Iowa Lakes Electric Cooperative
The Power of Many, Working as One!
A Touchstone Energy® Cooperative

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February 29, 2024

Chief Operating Officer
Iowa Utilities Board
1375 E. Court Ave, Room 69
Des Moines, IA 50319

RE: Iowa Lakes Electric Cooperative's Informational Copy of the Reliability Report for Calendar Year 2023

Dear Chief Operating Officer:

Pursuant to Iowa Administrative Code 199-27.10(3) "g," Iowa Lakes Electric Cooperative is filing its 2023 Reliability Report. This reliability report was prepared for Iowa Lakes Electric Cooperative's local board of directors and is filed for informational purposes only. Member-owners may view the report in its entirety at the cooperative's office or on the cooperative's website.

Consistent with prior IUB practice, this report should not be used to compare our cooperative against other utilities.

Please feel free to contact ILEC's President/CEO Ryan Craig if you have questions at (712) 362-6765. These concerns will be conveyed to the local board of directors so we can respond appropriately.

Sincerely,

/s/ Aaron Ruschy
VP of Operations and Engineering

Iowa Lakes Electric Cooperative Reliability Report

To: Iowa Lakes Electric Cooperative Board of Directors

Date:

For the calendar year 2023

Iowa Lakes Electric Cooperative strives to deliver safe, reliable, affordable and environmentally responsible power to our member-consumers. While this report focuses on reliability the other three key areas cannot be overlooked when balancing our member-consumers' needs.

This report is intended to supplement, not replace, outage information provided to the local board throughout the year.

This report's purpose is to provide Iowa Lakes Electric Cooperative's local board of directors with annual reliability data related to certain indices and to provide an update on the progress of reliability programs contained in the cooperative's reliability plan. This report is prepared for the reporting period of January 1, 2023 through December 31, 2023.

During 2023 member-consumers were able to contact the cooperative 24 hours a day, 7 days a week through a call center or through an after-hours telephone number. Members were also able to report service interruptions and any other problems they experienced with electric service.

Iowa Lakes Electric Cooperative's reliability plan is an integrated approach addressing:

- ☑ System design
- ☑ System construction
- ☑ System operation
- ☑ System maintenance and inspections
- ☑ Data recording
- ☑ Data reporting and
- ☑ Communications

Providing safe, reliable, environmentally responsible and affordable electric service to meet the expectations of the member-consumers requires an intricate balance and consideration of all of the above as well as the resources available to achieve results.

ILEC has made reasonable efforts to avoid and prevent interruptions of service during 2023. However, when interruptions occurred, service was restored within the shortest time practicable, consistent with safety.

ILEC has an effective preventive maintenance program and capable of emergency repair work on an appropriate scale, which its storm and traffic damage record indicates, to its scope of operations and to the physical condition of its electric facilities. There were no material changes to this program in 2023.

Iowa Lakes Electric Cooperative has adopted a written program for inspecting and maintaining its electric supply lines and substations (excluding generating stations) to determine the necessity for replacement, maintenance, and repair, and for tree pruning

or other vegetation management. There were no material changes to this program in 2023.

In an attempt to prevent outages due to lightning, ILEC installed lightning arresters at intervals according to the cooperative's engineering study on all new line construction. Arresters were also installed on all distribution line equipment in an effort to reduce outages and protect equipment. There were no material changes to this program in 2023.

ILEC installed animal guards on distribution transformers during 2023. There were no material changes to this program in 2023.

ILEC has a program of regular above and below ground line pole inspection and treatment, with the complete system scheduled to be completed on a 10-year cycle. The inspections are done on an area basis with all Cooperative owned poles, within a given area, being inspected each year. The following table shows the pole treatment history for the past 30 years. The program consists of a complete inspection of the poles, ground line treatment of all poles over 10 years of age, and a report on all rejected poles that are to be replaced. Poles are generally replaced within twelve months. The following table is a summary of the poles tested during the year 1994-2023. Supporting details are maintained at the Cooperative office.

