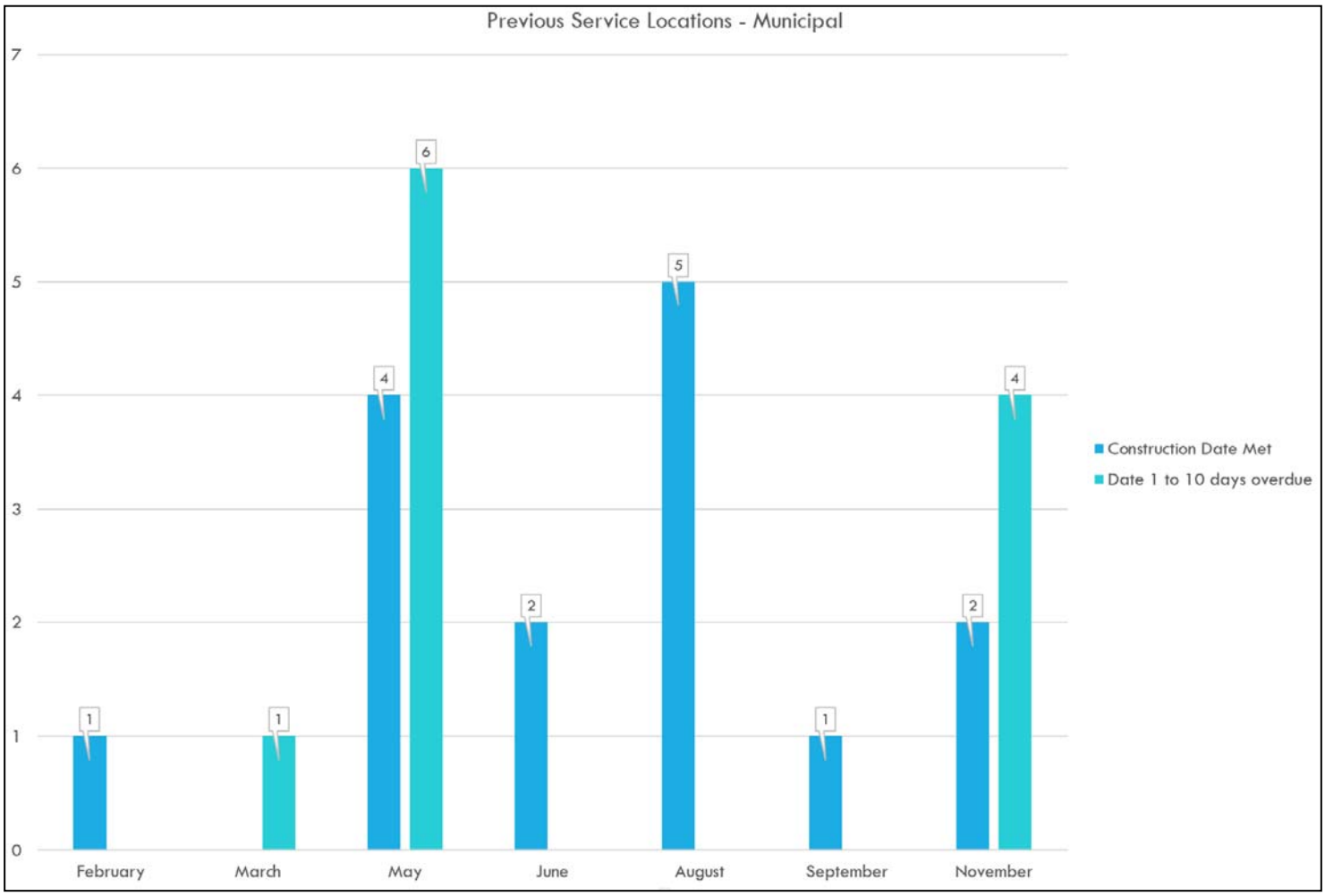

FIGURE 13: PREVIOUS SERVICE LOCATIONS – MUNICIPAL 2017

The following table lists the number and percentage of locations previously served by Minnesota Power where the service was installed later than the in-service date requested by the customer or the date the premises were ready for service and the reason for the delay:

The three largest, and most significant reasons for a delay in meeting in-service date in 2017 were: dates not updated for project (34%), Minnesota Power delay due to workload (26%), and the customer not ready for work to be performed (14%).

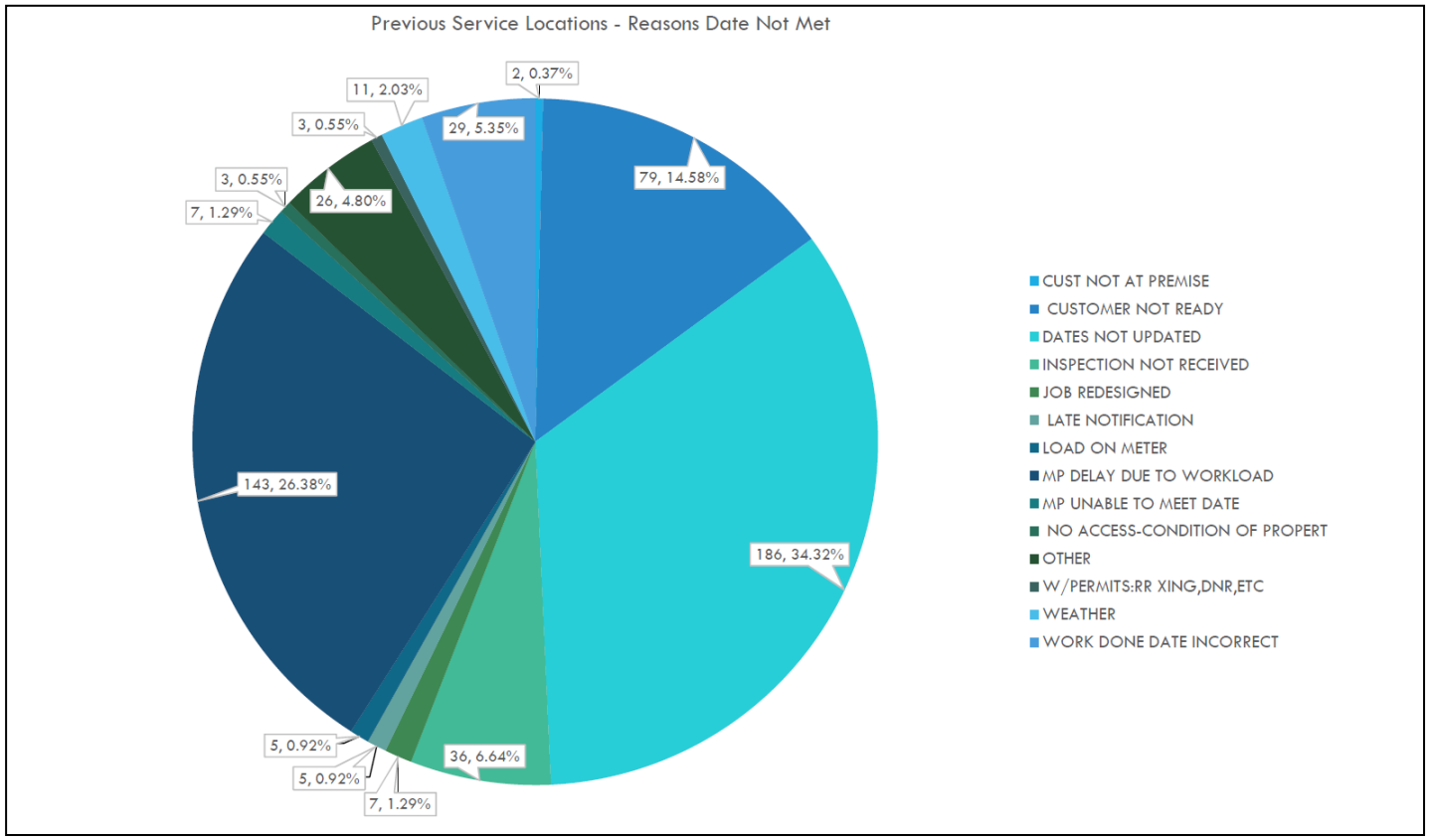

FIGURE 14: PREVIOUS SERVICE LOCATIONS – REASONS DATE NOT MET 2017

REPORTING CALL CENTER RESPONSE TIMES: 7826.1200 & 7826.1700

7826.1200:

Subpart 1. Calls to business office. On an annual basis, utilities shall answer 80 percent of calls made to the business office during regular business hours within 20 seconds. "Answer" means that an operator or representative is ready to render assistance or accept the information to handle the call. Acknowledging that the customer is waiting on the line and will be served in turn is not an answer. If the utility uses an automated call-processing system, the 20-second period begins when the customer has selected a menu option to speak to a live operator or representative. Utilities using automatic call-processing systems must provide that option, and they must not delay connecting the caller to a live operator or representative for purposes of playing promotional announcements.

Subp. 2. Calls regarding service interruptions. On an annual basis, utilities shall answer 80 percent of calls directed to the telephone number for reporting service interruptions within 20 seconds. "Answer" may mean connecting the caller to a recording providing, to the extent practicable, at least the following information:

A. *the number of customers affected by the interruption*

B. *the cause of the interruption*

C. *the location of the interruption; and*

D. *the utility's best estimate of when service will be restored, by geographical area.*

7826.1700:

The annual service quality report must include 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 this information.

All calls to Minnesota Power – whether they relate to service interruption, line extension, billing inquiries or any other subject matter – are routed through the Company's Interactive Voice Response ("IVR") unit. Customers have a menu of options within the IVR to choose from in order to address the subject of their call. The first option is to report an

outage by entering a trouble order; and there is an option to speak directly to a Call Center representative.

Calls routed to outage reporting are handled immediately through the automated trouble-order system; calls that are directed to the Call Center are manually entered into the trouble-order system by the Call Center representative.

Minnesota Power is able to use IVR data to report the number of service interruption calls; however, the IVR is unable to track a response time on an individual contact type. Calls that go to a Call Center representative are also tracked by type of contact. Like the IVR calls, Minnesota Power is able to report the number of service interruption calls; however, is unable to track a response time on an individual contact type.

In summary, Minnesota Power's response time percentage is shown as an aggregate of all calls received through the IVR and the Call Center, and the calls are not broken out by type of call because Minnesota Power is currently unable to separate response time by contact type.

In light of response time performance in 2016, Minnesota Power made intentional changes to staffing and scheduling in the customer service area in 2017 in order to improve response rates. Minnesota Power hired two additional Call Center representatives, created a new quality assurance position and program to increase direct coaching for each representative, increased the number of representatives on staff during the last hours of the business day, and adjusted its storm call-out practices to get more representatives on the phone faster at the onset of outages. The Company continually monitors its call response times to inform staffing and workforce planning decisions.

With the progression of multiple customer touchpoints in the way of phone calls, the "My Account" online self-service tool, introduced in 2017, emails, IVR, etc., it is important that we assess the effectiveness of all modes of communication on an ongoing basis as well as the metrics on which we base our decision making. There will continue to be additional and varied ways of contacting and responding to customers, and for customers to reach out to the company to reconcile complaints, questions or disputes. Considering that Minnesota State Rules section 7826 (including the rules associated with call center response reporting) are well over 15 years old, it is imperative that utilities and stakeholders alike are savvy to the shifting dynamics of the industry while keeping in mind vital customer service targets. As more self-service options become available to customers, the types of calls that the Call Center receives will likely become predominantly more complex and time-consuming that will put pressure on the response time metrics established so long ago. This will inevitably challenge traditional approaches and views regarding how response times are measured and what the appropriate success metrics might be going forward. While Minnesota Power is not proposing a rule revision at this time, customer expectations and preferences regarding communication channels

will ultimately need to be a point of consideration and review for applicability and revision. This issue has surfaced in other dockets such as the Data Privacy Docket,[3] Grid Modernization,[4] and various stakeholder work group processes.

Response Time:

Minnesota Power answered 82 percent of calls during business hours within 20 seconds, exceeding the annual goal of 80 percent, as defined in Minn. Rule 7826.1200. Minnesota Power met or exceeded the 80 percent goal threshold 9 out of 12 months of the year.

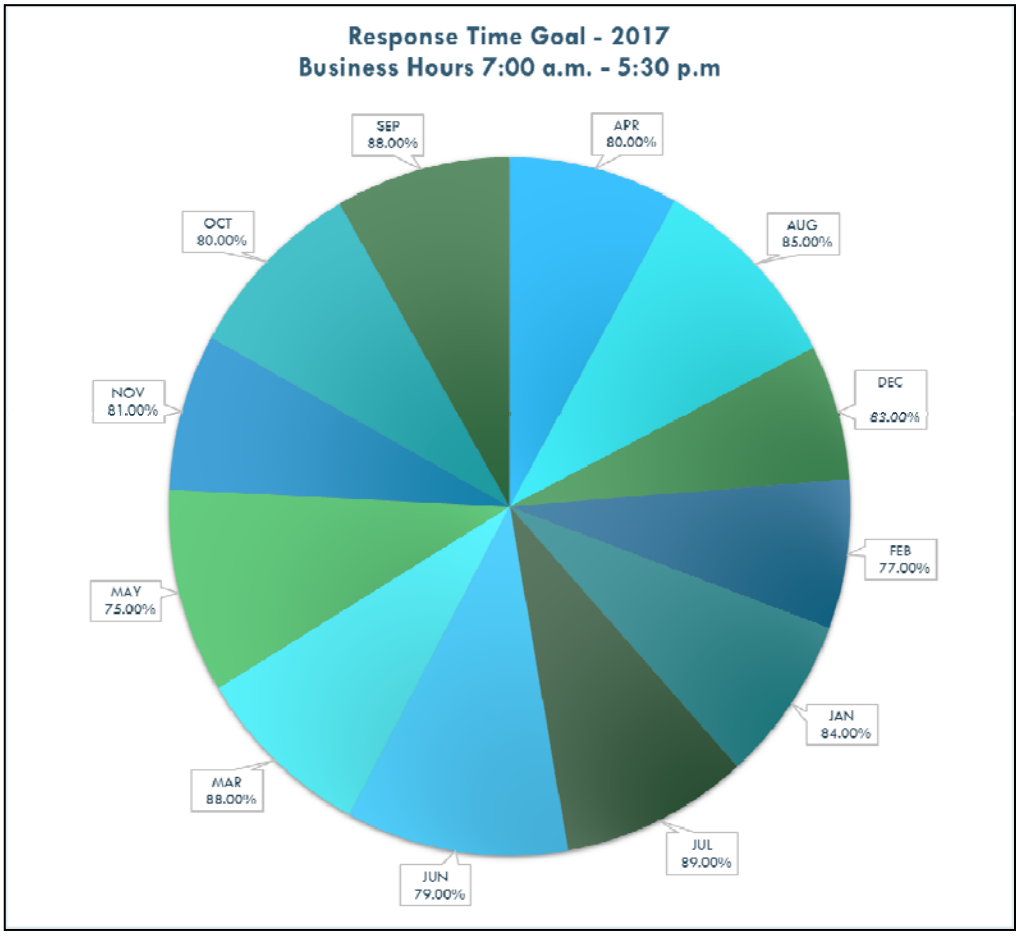

FIGURE 15: RESPONSE TIME – BUSINESS HOURS 2017

[3] Docket No. E, G-999/CI-12-1344

[4] Docket No. E999/CI-15-556

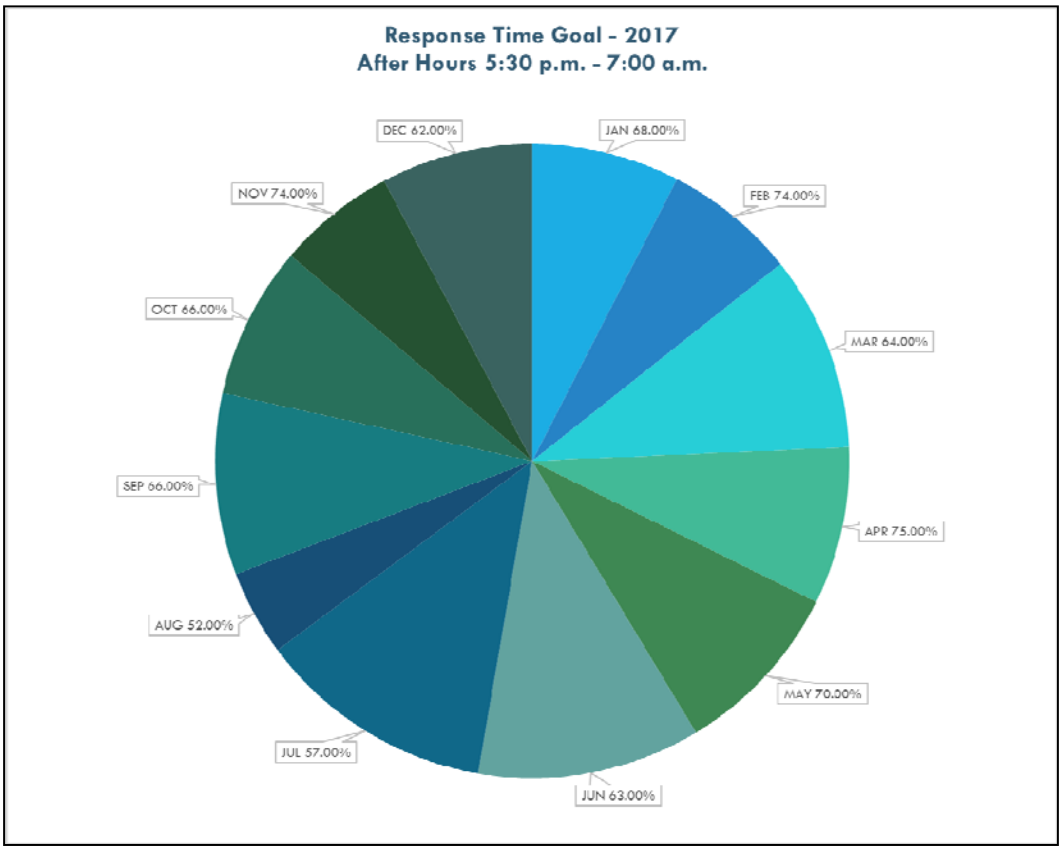

FIGURE 16: RESPONSE TIME – AFTER HOURS 2017

REPORTING EMERGENCY MEDICAL ACCOUNT STATUS: 7826.1800

The annual service quality report must include the number of customers who requested emergency medical account status under Minn. Stat. §216B.098, subd. 5, the number whose applications were granted, and the number whose applications were denied, and the reasons for each denial.

