Nova Scotia Utility and Review Board

IN THE MATTER OF *The Public Utilities Act,* R.S.N.S. 1989, c.380, as amended

2024 Annual Performance Standards Report

NS Power

March 31, 2025

NON-CONFIDENTIAL

TABLE OF CONTENTS

LIST OF APPENDICES

TABLE OF FIGURES

1.0 INTRODUCTION – NOVA SCOTIA POWER'S COMMITMENT TO RELIABILITY

Every day, over 2200 Nova Scotia Power employees work to safely provide reliable power to homes, businesses, and communities across the province. Beyond the commitment to safety, NS Power's top priority is to improve service reliability and the resilience of the power system for customers. This includes daily work on strategic investments to storm harden the grid, and proactive measures to address the challenges posed by climate change.

The NS Power team is identifying and implementing innovative solutions to enhance reliability and modernize the grid, while upgrading infrastructure to meet growing residential and commercial customer demand as the province continues to grow. Despite the challenges posed by climate change and the resulting weather conditions, NS Power has made positive progress in terms of its reliability and customer service performance over the past year and its commitment to invest in the system for customers.

- In 2024, NS Power's all-in SAIDI and SAIFI results outperformed the previous five-year average, and when normalized for weather, **2024 was NS Power's best reliability performance since 2005**. Nova Scotia experienced over 99 hours of wind gusts exceeding 80 km/h in 2024.[1]

- NS Power's 2024 reliability results also outperformed the most recent national average for outage duration and frequency.[2] These results demonstrate that while there is more to do, the Company's focus on removing trees from rights-of-way, storm hardening the

[1] Wind gusts over 80 km/h are identified to be the threshold for impact to the power system.

[2] According to the Sustainable Electricity Program, Industry Scorecard 2024, in Nova Scotia, power was available 99.9 percent of the time in 2024 compared to the Canadian average of 99.73 percent of the time.

system (e.g. equipment replacements and upgrades) and modernizing the grid is helping to prevent outages and contributing to a positive trend in reliability improvement.

- The average capital reliability investment in the transmission and distribution system for 2025-2029 is proposed at approximately over $250 million per year, which represents a significant increase in reliability spending. This is a $60 million annual increase over 2023-2024 levels and a similar increase over the 2018-2022 investment period[3]. This step change in reliability investment incorporates some of what is needed to address customer concerns and the impacts of climate change in the province.

- Tree contacts on power lines are the number one cause of outages across the province. In 2024, NS Power invested $45 million in vegetation management, which is an approximate 50 percent increase over the previous five-year annual average of ~$25 million. Going forward, this level of investment will be sustained for 2025-2029.

Severe weather and changing thresholds of what constitute major and extreme event days make it increasingly difficult to meet the established reliability performance standards. Outages which were counted as storms when the Performance Standards were first established are now considered part of regular daily business. The threshold for what constitutes a major or extreme event day generally increases each year. Notably, if the threshold for Major Event Days initially established in 2017 had remained, NS Power would have met the 2024 SAIDI performance target.

To address these challenges and meet the standards, the Company has developed a **Five-Year Reliability Plan**[4] detailing **$1.3 billion** worth of investments in reliability programs informed

[4] M12012, Nova Scotia Power Inc., 2025 Annual Capital Expenditure Plan Application, Exhibit N-3, and M11627, Document 96266 (December 20, 2024).

by an in-depth analysis of outage causes, and focused on investments in the transmission and distribution systems through three core programs:

1. Storm Hardening - Vegetation Management
2. Storm Hardening – Targeted Equipment Replacements and Upgrades
3. Advanced Grid Modernization

This plan is designed to deliver a 20 percent reduction in Performance Standards SAIDI from the current five-year average of 5.10. This will result in a Performance Standards SAIDI of 4.10 by the end of 2029 and positions the Company to consistently meet the Performance Standards targets of 4.29 (SAIDI) and 2.05 (SAIFI) by 2029.

The reliability and resilience investments included in the Plan are aimed at achieving the following two overarching goals:

1. Improve the customer reliability experience
2. Continue to strengthen grid resilience to address climate change [5]

This work will result in a more reliable and resilient grid that is better able to withstand and bounce back when the power system is operating under moderate levels of stress, and to a certain extent also from extreme weather events like hurricanes. Improving the reliability and resiliency of the power system is critically important to customers, and NS Power is working to reduce the number and impact of outages through careful management of system assets and planned investments.

[5] Additional detail in the Five-Year Reliability Plan

The plan to improve reliability for customers is rooted in programs that are demonstrated to reduce outage duration and frequency, and NS Power has continued to make progress on these fronts throughout 2024:

- Due to targeted reliability investments, NS Power met the SAIFI target for outage frequency in 2024 and five of the six feeders tracked in 2024 met the CKAIFI and CKAIDI standards, with a robust reliability action plan developed and underway for the sixth feeder.

- NS Power met all Customer Service and Adverse Weather response targets in 2024, including all five New Service Connection Targets despite unprecedented growth in new customer connection work volumes.

While NS Power is encouraged by the positive impact that previous investments in reliability are having, the Company acknowledges that **there is more that needs to be done**. NS Power remains committed to improving reliability going forward as outlined in its Five-Year Reliability Plan. The following outlines key areas of focus:

- **Bigger, stronger poles:** NS Power has updated the distribution pole standards to specify larger, stronger poles designed to withstand wind gusts of 110 km/h. The Company is implementing these stronger pole standards for all new installations and proactively upgrading targeted line sections.

- **Commitment to hiring more field staff**: NS Power has recruited 53 PLTs, 33 PLT Apprentices, 12 Planners and 20 wiring inspectors since 2023. As North America-wide recruitment for these skill sets is competitive, the Company has increased the size of its 2024 development apprentice PLT class from 8 members to 21, with plans to continue to grow the workforce by developing candidates at local Power Line

technician schools. In addition, 8 substation electrical technician apprentices are slated to be hired in early 2025.

- **Community Engagement**: The NS Power Reliability team completed 64 community engagement/ outreach sessions in 2024 with a further 9 engagements with customers and stakeholders completed in the first six weeks of 2025. The team is grateful for the open and candid conversations with customers in these sessions and for the opportunity to work directly with community leaders to ensure Reliability investments are aligned with customers' expectations.

- **Enhanced Vegetation Management**: NS Power invested $45 million in moving trees further away from power lines in 2024 and is investing another $45 million in vegetation management in 2025. The total investment included in the Five-Year Reliability Plan for 2025 to 2029 for cutting trees and widening rights-of-way across Nova Scotia is $265 million. In 2025, NS Power forestry personnel will complete ~315 km of right-of-way widening and clear trees from ~3,200 spans (177 km) of power lines.

- **Inspections and Targeted Devices**: NS Power utilizes detailed line asset inspection data to target the proactive replacement of power line equipment, such as poles, crossarms, insulators, and conductors, with the goal of strengthening the power system, enhancing its ability to provide reliable service, and reducing the likelihood of failure-related outages. This includes prioritizing replacements in areas with a history of outages or vulnerability to periods of adverse weather.

- **Advanced Grid Modernization**: NS Power is implementing real-time monitoring and automation to better detect and address issues on the power grid more quickly through the application of telemetry and controls to create a self-healing network with intelligent field devices. The Company is expanding the implementation of

telecommunications connectivity, including Remote Terminal Units (RTUs) and downline connectivity, to intelligent field devices throughout the system. This will help to reduce the occurrence and length of outages and enable grid modernization.

All these initiatives continue to be aligned with the goals of the Five-Year Reliability Plan and with meeting all Performance Standards.

1.1 A Focused Reliability Team

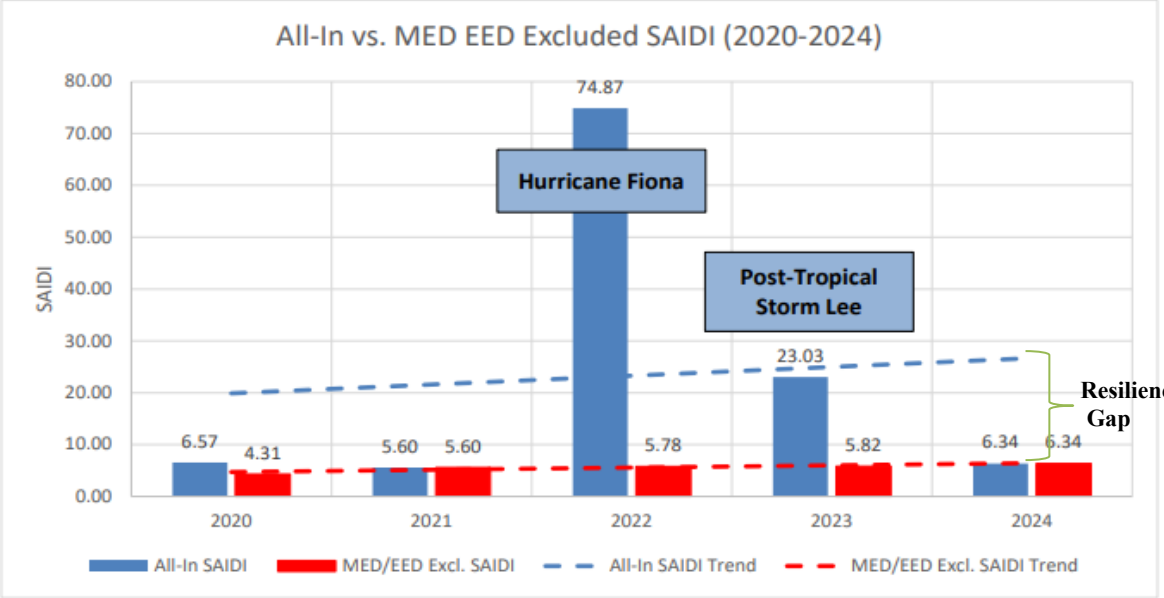
The Reliability Team along with the Energy Delivery Regional Operations and Energy Delivery Services teams are continuing to ramp up work as part of executing the five-year reliability plan to improve reliability performance. The focus of the team continues to be planning and deploying resources to complete proactive work that will maximize reliability impact while also building relationships with customers and stakeholders and delivering solutions to address their concerns.

NS Power understands that one of the goals of the Performance Standards is ongoing continuous improvement. The five-year reliability plan is aligned with this goal and includes investments which will continue to raise the bar for reliability performance over the next five years. These investments are deliberately chosen to prioritize reliability while balancing affordability for customers.

The team has also completed preliminary work to analyze the resiliency of the power system and better understand resilience trends. Power system resiliency is defined as the ability of the system to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions. Resiliency reflects the power system's response to extreme events and levels of stress, such as hurricanes, ice storms, heavy snowstorms, historic flooding or historic wildfires and differs from the power system's response to moderate levels of stress. The "resilience gap"

attempts to quantify this difference; see **Figure 1**. The graph demonstrates the difference in the performance of the system under moderate versus extreme levels of stress.