Pole Testing and Treatment History

Year	*Total Poles*	*Poles Inspected*	*Poles Treated*	*Poles Rejected**	*Reject Rate*
1994	84,873	11,562	8,308	1,462	12.6%
1995	84,873	7,427	5,045	1,347	18.1%
1996	84,873	5,941	4,693	685	11.5%
1997	84,873	8,159	6,628	398	4.9%
1998	84,873	8,608	6,758	452	5.3%
1999	84,873	8,655	7,293	383	4.4%
2000	84,873	9,725	7,863	239	2.5%
2001	84,873	9,446	8,176	214	2.3%
2002	84,873	10,034	8,609	252	2.5%
2003	84,873	5,716	4,846	156	2.8%
2004	84,873	9,317	8,386	265	2.84%
2005	84,873	7,214	6,441	294	4.08%
2006	85,175	8,974	7,831	201	2.24%
2007	85,079	8,729	8,125	159	1.82%
2008	84,926	8,991	7,990	220	2.45%
2009	84,899	8,784	7,720	124	1.40%
2010	84,899	10,106	8,923	96	0.95%
2011	84,581	9,372	8,350	88	0.94%
2012	84,234	9,890	8,783	112	1.13%
2013	84,059	5,734	5,014	45	0.79%

2014	84,616	9,010	6,750	137	1.52%
2015	83,125	7,027	5,852	146	2.07%
2016	82,886	8,148	6,135	138	1.69%
2017	82,533	8,856	7,260	107	1.21%
2018	82,591	9,112	7,573	50	0.55%
2019	82,510	8,308	5,880	113	1.36%
2020	82,368	9,798	6,502	154	1.57%
2021	82,114	9,035	6,587	118	1.31%
2022	83,291	9,520	6,668	134	1.41%
2023	82,529	5,624	3,727	46	0.82%

* Only poles replaced as a result of pole testing program.

Iowa Lakes Electric Cooperative maintained records to calculate for the calendar year 2023, the average annual hours of interruption per consumer due to causes in each of the following four major categories:

- ☑ Power Supplier,
- ☑ Major Event,
- ☑ Planned, and
- ☑ All Other.

"Planned" means to any interruption scheduled by the distribution system to safely perform routine maintenance. “Power Supply” means any interruption originating from the transmission system, sub-transmission system, or the substation, regardless of ownership. "Major Event” means an interruption or group of interruptions caused by conditions that exceed the design and operational limits of a system. See IEEE Standard 1366-2003 and Exhibit E. "All Other" means all interruptions excluding power supply, major event, and those that are planned.

Iowa Lakes Electric Cooperative recorded interruptions using the detailed standard codes for interruption analysis recommended by the United States Department of Agriculture, Rural Utilities Service (RUS) Bulletin 1730A-119, Table 1 and 2. This includes the major cause categories of equipment or installation, age or deterioration, weather, birds or animals, member (or public), and unknown.

Iowa Lakes Electric Cooperative maintained data sufficient to enable it to compute system-wide calculated indices for System Average Interruption Frequency Index (SAIFI), System Average Interruption Duration Index *(*SAIDI), and Customer Average Interruption Duration Index (CAIDI) type measurements, once with the data associated with "major events" and once without.

SAIFI is the average number of interruptions per customer during the year. It is calculated by dividing the total annual number of customer interruptions by the total number of customers served during the year.

$$\text{SAIFI} = \frac{\text{Total Number of Customer Interruptions}}{\text{Total Number of Customers Served}}$$

SAIDI is the average interruption duration per customer served during the year. It is calculated by dividing the sum of the customer interruption durations by the total number of customers served during the year.

$$\text{SAIDI} = \frac{\text{Sum of All Customer Interruption Durations}}{\text{Total Number of Customers Served}}$$

CAIDI is the average interruption duration for those customers who experience interruptions during the year. It is calculated by dividing the annual sum of all customer interruption durations by the total number of customer interruptions.

$$\text{CAIDI} = \frac{\text{Sum of All Customer Interruption Durations}}{\text{Total Number of Customer Interruptions}}$$

Total number of customers served means the total number of customers served on the last day of the reporting period.

Calendar Year 2019	SAIFI	SAIDI	CAIDI
System-wide (With Major Events)	0.93	118.29	127.19
System-wide (Without Major Events)	0.756	64.03	84.66

Calendar Year 2020	SAIFI	SAIDI	CAIDI
System-wide (With Major Events)	1.01	102.80	101.38
System-wide (Without Major Events)	0.675	47.55	70.44

Calendar Year 2021	SAIFI	SAIDI	CAIDI
System-wide (With Major Events)	0.84	75.20	89.33
System-wide (Without Major Events)	0.80	65.30	81.56

Calendar Year 2022	SAIFI	SAIDI	CAIDI
System-wide (With Major Events)	0.69	70.70	102.90
System-wide (Without Major Events)	0.67	67.90	101

Calendar Year 2023	SAIFI	SAIDI	CAIDI
System-wide (With Major Events)	0.508	51.7	101.84
System-wide (Without Major Events)	0.507	51.6	101.77

Note: SAIDI and CAIDI above are expressed in minutes.