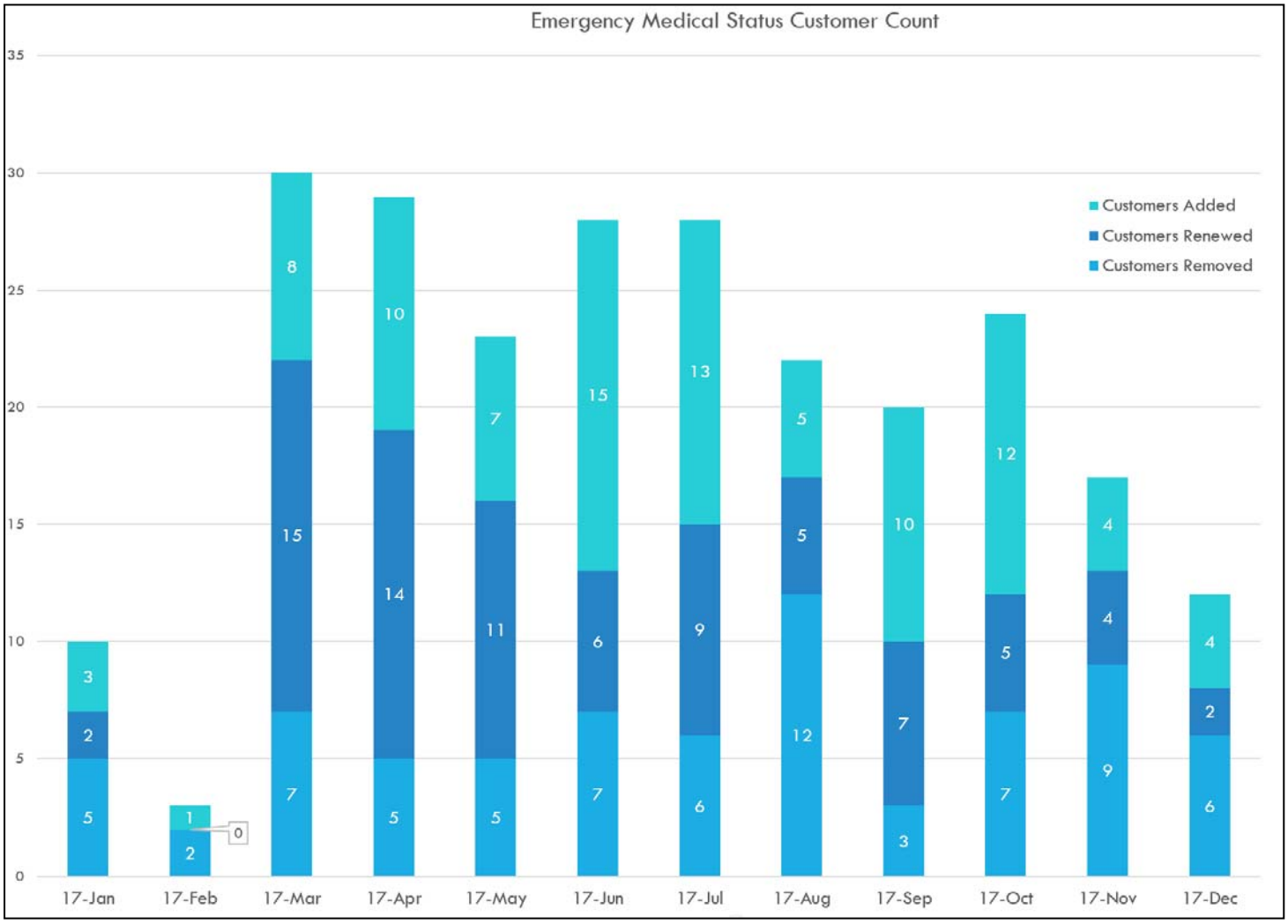

FIGURE 17: EMERGENCY MEDICAL ACCOUNT STATUS COUNT 2017

In 2017, Minnesota Power had 146 customers request emergency medical account status. 142 requests were granted after customers provided Minnesota Power with the required signed physician documentation indicating need. All documentation is on file and

available upon request. Four customers were refused emergency medical account status due to the following reasons:

- November 9, 2017: Minnesota Power received incomplete sleep study results originating from 2016. Customer representatives attempted to contact the customer to discuss the need to obtain complete documentation. After many attempts to call the customer, representatives left a voicemail and noted interactions in the customer's account. The customer did not respond to the communications.
- October 17, 2017: Minnesota Power received a Minnesota Energy Resources form from a customer indicating critical gas equipment. Customer representatives called and spoke to the customer and advised our standard to add the Emergency Medical Status flag. After further communication, the customer did not send the appropriate documentation.
- October 9, 2017: Minnesota Power received a letter indicating that the customer was suffering from acute bronchitis temporarily and was on an oral antibiotic. Per Company policy, this was not deemed a medical emergency.
- August 7, 2017: Minnesota Power received incomplete sleep study results originating from 2015. Representatives attempted to contact the customer to discuss the situation and received no answer. The interactions were noted on the customer account. The customer did not responded to the communications.

REPORTING CUSTOMER DEPOSITS: 7826.1900

The annual service quality report must include the number of customers who were required to make a deposit as a condition of receiving service.

Minnesota Power refunded all deposits in 2014. Collection of deposits may be reconsidered in the future.

REPORTING CUSTOMER COMPLAINTS: 7826.2000

The annual service quality report must include a detailed report on complaints by customer class and calendar month, including at least the following information:

(Any complaints for customer classes other than Commercial and Residential are handled individually and as such not recorded in Minnesota Power's Customer Information System.)