Figure 1 – Graphical Representation of the "Resiliency Gap" 2024-2025



1.2 Extreme Weather

There is recognizable evidence that NS Power's system is performing better in response to the escalating impacts of climate change. Despite exposure to 99 hours of wind gusts above 80 km/h in 2024, the overall system performance for all-in SAIDI improved, with 2024 yielding the best overall results since 2015 (see **Figure 2**) and when normalized for weather, 2024 results are the best since 2005. Wind gusts over 80 km/h is the threshold for impact to the power system. For perspective, the 99 hours of gusts above 80 km/h experienced in 2024 exceeds the average wind gusts for the period (2012-2016) over which performance standards were established by 25 hours or 33 percent, as shown in **Figure 3**. Normalized SAIDI is one tool used to provide directional data to NS Power as to the underlying effectiveness of reliability investments. It is not intended to replace reliability metrics like SAIDI, SAIFI, CKAIDI and CKAIFI which capture customers' actual experience of outage events.

Figure 2 – Normalized SAIDI and Cumulative Wind Gusts >80 km/h

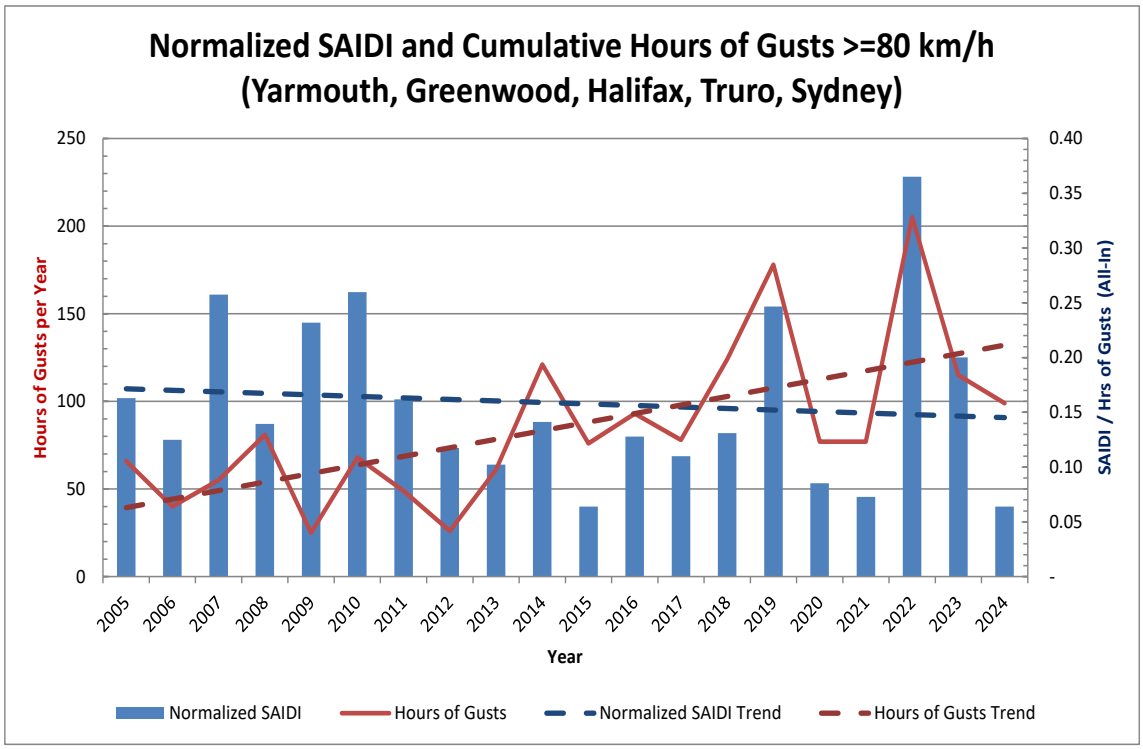


Figure 3 – Comparison of Wind Gust and SAIDI Performance, 2012-16 vs 2024

Year	Hours of Gusts ≥ 80 km/h	All-in SAIDI/Hours of Gusts ≥ 80km/h
2012-2016 Average	75.4	0.11
2024	99	0.06

1.3 Balancing Interests

NS Power has outlined investments with identified opportunities for improvement as highlighted by the established standards. Aligned with this work, the investments outlined in the five-year plan provide a pathway to meeting the Performance Standards reliability metrics by 2029. The impact of further potential investments in addition to what is outlined in the Five-

Year Reliability Plan (in particular, investments related to improving the resiliency of the power system considering extreme weather events) will need to be balanced carefully with what could be significant cost impacts for customers. NS Power's intention is to continue to engage with customers and stakeholders to have informed discussions about these issues.

2.0 2024 PERFORMANCE STANDARDS IN CONTEXT

2.1 2024 Performance Standards in Context

The Performance Standards, which have been in place since 2017, offer transparency for customers and NS Power fully supports the Performance Standards process and the accountability they establish. NS Power has been filing reports on aspects of its reliability and performance with the Nova Scotia Utility and Review Board (NSUARB) since 2017. Each year, NS Power files an annual Performance Standards Report which provides information about reliability, storm response, and customer service. NS Power also provides detailed information reports following each weather-related outage affecting 30,000 or more customers. The Company's website also includes a section on performance standards, including a report card showing the performance results for the most recent quarter.

2.2 Potential for Future Improvements in the Performance Standards

Through the lens of continuous improvement, NS Power sees an opportunity within the structure of the standards to address the significant impact that escalating weather has had on the power system in the last ten years.

The Five-Year Reliability Plan is designed to deliver reliability improvements going forward. Ensuring the performance standards appropriately define outages that should be held to adverse weather standards and those that should be held to "normal conditions" reliability standards will allow for more insightful evaluation of the reliability investments being made and their impact. For the purpose of the performance standards, "normal conditions" refers to all days which are not classified as a Major Event Day (MED) or Extreme Event Day (EED), however all storm-related outages that occur outside a Major or Extreme Event Day are included.

Including outages that occur during significant events in the reliability metrics for normal conditions increases the challenge for NS Power to meet the established standards. **Figure 4** shows the change in Major and Extreme Day thresholds since the inception of Performance Standards.

Figure 4 - 2017 & 2024 Event Day Thresholds

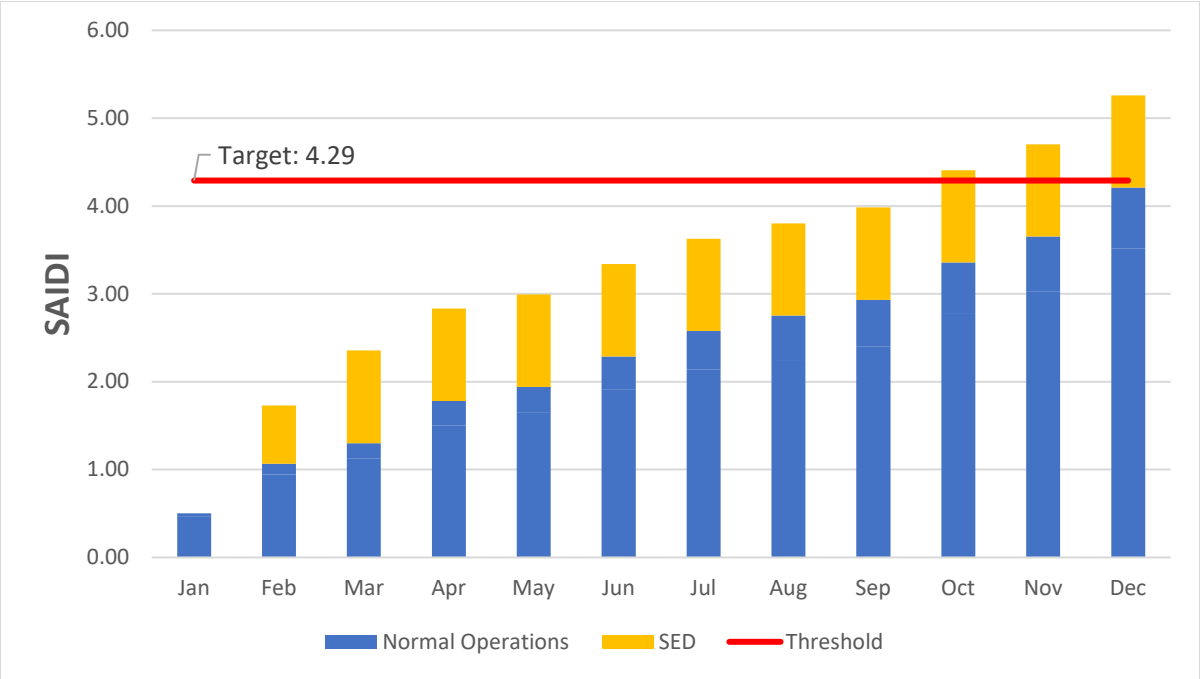
Event Day	2017 Threshold	2024 Threshold	Threshold Increase 2017-2024	Percent Increase 2017-2024
Major Event Day	157,127 CHI	251,987 CHI	+94,860 CHI	60.4%
Extreme Event Day	1,075,386 CHI	1,625,760 CHI	+550,374 CHI	51.2%

As shown in **Figure 5**, the three storm events included in "normal conditions" in 2024 would have met MED status had the threshold initially established at the onset of the Performance Standards had been in place in 2024. These events would have been evaluated under the Adverse Weather Performance Standards and not included in the Reliability Performance Standards metrics, which would have resulted in the SAIDI standard being met in 2024 as shown in **Figure 6**.

Figure 5 - 2024 Weather Event Days

Storm Event	CHI for Event Day	Event Day with 2017 Threshold	Event Day with 2024 Threshold
February 3, 2024	177,893	Major Event Day (included in Adverse Weather standards)	Significant Event Day (included in normal conditions Reliability standards)
February 29, 2024	182,902	Major Event Day (included in Adverse Weather standards)	Significant Event Day (included in normal conditions Reliability standards)
March 24, 2024	210,900	Major Event Day (included in Adverse Weather standards)	Significant Event Day (included in normal conditions Reliability standards)

Figure 6 - 2024 SAIDI Result with outages due to Storms Highlighted



It is the goal of the Five-Year Reliability Plan to deliver ongoing continuous improvement to reliability. Ensuring the performance standards continue to clearly define outages that should be held to adverse weather standards and those that should be held to normal conditions reliability standards will allow the effectiveness of these investments to be evaluated.

A Study by Electricity Canada has identified these challenges as experienced by other Canadian utilities.[6] This study presents alternatives for defining storm status. The Company looks forward to further engagement with stakeholders on this matter when the performance standards are reviewed in 2026.

Building upon this foundation, NS Power's continuing commitment to investments in vegetation management, storm hardening and modernizing the grid underpin the goal of

[6] Electricity Canada. "Major Event Day Determination Guide". https://www.electricity.ca/files/reports/english/MED-Methods_CEA_2015-1.pdf

consistently meeting the reliability Performance Standards (SAIDI and SAIFI) metrics by 2029 for years in which there are no extreme weather events as outlined in the Five-Year Reliability Plan. Affordability is a major consideration in balancing the investment level with customer expectations of both reliability and the impact of rates on the customer. The Company remains committed to continuing discussions with respect to balancing further reliability improvements with cost impacts for customers.