A. *The number of complaints received*.

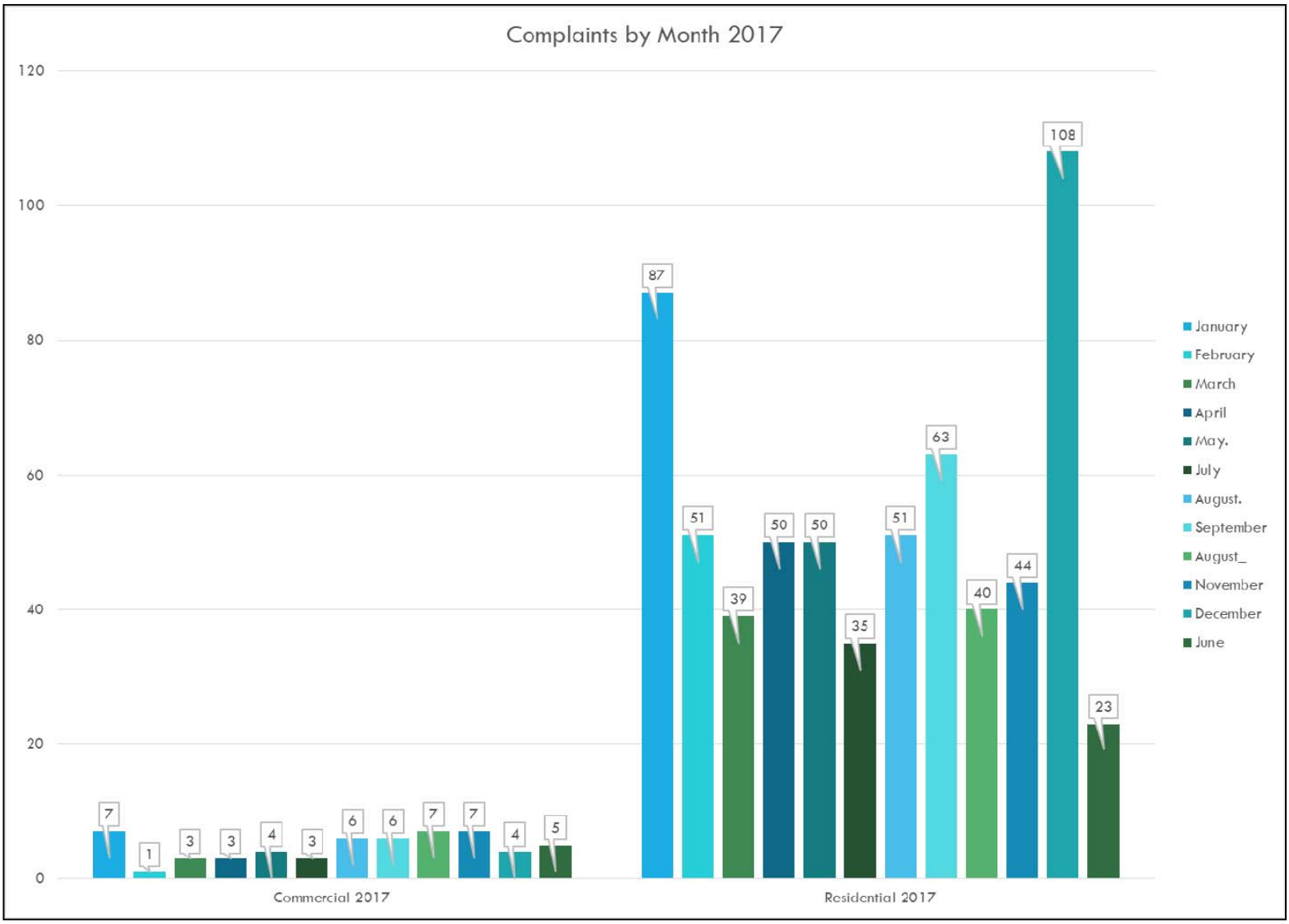

FIGURE 18: CUSTOMER COMPLAINTS BY MONTH 2017

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 customer complaints.*

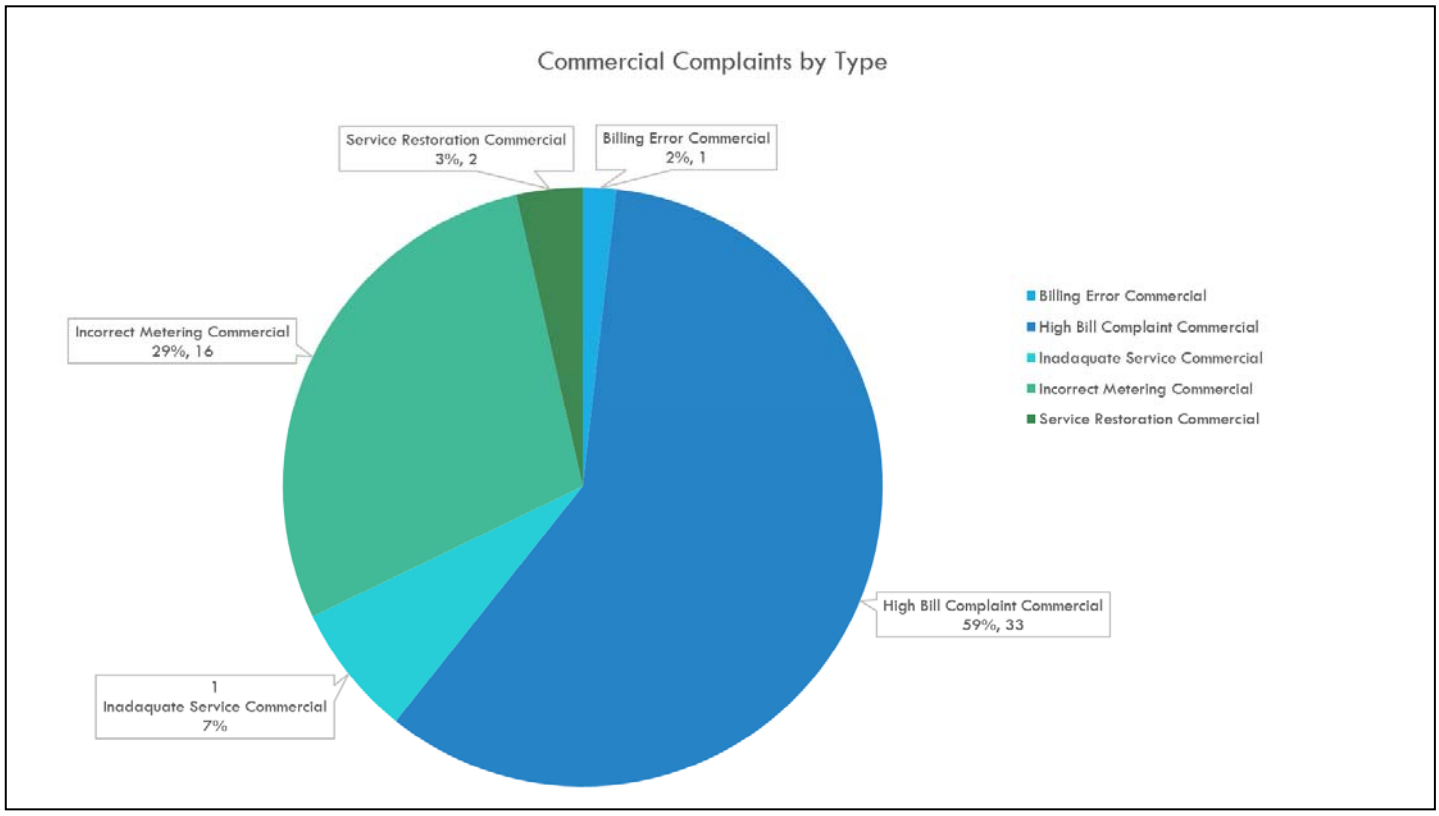

FIGURE 19: COMMERCIAL COMPLAINTS BY MONTH 2017

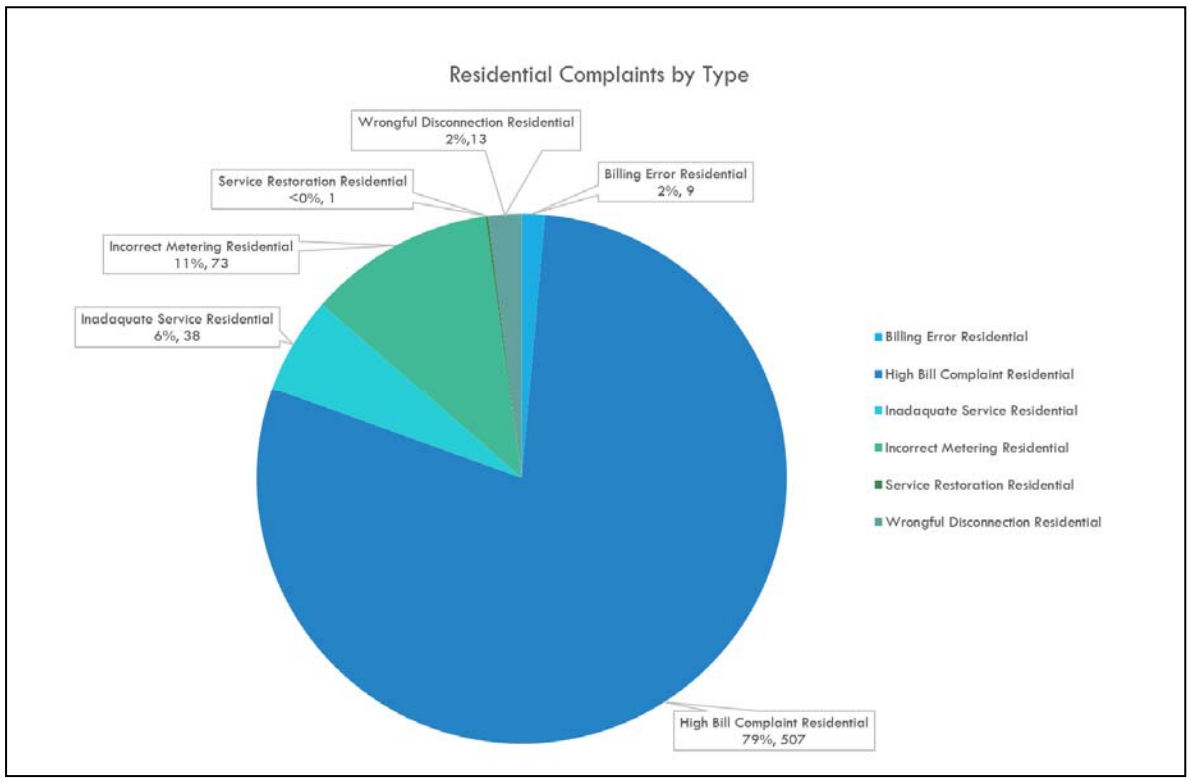

FIGURE 20: RESIDENTIAL COMPLAINTS BY TYPE 2017

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

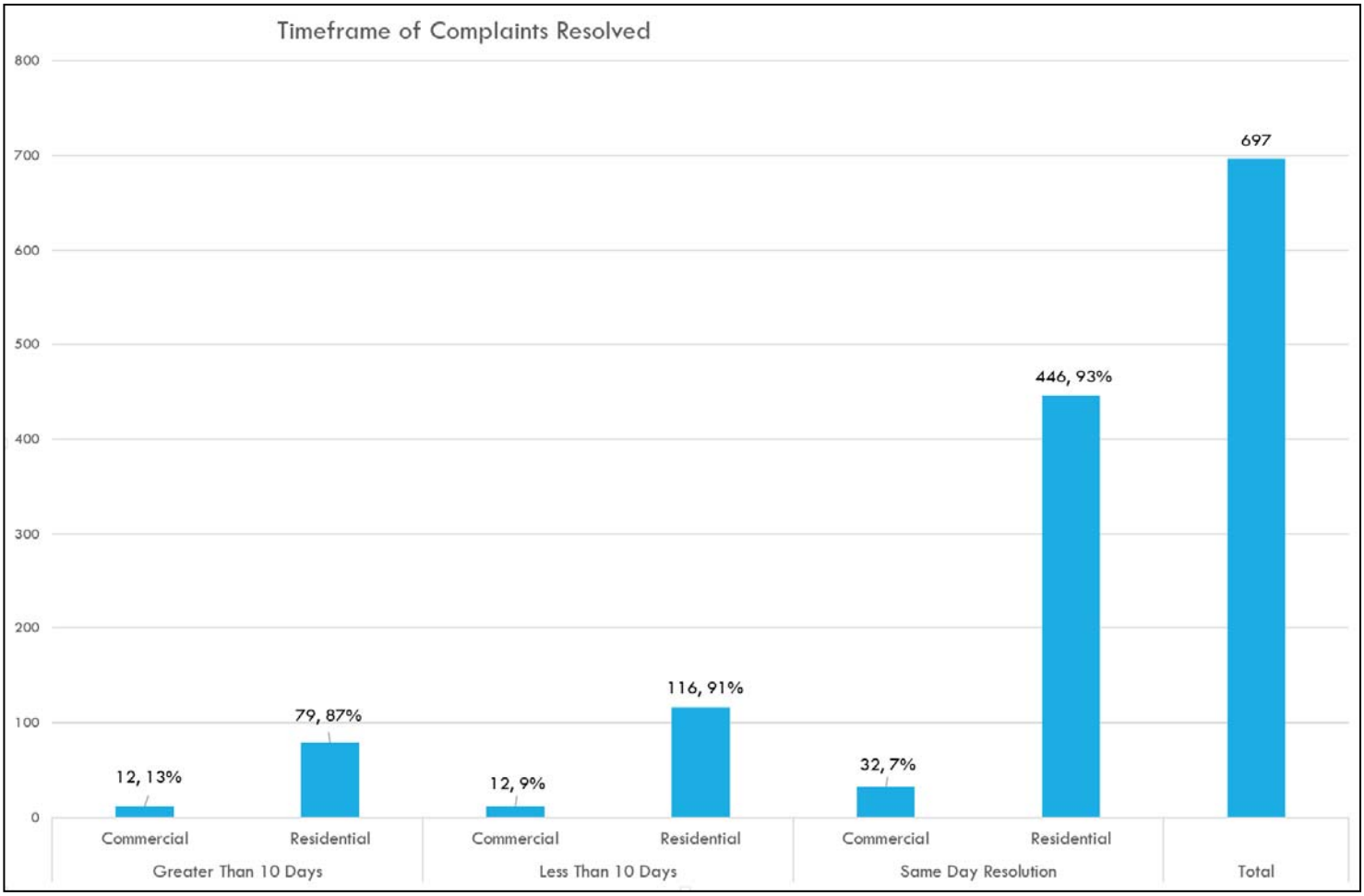

FIGURE 21: TIMEFRAME OF COMPLAINTS RESOLVED 2017

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.*

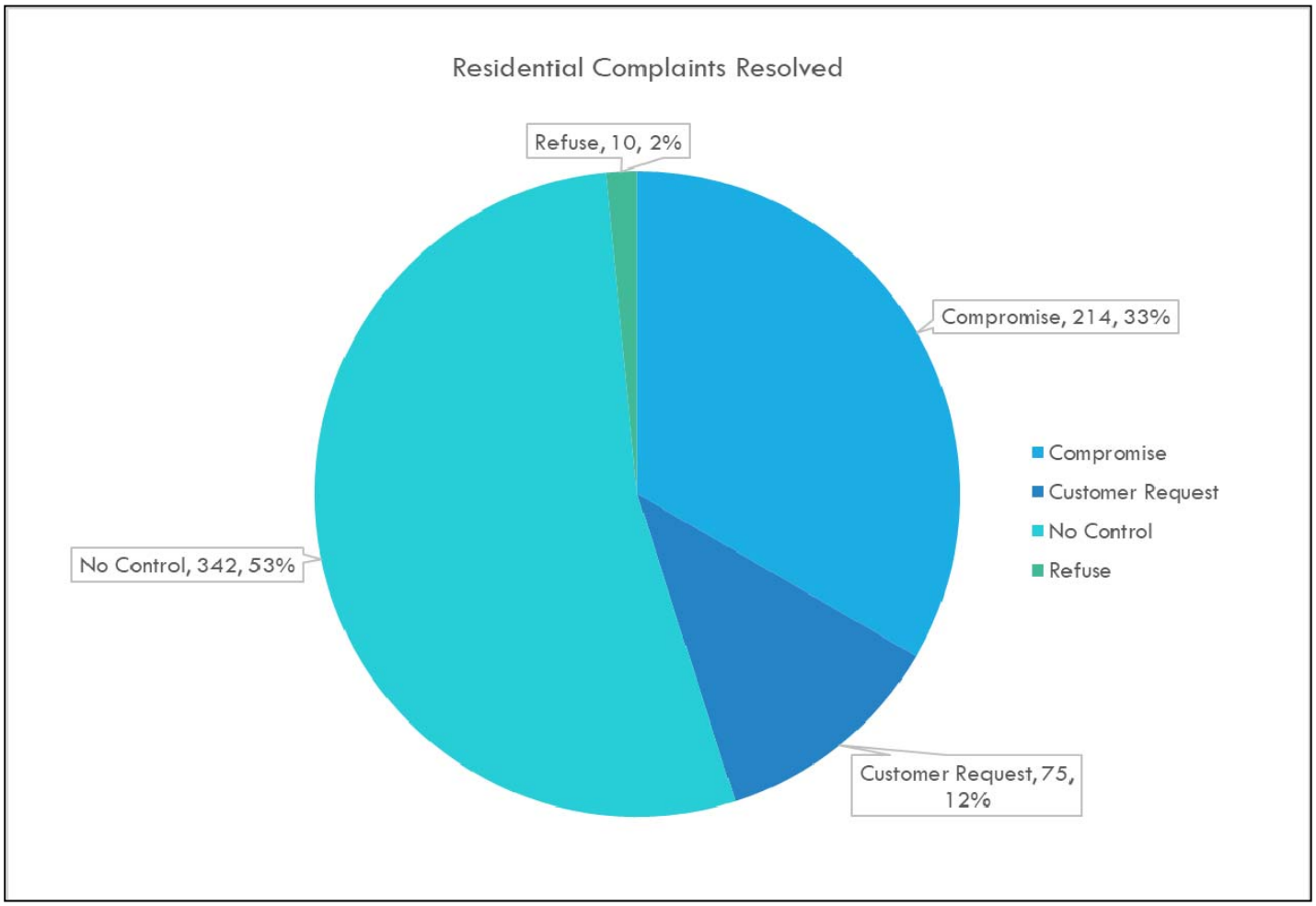

FIGURE 22: RESIDENTIAL COMPLAINTS RESOLVED 2017

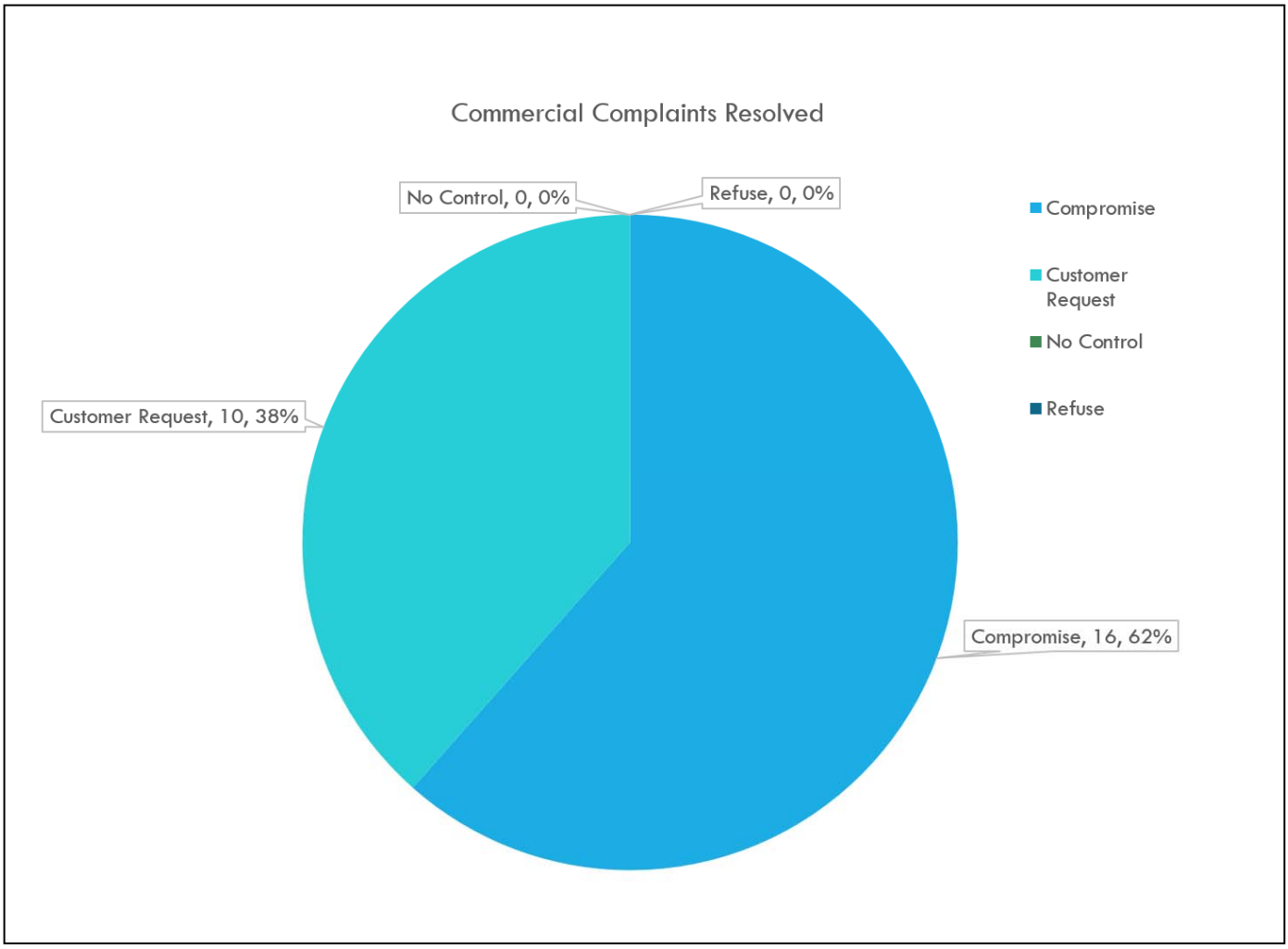

FIGURE 23: COMMERCIAL COMPLAINTS RESOLVED 2017

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

Minnesota Power had 14 complaints (12 Residential/2 Commercial) forwarded to the utility by the Commission's Consumers Affairs Office for further investigation and action in 2017.

Form No. 6102 Rev. 7/10

Subject: ESS-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: ESS-1

Date Out:	1/20/17	Date In:	1/20/17
Time Out:	14:47	Time In:	16:03

Duration: 76 Minutes

Number of Customers Affected: 982

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Eveleth

Major Customers: City Of Eveleth, United Taconite LLC

Cause: OH Equipment: OH insulator failed causing parent feeder to lockout.

Follow-Up: Changed out bad OH insulator

Form No. 6102 Rev. 7/10

Subject: WAK-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: WAK-1

Date Out:	1/21/17	Date In:	1/21/17
Time Out:	22:17	Time In:	23:27

Duration: 70 Minutes

Number of Customers Affected: 733

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: City of Walker

Major Customers: City of Walker

Cause: Bad Order Lighting Arrestor

Follow-Up: Lighting arrestor changed out.

Form No. 6102 Rev. 7/10

Subject: WBK-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: WBK-1

Date Out:	1/21/17	Date In:	1/21/17
Time Out:	22:17	Time In:	23:27

Duration: 70 Minutes

Number of Customers Affected: 623

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: City of Walker

Major Customers: City of Walker

Cause: Bad Order Lighting Arrestor

Follow-Up: Lighting arrestor changed out.

Form No. 6102 Rev. 7/10

Subject: NIN-246 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: NIN-246

Date Out:	2/19/17	Date In:	2/19/17
Time Out:	12:30	Time In:	14:00

Duration: 90 Minutes

Number of Customers Affected: 594

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Duluth

Major Customers: City of Duluth

Cause: Squirrel chewed through riser cable right outside the substation.

Follow-Up: Repaired damaged cable, also made alterations to riser guard to better protect the cable.

Form No. 6102 Rev. 7/10

Subject: STC-2 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: STC-2

Date Out:	2/21/17	Date In:	2/21/17
Time Out:	19:26	Time In:	20:32

Duration: 66 Minutes

Number of Customers Affected: 514

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Winton

Major Customers: N/A

Cause: GRE recloser lockout.

Follow-Up: N/A

Form No. 6102 Rev. 7/10

Subject: COL-242 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: COL-242

Date Out:	2-23-17	Date In:	2-23-27
Time Out:	7:01	Time In:	8:40

Duration: 96

Number of Customers Affected: 2770

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Duluth

Major Customers: City of Duluth

Cause: Smartswitch overload-252 feeding 242 and section of 241.

Follow-Up: Evaluating the profiles used in the smart switches.

Form No. 6102 Rev. 7/10

Subject: SLS-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: SLS-1

Date Out:	3/7/17	Date In:	3/7/17
Time Out:	18:43	Time In:	20:40

Duration: 117 Minutes

Number of Customers Affected: 815

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Menahga

Major Customers: City of Menahga

Cause: Weather/tree

Follow-Up: N/A

Form No. 6102 Rev. 7/10

Subject: STC-2 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: STC-2

Date Out:	3/7/17	Date In:	3/7/17
Time Out:	14:31	Time In:	17:02

Duration: 151 Minutes

Number of Customers Affected: 514

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Eveleth

Major Customers: N/A

Cause: Weather/tree on line.

Follow-Up: N/A

Form No. 6102 Rev. 7/10

Subject: VRG-311 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: VRG-311

Date Out:	3/7/17	Date In:	3/7/17
Time Out:	17:31	Time In:	18:42

Duration: 71

Number of Customers Affected: 536

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Eveleth

Major Customers: City of Mt. Iron, City of Eveleth, United Taconite LLC

Cause: Tree(Weather)

Follow-Up: N/A

Form No. 6102 Rev. 7/10

Subject: PIL-1 Outage Notice: First Notice

Distribution System Status Outage Notification

Feeder/Bus #: Pillager 1

Date Out:	4/14/17	Date In:	4/14/17
Time Out:	17:46	Time In:	18:50

Duration: 64

Number of Customers Affected: 608

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Pillager

Major Customers: City of Pillager

Cause: Broken pole on parent feeder due to GRE construction.

Follow-Up: N/A

Form No. 6102 Rev. 7/10

Subject: DEN-6431 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: DEN-6431

Date Out:	5/17/17	Date In:	5/17/17
Time Out:	21:12	Time In:	23:12

Duration: 120 Minutes

Number of Customers Affected: 1234

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Denham

Major Customers: N/A

Cause: Weather/Tree

Follow-Up: N/A

Form No. 6102 Rev. 7/10

Subject: EGB-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: EGB-1

Date Out:	5/19/17	Date In:	5/19/17
Time Out:	18:24	Time In:	19:31

Duration: 67 Minutes

Number of Customers Affected: 514

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Eagle Bend

Major Customers: City of Eagle Bend

Cause: Bad underground cable on parent feeder.

Follow-Up: N/A

Form No. 6102 Rev. 7/10

Subject: MAH-6411 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: MAH-6411

Date Out:	6/25/17	Date In:	6/25/17
Time Out:	10:22	Time In:	11:54

Duration: 92 minutes

Number of Customers Affected: 586

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Carlton, Mahtowa

Major Customers: N/A

Cause: Tree

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: MOT-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: MOT-1

Date Out:	7/5/2017	Date In:	7/5/2017
Time Out:	09:18	Time In:	14:10

Duration: 292

Number of Customers Affected: 565

For information about this alert, contact: Jill Feriancek
218-355-2797
jFeriancek@mnpower.com

For follow-up information or questions, contact: Jill Feriancek, OCC

Communities Affected: Motley

Major Customers: City of Motley

Cause: Bad Transformer at Motley Substation

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: GGR-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: GGR-1

Date Out:	7/6/17	Date In:	7/6/17
Time Out:	03:46	Time In:	05:54

Duration: 128 Minutes

Number of Customers Affected: 622

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Long Prairie

Major Customers: N/A

Cause: Unknown

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: NPS-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: NPS-1

Date Out:	7/17/17	Date In:	7/17/17
Time Out:	17:08	Time In:	19:32

Duration: 204 Minutes

Number of Customers Affected: 597

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: North of Nisswa

Major Customers: City of Nisswa

Cause: Weather

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: NAS-319 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: NAS-319

Date Out:	7/21/17	Date In:	7/21/17
Time Out:	12:47	Time In:	14:00

Duration: 73 Minutes

Number of Customers Affected: 1226

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Nashwauk, Calumet, Pengilly, Marble, Taconite

Major Customers: City of Nashwauk, City of Calument, City of Taconite, City of Marble

Cause: Weather

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: RGV-254 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: RGV-254

Date Out:	8/5/17	Date In:	8/5/17
Time Out:	04:41	Time In:	05:52

Duration: 71 Minutes

Number of Customers Affected: 2195

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Duluth East Hillside

Major Customers: City of Duluth

Cause: UG Equipment, pothead.

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: NPS-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: NPS-1

Date Out:	8/22/17	Date In:	8/22/2017
Time Out:	08:37	Time In:	09:48

Duration: 81 Minutes

Number of Customers Affected: 597

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: North of Nisswa

Major Customers: City of Nisswa

Cause: Weather/Tree

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: MDY-277 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: MDY-277

Date Out:	9/17/17	Date In:	9/17/17
Time Out:	07:19	Time In:	09:03

Duration: 104 Minutes

Number of Customers Affected: 1167

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Duluth (Midway)

Major Customers: City of Cloquet

Cause: UG Equipment

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: GLL-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: GLL-1

Date Out:	9/20/17	Date In:	9/20/17
Time Out:	01:34	Time In:	03:48

Duration: 134 Minutes

Number of Customers Affected: 1125

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Nisswa, Gull Lake

Major Customers: N/A

Cause: Weather/Tree

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: NPS-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: NPS-1

Date Out:	9/20/17	Date In:	9/20/17
Time Out:	01:36	Time In:	07:50

Duration: 338 Minutes

Number of Customers Affected: 597

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: North of Nisswa

Major Customers: City of Nisswa

Cause: Weather/Tree

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: SVR-215 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: SVR-215

Date Out:	9/26/17	Date In:	9/26/17
Time Out:	02:57	Time In:	04:21

Duration: 84 Minutes

Number of Customers Affected: 764

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Hermantown, Pike Lake

Major Customers: N/A

Cause: Tree

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: NIN-248 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: NIN-248

Date Out:	10/27/17	Date In:	10/27/17
Time Out:	08:56	Time In:	10:01

Duration: 65 Minutes

Number of Customers Affected: 1914

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Duluth

Major Customers: City of Duluth

Cause: UG equipment-Transformer failed.

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: DER-2 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: DER-2

Date Out:	10/31/17	Date In:	10/31/17
Time Out:	18:34	Time In:	20:01

Duration: 87 Minutes

Number of Customers Affected: 673

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Deerwood

Major Customers: City of Deerwood

Cause: Unknown

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: DHY-1 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: DHY-1

Date Out:	10/31/17	Date In:	10/31/17
Time Out:	18:34	Time In:	20:01

Duration: 87 Minutes

Number of Customers Affected: 621

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Deerwood, Ironton

Major Customers: City of Crosby

Cause: Unknown

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: SBT-4301 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: SBT-4301

Date Out:	11/6/17	Date In:	11/6/17
Time Out:	08:59	Time In:	11:32

Duration: 153 Minutes

Number of Customers Affected: 624

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Silver Bay

Major Customers: City of Silver Bay

Cause: Planned outage.

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: Barnum 6421 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: BAR-6421

Date Out:	12/27/2017	Date In:	12/27/2017
Time Out:	0244	Time In:	0832

Duration: 348

Number of Customers Affected: 940

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Barnum

Major Customers: N/A

Cause: Broken wire on parent feeder.

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: Denham 6431 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: DEN-6431

Date Out:	12/27/2017	Date In:	12/27/2017
Time Out:	0244	Time In:	0926

Duration: 402

Number of Customers Affected: 1234

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Denham

Major Customers: N/A

Cause: Broken wire on parent feeder.

Follow-Up:

Form No. 6102 Rev. 7/10

Subject: Mahtowa 6411 Outage Notice: Final Notice

Distribution System Status Outage Notification

Feeder/Bus #: MAH-6411

Date Out:	12/27/2017	Date In:	12/27/2017
Time Out:	0244	Time In:	0831

Duration: 347

Number of Customers Affected: 586

For information about this alert, contact: Brian Schminski
218-355-2042
bschminski@mnpower.com

For follow-up information or questions, contact: Brian Schminski, OCC

Communities Affected: Mahtowa

Major Customers: N/A

Cause: Broken wire on parent feeder.

Follow-Up:

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

PURPOSE AND CONTENTS

These Service Regulations govern the supplying and taking of electric service. The regulations are designed to provide each Customer the greatest practicable latitude in the use of service consistent with reliable, economical and safe service to all Customers.

These Service Regulations, together with Extension Rules and Rate Schedules, are on file in the Company's various offices, and copies are obtainable by any Customer upon request by telephone, by mail, or www.mnpower.com.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

PURPOSE AND CONTENTS

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

SECTION I - DEFINITIONS

The following terms when used in these Service Regulations, in Rate Schedules and in Service Agreements, shall, unless otherwise indicated, have the meanings given below:

1. **Customer:** Any individual(s), partnership, association, firm, public or private corporation or governmental agency having Company's electric service at any specified location.

2. **Company:** Minnesota Power.

3. **Electric Service:** The supplying of electric power and energy, or its availability, irrespective of whether any electric power and energy is actually used. Supplying of service by Company consists of the maintaining by it, at the point of delivery, of approximately the agreed voltage and frequency by means of facilities adequate for carrying Customer's contracted load.

4. **Point of Delivery:** The end of Company's service drop, or the point where Company's wires are joined to Customer's service entrance conductors or apparatus, unless otherwise specified in Customer's Service Agreement.

5. **Customer's Installation:** In general, all wiring, appliances and apparatus of any kind or nature on Customer's side of the point of delivery (except Company's meter installation), useful in connection with Customer's ability to take electric service.

6. **Service Drop:** The wires, owned by Company, connecting Company's distribution mains to Customer's service entrance conductors.

7. **Service Entrance Conductors:** The wires provided by the Customer extending from Customer's main line switch or center at which circuits originate, to the terminal of the Company's service drop.

8. **Month:** An interval of approximately thirty days between successive meter reading dates, except when the calendar month is specified.

9. **Service Agreement:** The agreement or contract between Company and Customer pursuant to which service is supplied and taken.

10. **Notice:** Unless otherwise specified, a written notification delivered personally or mailed by one party to the other at such other party's last known address, the period of notice being computed from the date of such personal delivery or mailing.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

11. **Meter:** The meter or meters, together with auxiliary devices, if any, constituting the complete installation needed to measure and report the power and energy supplied to any Customer at a single point of delivery.

12. **Customer Extension:** Any branch from, or continuation of, an existing line to the point of delivery to Customer, including increases in capacity of any of Company's existing facilities, or the changing of any line to meet the Customer's requirements, and including all transformers, service drops and meters.

SECTION II - SERVICE AGREEMENTS

13. **Form and Execution of Service Agreements:** Each application for service normally is made on Company's standard form of application, which, when properly executed by Customer and Company, becomes binding and along with the applicable Rate Schedules, Rules and Regulations, is termed a Service Agreement. Any Service Agreement referred to herein is subject to amendment or change by Company. Any such amendment or change to a Service Agreement may be subject to acceptance or approval by any regulatory body having jurisdiction thereof and upon acceptance or approval will automatically apply to any executed Service Agreement.

If for any reason an application is not signed by the Customer, the giving of service by the Company and the accepting of such service by all Customers receiving service shall impose the same obligation on each as if a Service Agreement had been executed.

14. **Contract Period of Service Agreements:** The contract period shall be as indicated in the applicable Rate Schedule, unless otherwise provided for in the Service Agreement.

15. **Renewal and Termination of Service Agreements:** Renewals shall be as provided for in the Service Agreement. Unless otherwise provided in the Service Agreement or Rate Schedule, Customer may terminate service at any time by notifying Company not less than three days prior to the date termination is desired. Customer will be held responsible for all service supplied to vacated premises until such notice has been received by Company. Notification may be made by writing, by telephone, mail or by visiting the Company's website at www.mnpower.com.

When the contract period of a Service Agreement is extended, the demand previously established by Customer is considered as having been established under the extended contract period.

When a new Service Agreement is entered into, the demand previously established by Customer is considered as having been established under the contract period of the new

Service Agreement except that, when the contract demand under the new Service Agreement is less than 60% of the highest actual demand established in the previous contract year, the Company will waive the above requirement.

16. **Company's Right to Cancel Service Agreement or to Suspend Service:** Company, in addition to all other legal remedies, may terminate the Service Agreement, or suspend delivery of service, for any default or breach of the Service Agreement by the Customer, but no such termination or suspension will be made by Company without five (5) days written notice, excluding Sundays and legal holidays, to Customer, stating in what particular the Service Agreement has been violated, except in cases of unlawful or unauthorized use of service by Customer, or dangerous leakage or short circuit on Customer's side of the point of delivery, or in case of utilization by Customer of service in such manner as to cause danger to persons or property. Failure of Company at any time to either suspend delivery of service or to terminate the Service Agreement, or to resort to any other legal remedy, or its adoption of either one or the other of such alternatives, shall not affect Company's right to resort to any of such remedies for the same or any future default or breach by Customer.

17. **Successors and Assigns:** Service Agreements inure to the benefit of and are binding upon the respective heirs, legal representatives, successors and assigns of the parties thereto; but no assignment by Customer shall be binding upon Company until accepted in writing by the latter.

SECTION III - SUPPLY AND TAKING OF SERVICE

18. **Supplying of Service:** Service is supplied only under and pursuant to these Service Regulations and the applicable Rate Schedule, Riders, and Regulatory Rules. Service is supplied under a given Rate Schedule only at such points of delivery as are adjacent to facilities of Company adequate and suitable, as to capacity and voltage, for the service desired.

Service will be subject to disconnection and deposit requirements as provided by rules of the Minnesota Public Utilities Commission and other applicable law, if, at the time of application for service, the Customer is indebted to the Company for service previously supplied at the same or another address.

19. **Disconnection of Service:**

A. With Notice - Service may be disconnected with notice for any reason under Minn. Rules Part 7820.1000 or as may otherwise be provided in Company's Service Regulations, Service Schedules or Service Agreements.

B. Without Notice - Service may be disconnected without notice for any reason under Minn. Rules Part 7820.1100 or as may otherwise be provided in Company's Service Regulations, Service Schedules or Service Agreements.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

20. **Reconnection of Service:** Company shall reconnect service following disconnection for non-payment only after all past due accounts, deposits and reconnection fees, where applicable, shall have been paid.

A. The Service Reconnection Fee shall be as follows:

i. $20.00 between the hours of 8:00 AM and 4:30 PM Monday through Friday.

ii. $100.00 after 4:30 PM, before 8:00 AM and on Saturdays, Sundays and legal holidays, however, customer with remote technology capability who has met payment requirements and desires to be reconnected after hours shall pay a Service Reconnection Fee of $20.00.

B. Where service has been disconnected under Minn. Rules Part 7820.1100.B., a reconnection fee will not be required.

C. Following disconnection under Minn. Rules 7820.1100.A., reconnection will occur only after Company has received payment from Customer of the following:

i. Power and energy not recorded on the meter at the appropriate rate, the amount of which may be estimated by Company based on the best available data.

ii. All expenses incurred by Company due to any such unauthorized act or acts.

21. **Service Relock Penalty:**

A. Company shall assess a Service Relock Penalty of $100 where the Company has previously disconnected service and is required to subsequently return to relock or disconnect the service after it was connected by a Customer without Company authorization.

B. Company shall assess a penalty for all expenses incurred if additional disconnection of service is required at Customer premises.

C. In the event of any loss or damage to such property of Company or other person caused by or arising out of carelessness, neglect or misuse by Customer or other unauthorized persons, the cost of making good such loss or repairing such damage shall be paid by Customer.

22. **Continuity of Service:** Company will endeavor to provide continuous service but does not guarantee a constant supply of electric energy and shall not be liable to Customer for damages occasioned by interruption, except as provided by law. The Company shall not be liable for any loss of profits, special, or consequential damages resulting from the use of service or any interruption or disturbance of service.

In the event of power shortage any curtailment among Customers shall be made as nearly as practical pro rata without liability on the part of Company to any Customer affected.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

If any part of service furnished by Company is employed for purpose of pumping water, Company assumes no obligation to maintain an adequate supply for fire protection, or any other purpose, whatsoever, and such use shall not subject Company to any liability to any party for damages to person or property due to failure of water supply resulting from an interruption or deficiency of electric service from whatsoever cause the same may arise.

23. **Suspension of Service for Repairs and Changes:** When necessary to make repairs to or changes in its lines or system, Company may, without incurring any liability therefore, suspend service for such periods as may be necessary, and in such manner as to minimize inconvenience to Customer.

24. **Use of Service:** Service is for Customer's use only. Company permits redistribution and submetering only where allowed by law. The electric service equipment and associated building wiring of buildings shall be arranged by the owner to permit individual metering of the electrical consumption of each building and occupancy unit to comply with Minn. Stat. 504B.161 and any law amendatory thereto. If desired by the owner, the Company will install and maintain necessary individual Company meters to measure consumption and render bills on the applicable Rate Schedules to each Customer and separately occupied building and occupancy unit.

In no case may Customer, except with the written consent of Company, extend or connect an installation to lines across or under a street, alley, lane, court or avenue or other public or private space in order to obtain service for adjacent property through one meter even though such adjacent property be owned by Customer. Such consent may be given when such adjacent properties are operated as one integral unit under the same name and for carrying on parts of the same business. In case of unauthorized remetering, sale or extension of service to another person, Company, after five (5) days written notice excluding Sundays and legal holidays, may discontinue the supplying of service to Customer until such unauthorized act is discontinued and full payment is made for all service supplied or used, billed on proper classification and Rate Schedule, and reimbursement in full made to Company for all extra expenses incurred, including expenses for clerical work, testing and inspections.

25. **Customer's Responsibility:** Customer assumes all responsibility on Customer's side of the point of delivery for the service supplied or taken, as well as for the electrical installation, appliances and apparatus used in connection therewith, and shall save Company harmless from and against all claims for injury or damage to persons or property occasioned by or in any way resulting from such service or the use thereof on Customer's side of the point of delivery.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

26. **Right-of-Way:** Customer shall, without compensation, make or procure satisfactory conveyance to Company of right-of-way for Company's lines necessary and incidental to the furnishing of service to Customer and for continuing or extending said lines over, under, across or through the property owned or controlled by Customer in a manner deemed appropriate by the Company.

27. **Access to Premises:** Company personnel may enter Customer's premises only as authorized by applicable law and regulations. Failure of Customer to provide Company reasonable access may result in disconnection of service under Minn. Rules Part 7820.1000(E).

28. **Location of Point of Attachment:** Customer's Point of Attachment is to be located at a point readily accessible to Company's distribution mains. Customer shall install and maintain a point of attachment for Company's service drop. Said point of attachment shall be of sufficient mechanical strength to support the wind and ice loaded weight of the service drop and shall be located as determined by the Company.

SECTION IV - CUSTOMER'S INSTALLATION

29. **Nature and Use of Installation:** All of Customer's wires, apparatus and equipment shall be selected with the view to obtaining safety, good efficiency, good voltage regulation and the highest practicable power factor and shall be installed in accordance with standard practices. Customer shall install and maintain, on Customer's side of point of delivery, suitable protective equipment as may be required by the Company for the protection of its service to other customers and may not employ or utilize any equipment, appliance or device so as to affect adversely Company's service to Customer or to others. The Company's failure to require such equipment shall not operate to relieve Customer from the obligation to utilize and comply with standard practices. Company may require auto starters or other suitable starting devices for motors above 5 horsepower. When polyphase service is supplied by Company, Customer shall control the use thereof so that the load at the point of delivery will be maintained in reasonable electrical balance between the phases.

Installations of neon, fluorescent, mercury vapor lamps or tubes, or other types of gaseous tube lamps, or other devices having low power factor characteristics, should be equipped with corrective apparatus to increase the power factor of each unit or separately controlled group of units to not less than approximately 90% lagging.

30. **Inspection by Company:** Company retains the right, but does not assume the duty, to inspect Customer's installation at any time and will refuse to commence or to continue service whenever it does not consider such installation to be in good operating condition, but Company does not in any event assume any responsibility whatever in connection with such matters.

31. **Changes in Installations:** As Company's service drops, transformers, meters, and other facilities used in supplying service to Customer have a definite limited capacity, Customer shall give notice to Company, and obtain Company's consent, before making any material changes or increases in Customer's installation. Company as promptly as possible after receipt of such notice will give its approval to the proposed change or increase, or will advise Customer upon what conditions service can be supplied for such change or increase. Failure to secure Company's approval shall make Customer liable for any damage to Company's facilities.

SECTION V - COMPANY'S INSTALLATION

32. **Installation and Maintenance:** Except as otherwise provided in these Service Regulations, in Service Agreements or Rate Schedules, Company will install and maintain its lines and equipment on its side of the point of delivery, but shall not be required to install or maintain any lines or equipment, except meters, on Customer's side of the point of delivery. Only Company's agents are authorized to connect Company's service drop to Customer's service entrance conductors and to connect Company's meters.

(a) Electrical Permit: The Company is prohibited from connecting its service drop to Customer's service entrance conductors until permitted by the governmental authority having jurisdiction.

(b) Standard Connection: The ordinary method of connection between Company's distribution mains and Customer's service entrance conductors will be by overhead wires. If Customer desires to have connection made in any other manner, special arrangements will be made between Customer and Company by which the connection will be made and maintained at Customer's expense.

(c) Suitable Space: The Customer shall provide at no cost to Company a suitable room or space for Company's transformers and equipment specifically used in providing service to Customer when such room or space is deemed necessary by Company.

33. **Protection by Customer:** Customer shall protect Company's wiring and apparatus on Customer's premises and shall permit no one except Company's agents or persons authorized by law to inspect or handle same. In the event of any loss or damage to such property of Company or other person caused by or arising out of carelessness, neglect or misuse by Customer or other unauthorized persons, the cost of making good such loss or repairing such damage shall be paid by Customer.