2.3 Summary of NS Power's Results

In 2024, NS Power met all its performance standards except SAIDI, and feeder 91W-411 (one of five feeders tracked) under CKAIDI. As shown in **Figure 7** and **Figure 8** below, NS Power met 12 of 14 Performance Standards metrics in 2024.

Figure 7 – 2024 Performance Standards Met

Category	Standard	Target	2024 Result
Reliability	SAIFI	2.05	1.97
	CKAIDI	19.00	11S-411 Achieved: 6.53
			4N-313 Achieved: 9.52
			1W-411 Achieved: 12.94
			57S-401 Achieved: 14.14
	CKAIFI	5.03	85S-401 Achieved: 3.90
			57S-401 Achieved: 5.02
Customer Service Response	Regular Business Call Answer Rate	A minimum of 70% of calls shall be answered within 30 seconds at NS Power's Customer Care Centre.	81.3%

Category	Standard	Target	2024 Result
	Percentage of Bills Estimated	≤2.0	1.0%
	Customer Notification of Outages	Notify all customers of an outage as soon as NS Power has knowledge of an outage event.	Target Met
	New Service Connection Times	Service Installation No Pole: ≤ 3.0 days	2.14 days
		Service Installation Pole or Transformer: ≤ 4.9 days	4.71 days
		Service Installation Temporary to Permanent Service: ≤ 3.2 days	2.23 days
		Service Installation Line Extension ≤ 10 Poles: ≤6.2 days	6.01 days
		Service Installation Line Extension ≥ 10 Poles: ≤ 18.1 days.	7.52 days
	File Outage Reports within 45/75 Days		Met
Adverse Weather Response	Notification of EOC Opening	NS Power to notify customers of the decision to open the EOC within 4 hours of the decision to open.	Target Met

Category	Standard	Target	2024 Result
	Outage Call Answer Rate	A minimum of 85% of calls answered within 45 seconds at Customer Care Centre during severe outage events.	N/A
	Polite Disconnects	10% or less annually.	1.09%
	Outage Report	Within 75 days for an EED or MED and 45 days for a SED	Target Met
	ETR Updates without delay	ETR updates provided without delay.	Target Met
	Percent Customers restored in 48 hours	Significant Event Days: 95.05% of customers restored within 48 hours.	N/A*
		Major Event Days: 91.98% of customers restored within 48 hours.	N/A
		Extreme Event Days: 78.38% of customers restored within 48 hours	N/A

*Only SEDs which fall after an MED or EED are considered under this metric. There were three SEDs throughout 2024, but they did not fall immediately after an MED or EED.

Figure 8 – 2024 Performance Standards Not Met

Category	Standard	Target	2024 Result
Reliability	SAIDI	≤4.29	5.26
	CKAIDI	19.00	91W-411 Not Achieved: 31.81

Additional detail and supporting documentation regarding the 2024 Performance Standards results are provided below.

3.0 PERFORMANCE STANDARDS RESULTS

3.1 Customer Service Standards and Targets

In 2023, the NSUARB approved the following metrics associated with the customer service performance standards for 2024:

(i) Percentage of calls answered within 30 seconds
(ii) Percentage of customer bills that may be estimated
(iii) Customer notification of outages
(iv) New service connection times

The 2024 results for each of these metrics are detailed below.

Percentage of calls answered within 30 seconds

The description of this standard and the applicable target are set out in **Appendix O**. The standard requires NS Power to answer at least 70 percent of calls from customers wishing to speak to a representative within 30 seconds of the call coming in.

The Percentage of calls answered within 30 seconds metric was 81.02 percent, achieving the Performance Standards target of greater than 70 percent annually. Supporting data, including a monthly breakdown of the target, is contained in **Appendix A**.

In its decision on the 2017 Annual Performance Standards Report, the NSUARB directed as follows:

> Regarding percentage of estimated bills, although the target has been established as an annual goal, it would be informative to understand the reasons why that target has been exceeded in a specific month. NSPI is directed to provide such explanations in its future annual reports. In addition to estimated

> bills, this requirement also applies to other metrics, such as percentage of calls answered within 30 seconds, new service connection times, percentage of customers restored within 48 hours of a severe weather event, percentage of calls answered within 45 seconds during a severe outage event, and percentage of polite disconnects for all outage calls.[7]

The overall percentage of calls answered within 30 seconds meets the target for 2024, with 12 out of the 12 months meeting the target as shown in **Figure 9**.

Figure 9 – Monthly Percentage of Calls Answered within 30 Seconds

	Total Interactions	Service Level MTD (Percentage)	Service Level YTD (Percentage)
January	78,999	73.50	73.50
February	81,828	85.32	79.53
March	80,992	75.21	78.09
April	74,306	78.06	78.09
May	67,515	83.38	79.03
June	70,038	90.07	80.77
July	63,790	86.10	81.48
August	57,061	87.34	82.09
September	58,891	81.21	82.01
October	72,916	75.66	81.37
November	70,541	72.65	80.59
December	87,672	84.87	81.02
Total	864,549		81.02

As shown in **Figure 9** above, NS Power's Customer Care Centre received 864,549 calls from customers during regular business operations in 2024. New customer-requested work increased by 21 percent over 2023, which impacts call volume as customers call to set up new accounts and understand the connection process. Customer-requested work includes items such as renovation connections/disconnections, new homes and building connections, and requests for line extensions.

[7] M08574, NS Power 2017 Annual Performance Standards, NSUARB Decision Letter, May 1, 2018, page 6.

Customer Bills Estimated

The description of this standard and the applicable target are set out in **Appendix O** to this Report. The standard requires NS Power to estimate no more than 2 percent of customer bills annually.

The Customer Bills Estimated rate in 2024 was 1.0 percent, achieving the Performance Standards target of less than 2 percent annually.

The target was also met in each month of the year except October, which had an estimated customer bill result of 2.1 percent. For a short period in October, a system integration issue prevented meter reading records from properly transferring to the CIS system. As a result, customer bills were produced with estimated reads. To prevent a recurrence, a notification process was implemented to detect and address such issues promptly. Supporting data, including a monthly breakdown of performance against the target, is contained in **Appendix B**.

Customer Notifications of Outages

The description of this standard and applicable target is set out in **Appendix O**. The standard requires NS Power to notify customers of outage events as soon as NS Power is aware of the outages.

In 2024 customers had uninterrupted access to outage notifications through NS Power's live outage map, High Volume Call Answer (HVCA) system and the Company's social media sites, achieving the NSUARB's target for this performance standard. The HVCA system is equipped on the toll-free outage line and is designed to answer up to 40,000 customer calls per hour immediately without any holds or delays. The Company also maintains contingency sites

which include a backup outage map and customer outage information in tabular format if a primary outage communication system is offline.

Figure 10 below shows the availability of outage communication systems in 2024. The Advanced Distribution Management System (ADMS), the system that creates outage events from customer calls, and the Supervisory Control and Data Acquisition (SCADA) notifications to ADMS were available for 99.96 percent of the time during in 2024. The Outage Map was available 100 percent of the time. The HVCA had a planned outage for 9.5 hours, making it available for 99.89 percent of the time in 2024.

The HCVA system downtime was due to regular planned system maintenance and the installation of operational patches, which are a normal part of maintaining large operational software systems. Planned maintenance is coordinated to avoid times when weather might pose a risk to the power system.

Figure 10 – System Availability for Customer Notification of Outages 2024

	% of Hours System was available	% of hours System was unavailable
ADMS	99.96	0.04
Outage Map	100	0.00
Data Network	100	0.00
HVCA	99.89	0.11
Social Media	100	0.00
Contingency Plan Activated	0.15	NA

Additional detail on system availability is contained in **Appendix C**.

New Service Connection Times

The description of this standard and the applicable target are set out in **Appendix O**. NS Power is required to complete various new service installations within a certain number of days following completion of all prerequisites.

Similar to reliability metrics such as SAIDI and SAIFI, benchmarks for new service connections are set for normal conditions, i.e., excluding data for MEDs and EEDs. During MEDs and EEDs, all work focuses on restoration efforts, and no new customer work is completed.

The New Service Connection Times metric was achieved for each of the service installation types in 2024.

Figure 11 below identifies the targets for new service connection times (under normal conditions) applicable for 2024, based on NSPI's historical data for the period 2019 to 2023.

Figure 11 – 2024 Targets for New Connection Standards

Service Installation Type – 2024 Targets				
No Poles	**Pole or Transformer**	**Temporary to Permanent**	**Line Extension < 10 Poles**	**Line Extension ≥ 10 Poles**
≤ 3.0 days	≤ 4.9 days	≤ 3.2 days	≤ 6.2 days	≤ 18.1 days

NS Power met the standards for all five of the new service connection types in 2024. The 2024 results for new customer connections can be found in **Figure 12** below. These are measured after all customer requirements have been completed (i.e. securing easements, issuance of permits, customer tree trimming, underground infrastructure locations).

Figure 12 – 2024 Results for New Service Connection Times

Number of Business Days per Service Installation Type					
	No Pole	**Pole or Transformer**	**Temporary to Permanent**	**Line Extension < 10 Poles**	**Line Extension ≥ 10 poles**
2024 Target	3.0	4.9	3.2	6.2	18.1
2024 Result	2.14	4.71	2.23	6.01	7.52
Variance	-0.86	-0.19	-0.98	-0.19	-10.58

The monthly average details for the individual metrics are provided in **Appendix D**. With respect to meeting New Service Connection times, the role of the Energy Delivery Scheduling team (EDS) at NS Power is to schedule customer work in the most efficient and productive way possible. Each work order is presented with parameters establishing its priority and any outstanding requirements necessary for execution. Resources are allocated to scheduled work orders based on each work order's priority, which can vary based on safety considerations and commitments to other overall work volumes/priorities for organizations (such as Nova Scotia Department of Public Works), commitments to local municipalities, or service delivery commitments such as those established in the New Service Connection Standards.

NS Power has significantly improved its consistency in meeting the annual target on a monthly basis, achieving the target in 77 percent of months across all metrics, compared to 35 percent in 2023. Since June, every monthly result has exceeded the annual target. While some targets were missed in certain months, it was due to the high volume of work being executed. NS Power remains committed to sustaining this momentum by strategically deploying resources to meet challenging performance standards. To support increasing demand, NS Power has also hired 53 additional PLTs since 2023.

3.2 Adverse Weather Response Standards

The NSUARB approved the following metrics associated with adverse weather response standards:

(i) Customer notification of an oncoming severe weather event within a specific time frame;
(ii) Percentage of calls answered within 45 seconds during a severe outage event;
(iii) Polite disconnect rate for all outage calls;
(iv) Estimated Time to Restore (ETR) updates communicated to customers during an outage; and
(v) Percentage of customers restored within the first 48 hours of a severe weather event - separately for Major Event Days (MEDs) and Extreme Event Days (EEDs) and Significant Event Days (SEDs) if the SEDs were excluded from normal conditions as the second 24-hour event, as discussed in Exclusions associated with reliability performance standards.
(vi) Outage Report for adverse weather events impacting ≥30,000 customers.[8]

The 2024 results for each of these metrics are detailed below.