Company shall not be responsible to Customer or any other party because of any damage resulting from such installations which are not readily subject to inspection from the ground and the exterior of the premises, or from the meter location, unless Customer shall have notified Company of a condition which, in the reasonable opinion of the Customer, requires attention and the Company shall have had a reasonable time within which to inspect and, if necessary, repair the same.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

34. **Customer Extensions:** The Company, at its own expense, makes extensions where the revenue therefrom is sufficient, in Company's opinion, to justify the necessary expenditure.

Where the Company cannot be assured that the business offered is of sufficient duration, where unusual expenditures are necessary to supply service because of location, size or character of installation, or where area requirements of regulatory bodies may control, the Customer or Customers shall make arrangements satisfactory to Company dependent upon the particular conditions of each situation.

35. **Alteration of Facilities:** Company will, at its discretion, alter, relocate, convert to underground, or remove Company's facilities as may be requested in writing by Customer. Customer shall pay Company for all costs, except as limited below, associated with such alteration, relocation, conversion to underground, or removal including any new facilities required to provide service after the alteration, relocation, conversion, or removal.

Customers requesting the alteration, relocation, conversion, or removal shall pay the estimated cost for the change, less salvage, of the facilities required to effect such change prior to Company committing funds for the work. Where the actual cost is different from the estimated cost upon which the advance payment was based, as determined upon completion of the requested alteration, relocation, or removal, Company will refund any excess payment made by Customer or render a bill for any additional amount due. However, where Company's estimated cost is less than $5,000, and actual cost exceeds such estimate, the additional amount due by Customer shall not exceed 15 percent of the estimate, regardless of the amount of actual cost.

SECTION VI - METERING

36. **Installation:** Company shall furnish and install the necessary meter or meters, and Customer shall provide and maintain a location, free of expense and satisfactory to Company, all in accordance with Company's Metering Standards.

37. **Evidence of Consumption:** Unless proven to be inaccurate, the registration of Company's meter shall be accepted and received at all times and places as prima facie evidence of the amount of power and energy taken by Customer.

38. **Tests:** Company tests its meters and maintains their accuracy of registration in accordance with good practice. On request of Customer, Company will make a special test which will be done at the expense of the Company. If the Customer requests another test before the expiration of a twelve-month period, the Customer shall bear the cost of the test if the meter is found to be in error by less than 2%, fast or slow. The average registration accuracy of a meter is taken as the mean of full load (100% of rated load) accuracy, and light load (5-10% of rated load) accuracy. At Company's discretion, tests may be made under average load conditions.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

SECTION VII - PARALLEL GENERATION

39. **Design:** Customer's electric generating equipment shall be designed (1) to operate in synchronization with Company's system and (2) to automatically disconnect the facility from Company's system in the event Company's system becomes de-energized. All synchronizing and protective devices to accomplish this mode of operation shall be provided and maintained by Customer.

40. **Disconnection:** Customer shall provide and maintain a manual, lockable disconnect switch providing a visible open and capable of isolating the Customer's generator from the Company's electrical system. This disconnect switch shall be readily accessible to Company personnel at all times, shall include a provision for padlocking it in the open position, and shall meet all other reasonable requirements established by Company.

41. **Customer Responsibility:** Customer shall pay for the cost of rebuilding and/or modifying Company facilities to provide adequate capacity for the parallel generation system and adequate protection for the Company's electrical system.

Customer shall be subject to Company's Safety Standards and Interconnection Requirements Applicable to Cogenerators and/or Small Power Producers of Minnesota Power as filed annually with the Commission. Copies of such standards shall be made available to Customer upon request and are available at www.mnpower.com.

SECTION VIII - BILLING

42. **Billing Periods:** Bills ordinarily are rendered regularly at monthly intervals, but may be rendered more or less frequently at Company's option. Non-receipt of bills by Customer does not release or diminish the obligation of Customer with respect to payment thereof.

43. **Separate Billing for Each Point of Delivery:** At each point of delivery the use of service is metered separately for each Customer served. Whenever for any reason Company furnishes two or more meter installations for a single Customer, or supplies service under a Rate Schedule which does not require a meter, each point of metering and/or point of delivery where no meter is required is considered as a separate service. A separate Service Agreement is required, and bills are separately calculated, for each such separate service, except where Company may, under special circumstances, waive this requirement.

44. **Adjustment for Inaccurate Meter Registration:**

Meter too fast or too slow: In the event that any routine or special test of a Company meter discloses its average accuracy of registration to be in error by more than 2%, fast or slow, Company will refund the overcharge for a fast meter or charge for electricity consumed, but not included in the bills previously rendered for a slow meter. The refund or charge for both fast and slow meters will be based on corrected meter readings for a period equal to one-half the time elapsed since the last previous test but not to exceed six (6) months, unless it can be established that the error was due to some cause, the date of which can be fixed with reasonable certainty, in which case the refund or charge will be computed to that date, but in no event for a period longer than one (1) year.

Whenever any bill or bills have been adjusted or corrected as provided above, the Company will refund to existing Customer any amount due when the amount due exceeds one ($1) dollar or to previous Customer any amount due when the amount due exceeds two ($2) dollars or Company will bill Customer for any amount owed when the amount owed exceeds ten ($10) dollars, as the case may be.

Meter fails to register or registers intermittently: When the average error cannot be determined by test because the meter is not found to register or is found to register intermittently, the Company may charge for an estimated amount of electricity used, which shall be calculated by averaging the amounts registered over corresponding periods in previous years or in the absence of such information, over similar periods of known accurate measurement preceding or subsequent thereto, but in no event shall such charge be for a period longer than one year.

If a Customer has called to the Company's attention doubts as to the meter's accuracy and the Company has failed within a reasonable time to check it, there shall be no back billing for the period between the date of the Customer's notification and the date the meter was checked.

45. **Late Payment Charge:** Company shall assess a Late Payment Charge of 1-1/2% or $1.00 per monthly billing period, whichever is greater, on that portion of a retail Customer's account representing charges for Company service(s) past due, if the unpaid balance exceeds $10.00. All late payments received will be credited against the oldest outstanding account balance before the application of any Late Payment Charge. The unpaid Company account balance for a Customer under the Budget Billing Plan or another Company approved payment plan shall mean that the Company budget arrears balance and not the accumulated actual Company balance will be subject to a Late Payment Charge. No Late

Payment Charge will be charged on the portion of the Company balance in dispute while dispute procedures are underway. A Late Payment Charge may be retroactively charged on the settled amount after dispute procedures are completed. At Company's discretion, any Late Payment Charge, or portion thereof, may be waived provided such waiver is consistent with the Minnesota Public Utilities Act.

A. **Residential customer**: A Late Payment Charge shall be added to any Company account for which payment is not received and credited by Company by the next scheduled billing date. Residential customer who qualifies for assistance under the Low Income Home Energy Assistance Program (LIHEAP) may request waiver of the Late Payment Charge on the "current bill" portion of each monthly bill. Self-qualification using LIHEAP income guidelines will be permitted for Senior Citizens at age 62 or older. Efforts will be made by Company to work with local governmental agencies to pre-qualify Customers where administratively feasible. Customer accounts must be re-qualified annually.

B. **Nonresidential customer**: A Late Payment Charge shall be added to any Company account for which bill payment is not received and credited by Company within fifteen (15) days from the current billing date.

46. **Delinquent Bills:** Bills become delinquent if not paid on or before the past due date as shown on bill and service may be discontinued upon five (5) days written notice, excluding Sundays and legal holidays, to Customer after becoming delinquent. During the cold weather months, October 15 through April 15, service may be disconnected only as provided in section 60 and Minnesota Statutes, section 216B.096. For residential customers, such written notice of disconnection shall specify a disconnection date not earlier than the third working day after the next scheduled billing date.

47. **Unlawful Use of Service:** In any case of tampering with meter installation or interfering with the proper functioning thereof or any other unlawful use or diversion of service by any person, or evidence of any such tampering, interfering, unlawful use or service diversion, Customer is liable to immediate discontinuance of service, without notice, and to prosecution under applicable laws, and Company shall be entitled to collect from Customer at the appropriate rate for all power and energy not recorded on the meter by reason of such tampering, interfering, or other unlawful use or service diversion (the amount of which may be estimated by Company from the best available data), and also for all expenses incurred by the Company on account of such unauthorized act or acts.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

48. **Charge for Restoring Service:** If service to Customer is discontinued by Company for valid cause, then before service is restored, Customer shall pay Company all permitted costs of discontinuing and restoring service. There will be no charge for reconnection when service has been discontinued in the event of a condition determined to be hazardous to Customer, to other Customers of Company, to Company's equipment, or to the public.

If Customer requests that service be discontinued and subsequently requests restoration of service at same premises within twelve (12) months of discontinuance, the charge for restoring service will be the sum of minimum bills during the elapsed period but not less than all costs of discontinuing and restoring service.

49. **Selection of Schedule:** The Company's Rate Schedules are designed for service supplied to Customer on a continuous annual basis. Customer may elect to take service under any of the Rate Schedules applicable to such service. Company will advise Customer of the Rate Schedules which, in its judgment, are best adapted to Customer's needs on an annual basis, but such advice must be based upon Customer's statements as to Customer's installation and requirements for service and Company assumes no responsibility for the selection of the Rate Schedule made by Customer. If Customer changes selection of a Rate Schedule, Customer may not go back to the previous Rate Schedule for a period of twelve (12) months; provided, however, that a Large Light and Power Customer whose normal monthly firm demand is below 10,000 kW shall be billed on the Large Power Service Schedule in months in which its measured demand, as adjusted for power factor, exceeds 10,000 kW, and shall go back to the Large Light and Power Service Schedule when its demand falls below 10,000 kW. Rules applicable to specific Rate Schedules shall apply when Customer desires service on other than a continuous annual basis, or the term of service provision of the Rate Schedule is greater than one (1) year.

If, for any cause a Service Agreement is entered into in which is specified a Rate Schedule not applicable to the class of service taken, on discovery of the error all bills rendered during the preceding twelve (12) months will be recalculated in accordance with the properly applicable Rate Schedule and Company will refund to existing Customer any amount due, when the amount due exceeds one ($1) dollar or to previous Customer any amount due, when the amount due exceeds two ($2) dollars, or Company will bill Customer for any amount owed, when the amount owed exceeds ten ($10) dollars, as the case may be. If the amount due Company is not paid within ten (10) days from presentation of bill, or Customer does not agree to payment over a reasonable period of time, or Customer fails to sign a new Service Agreement, Company may, after five (5) days written notice excluding Sundays and legal holidays, disconnect service.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

50. **Proration of Bills:** Bills for energy used during a billing period that is longer or shorter than the normal billing period by more than five (5) days shall be prorated on a daily basis, but no billing will be made for three (3) or less days when no energy is used. However, in no event will the total length of service between initial and final service be taken as less than one (1) month.

No bill will be prorated for change in operating level within the billing period.

51. **Company Billing Errors**: When a Customer has been overcharged or undercharged as a result of incorrect reading of the meter, incorrect application of rate schedule, incorrect connection of the meter, application of an incorrect multiplier or constant or other similar reasons, the amount of the overcharge shall be refunded to the Customer or the amount of the undercharge may be billed to the Customer as detailed in Minnesota Administrative Rules 7820.3800 subparts 2 through 4.

A. **Remedy for overcharge**. If a Customer was overcharged, the Company shall calculate the difference between the amount collected for service rendered and the amount the Company should have collected for service rendered, plus interest up to a maximum of three years from the date of discovery. Interest will be calculated as prescribed by Minnesota Statutes, section 325E.02(b). If the recalculated amount indicates that more than $1 is due an existing Customer or $2 is due a person no longer a Customer of the Company, the full amount of the calculated difference between the amount paid and the recalculated amount shall be refunded to the Customer.

B. **Remedy for undercharge.** If a Customer was undercharged, the Company shall calculate the difference between the amount collected for service rendered and the amount the Company should have collected for service rendered, for the period beginning one year before the date of discovery. If the recalculated amount due the Company exceeds $10, the Company may bill the Customer for the amount due. The Company must not bill any undercharge incurred after the date of a Customer inquiry or complaint if the Company failed to begin investigating the matter within a reasonable time and the inquiry or complaint ultimately resulted in the discovery of the undercharge.

C. **Exception if error date known.** If the date the error occurred can be fixed with reasonable certainty, the remedy shall be calculated on the basis of payments for service rendered after that date, but in no event for a period beginning more than three years before the discovery of an overcharge or one year before the discovery of an undercharge.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

SECTION IX - DEPOSITS AND GUARANTEES

52. **When Required:** Company may require Customer to make a deposit or guarantee satisfactory to Company to secure the payment of bills as they become due. Specific conditions requiring deposits or guarantees are identified in Regulation 54. The amount of such deposit shall not exceed twice the average monthly bill of Customer as estimated by Company from Customer's statement in his or her application or as thereafter ascertained.

53. **When Refunded:** The deposit shall be refunded to Customer after twelve (12) consecutive months of prompt payment of all Company bills. Company may, at its option, refund the deposit by direct payment or as a credit on the bill. Upon termination of service, the deposit with accrued interest shall be credited to Customer's final bill and the balance, if any, shall be returned within forty-five (45) days to Customer with a written receipt as required under Minn. Stat. 325E.02(b).

54. **Interest on Deposits:** Interest shall be paid annually on all deposits at the rate specified by Minn. Stat. 325E.02(b) or other applicable laws of the State of Minnesota and will be applied against the electric service bill. Any unpaid interest at time of final settlement of Customer's accounts will be credited to Customer's accounts.

55. **Conditions Requiring a Deposit or Guarantee**: Company may require a deposit or guarantee of payment as condition of obtaining new service or continuing existing service under Minn. Rules Part 7820.4300, 7820.4400 or as may otherwise be provided below.

A. Customer has outstanding a prior utility service account with another electric or gas utility which at the time of request for service remains unpaid and not in dispute.

B. Information requested under Minn. Rules Part 7820.4300 or 7820.4400 is not provided within twenty (20) days of the request for service (except where Customer has sought but not yet received credit information from a prior utility).

C. Information provided pursuant to Minn. Rules Part 7820.4300 or 7820.4400 is determined to be false or erroneous.

56. **Conditional Service Prior to Establishment of Credit**: Conditional service shall be provided expeditiously upon receipt of an application for service, and for up to twenty (20) days until credit has been satisfactorily established. Conditional service may be disconnected immediately without notice if required information or a required deposit or guarantee has not been received twenty (20) days after Company's request.

SECTION X – COLD WEATHER RULE

57. **Applicability.** This section applies only to residential customers of the Company.

58. **Definitions.**

A. The terms used in this section have the meanings given them in Minnesota Statute, 216B.096.

B. "Cold weather period" means the period from October 15 through April 15 of the following year.

C. "Customer" means a residential customer of the Company.

D. "Disconnection" means the involuntary loss of Company heating service as a result of a physical act by the Company to discontinue service. Disconnection includes installation of a service or load limiter or any device that limits or interrupts Company service in any way.

E. "Household income" means the combined income, as defined in Minnesota Statutes 290A.03, subdivision 3, of all residents of the Customer's household, computed on an annual basis. Household income does not include any amount received for energy assistance.

F. "Reasonably timely payment" means payment within five working days of agreed-upon due dates.

G. "Reconnection" means the restoration of Company heating service after it has been disconnected.

H. "Summary of rights and responsibilities" means a Commission-approved notice that contains, at a minimum, the following:

1) an explanation of the provisions of subdivision 5;
2) an explanation of no-cost and low-cost methods to reduce the consumption of energy;
3) a third-party notice;
4) ways to avoid disconnection;
5) information regarding payment agreements;

6) an explanation of the Customer's right to appeal a determination of income by the Company and the right to appeal if the Company and the Customer cannot arrive at a mutually acceptable payment agreement, and a list of names and telephone numbers for county and local energy assistance, and weatherization providers in each county served by the Company.

I. "Third-party notice" means a commission-approved notice containing, at a minimum, the following information;

1) a statement that the Company will send a copy of any future notice of proposed disconnection of Company heating service to a third party designated by the residential customer;
2) instructions on how to request this service; and
3) a statement that the residential customer should contact the person the Customer intends to designate as the third-party's name.

J. "Company" means Minnesota Power.

K. "Company heating service" means natural gas or electricity used as a primary heating source, including electricity service necessary to operate gas heating equipment, for the Customer's primary residence.

L. "Working days" means Mondays through Fridays, excluding legal holidays. The day of receipt of a personally served notice and the day of mailing a notice shall not be counted in calculating working days.

59. **Company obligations before cold weather period.** Each year, between September 1 and October 15, the Company must provide all Customers, personally or by first class mail, a summary of rights and responsibilities. The summary must also be provided to all new residential customers when service is initiated.

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60. **Notice before disconnection during cold weather period.** Before disconnecting Company heating service during the cold weather period, the Company must provide, personally or by first class mail, a commission-approved notice to a Customer, in easy-to-understand language, that contains, at a minimum, the date of the scheduled disconnection, the amount due, and a summary of right and responsibilities.

61. **Cold Weather Rule**

A. During the cold weather period, the Company may not disconnect and must reconnect Company heating service of a Customer whose household income is at or below 50 percent of the state median income if the Customer enters into and makes reasonably timely payments under a mutually acceptable payment agreement with the Company that is based on the financial resources and circumstances of the household; provided that, the Company may not require a Customer to pay more than ten percent of the household income toward current and past Company bills for Company heating service.
B. The Company may accept more than ten percent of the household income as the payment arrangement amount if agreed to by the Customer
C. The Customer or a designated third party may request a modification of the terms of a payment agreement previously entered into if the Customer's financial circumstances have changed or the Customer is unable to make reasonably timely payments.
D. The payment agreement terminates at the expiration of the cold weather period unless a longer period is mutually agreed to by the Customer and the Company
E. The Company shall use reasonable efforts to restore service within 24 hours of an accepted payment agreement, taking into consideration Customer availability.

62. **Verification of income**

A. In verifying a Customer's household income, the Company may:
   1. accept the signed statement of a Customer that the Customer is income eligible;
   2. obtain income verification from a local energy assistance provider or a government agency;

3. consider one or more of the following:
   i. the most recent income tax return filed by members of the Customer's household;
   ii. for each employed member of the Customer's household, paycheck stubs for the last two months or a written statement from the employer reporting wages earned during the preceding two months;
   iii. documentation that the Customer receives a pension from the Department of Human Services, the Social Security Administration, the Veteran's Administration, or other pension provider; a letter showing the Customer's dismissal from a job or other documentation of unemployment; or
   iv. other documentation that supports the Customer's declaration of income eligibility.

B. A Customer who receives energy assistance benefits under any federal, state or county government programs in which eligibility is defined as household income at or below 50 percent of state median income is deemed to be automatically eligible for protection under this section and no other verification of income may be required.

63. **Prohibitions and requirements.**

A. Section 63 applies during the cold weather period.

B. The Company may not charge a deposit or delinquency charge to a Customer who entered into a payment agreement or a Customer who has appealed to the Commission under Minnesota Statutes 216B.096 subdivision 8.

C. The Company may not disconnect service during the following periods:
   1) during the pendency of any appeal under Minnesota Statutes 216B.096 subdivision 8;
   2) earlier than ten working days after the Company has deposited in first class mail, or seven working days after the Company has personally served, the notice required under Minnesota Statutes 216B.096 subdivision 4 to a Customer in an occupied dwelling;
   3) earlier than ten working days after the Company has deposited in first class mail the notice required under Minnesota Statutes 216B.096 subdivision 4 to the recorded billing address of the Customer, if the Company has reasonably determined from an on-site inspection that the dwelling is unoccupied;

4) on a Friday, unless the Company makes personal contact with and offers a payment agreement consistent with this section to the Customer;
5) on a Saturday, Sunday, holiday , or the day before the holiday;
6) when Company offices are closed;
7) when no Company personnel are available to resolve disputes, enter into payment agreements, accept payments, and reconnect service, or;
8) when Commission offices are closed.

D. The Company may not discontinue service until the Company investigates whether the dwelling is actually occupied. At a minimum, the investigation must include one visit by the Company to the dwelling during normal working hours. If no contact is made and there is reason to believe that the dwelling is occupied, the Company must attempt a second contact during non-business hours. If personal contact is made, the Company representative must provide notice required under Minnesota Statutes 216B.096 subdivision 4 and, if the Company representative is not authorized to enter into a payment agreement, the telephone number the Customer can call to establish a payment agreement.
E. The Company must reconnect Company service if, following disconnection, the dwelling is found to be occupied and the Customer agrees to enter into a payment agreement or appeals to the commission because the Customer and the Company are unable to agree on a payment agreement.

64. **Disputes, Customer appeals.**

A. The Company must provide the Customer and any designated third party with a Commission-approved written notice of the right to appeal:
1) the Company determination that the Customer's household income is more than 50 percent of state median household income; or
2) when the Company and Customer are unable to agree on the establishment or modification of a payment agreement.
B. A Customer's appeal must be filed with the Commission no later seven working days after the Customer's receipt of a personally served appeal notice, or within ten working days after the Company has deposited a first class mail appeal notice.
C. The Commission must determine all Customer appeals on an informal basis, within 20 working days of receipt of a Customer's written appeal. In making its determination, the Commission must consider one or more of the factors in Minnesota Statutes 216B.096 subdivision 6.

D. Notwithstanding any other law, following an appeals decision adverse to the Customer, the Company may not disconnect Company heating service for seven working days after the Company has personally served a disconnection notice, or for ten working days after the Company has deposited a first class mail notice. The notice must contain, in easy-to-understand language, the date on or after which disconnection will occur, the reason for disconnection, and ways to avoid disconnection.

65. **Customers above 50 percent of state median income.** During the cold weather period, a Customer whose household income is above 50 percent of state median income:

A. has the right to a payment agreement that takes into consideration the Customer's financial circumstances and any other extenuating circumstances of the household; and

B. may not be disconnected and must be reconnected if the Customer makes timely payments under a payment agreement accepted by the Company.

SECTION XI – RESIDENTIAL CUSTOMER PROTECTIONS

66. **Applicability.** The provisions of this section apply to residential customers of the Company

67. **Budget billing plans.** The Company shall offer a Customer a budget billing plan for payment of charges for service, including adequate notice to Customer prior to changing budget payment amounts.

68. **Payment agreements.** The Company shall offer a payment agreement for the payment of arrears. Payment agreements must consider a Customer's financial circumstances and any extenuating circumstances of the household. No additional service deposit may be charged as a consideration to continue service to a Customer who has entered and is reasonably on time under an accepted payment agreement.

69. **Undercharges.**

A. In compliance with Minnesota Statutes 216B.098, the Company shall offer a payment agreement to Customers who have been undercharged if no culpable conduct by the Customer or resident of the Customer's household caused the undercharge. The agreement must cover a period equal to the time over which the undercharge occurred or a different time period that is mutually agreeable to the Customer and the Company, except that the duration of a payment agreement offered by the Company to a Customer whose household income is at or below 50 percent of state median household income must consider the financial circumstances of the Customer's household.

B. No interest or delinquency fee may be charged as part of an undercharge agreement under this subdivision.

C. If a Customer inquiry or complaint results in the Company's discovery of the undercharge, the Company may bill for the undercharges incurred after the date of the inquiry or complaint only if the Company began investigating the inquiry or complaint within a reasonable time after it was made.

70. **Medically necessary equipment.** The Company shall reconnect or continue service to a Customer's residence where a medical emergency exists or where medical equipment requiring electricity necessary to sustain life is in use, provided that the Company receives from a medical doctor written certification, or initial certification by telephone and written certification within five business days, that failure to reconnect or continue service will impair or threaten the health or safety of a resident of the Customer's household. The Customer must enter into a payment agreement.

71. **Commission authority.** In addition to any other authority, the Commission has the authority to resolve Customer complaints against the Company, whether or not the complaint involves a violation of this Chapter 216B of Minnesota Statutes. The Commission may delegate this authority to commission staff as it deems appropriate.

SECTION XII - MISCELLANEOUS REGULATIONS

72. **Conflicts:** In case of conflict between any provision of these approved Service Regulations, Customer's Service Agreement or a Rate Schedule, the provision of the Service Agreement takes precedence, followed by the provision of the Rate Schedule. The Customer's Service Agreement will identify all such conflicts with the service Regulations or Rate Schedule.

73. **Franchise Limitations:** All Service Agreements are subject to existing franchise limitations.

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74. **Franchise Fees Notification:** The Company will notify the Minnesota Public Utilities Commission of any new, renewed, expired, or changed fee, authorized by Minn. Stat. § 216B.36 to raise revenue, at least 60 days prior to its implementation. If the Company receives less than 60 days' notice of a repealed or reduced fee from a city, the Company will notify the Minnesota Public Utilities Commission within 10 business days of receiving notice. Notification to the Minnesota Public Utilities Commission will include a copy of the relevant franchise fee ordinance, or other operative document authorizing imposition of, or change in, the fee.

75. **Franchise Fees Customer Notification:** The following language will be included with the first customer bills on which a new or amended franchise fee is collected:

> The City of _____granted Minnesota Power a franchise to operate within the City limits. An electric franchise fee of (____% OF GROSS REVENUES or $_____ PER METER or $_____ PER KWH) will be imposed on customers effective MM/DD/YYYY. The line item appears on your bills as "_____Franchise Fee." Minnesota Power remits 100% of this fee to the City of _____.

76. **Regulation and Jurisdiction:** Electric service shall be available from Company at the rates and under the terms and conditions set forth in the currently applicable Rate Schedule or other superseding Rate Schedules in effect from time to time. All the rates and regulations referred to herein are subject to amendment and change by Company. Any such amendments or changes may be subject to acceptance or approval by any regulatory body having jurisdiction thereof.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

PURPOSE AND CONTENTS

These Service Regulations govern the supplying and taking of electric service. The regulations are designed to provide each Customer the greatest practicable latitude in the use of service consistent with reliable, economical and safe service to all Customers.

These Service Regulations, together with Extension Rules and Rate Schedules, are on file in the Company's various offices, and copies are obtainable by any Customer upon request by telephone, by mail, or www.mnpower.com.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

PURPOSE AND CONTENTS

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

SECTION I - DEFINITIONS

The following terms when used in these Service Regulations, in Rate Schedules and in Service Agreements, shall, unless otherwise indicated, have the meanings given below:

1. **Customer:** Any individual(s), partnership, association, firm, public or private corporation or governmental agency having Company's electric service at any specified location.

2. **Company:** Minnesota Power.

3. **Electric Service:** The supplying of electric power and energy, or its availability, irrespective of whether any electric power and energy is actually used. Supplying of service by Company consists of the maintaining by it, at the point of delivery, of approximately the agreed voltage and frequency by means of facilities adequate for carrying Customer's contracted load.

4. **Point of Delivery:** The end of Company's service drop, or the point where Company's wires are joined to Customer's service entrance conductors or apparatus, unless otherwise specified in Customer's Service Agreement.

5. **Customer's Installation:** In general, all wiring, appliances and apparatus of any kind or nature on Customer's side of the point of delivery (except Company's meter installation), useful in connection with Customer's ability to take electric service.

6. **Service Drop:** The wires, owned by Company, connecting Company's distribution mains to Customer's service entrance conductors.

7. **Service Entrance Conductors:** The wires provided by the Customer extending from Customer's main line switch or center at which circuits originate, to the terminal of the Company's service drop.

8. **Month:** An interval of approximately thirty days between successive meter reading dates, except when the calendar month is specified.

9. **Service Agreement:** The agreement or contract between Company and Customer pursuant to which service is supplied and taken.

10. **Notice:** Unless otherwise specified, a written notification delivered personally or mailed by one party to the other at such other party's last known address, the period of notice being computed from the date of such personal delivery or mailing.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

11. **Meter:** The meter or meters, together with auxiliary devices, if any, constituting the complete installation needed to measure and report the power and energy supplied to any Customer at a single point of delivery.

12. **Customer Extension:** Any branch from, or continuation of, an existing line to the point of delivery to Customer, including increases in capacity of any of Company's existing facilities, or the changing of any line to meet the Customer's requirements, and including all transformers, service drops and meters.

SECTION II - SERVICE AGREEMENTS

13. **Form and Execution of Service Agreements:** Each application for service normally is made on Company's standard form of application, which, when properly executed by Customer and Company, becomes binding and along with the applicable Rate Schedules, Rules and Regulations, is termed a Service Agreement. Any Service Agreement referred to herein is subject to amendment or change by Company. Any such amendment or change to a Service Agreement may be subject to acceptance or approval by any regulatory body having jurisdiction thereof and upon acceptance or approval will automatically apply to any executed Service Agreement.

If for any reason an application is not signed by the Customer, the giving of service by the Company and the accepting of such service by all Customers receiving service shall impose the same obligation on each as if a Service Agreement had been executed.

14. **Contract Period of Service Agreements:** The contract period shall be as indicated in the applicable Rate Schedule, unless otherwise provided for in the Service Agreement.

15. **Renewal and Termination of Service Agreements:** Renewals shall be as provided for in the Service Agreement. Unless otherwise provided in the Service Agreement or Rate Schedule, Customer may terminate service at any time by notifying Company not less than three days prior to the date termination is desired. Customer will be held responsible for all service supplied to vacated premises until such notice has been received by Company. Notification may be made by writing, by telephone, mail or by visiting the Company's website at www.mnpower.com.

When the contract period of a Service Agreement is extended, the demand previously established by Customer is considered as having been established under the extended contract period.

When a new Service Agreement is entered into, the demand previously established by Customer is considered as having been established under the contract period of the new

Service Agreement except that, when the contract demand under the new Service Agreement is less than 60% of the highest actual demand established in the previous contract year, the Company will waive the above requirement.

16. **Company's Right to Cancel Service Agreement or to Suspend Service:** Company, in addition to all other legal remedies, may terminate the Service Agreement, or suspend delivery of service, for any default or breach of the Service Agreement by the Customer, but no such termination or suspension will be made by Company without five (5) days written notice, excluding Sundays and legal holidays, to Customer, stating in what particular the Service Agreement has been violated, except in cases of unlawful or unauthorized use of service by Customer, or dangerous leakage or short circuit on Customer's side of the point of delivery, or in case of utilization by Customer of service in such manner as to cause danger to persons or property. Failure of Company at any time to either suspend delivery of service or to terminate the Service Agreement, or to resort to any other legal remedy, or its adoption of either one or the other of such alternatives, shall not affect Company's right to resort to any of such remedies for the same or any future default or breach by Customer.

17. **Successors and Assigns:** Service Agreements inure to the benefit of and are binding upon the respective heirs, legal representatives, successors and assigns of the parties thereto; but no assignment by Customer shall be binding upon Company until accepted in writing by the latter.

SECTION III - SUPPLY AND TAKING OF SERVICE

18. **Supplying of Service:** Service is supplied only under and pursuant to these Service Regulations and the applicable Rate Schedule, Riders, and Regulatory Rules. Service is supplied under a given Rate Schedule only at such points of delivery as are adjacent to facilities of Company adequate and suitable, as to capacity and voltage, for the service desired.

Service will be subject to disconnection and deposit requirements as provided by rules of the Minnesota Public Utilities Commission and other applicable law, if, at the time of application for service, the Customer is indebted to the Company for service previously supplied at the same or another address.

19. **Disconnection of Service:**

A. With Notice - Service may be disconnected with notice for any reason under Minn. Rules Part 7820.1000 or as may otherwise be provided in Company's Service Regulations, Service Schedules or Service Agreements.

B. Without Notice - Service may be disconnected without notice for any reason under Minn. Rules Part 7820.1100 or as may otherwise be provided in Company's Service Regulations, Service Schedules or Service Agreements.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

20. **Reconnection of Service:** Company shall reconnect service following disconnection for non-payment only after all past due accounts, deposits and reconnection fees, where applicable, shall have been paid.

A. The Service Reconnection Fee shall be as follows:

i. $20.00 between the hours of 8:00 AM and 4:30 PM Monday through Friday.

ii. $100.00 after 4:30 PM, before 8:00 AM and on Saturdays, Sundays and legal holidays, however, customer with remote technology capability who has met payment requirements and desires to be reconnected after hours shall pay a Service Reconnection Fee of $20.00.

B. Where service has been disconnected under Minn. Rules Part 7820.1100.B., a reconnection fee will not be required.

C. Following disconnection under Minn. Rules 7820.1100.A., reconnection will occur only after Company has received payment from Customer of the following:

i. Power and energy not recorded on the meter at the appropriate rate, the amount of which may be estimated by Company based on the best available data.

ii. All expenses incurred by Company due to any such unauthorized act or acts.

21. **Service Relock Penalty:**

A. Company shall assess a Service Relock Penalty of $100 where the Company has previously disconnected service and is required to subsequently return to relock or disconnect the service after it was connected by a Customer without Company authorization.

B. Company shall assess a penalty for all expenses incurred if additional disconnection of service is required at Customer premises.

C. In the event of any loss or damage to such property of Company or other person caused by or arising out of carelessness, neglect or misuse by Customer or other unauthorized persons, the cost of making good such loss or repairing such damage shall be paid by Customer.

22. **Continuity of Service:** Company will endeavor to provide continuous service but does not guarantee a constant supply of electric energy and shall not be liable to Customer for damages occasioned by interruption, except as provided by law. The Company shall not be liable for any loss of profits, special, or consequential damages resulting from the use of service or any interruption or disturbance of service.

In the event of power shortage any curtailment among Customers shall be made as nearly as practical pro rata without liability on the part of Company to any Customer affected.

If any part of service furnished by Company is employed for purpose of pumping water, Company assumes no obligation to maintain an adequate supply for fire protection, or any other purpose, whatsoever, and such use shall not subject Company to any liability to any party for damages to person or property due to failure of water supply resulting from an interruption or deficiency of electric service from whatsoever cause the same may arise.

23. **Suspension of Service for Repairs and Changes:** When necessary to make repairs to or changes in its lines or system, Company may, without incurring any liability therefore, suspend service for such periods as may be necessary, and in such manner as to minimize inconvenience to Customer.

24. **Use of Service:** Service is for Customer's use only. Company permits redistribution and submetering only where allowed by law. The electric service equipment and associated building wiring of buildings shall be arranged by the owner to permit individual metering of the electrical consumption of each building and occupancy unit to comply with Minn. Stat. 504B.161 and any law amendatory thereto. If desired by the owner, the Company will install and maintain necessary individual Company meters to measure consumption and render bills on the applicable Rate Schedules to each Customer and separately occupied building and occupancy unit.

In no case may Customer, except with the written consent of Company, extend or connect an installation to lines across or under a street, alley, lane, court or avenue or other public or private space in order to obtain service for adjacent property through one meter even though such adjacent property be owned by Customer. Such consent may be given when such adjacent properties are operated as one integral unit under the same name and for carrying on parts of the same business. In case of unauthorized remetering, sale or extension of service to another person, Company, after five (5) days written notice excluding Sundays and legal holidays, may discontinue the supplying of service to Customer until such unauthorized act is discontinued and full payment is made for all service supplied or used, billed on proper classification and Rate Schedule, and reimbursement in full made to Company for all extra expenses incurred, including expenses for clerical work, testing and inspections.

25. **Customer's Responsibility:** Customer assumes all responsibility on Customer's side of the point of delivery for the service supplied or taken, as well as for the electrical installation, appliances and apparatus used in connection therewith, and shall save Company harmless from and against all claims for injury or damage to persons or property occasioned by or in any way resulting from such service or the use thereof on Customer's side of the point of delivery.