Notification of an Oncoming Severe Weather Event

The description of this standard and the applicable target are set out in **Appendix O**. NS Power is required to notify customers within four hours of a decision to open the Emergency Operations Centre due to a pending storm.

The Notification of an oncoming severe weather event metric was achieved in 2024.

[8] M10279, NS Power Performance Standards, NSUARB Order, April 7, 2022, Appendix A, page 3.

NS Power opened the Emergency Operations Centre (EOC) on one occasion in 2024 for a total of 2 days, as detailed in **Figure 13** below. On this occasion, customers were notified within four hours of the decision to open the EOC. Supporting documentation is provided in **Appendix E**.

Figure 13 – Notification of the Opening of the EOC

Decision to open EOC	Notification to Public
January 9, 2024 13:25	January 9, 2024 14:53

*Although the EOC was activated for the January 9, 2024 event based on pre-storm weather forecasts, the resulting storm did not meet the qualifications for a Major Event Day, and as such, is not included in other storm metrics.

Percentage of Calls Answered Within 45 Seconds

The description of this standard and the applicable target are set out in **Appendix O**. NS Power is required to answer 85 percent of phone calls to the Customer Care Centre within 45 seconds.

The Percentage of calls answered within 45 seconds metric was met in 2024.

NS Power offers all customers a toll-free telephone line with automated outage information and live agents 24 hours a day. The outage line is equipped with a High-Volume Call Answer (HVCA) system that is designed to immediately answer up to 40,000 customer calls per hour without any holds or delays. Customers calling the outage line can report an outage or receive their outage information directly without having to speak to a Customer Service Associate (CSA).

NS Power also maintains a roster of approximately 100 additional trained NS Power employees outside the Customer Care Centre to assist CSAs in answering customer calls during severe storm events. This ensures that NS Power has the flexibility to ramp up staffing as required to meet the needs of customers during storm events.

Supporting documentation, including a monthly breakdown of performance against the target, is contained in **Appendix F**.

Polite Disconnect Rate

The description of this standard and the applicable target are set out in **Appendix O**. 10 percent or less of all outage calls are permitted to be automatically disconnected when phone lines are overloaded (a polite disconnect).

NS Power met this standard as the polite disconnect rate for 2024 was 1.09 percent for all outage calls.

A polite disconnect occurs when the HVCA system is unable to find an open line because the trunking capacity (the number of calls which can be received at any one time) has been exceeded. Multiple attempts are made to put the customer through to the Customer Care Centre and a polite disconnect only occurs when the system determines there is no open capacity to accept the call because all CSAs are speaking with customers and the extra telephony trunks are also filled to capacity with customers on hold. Polite disconnects may occur during the peak of a severe weather or outage event.

Supporting documentation, including a monthly breakdown of performance against the target, is contained in **Appendix G**.

Estimated Restoration Time Updates

The description of this standard and the applicable target are set out in **Appendix O**. NS Power is required to provide updated estimated times for power restoration once new restoration times have been determined.

NS Power customers had uninterrupted access to the systems that provide outage Estimated Time to Restore (ETR) updates in 2024, meeting this performance standard. ETR updates are provided to customers via the outage map, the HVCA system, social media sites, or contingency sites. Section 4.1 shows the availability of these systems in 2024.

NS Power tracks compliance with this metric through the following:

- Availability of ADMS
- Availability of the Outage Map
- Availability of HVCA system
- Activation of Contingency Plan

Supporting data for these results is contained in **Appendix C**.

With respect to estimated restoration times, the Board's May 1, 2018 decision included the following further direction:

> Although it is understood that the initial ETRs from the predictive modelling may not have the benefit of actual input from personnel in the field, and therefore may be less representative of the required restoration time, it would be beneficial for NSPI to undertake an analysis comparing the ETRs with actuals to determine the level of accuracy and whether any further refinements could be incorporated into its estimates. The Board directs NSPI to include this

> analysis in its future annual reports and to illustrate whether the ETRs actually become more accurate as the restoration process progresses.[9]

In its order regarding the updated Performance Standards for 2022-2026, the NSUARB directed NS Power to "monitor related emerging technologies and to report on updates to the ETR processes in its future annual reports."[10]

The following information pertaining to the accuracy of ETRs, the ETR process and emerging technologies is provided in response to the Board's directive.

NS Power provides ETRs based on historical average restoration times for all outages as soon as they are identified. Initial ETRs are updated to reflect actual power system impact and the time required to restore as soon as field personnel determine that information. The conditions that impact outage duration (such as access to equipment due to travel conditions or the full extent of equipment damage) are not always immediately known by the crews on site and awareness of this information evolves as restoration continues.

NS Power customizes ETR strategies by region, population density (urban or rural environment), and the number of customers impacted. This allows the automated ETRs assigned to an outage to be tailored to a more specific area, thereby improving overall accuracy. In 2021 NS Power further refined the ETR strategy to provide ETRs at the community level. Automated ETRs are applied during regular operations and then adjusted further for storm events based on the historical impact of similar weather. The ETRs automatically assigned during regular operations are reviewed every six months and updated as appropriate. These refinements resulted in ETR adjustments in 2022 based on actual response times by area. The updated ETR adjustments were considered in 2023 and 2024 and remain appropriate.

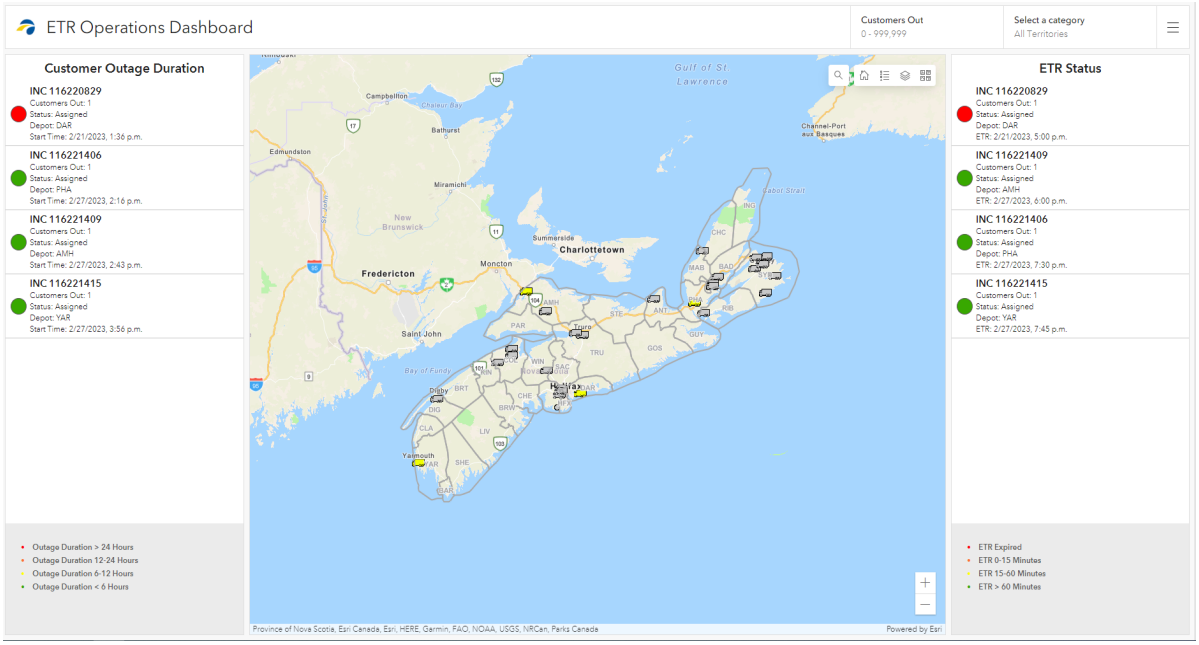
[9] M08574, NS Power 2017 Annual Performance Standards, NSUARB Decision Letter, May 1, 2018, page 5.

[10] M10279, NS Power Performance Standards, NSUARB Order, April 7, 2022, page 2.

In 2023 NS Power implemented enhancements to the operational Field Maps tool which enable front-line staff such as crew leads and PLTs to update field-validated ETRs and outage cause codes in real time directly from a work site. This enhancement eliminates any delays associated with field staff contacting centralized resources to make these updates. Further, it allows field staff to include comments and additional context which is then immediately available for the CSAs to share with customers.

NS Power continues to utilize the ETR dashboard in the Emergency Operations Centre during large events. This dashboard ensures that ETRs which have commitments that day or in the hours ahead are highlighted to the EOC team so that targeted support can be provided as required to field staff working to meet these targets. This dashboard also assists in the regular reassessment of established ETRs during an event, to understand if an area/outage ETR should be adjusted in response to updated field condition data. An example of the dashboard is found in **Figure 14**.

Figure 14 – ETR Operations Dashboard



As an ETR is updated with field-validated data, the restoration time may change from the original ETR. Given the variables in repairing equipment aloft under unpredicatable and challenging conditions, ETRs evolve as restoration continues. Important variables impacting ETRs include the following:

- Outage cause not immediately visible by crews
- Outage cause located off-road
- Precipitation
- Travel conditions
- Wind speeds exceeding safety levels
- Impact of extreme cold or heat
- Visibility for access due to time of day/night
- Requirements for additional materials or resources.

In 2024 NS Power managed 15,956 outage events. Of the 15,956 outage events in 2024, 80 percent (12,814) received a single ETR.

Overall, 75 percent of customers receiving a single ETR in 2024 were accurate within plus or minus four hours and 44 percent were accurate within plus or minus two hours for all outages, including the three significant storms in February, March and December.

Figure 15 compares 2024 to 2023 for the number of ETR updates customers received for all outage events.

Figure 15 – Outage Events by Number of ETR Updates

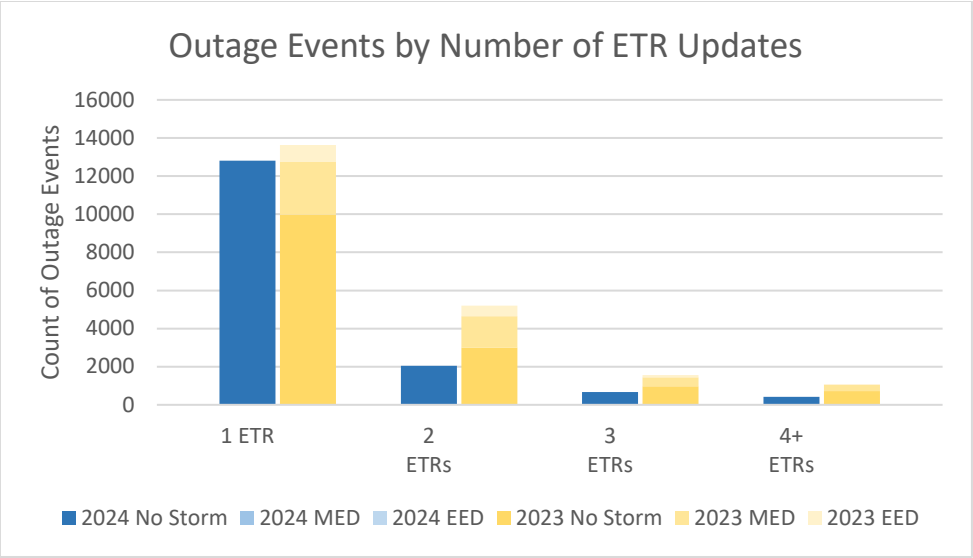


Figure 16 compares the accuracy of ETRs in 2024 and 2023 for all events. As shown, in 2024 NS Power restored power within four hours of communicated ETRs between 77 and 65 percent of the time, and within two hours of the communicated ETR between 70 and 41 percent of the time. **Figure 16** demonstrates a 25 percent improvement in first ETR accuracy, a 22 percent improvement in second ETR accuracy, and a 25 percent improvement in third ETR accuracy compared to 2023.