26. **Right-of-Way:** Customer shall, without compensation, make or procure satisfactory conveyance to Company of right-of-way for Company's lines necessary and incidental to the furnishing of service to Customer and for continuing or extending said lines over, under, across or through the property owned or controlled by Customer in a manner deemed appropriate by the Company.

27. **Access to Premises:** Company personnel may enter Customer's premises only as authorized by applicable law and regulations. Failure of Customer to provide Company reasonable access may result in disconnection of service under Minn. Rules Part 7820.1000(E).

28. **Location of Point of Attachment:** Customer's Point of Attachment is to be located at a point readily accessible to Company's distribution mains. Customer shall install and maintain a point of attachment for Company's service drop. Said point of attachment shall be of sufficient mechanical strength to support the wind and ice loaded weight of the service drop and shall be located as determined by the Company.

SECTION IV - CUSTOMER'S INSTALLATION

29. **Nature and Use of Installation:** All of Customer's wires, apparatus and equipment shall be selected with the view to obtaining safety, good efficiency, good voltage regulation and the highest practicable power factor and shall be installed in accordance with standard practices. Customer shall install and maintain, on Customer's side of point of delivery, suitable protective equipment as may be required by the Company for the protection of its service to other customers and may not employ or utilize any equipment, appliance or device so as to affect adversely Company's service to Customer or to others. The Company's failure to require such equipment shall not operate to relieve Customer from the obligation to utilize and comply with standard practices. Company may require auto starters or other suitable starting devices for motors above 5 horsepower. When polyphase service is supplied by Company, Customer shall control the use thereof so that the load at the point of delivery will be maintained in reasonable electrical balance between the phases.

Installations of neon, fluorescent, mercury vapor lamps or tubes, or other types of gaseous tube lamps, or other devices having low power factor characteristics, should be equipped with corrective apparatus to increase the power factor of each unit or separately controlled group of units to not less than approximately 90% lagging.

30. **Inspection by Company:** Company retains the right, but does not assume the duty, to inspect Customer's installation at any time and will refuse to commence or to continue service whenever it does not consider such installation to be in good operating condition, but Company does not in any event assume any responsibility whatever in connection with such matters.

31. **Changes in Installations:** As Company's service drops, transformers, meters, and other facilities used in supplying service to Customer have a definite limited capacity, Customer shall give notice to Company, and obtain Company's consent, before making any material changes or increases in Customer's installation. Company as promptly as possible after receipt of such notice will give its approval to the proposed change or increase, or will advise Customer upon what conditions service can be supplied for such change or increase. Failure to secure Company's approval shall make Customer liable for any damage to Company's facilities.

SECTION V - COMPANY'S INSTALLATION

32. **Installation and Maintenance:** Except as otherwise provided in these Service Regulations, in Service Agreements or Rate Schedules, Company will install and maintain its lines and equipment on its side of the point of delivery, but shall not be required to install or maintain any lines or equipment, except meters, on Customer's side of the point of delivery. Only Company's agents are authorized to connect Company's service drop to Customer's service entrance conductors and to connect Company's meters.

(a) Electrical Permit: The Company is prohibited from connecting its service drop to Customer's service entrance conductors until permitted by the governmental authority having jurisdiction.

(b) Standard Connection: The ordinary method of connection between Company's distribution mains and Customer's service entrance conductors will be by overhead wires. If Customer desires to have connection made in any other manner, special arrangements will be made between Customer and Company by which the connection will be made and maintained at Customer's expense.

(c) Suitable Space: The Customer shall provide at no cost to Company a suitable room or space for Company's transformers and equipment specifically used in providing service to Customer when such room or space is deemed necessary by Company.

33. **Protection by Customer:** Customer shall protect Company's wiring and apparatus on Customer's premises and shall permit no one except Company's agents or persons authorized by law to inspect or handle same. In the event of any loss or damage to such property of Company or other person caused by or arising out of carelessness, neglect or misuse by Customer or other unauthorized persons, the cost of making good such loss or repairing such damage shall be paid by Customer.

Company shall not be responsible to Customer or any other party because of any damage resulting from such installations which are not readily subject to inspection from the ground and the exterior of the premises, or from the meter location, unless Customer shall have notified Company of a condition which, in the reasonable opinion of the Customer, requires attention and the Company shall have had a reasonable time within which to inspect and, if necessary, repair the same.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

34. **Customer Extensions:** The Company, at its own expense, makes extensions where the revenue therefrom is sufficient, in Company's opinion, to justify the necessary expenditure.

Where the Company cannot be assured that the business offered is of sufficient duration, where unusual expenditures are necessary to supply service because of location, size or character of installation, or where area requirements of regulatory bodies may control, the Customer or Customers shall make arrangements satisfactory to Company dependent upon the particular conditions of each situation.

35. **Alteration of Facilities:** Company will, at its discretion, alter, relocate, convert to underground, or remove Company's facilities as may be requested in writing by Customer. Customer shall pay Company for all costs, except as limited below, associated with such alteration, relocation, conversion to underground, or removal including any new facilities required to provide service after the alteration, relocation, conversion, or removal.

Customers requesting the alteration, relocation, conversion, or removal shall pay the estimated cost for the change, less salvage, of the facilities required to effect such change prior to Company committing funds for the work. Where the actual cost is different from the estimated cost upon which the advance payment was based, as determined upon completion of the requested alteration, relocation, or removal, Company will refund any excess payment made by Customer or render a bill for any additional amount due. However, where Company's estimated cost is less than $5,000, and actual cost exceeds such estimate, the additional amount due by Customer shall not exceed 15 percent of the estimate, regardless of the amount of actual cost.

SECTION VI - METERING

36. **Installation:** Company shall furnish and install the necessary meter or meters, and Customer shall provide and maintain a location, free of expense and satisfactory to Company, all in accordance with Company's Metering Standards.

37. **Evidence of Consumption:** Unless proven to be inaccurate, the registration of Company's meter shall be accepted and received at all times and places as prima facie evidence of the amount of power and energy taken by Customer.

38. **Tests:** Company tests its meters and maintains their accuracy of registration in accordance with good practice. On request of Customer, Company will make a special test which will be done at the expense of the Company. If the Customer requests another test before the expiration of a twelve-month period, the Customer shall bear the cost of the test if the meter is found to be in error by less than 2%, fast or slow. The average registration accuracy of a meter is taken as the mean of full load (100% of rated load) accuracy, and light load (5-10% of rated load) accuracy. At Company's discretion, tests may be made under average load conditions.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

SECTION VII - PARALLEL GENERATION

39. **Design:** Customer's electric generating equipment shall be designed (1) to operate in synchronization with Company's system and (2) to automatically disconnect the facility from Company's system in the event Company's system becomes de-energized. All synchronizing and protective devices to accomplish this mode of operation shall be provided and maintained by Customer.

40. **Disconnection:** Customer shall provide and maintain a manual, lockable disconnect switch providing a visible open and capable of isolating the Customer's generator from the Company's electrical system. This disconnect switch shall be readily accessible to Company personnel at all times, shall include a provision for padlocking it in the open position, and shall meet all other reasonable requirements established by Company.

41. **Customer Responsibility:** Customer shall pay for the cost of rebuilding and/or modifying Company facilities to provide adequate capacity for the parallel generation system and adequate protection for the Company's electrical system.

Customer shall be subject to Company's Safety Standards and Interconnection Requirements Applicable to Cogenerators and/or Small Power Producers of Minnesota Power as filed annually with the Commission. Copies of such standards shall be made available to Customer upon request and are available at www.mnpower.com.

SECTION VIII - BILLING

42. **Billing Periods:** Bills ordinarily are rendered regularly at monthly intervals, but may be rendered more or less frequently at Company's option. Non-receipt of bills by Customer does not release or diminish the obligation of Customer with respect to payment thereof.

43. **Separate Billing for Each Point of Delivery:** At each point of delivery the use of service is metered separately for each Customer served. Whenever for any reason Company furnishes two or more meter installations for a single Customer, or supplies service under a Rate Schedule which does not require a meter, each point of metering and/or point of delivery where no meter is required is considered as a separate service. A separate Service Agreement is required, and bills are separately calculated, for each such separate service, except where Company may, under special circumstances, waive this requirement.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

44. **Adjustment for Inaccurate Meter Registration:**

Meter too fast or too slow: In the event that any routine or special test of a Company meter discloses its average accuracy of registration to be in error by more than 2%, fast or slow, Company will refund the overcharge for a fast meter or charge for electricity consumed, but not included in the bills previously rendered for a slow meter. The refund or charge for both fast and slow meters will be based on corrected meter readings for a period equal to one-half the time elapsed since the last previous test but not to exceed six (6) months, unless it can be established that the error was due to some cause, the date of which can be fixed with reasonable certainty, in which case the refund or charge will be computed to that date, but in no event for a period longer than one (1) year.

Whenever any bill or bills have been adjusted or corrected as provided above, the Company will refund to existing Customer any amount due when the amount due exceeds one ($1) dollar or to previous Customer any amount due when the amount due exceeds two ($2) dollars or Company will bill Customer for any amount owed when the amount owed exceeds ten ($10) dollars, as the case may be.

Meter fails to register or registers intermittently: When the average error cannot be determined by test because the meter is not found to register or is found to register intermittently, the Company may charge for an estimated amount of electricity used, which shall be calculated by averaging the amounts registered over corresponding periods in previous years or in the absence of such information, over similar periods of known accurate measurement preceding or subsequent thereto, but in no event shall such charge be for a period longer than one year.

If a Customer has called to the Company's attention doubts as to the meter's accuracy and the Company has failed within a reasonable time to check it, there shall be no back billing for the period between the date of the Customer's notification and the date the meter was checked.

45. **Late Payment Charge:** Company shall assess a Late Payment Charge of 1-1/2% or $1.00 per monthly billing period, whichever is greater, on that portion of a retail Customer's account representing charges for Company service(s) past due, if the unpaid balance exceeds $10.00. All late payments received will be credited against the oldest outstanding account balance before the application of any Late Payment Charge. The unpaid Company account balance for a Customer under the Budget Billing Plan or another Company approved payment plan shall mean that the Company budget arrears balance and not the accumulated actual Company balance will be subject to a Late Payment Charge. No Late

Payment Charge will be charged on the portion of the Company balance in dispute while dispute procedures are underway. A Late Payment Charge may be retroactively charged on the settled amount after dispute procedures are completed. At Company's discretion, any Late Payment Charge, or portion thereof, may be waived provided such waiver is consistent with the Minnesota Public Utilities Act.

A. **Residential customer**: A Late Payment Charge shall be added to any Company account for which payment is not received and credited by Company by the next scheduled billing date. Residential customer who qualifies for assistance under the Low Income Home Energy Assistance Program (LIHEAP) may request waiver of the Late Payment Charge on the "current bill" portion of each monthly bill. Self-qualification using LIHEAP income guidelines will be permitted for Senior Citizens at age 62 or older. Efforts will be made by Company to work with local governmental agencies to pre-qualify Customers where administratively feasible. Customer accounts must be re-qualified annually.

B. **Nonresidential customer**: A Late Payment Charge shall be added to any Company account for which bill payment is not received and credited by Company within fifteen (15) days from the current billing date.

46. **Delinquent Bills:** Bills become delinquent if not paid on or before the past due date as shown on bill and service may be discontinued upon five (5) days written notice, excluding Sundays and legal holidays, to Customer after becoming delinquent. During the cold weather months, October 15 through April 15, service may be disconnected only as provided in section 60 and Minnesota Statutes, section 216B.096. For residential customers, such written notice of disconnection shall specify a disconnection date not earlier than the third working day after the next scheduled billing date.

47. **Unlawful Use of Service:** In any case of tampering with meter installation or interfering with the proper functioning thereof or any other unlawful use or diversion of service by any person, or evidence of any such tampering, interfering, unlawful use or service diversion, Customer is liable to immediate discontinuance of service, without notice, and to prosecution under applicable laws, and Company shall be entitled to collect from Customer at the appropriate rate for all power and energy not recorded on the meter by reason of such tampering, interfering, or other unlawful use or service diversion (the amount of which may be estimated by Company from the best available data), and also for all expenses incurred by the Company on account of such unauthorized act or acts.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

48. **Charge for Restoring Service:** If service to Customer is discontinued by Company for valid cause, then before service is restored, Customer shall pay Company all permitted costs of discontinuing and restoring service. There will be no charge for reconnection when service has been discontinued in the event of a condition determined to be hazardous to Customer, to other Customers of Company, to Company's equipment, or to the public.

If Customer requests that service be discontinued and subsequently requests restoration of service at same premises within twelve (12) months of discontinuance, the charge for restoring service will be the sum of minimum bills during the elapsed period but not less than all costs of discontinuing and restoring service.

49. **Selection of Schedule:** The Company's Rate Schedules are designed for service supplied to Customer on a continuous annual basis. Customer may elect to take service under any of the Rate Schedules applicable to such service. Company will advise Customer of the Rate Schedules which, in its judgment, are best adapted to Customer's needs on an annual basis, but such advice must be based upon Customer's statements as to Customer's installation and requirements for service and Company assumes no responsibility for the selection of the Rate Schedule made by Customer. If Customer changes selection of a Rate Schedule, Customer may not go back to the previous Rate Schedule for a period of twelve (12) months; provided, however, that a Large Light and Power Customer whose normal monthly firm demand is below 10,000 kW shall be billed on the Large Power Service Schedule in months in which its measured demand, as adjusted for power factor, exceeds 10,000 kW, and shall go back to the Large Light and Power Service Schedule when its demand falls below 10,000 kW. Rules applicable to specific Rate Schedules shall apply when Customer desires service on other than a continuous annual basis, or the term of service provision of the Rate Schedule is greater than one (1) year.

If, for any cause a Service Agreement is entered into in which is specified a Rate Schedule not applicable to the class of service taken, on discovery of the error all bills rendered during the preceding twelve (12) months will be recalculated in accordance with the properly applicable Rate Schedule and Company will refund to existing Customer any amount due, when the amount due exceeds one ($1) dollar or to previous Customer any amount due, when the amount due exceeds two ($2) dollars, or Company will bill Customer for any amount owed, when the amount owed exceeds ten ($10) dollars, as the case may be. If the amount due Company is not paid within ten (10) days from presentation of bill, or Customer does not agree to payment over a reasonable period of time, or Customer fails to sign a new Service Agreement, Company may, after five (5) days written notice excluding Sundays and legal holidays, disconnect service.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

50. **Proration of Bills:** Bills for energy used during a billing period that is longer or shorter than the normal billing period by more than five (5) days shall be prorated on a daily basis, but no billing will be made for three (3) or less days when no energy is used. However, in no event will the total length of service between initial and final service be taken as less than one (1) month.

No bill will be prorated for change in operating level within the billing period.

51. **Company Billing Errors**: When a Customer has been overcharged or undercharged as a result of incorrect reading of the meter, incorrect application of rate schedule, incorrect connection of the meter, application of an incorrect multiplier or constant or other similar reasons, the amount of the overcharge shall be refunded to the Customer or the amount of the undercharge may be billed to the Customer as detailed in Minnesota Administrative Rules 7820.3800 subparts 2 through 4.

A. **Remedy for overcharge**. If a Customer was overcharged, the Company shall calculate the difference between the amount collected for service rendered and the amount the Company should have collected for service rendered, plus interest up to a maximum of three years from the date of discovery. Interest will be calculated as prescribed by Minnesota Statutes, section 325E.02(b). If the recalculated amount indicates that more than $1 is due an existing Customer or $2 is due a person no longer a Customer of the Company, the full amount of the calculated difference between the amount paid and the recalculated amount shall be refunded to the Customer.

B. **Remedy for undercharge.** If a Customer was undercharged, the Company shall calculate the difference between the amount collected for service rendered and the amount the Company should have collected for service rendered, for the period beginning one year before the date of discovery. If the recalculated amount due the Company exceeds $10, the Company may bill the Customer for the amount due. The Company must not bill any undercharge incurred after the date of a Customer inquiry or complaint if the Company failed to begin investigating the matter within a reasonable time and the inquiry or complaint ultimately resulted in the discovery of the undercharge.

C. **Exception if error date known.** If the date the error occurred can be fixed with reasonable certainty, the remedy shall be calculated on the basis of payments for service rendered after that date, but in no event for a period beginning more than three years before the discovery of an overcharge or one year before the discovery of an undercharge.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

SECTION IX - DEPOSITS AND GUARANTEES

52. **When Required:** Company may require Customer to make a deposit or guarantee satisfactory to Company to secure the payment of bills as they become due. Specific conditions requiring deposits or guarantees are identified in Regulation 54. The amount of such deposit shall not exceed twice the average monthly bill of Customer as estimated by Company from Customer's statement in his or her application or as thereafter ascertained.

53. **When Refunded:** The deposit shall be refunded to Customer after twelve (12) consecutive months of prompt payment of all Company bills. Company may, at its option, refund the deposit by direct payment or as a credit on the bill. Upon termination of service, the deposit with accrued interest shall be credited to Customer's final bill and the balance, if any, shall be returned within forty-five (45) days to Customer with a written receipt as required under Minn. Stat. 325E.02(b).

54. **Interest on Deposits:** Interest shall be paid annually on all deposits at the rate specified by Minn. Stat. 325E.02(b) or other applicable laws of the State of Minnesota and will be applied against the electric service bill. Any unpaid interest at time of final settlement of Customer's accounts will be credited to Customer's accounts.

55. **Conditions Requiring a Deposit or Guarantee**: Company may require a deposit or guarantee of payment as condition of obtaining new service or continuing existing service under Minn. Rules Part 7820.4300, 7820.4400 or as may otherwise be provided below.

A. Customer has outstanding a prior utility service account with another electric or gas utility which at the time of request for service remains unpaid and not in dispute.