Figure 16 – Customer Impact and Restoration Time - All-in

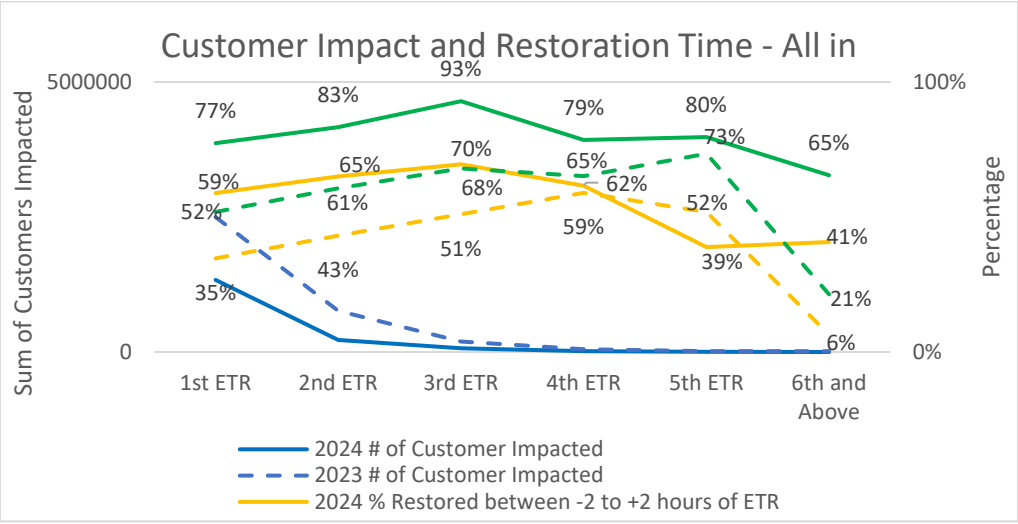
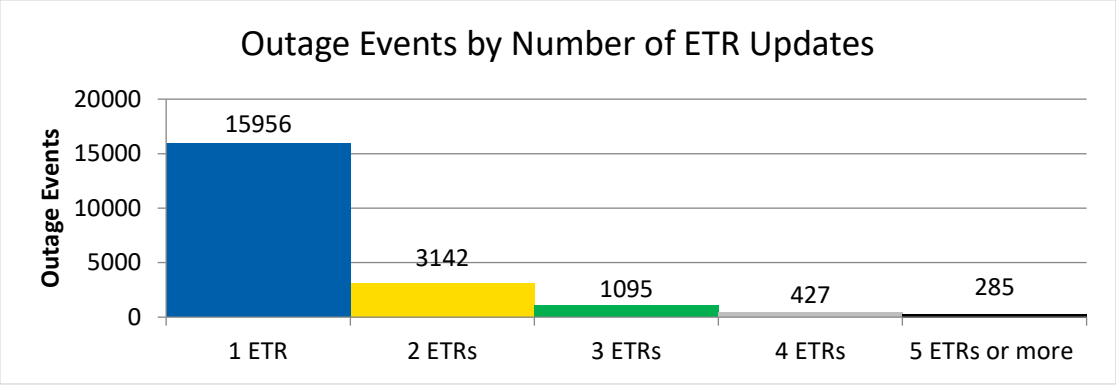


Figure 17 shows that less than 20 percent of all outage events had multiple ETRs, highlighting NS Power's efficiency and accuracy in the initial assessment of the outages. Additionally, only 2.7 percent of outage events, including during the three significant weather events, had more than three ETRs provided to them.

Figure 17 – Outage Events by Number of ETR Updates



Percentage of Customers Restored Within the First 48 Hours of a Severe Weather Event

The description of this standard and the applicable target are set out in **Appendix O**. NS Power is required to restore power to a certain percentage of customers within the first 48 hours of a significant event (95.05 percent), a major event (91.98 percent) or an extreme event (78.38 percent).

The percentage of customers restored within the first 48 hours of a severe weather event metric was met in 2024.

The 2024 targets are provided in **Figure 18**.

Figure 18 – 2024 Targets for Percentage of Customers Restored within 48 Hours

Percentage of Customers Restored Within First 48 hours			
	SEDs (Percentage)	MEDs (Percentage)	EEDs (Percentage)
2017-2023 Average	96.19	96.57	83.67
Standard Deviation	5.65	6.23	14.52
2024 Target	95.05	91.98	78.38

The 48-hour period for event day restoration is considered to begin with the first event-related outage on the same day. The total number of customers impacted is the sum of the storm-related outages following this first event until the end of that day.

NS Power experienced no MEDs, EEDs or SEDs (following a MED or EED) in 2024.

Outage Report for events impacting > 30,000 customers

The description of this standard and the applicable target are set out in **Appendix O**. NS Power is required to provide an outage report within 45 days of a weather event impacting 30,000 or more customers, or within 75 days of a MED or EED.

NS Power experienced three weather events in 2024 which impacted 30,000 or more customers. In each case, as outlined in **Figure 19** below, a report was prepared in accordance with the established template and filed with the Board.

Figure 19 – Weather Events impacting >30,000 Outage Report Status

Weather Event	Date Filed*	Met Target	NSUARB Matter
February 29, 2024	April 15, 2024	Yes	M11661
March 24, 2024	May 8, 2024	Yes	M11698
December 12, 2024	January 24, 2025	Yes	M12071

3.3 Reliability Standards

The NSUARB approved the following performance standards relating to reliability as set out in **Appendix O**:

(i) System Average Interruption Frequency Index ("SAIFI")
(ii) System Average Interruption Duration Index ("SAIDI")
(iii) Circuit Average Interruption Frequency Index ("CKAIFI")
(iv) Circuit Average Interruption Duration Index ("CKAIDI")

SAIFI is how often customers experienced outages on average; SAIDI is how long the outages lasted on average; CKAIFI is how often a particular feeder experienced an outage; and CKAIDI is how long the outage lasted on a particular feeder. These metrics exclude SEDs, MEDs and EEDs.
The 2024 results for each of these are detailed below.

SAIDI and SAIFI Standards

The 2024 Performance Standard target for SAIDI was 4.29, meaning that on average, a customer would experience less than 4.29 hours of interruption over the year. The 2024 Performance Standard target for SAIFI was 2.05, meaning that on average, a customer would experience fewer than 2.05 outage events throughout the year.

NS Power's results for SAIDI and SAIFI for 2024 are set out in **Figure 20** below. NS Power met the established target for SAIFI in 2024 with a result of 1.97 (or less than 2 instances per customer per year on average). The 2024 result for SAIDI was 5.26 (or approximately 5 hours per customer per year on average compared to the target of approximately 4 hours).

Figure 20 – SAIDI and SAIFI Results

Metrics	2024 Target	2024 Result
SAIDI	≤ 4.29	5.26
SAIFI	≤ 2.05	1.97

Figure 21 and **Figure 22** below provide graphical representations of the SAIDI and SAIFI results over the course of 2024.

Figure 21 – 2024 SAIDI Result

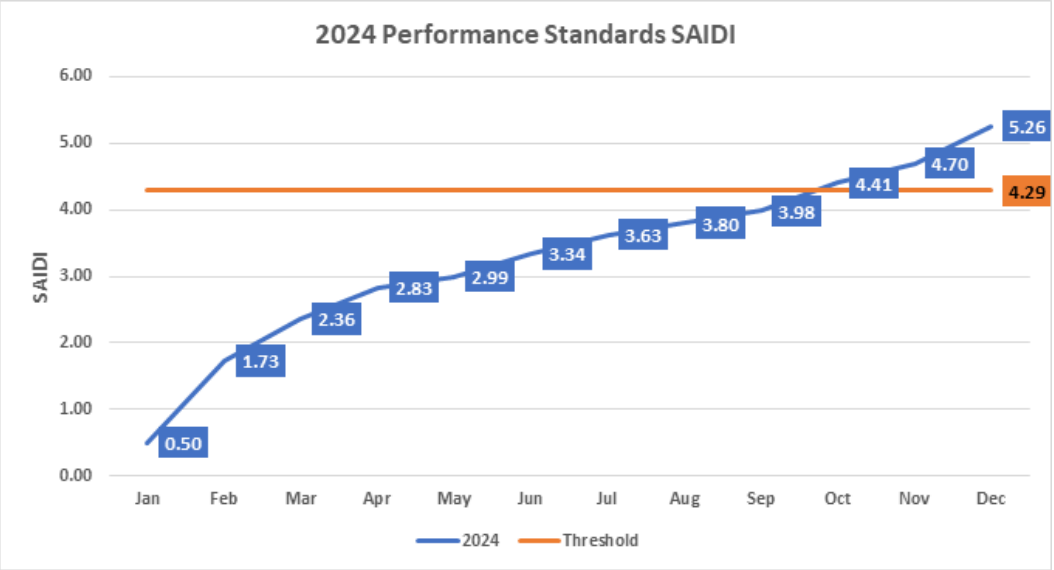
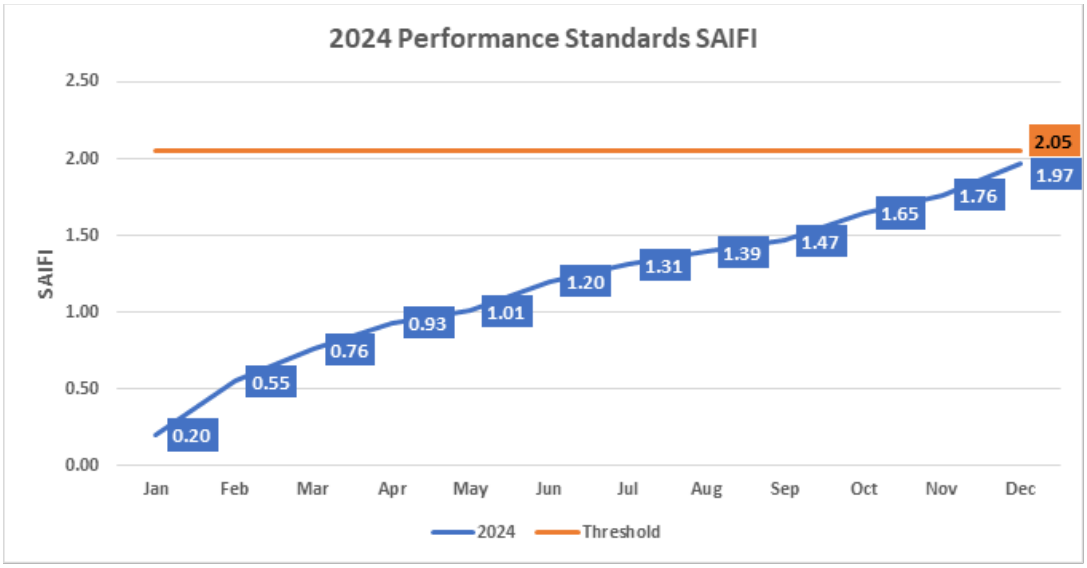


Figure 22 – 2024 SAIFI Result



Five-Year Reliability Improvement Investment Plan

NS Power is committed to an investment plan to deliver ongoing continuous improvement in the frequency and duration of power outages experienced by customers. With the establishment of the NS Power Reliability team, the Company has focused its operational structure on improving reliability for Nova Scotians and has developed a five-year plan that will positively impact reliability within the considerations of affordability and resource availability to meet the established reliability targets by 2029. The Company has begun execution on a five-year plan (2025-2029) that builds on the over $365 million in targeted reliability investments in recent years (2023, 2024). These investments are focused on reducing elements known to cause outages, by targeting the removal of trees from power lines, storm hardening the grid and the continued introduction of self-healing and self-detecting grid automation technologies.

With each upgraded pole and trimmed tree, the system is incrementally stronger and more resilient to winds and stormy weather. The aggregate effect of this work will drive the reliability improvements to consistently meet the duration and frequency reliability targets by 2029.

The total capital investment proposed in reliability for 2025-2029 is $1.3 billion, as shown in **Figure 23**. These investments are focused on the areas of vegetation management, storm hardening, and grid enhancements which will positively impact the reliability experience for customers. This level of investment is approximately 12 percent more than the level of investment in the transmission and distribution system over the past five years (2019-2023).

These investments are necessary for continued improvement of outage duration and frequency going forward.

Figure 23 – Reliability Investment Plan

Reliability Program	2025	2026	2027	2028	2029	Total Plan
Storm Hardening - Targeted Equipment Replacement and Upgrades	152.4	181.1	198.7	192.4	191.8	**916.4**
Storm Hardening - Vegetation Management	45.0	45.0	45.0	65.0	65.0	**265.0**
Advanced Grid Modernization	9.2	7.9	7.9	15.3	37.6	**77.9**
Total	**206.6**	**234.0**	**251.6**	**272.7**	**294.4**	**1,259.3**

Reliability Engagement

The dedicated Reliability team provides an enhanced focus on stakeholder engagement (customer, municipal and provincial). The team engaged and listened to customers with the goal of identifying reliability concerns and potential solutions during 73 outreach engagements across the province in 2024 and the first quarter of 2025.

Reliability Advisors, supported by colleagues in the field and throughout the business, are working with community leaders to provide a direct, person-to-person connection between the

Company and customers. Additional highlights of the work done by the Reliability Team are set out below.

- Reliability Advisors work throughout the year in four major regions of the province: Metro, West, Northeast and Cape Breton.

- 91 actions identified and prioritized by customer feedback were resolved by solutions which included tree trimming, line upgrades, and addressing concerns about power safety and quality.

- The Energy Delivery Incremental Resource Plan was advanced to align field resources with increased customer work and reliability investment. Energy Delivery has successfully recruited 57 Power Line Technicians, 33 PLT Apprentices, 12 Planners and 20 wiring inspectors since 2023. Recruitment efforts throughout North American are anticipated to increase the PLT complement to 200 individuals by the end of 2025. In addition, eight substation electrical technician apprentices are expected to be hired in early 2025.

Figure 24 lists the 73 reliability engagements completed in 2024 and year to date 2025.

Figure 24 – Reliability Engagements Completed to Date

Completed Reliability Engagements 2024 and YTD 2025

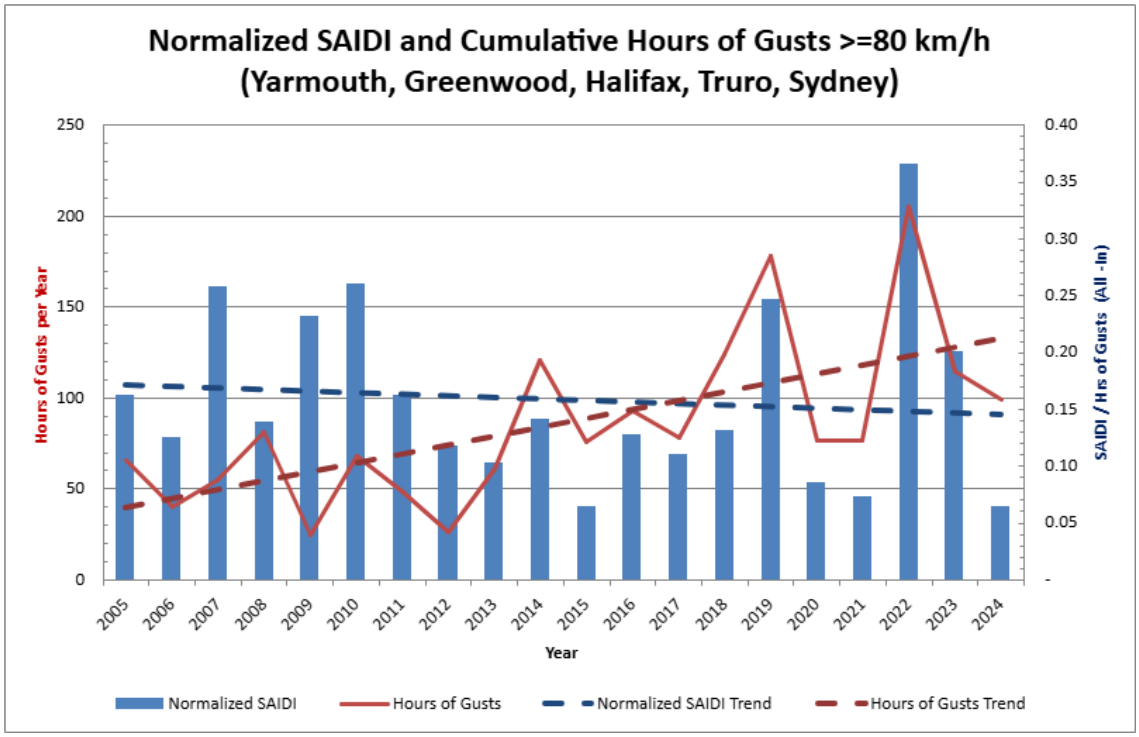
1/17/24	Tufts Cove Community Liaison Committee meeting	8/19/24	Meeting with Elected Official
1/19/24	Meeting with Elected Officials	8/19/24	Meeting with Elected Official
1/23/24	Cape Breton Regional Municipality Council meeting	8/20/24	Meeting with Elected Official
1/23/24	Meeting with Elected Official	8/20/24	Meeting with Elected Official
1/24/24	Meeting with Elected Official	8/21/24	Meeting with Elected Official
1/26/24	Meeting with Elected Offical	8/27/24	Meeting with Elected Official
2/1/24	County of Inverness Council meeting	9/3/24	Meeting with Elected Official
3/20/24	Main-a-Dieu community meeting	9/4/24	Meeting with Elected Official
3/20/24	Louisbourg community meeting	9/6/24	Meeting with Elected Official
3/21/24	Albert Bridge community meeting	9/11/24	Meeting with Elected Official
3/22/24	Halifax Home Show	10/1/24	Meeting with Elected Official
4/4/24	Pictou County Regional Discussion	10/2/24	Meeting with Elected Official
4/5/24	Pictou Home Show	10/8/24	Meeting with Elected Official
4/12/24	South Shore Expo (Home Show)	10/11/24	Meeting with Elected Official
4/13/24	Cape Breton Home Show	10/11/24	Meeting with Elected Official
4/19/24	Meeting with Elected Offical	10/15/24	Meeting with Elected Official
4/19/24	Kentville Home Show	10/15/24	Meeting with Elected Official
4/26/24	Truro Home Show	10/15/24	Meeting with Elected Official
5/3/24	Yarmouth Home Show	10/15/24	Trenton Liaison Committee meeting
5/9/24	Lunenburg County community meeting	10/16/24	Meeting with Elected Official
5/21/24	WREN meeting	10/16/24	Meeting with Elected Official
5/23/24	Millville community meeting	10/17/24	Meeting with Elected Official
7/10/24	Merigomish community meeting	11/1/24	Meeting with member of the Board
7/25/24	Meeting with Elected Official	11/7/24	Spider Lake Open House - Battery Project engagement
7/26/24	Meeting with Elected Official	11/26/24	Nova Scotia Federation of Municipalities conference
7/29/24	Meeting with Elected Official	12/6/24	Meeting with Elected Official
7/31/24	Meeting with Elected Official	1/16/25	Meeting with Elected Official
8/1/24	Meeting with Elected Official	1/20/25	Meeting with Elected Official
8/6/24	Meeting with Elected Officials	1/23/25	Meeting with Elected Official
8/6/24	Meeting with Elected Official	1/27/25	Meeting with Elected Official
8/7/24	Meeting with Elected Official	1/29/25	Meeting with Elected Official
8/8/24	Meeting with Elected Official	1/31/25	Meeting with Elected Official
8/9/24	Meeting with Elected Official	1/30/25	Meeting with Elected Official
8/12/24	Meeting with Elected Official	2/10/25	Glace Bay community meeting
8/13/24	Meeting with Elected Official	2/12/25	Merigomish community meeting
8/14/24	Meeting with Elected Official		
8/15/24	Meeting with Elected Official		
8/19/24	Meeting with Elected Official		

Escalating Climate Change Impacts & Adverse Weather

Nova Scotia experienced 99 hours of wind with gusts exceeding 80 km/h in 2024 (see **Figure 25)**. Despite almost 100 hours of extreme winds, no days met the threshold for a major event day in 2024, whereas in prior years all three of the storms that occurred in 2024 would have been categorized as MEDs. While there is more to do, and work continues to improve the

system's overall response to high winds, the data indicates that the targeted reliability investments to date are reducing the impact of escalating weather on the power system and reducing the frequency and duration of outages. This demonstrates the efficacy of the reliability programs in the five-year plan.

Figure 25 – Normalized SAIDI and Wind Gusts >80km/h



The response of the power system to strong winds and stormy weather will continue to improve as each element of the Five-Year Reliability Plan is executed. This positive result when coupled with the present threshold for a major event day (50 percent higher than when performance standards were established), means that many more outages which occur during storms are being included in the normal conditions reliability metrics.

Figure 27 and **Figure 28** show the SAIDI and SAIFI figures for 2024 with the contributions to SAIDI and SAIFI from the three days meeting significant event day status. All these events were treated as normal daily conditions for the purposes of SAIDI/SAIFI calculations.