B. Information requested under Minn. Rules Part 7820.4300 or 7820.4400 is not provided within twenty (20) days of the request for service (except where Customer has sought but not yet received credit information from a prior utility).

C. Information provided pursuant to Minn. Rules Part 7820.4300 or 7820.4400 is determined to be false or erroneous.

56. **Conditional Service Prior to Establishment of Credit**: Conditional service shall be provided expeditiously upon receipt of an application for service, and for up to twenty (20) days until credit has been satisfactorily established. Conditional service may be disconnected immediately without notice if required information or a required deposit or guarantee has not been received twenty (20) days after Company's request.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

SECTION X – COLD WEATHER RULE

57. **Applicability.** This section applies only to residential customers of the Company.

58. **Definitions.**

A. The terms used in this section have the meanings given them in Minnesota Statute, 216B.096.

B. "Cold weather period" means the period from October 15 through April 15 of the following year.

C. "Customer" means a residential customer of the Company.

D. "Disconnection" means the involuntary loss of Company heating service as a result of a physical act by the Company to discontinue service. Disconnection includes installation of a service or load limiter or any device that limits or interrupts Company service in any way.

E. "Household income" means the combined income, as defined in Minnesota Statutes 290A.03, subdivision 3, of all residents of the Customer's household, computed on an annual basis. Household income does not include any amount received for energy assistance.

F. "Reasonably timely payment" means payment within five working days of agreed-upon due dates.

G. "Reconnection" means the restoration of Company heating service after it has been disconnected.

H. "Summary of rights and responsibilities" means a Commission-approved notice that contains, at a minimum, the following:
   1) an explanation of the provisions of subdivision 5;
   2) an explanation of no-cost and low-cost methods to reduce the consumption of energy;
   3) a third-party notice;
   4) ways to avoid disconnection;
   5) information regarding payment agreements;

6) an explanation of the Customer's right to appeal a determination of income by the Company and the right to appeal if the Company and the Customer cannot arrive at a mutually acceptable payment agreement, and a list of names and telephone numbers for county and local energy assistance, and weatherization providers in each county served by the Company.

I. "Third-party notice" means a commission-approved notice containing, at a minimum, the following information;

1) a statement that the Company will send a copy of any future notice of proposed disconnection of Company heating service to a third party designated by the residential customer;
2) instructions on how to request this service; and
3) a statement that the residential customer should contact the person the Customer intends to designate as the third-party's name.

J. "Company" means Minnesota Power.

K. "Company heating service" means natural gas or electricity used as a primary heating source, including electricity service necessary to operate gas heating equipment, for the Customer's primary residence.

L. "Working days" means Mondays through Fridays, excluding legal holidays. The day of receipt of a personally served notice and the day of mailing a notice shall not be counted in calculating working days.

59. **Company obligations before cold weather period.** Each year, between September 1 and October 15, the Company must provide all Customers, personally or by first class mail, a summary of rights and responsibilities. The summary must also be provided to all new residential customers when service is initiated.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

60. **Notice before disconnection during cold weather period.** Before disconnecting Company heating service during the cold weather period, the Company must provide, personally or by first class mail, a commission-approved notice to a Customer, in easy-to-understand language, that contains, at a minimum, the date of the scheduled disconnection, the amount due, and a summary of right and responsibilities.

61. **Cold Weather Rule**

A. During the cold weather period, the Company may not disconnect and must reconnect Company heating service of a Customer whose household income is at or below 50 percent of the state median income if the Customer enters into and makes reasonably timely payments under a mutually acceptable payment agreement with the Company that is based on the financial resources and circumstances of the household; provided that, the Company may not require a Customer to pay more than ten percent of the household income toward current and past Company bills for Company heating service.
B. The Company may accept more than ten percent of the household income as the payment arrangement amount if agreed to by the Customer
C. The Customer or a designated third party may request a modification of the terms of a payment agreement previously entered into if the Customer's financial circumstances have changed or the Customer is unable to make reasonably timely payments.
D. The payment agreement terminates at the expiration of the cold weather period unless a longer period is mutually agreed to by the Customer and the Company
E. The Company shall use reasonable efforts to restore service within 24 hours of an accepted payment agreement, taking into consideration Customer availability.

62. **Verification of income**

A. In verifying a Customer’s household income, the Company may:
   1. accept the signed statement of a Customer that the Customer is income eligible;
   2. obtain income verification from a local energy assistance provider or a government agency;

3. consider one or more of the following:
    i. the most recent income tax return filed by members of the Customer's household;
    ii. for each employed member of the Customer's household, paycheck stubs for the last two months or a written statement from the employer reporting wages earned during the preceding two months;
    iii. documentation that the Customer receives a pension from the Department of Human Services, the Social Security Administration, the Veteran's Administration, or other pension provider; a letter showing the Customer's dismissal from a job or other documentation of unemployment; or
    iv. other documentation that supports the Customer's declaration of income eligibility.

B. A Customer who receives energy assistance benefits under any federal, state or county government programs in which eligibility is defined as household income at or below 50 percent of state median income is deemed to be automatically eligible for protection under this section and no other verification of income may be required.

63. **Prohibitions and requirements.**

A. Section 63 applies during the cold weather period.

B. The Company may not charge a deposit or delinquency charge to a Customer who entered into a payment agreement or a Customer who has appealed to the Commission under Minnesota Statutes 216B.096 subdivision 8.

C. The Company may not disconnect service during the following periods:
    1) during the pendency of any appeal under Minnesota Statutes 216B.096 subdivision 8;
    2) earlier than ten working days after the Company has deposited in first class mail, or seven working days after the Company has personally served, the notice required under Minnesota Statutes 216B.096 subdivision 4 to a Customer in an occupied dwelling;
    3) earlier than ten working days after the Company has deposited in first class mail the notice required under Minnesota Statutes 216B.096 subdivision 4 to the recorded billing address of the Customer, if the Company has reasonably determined from an on-site inspection that the dwelling is unoccupied;

4) on a Friday, unless the Company makes personal contact with and offers a payment agreement consistent with this section to the Customer;
5) on a Saturday, Sunday, holiday , or the day before the holiday;
6) when Company offices are closed;
7) when no Company personnel are available to resolve disputes, enter into payment agreements, accept payments, and reconnect service, or;
8) when Commission offices are closed.

D. The Company may not discontinue service until the Company investigates whether the dwelling is actually occupied. At a minimum, the investigation must include one visit by the Company to the dwelling during normal working hours. If no contact is made and there is reason to believe that the dwelling is occupied, the Company must attempt a second contact during non-business hours. If personal contact is made, the Company representative must provide notice required under Minnesota Statutes 216B.096 subdivision 4 and, if the Company representative is not authorized to enter into a payment agreement, the telephone number the Customer can call to establish a payment agreement.
E. The Company must reconnect Company service if, following disconnection, the dwelling is found to be occupied and the Customer agrees to enter into a payment agreement or appeals to the commission because the Customer and the Company are unable to agree on a payment agreement.

64. **Disputes, Customer appeals.**

A. The Company must provide the Customer and any designated third party with a Commission-approved written notice of the right to appeal:
1) the Company determination that the Customer's household income is more than 50 percent of state median household income; or
2) when the Company and Customer are unable to agree on the establishment or modification of a payment agreement.
B. A Customer's appeal must be filed with the Commission no later seven working days after the Customer's receipt of a personally served appeal notice, or within ten working days after the Company has deposited a first class mail appeal notice.
C. The Commission must determine all Customer appeals on an informal basis, within 20 working days of receipt of a Customer's written appeal. In making its determination, the Commission must consider one or more of the factors in Minnesota Statutes 216B.096 subdivision 6.

D. Notwithstanding any other law, following an appeals decision adverse to the Customer, the Company may not disconnect Company heating service for seven working days after the Company has personally served a disconnection notice, or for ten working days after the Company has deposited a first class mail notice. The notice must contain, in easy-to-understand language, the date on or after which disconnection will occur, the reason for disconnection, and ways to avoid disconnection.

65. **Customers above 50 percent of state median income.** During the cold weather period, a Customer whose household income is above 50 percent of state median income:

A. has the right to a payment agreement that takes into consideration the Customer's financial circumstances and any other extenuating circumstances of the household; and
B. may not be disconnected and must be reconnected if the Customer makes timely payments under a payment agreement accepted by the Company.

SECTION XI – RESIDENTIAL CUSTOMER PROTECTIONS

66. **Applicability.** The provisions of this section apply to residential customers of the Company

67. **Budget billing plans.** The Company shall offer a Customer a budget billing plan for payment of charges for service, including adequate notice to Customer prior to changing budget payment amounts.

68. **Payment agreements.** The Company shall offer a payment agreement for the payment of arrears. Payment agreements must consider a Customer's financial circumstances and any extenuating circumstances of the household. No additional service deposit may be charged as a consideration to continue service to a Customer who has entered and is reasonably on time under an accepted payment agreement.

69. **Undercharges.**

A. In compliance with Minnesota Statutes 216B.098, the Company shall offer a payment agreement to Customers who have been undercharged if no culpable conduct by the Customer or resident of the Customer's household caused the undercharge. The agreement must cover a period equal to the time over which the undercharge occurred or a different time period that is mutually agreeable to the Customer and the Company, except that the duration of a payment agreement offered by the Company to a Customer whose household income is at or below 50 percent of state median household income must consider the financial circumstances of the Customer's household.

B. No interest or delinquency fee may be charged as part of an undercharge agreement under this subdivision.

C. If a Customer inquiry or complaint results in the Company's discovery of the undercharge, the Company may bill for the undercharges incurred after the date of the inquiry or complaint only if the Company began investigating the inquiry or complaint within a reasonable time after it was made.

70. **Medically necessary equipment.** The Company shall reconnect or continue service to a Customer's residence where a medical emergency exists or where medical equipment requiring electricity necessary to sustain life is in use, provided that the Company receives from a medical doctor written certification, or initial certification by telephone and written certification within five business days, that failure to reconnect or continue service will impair or threaten the health or safety of a resident of the Customer's household. The Customer must enter into a payment agreement.

71. **Commission authority.** In addition to any other authority, the Commission has the authority to resolve Customer complaints against the Company, whether or not the complaint involves a violation of this Chapter 216B of Minnesota Statutes. The Commission may delegate this authority to commission staff as it deems appropriate.

SECTION XII - MISCELLANEOUS REGULATIONS

72. **Conflicts:** In case of conflict between any provision of these approved Service Regulations, Customer's Service Agreement or a Rate Schedule, the provision of the Service Agreement takes precedence, followed by the provision of the Rate Schedule. The Customer's Service Agreement will identify all such conflicts with the service Regulations or Rate Schedule.

73. **Franchise Limitations:** All Service Agreements are subject to existing franchise limitations.

ELECTRIC SERVICE REGULATIONS of MINNESOTA POWER

74. **Franchise Fees Notification:** The Company will notify the Minnesota Public Utilities Commission of any new, renewed, expired, or changed fee, authorized by Minn. Stat. § 216B.36 to raise revenue, at least 60 days prior to its implementation. If the Company receives less than 60 days' notice of a repealed or reduced fee from a city, the Company will notify the Minnesota Public Utilities Commission within 10 business days of receiving notice. Notification to the Minnesota Public Utilities Commission will include a copy of the relevant franchise fee ordinance, or other operative document authorizing imposition of, or change in, the fee.

75. **Franchise Fees Customer Notification:** The following language will be included with the first customer bills on which a new or amended franchise fee is collected:

> The City of _____granted Minnesota Power a franchise to operate within the City limits. An electric franchise fee of (____% OF GROSS REVENUES or $_____ PER METER or $_____ PER KWH) will be imposed on customers effective MM/DD/YYYY. The line item appears on your bills as "_____Franchise Fee." Minnesota Power remits 100% of this fee to the City of _____.

76. **Regulation and Jurisdiction:** Electric service shall be available from Company at the rates and under the terms and conditions set forth in the currently applicable Rate Schedule or other superseding Rate Schedules in effect from time to time. All the rates and regulations referred to herein are subject to amendment and change by Company. Any such amendments or changes may be subject to acceptance or approval by any regulatory body having jurisdiction thereof.

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CARLTON

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Douglas

PINE

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Washburn

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- 1-2
- 2-3
- 3+

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2017 FEEDER SAIDI - Central Area

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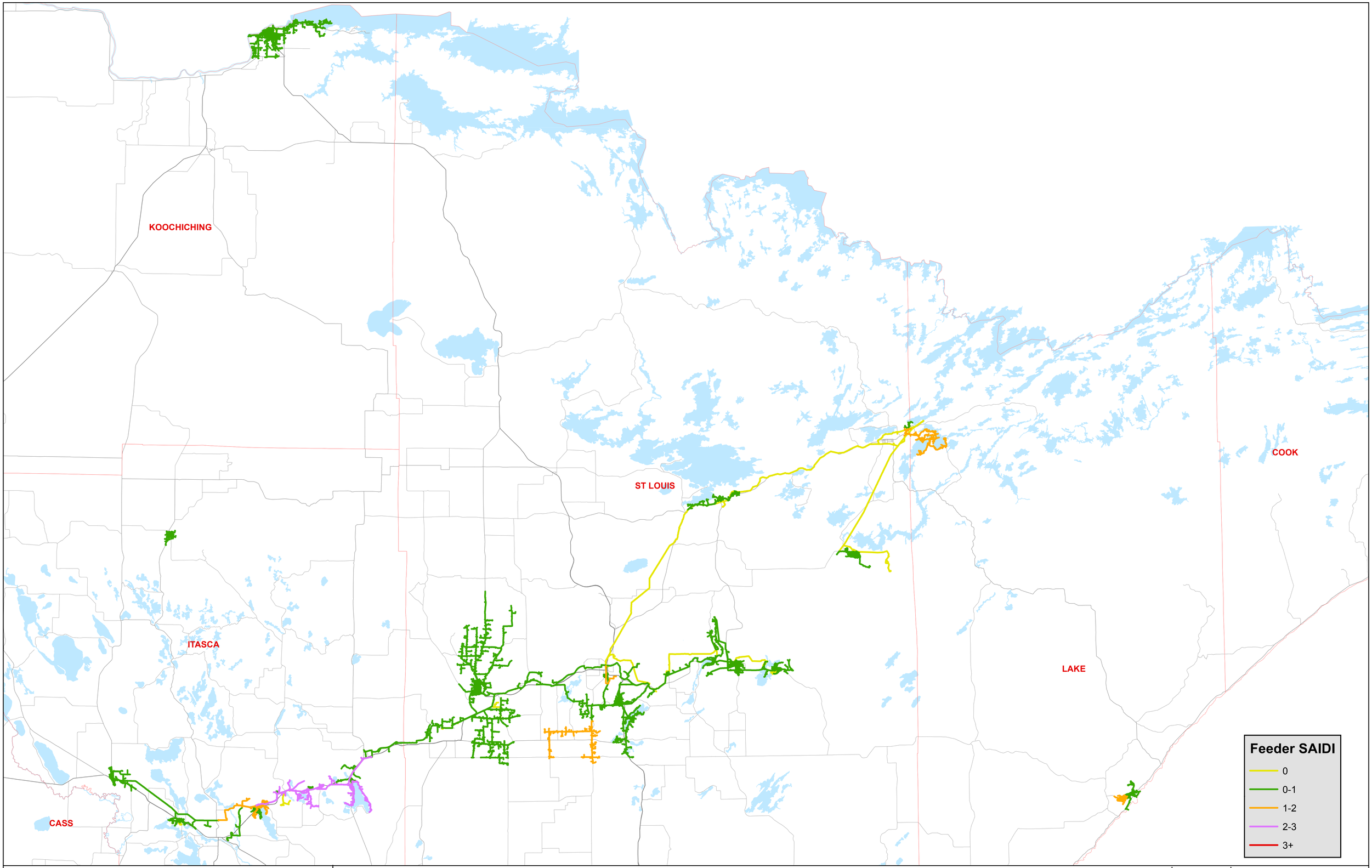
minnesota power
AN ALLETE COMPANY



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2017 FEEDER SAIDI - Northern Area

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minnesota power
AN ALLETE COMPANY

STATE OF MINNESOTA	)	AFFIDAVIT OF SERVICE VIA
	) ss	ELECTRONIC FILING
COUNTY OF ST. LOUIS	)	

SUSAN ROMANS of the City of Duluth, County of St. Louis, State of Minnesota, says that on the **2nd** day of **April, 2018**, she served Minnesota Power's Annual Safety, Reliability and Service Quality Report ("SRSQ") on the Minnesota Public Utilities Commission ("MPUC") and Minnesota Department of Commerce ("DOC") via electronic filing. Parties on Minnesota Power's SRSQ Service List were served as requested. Any paper copies were sent via U.S. Mail

Susan Romans

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	No	GEN_SL_Minnesota Power_MP's SRSQ Serv Lst
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	GEN_SL_Minnesota Power_MP's SRSQ Serv Lst
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	No	GEN_SL_Minnesota Power_MP's SRSQ Serv Lst
Allen	Krug	allen.krug@xcelenergy.com	Xcel Energy	414 Nicollet Mall-7th fl Minneapolis, MN 55401	Electronic Service	No	GEN_SL_Minnesota Power_MP's SRSQ Serv Lst
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	GEN_SL_Minnesota Power_MP's SRSQ Serv Lst
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	No	GEN_SL_Minnesota Power_MP's SRSQ Serv Lst
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	GEN_SL_Minnesota Power_MP's SRSQ Serv Lst
Ron	Spangler, Jr.	rlspangler@otpco.com	Otter Tail Power Company	215 So. Cascade St. PO Box 496 Fergus Falls, MN 565380496	Electronic Service	No	GEN_SL_Minnesota Power_MP's SRSQ Serv Lst
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	GEN_SL_Minnesota Power_MP's SRSQ Serv Lst