These graphs also highlight the contribution to SAIDI and SAIFI from outages caused by "foreign interference" such as motor vehicles accidents, structural fires, and human-felled trees. The graphs showcase the impacts of smaller event days that do not reach the threshold of a MED or EED in 2024.

As presently defined, the performance standards reliability metrics do not clearly delineate between outages caused during severe weather and those that occur outside those periods – i.e. a storm may occur with winds above 80 km/h, but if it is localized or does not cause at least 251,987 customer hours of outage, it is not classified as an MED and is characterized as normal operating conditions for the purposes of reliability. This is primarily due to the increase in the threshold for a major event day by over 50 percent since the performance standards were established in 2017. As such, three storms in 2024 did not meet major event status, despite reaching the previously established storm criteria outlined in 2017. Including storms like these that were not included in determining reliability performance for SAIFI and SAIDI just a few years ago continue to impact the level of investment required to support achievement of the reliability performance standards.

The particulars of the three significant storm events in 2024 are as follows:

February 3, 2024

- Nova Scotia experienced a significant snowfall due to a slow-moving blizzard. The storm resulted in snow accumulations ranging from 60-150cm across the province accompanied by strong winds. Snowfall accumulation of 150cm was recorded in Sydney. Although there were 177,893 hours of customer interruption, this event impacted only 20,053 customers, and a result, did not require an outage report.

February 29, 2024

- A weather system brought heavy/torrential precipitation and winds exceeding 80 km/h warning levels were recorded in the Halifax, Northeast, Valley, Eastern Shore and Cape Breton Regions. Wind gusts peaked at 100 km/h.

- Storm report submitted. 50,523 customers were impacted, and there were 179,981 hours of customer interruption.

March 24, 2024

- A low-pressure system brought heavy rain and strong winds. Strong winds exceeded warning levels in every region of the province. Recorded wind gusts peaked at 104 km/h. This system impacted the province for over 12 hours.

- Storm report submitted. 35, 563 customers were impacted, and there were 191,111 hours of customer interruption.

While all three of these weather-related events were considered storms by customers experiencing the outages, they were considered normal operating conditions for the purpose of measuring reliability standards.

Classification of storm-related outages as normal operating conditions such that they are included in the SAIDI and SAIFI calculations is a significant challenge to meeting the established performance standards for reliability. As the weather continues to worsen and hours of interruption caused by storms continue to increase, NS Power is considering this element of how the performance standards are designed as part of its investment plans, while being mindful of potential cost impacts for customers. As noted above, if the "storm day threshold" as initially established at the onset of Performance Standards (2017) was still in place, NS

Power would have met the established SAIDI reliability metric in 2024 as shown in **Figure 26**.

Figure 26 – 2024 SAIDI Results with outages due to storms highlighted

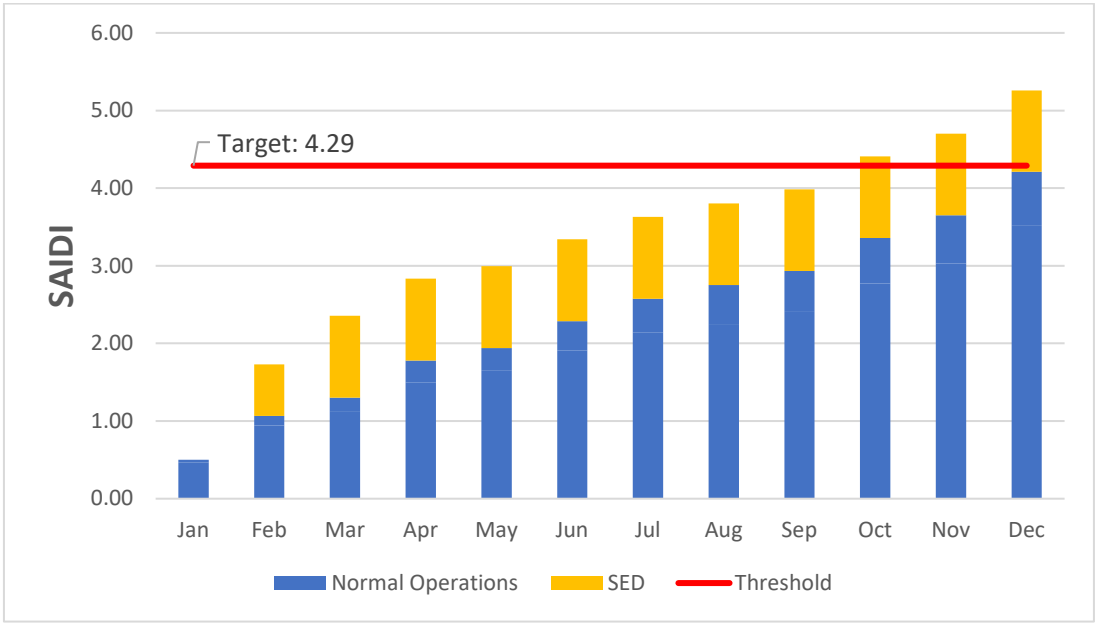
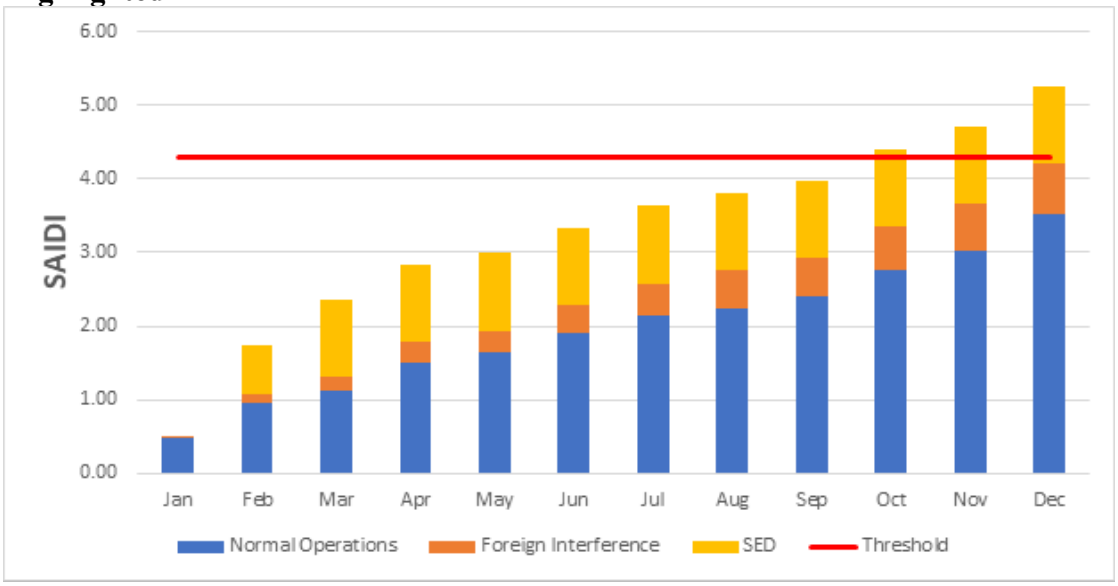
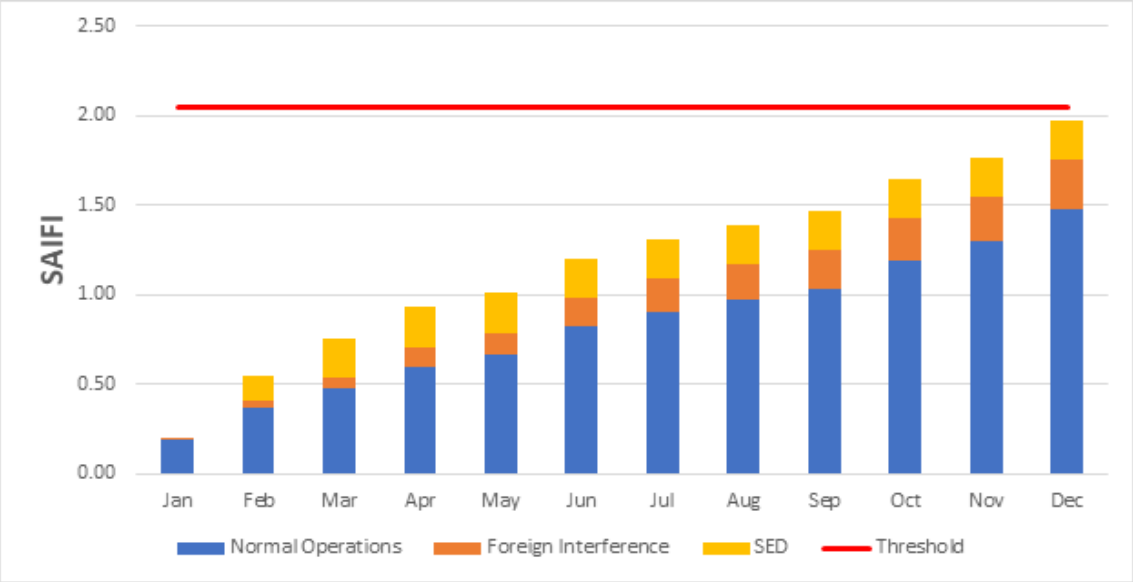


Figure 27 – SAIDI with Contributions from SEDs and Factors out of the Utility's Control Highlighted



*Foreign Interference is a CEA Cause Code to refer to outages caused by factors outside of a utility's control such as motor vehicle accidents, vandalism, forest fires and floods.

Figure 28 – SAIFI with Contributions from SEDs and Factors out of the Utility's Control Highlighted



Pole Strength Standards Upgrades

The NS Power distribution overhead pole standards have been updated to reflect the CSA recommendations for maximum wind gusts and ice loading. The revised standards specify larger, stronger poles and meet the standard for heavy weather loading plus the 110 km/h high-wind weather load which aligns with the 10-minute average wind speed in a 50-year period.[11] It has been shown that this wind produces the same pressure as a 149 km/h 3-second gust.

NS Power has started to install stronger upgraded poles for new installations and in targeted areas identified for reliability improvement.

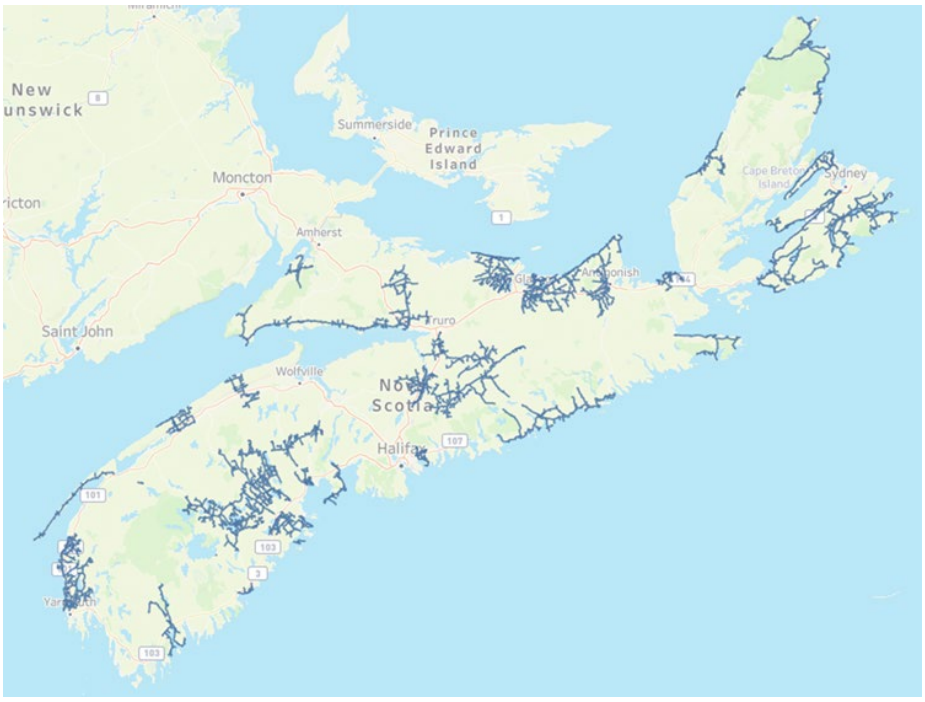
Enhanced Vegetation Management and AI tools

Work is underway to execute on the detailed $45 million vegetation management plan as

[11] As determined by Environment Canada and Climate Change Canada.

outlined in the Five-year Reliability Plan (**Figure 29**). The plan includes trimming and removing trees on approximately 3200 spans (177 km) of existing power lines and further expanding the width of 315 km of distribution corridors with managed rights-of-way. In addition, NS Power has begun to integrate artificial intelligence tools and data into the vegetation inventory system. This system is used to create a view of vegetation conditions throughout the province. The Vegetation Management Team received initial data from this program late in 2024 and is working to ensure vegetation investments are maximized and optimized for reliability benefits and impact.

Figure 29 – Areas of Focus in the 2025 Vegetation Management Plan



Reliability Focus and Next Steps in 2025

NS Power is focused on execution of the Five-Year Reliability Plan and over $1.3 billion in reliability project investments between 2025 and 2029. This detailed plan has been developed to allow the Company to consistently meet the Performance Standards targets by 2029.

Vegetation Management Crews are executing on the $45 million vegetation plan as outlined for 2025 in the plan. NS Power project engineers, planners and PLT crews are on the ground implementing pole line upgrades and storm hardening initiatives in many communities across the province in areas such as, but not limited to, Canso, Glace Bay and Merigomish. NS Power looks forward to updating the Board on the progress of the plan.

3.4 CKAIDI and CKAIFI Standards

CKAIDI refers to the average duration of all power interruptions for customers connected to a particular circuit (feeder) during a one-year reporting period. CKAIFI refers to the average frequency of power interruptions for customers connected to a particular circuit (feeder) during a one-year reporting period. CKAIDI and CKAIFI results are location-specific, whereas SAIDI and SAIFI results are province-wide.

The description of the CKAIDI and CKAIFI standards and the applicable targets are set out in **Appendix O**.

Figure 30 details the 2024 results for CKAIDI and **Figure 31** details the 2024 results for CKAIFI. The target feeders for CKAIDI and CKAIFI are identified in the Board's Decision on the prior year's results. One feeder, 91W-411, tracked under the CKAIDI metric in 2024 did not meet the year end targets.

Figure 30 – 2024 CKAIDI Results

	Top 5% 2024	2024 Ranking* (Percentage)	2024 CKAIDI Result	2024 Target**
91W-411	Y	98.9	31.81	19.00
57S-401	N	90.4	14.14	19.00
1W-411	N	89.6	12.94	19.00
4N-313	N	80.4	9.52	19.00

	Top 5% 2024	2024 Ranking* (Percentage)	2024 CKAIDI Result	2024 Target**
11S-411	N	70.6	6.53	19.00

Figure 31 – 2024 CKAIFI Results

	Top 5% 2024	2024 Ranking* (Percentage)	2024 CKAIFI Result	2024 Target**
57S-401	Y	95.7	5.02	5.03
85S-401	N	88.1	3.90	5.03

*Feeders with a rank of 95-100 percent are ranked in the top 5th percentile of worst-performing feeders in 2024.
** The 2024 target reflects the average of the CKAIDI/CKAIFI values for the year plus two standard deviations.

Supporting documentation for the CKAIDI and CKAIFI results is set out in **Appendix I**.

Middlefield Feeder 91W-411

Feeder 91W-411out of the Middlefield Substation finished in the top five percent of the worst-performing feeders in 2024 for CKAIDI or feeder outage duration. This feeder had a CKAIDI value of 31.81 versus the target of ≤ 19.00 as shown in **Figure 32**. A reliability improvement plan was implemented and is underway for this feeder.

Figure 32 – 91W-411 CKAIDI 2022-2024

	2022	2023	2024
CKAIDI	20.22	16.54	31.81

The 91W-411 feeder serves 1,265 customers along 159 km of distribution circuit, running through a rural area with significant tree coverage in some sections. It supplies customers in Greenfield, Labelle, and Buckfield, including the south side of Ponhook Lake and Molega Lake. The 91W Middlefield substation is served by the 69 kV transmission line L-5532. This

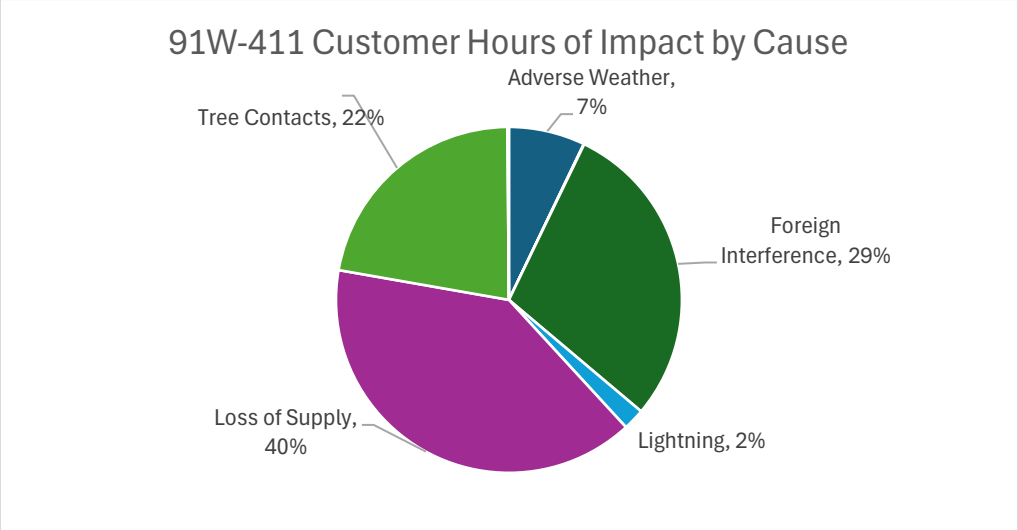
line is 96 km and runs from the 13V substation near Bear River to the 3W substation on the south side of Lake Rossignol.

In 2024, feeder 91W-411 experienced 61 outage events. Of these, 33 affected a single customer, while 28 impacted multiple customers. The details of the 61 outage events on feeder 91W-411 in 2024 are as follows:

- 33 events impacted a single customer
- 17 events impacted between 2 and 100 customers
- 6 events impacted between 101 and 1000 customers
- 5 events impacted over 1000 customers

The primary causes of outages were loss of supply, foreign interference (events outside the utility's control), and tree contacts, as shown in **Figure 33**.

Figure 33 – 91W-411 Customer Hours of Impact by Cause



Two significant events in 2024 contributed more than half of total CKAIDI (16.84 hours of the 31.81) on feeder 91W-411. If it were not for these two events which were out of NS Power's

control, this feeder would have met the CKAIDI target in 2024. The incidents are described below.

On January 7, 2024 a logging truck was involved in a motor vehicle accident in the Buckfield area, breaking several distribution poles. This caused an outage affecting the entire feeder which lasted over nine hours before power could be safely restored. The delay was further aggravated by the significant repairs needed to be made to NS Power's equipment that had been damaged by the logging truck. NS Power crews were dispatched and worked with local emergency crews to ensure the site was safe, the logging truck and related debris was removed and then replaced the damaged poles and equipment before restoring power. **Figure 34** shows the extensive damage to the power line resulting from the motor vehicle accident.

Figure 34 – Extensive Damage on 91W-411 due to Motor Vehicle Accident involving a Logging Truck

On July 20, 2024 a nearly ten-hour outage occurred due to wildlife interference at the 91W substation, impacting 1241 customers. The outage occurred when wildlife bridged two phases on the source side of the feeder 91W-411, causing the substation recloser to short circuit and

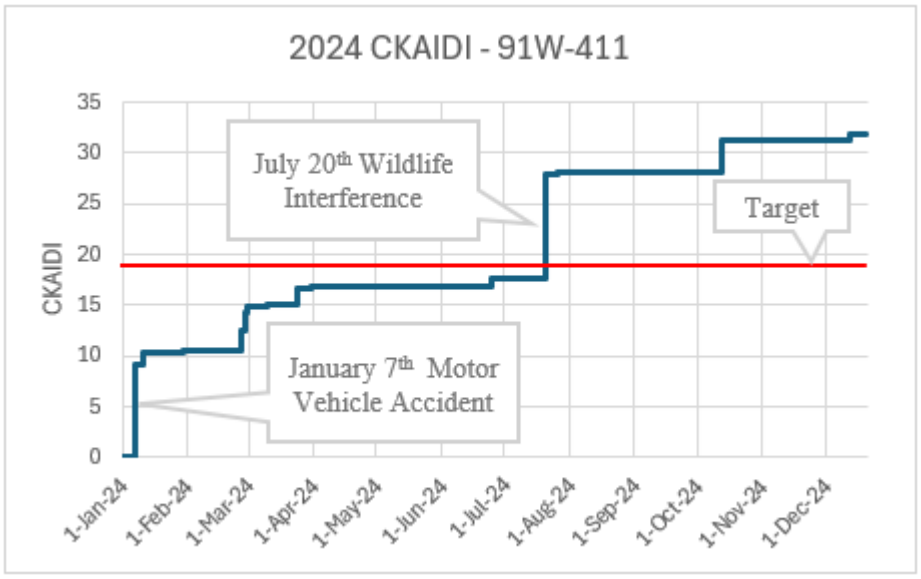
require replacement. The live equipment with potential for exposure to wildlife interference is very small in length.

The replacement of the recloser involved crews being dispatched to the 91W substation, identifying the failed equipment, retrieving a spare recloser, delivering the spare recloser to the 91W substation, removing the failed recloser, installing the spare recloser, and restoring power to all customers.

Following the incident, NS Power conducted an assessment of the 91W substation to determine whether animal guards could be installed. Due to the specific spacing on the recloser, which is very small, implementing animal guards on this specific equipment is not feasible; however, animal guards are being assessed for implementation on the remaining substation equipment.

Combined, these two events contributed 52.9 percent of the entire outage duration to feeder 91W-411 in 2024 as shown in **Figure 35.**

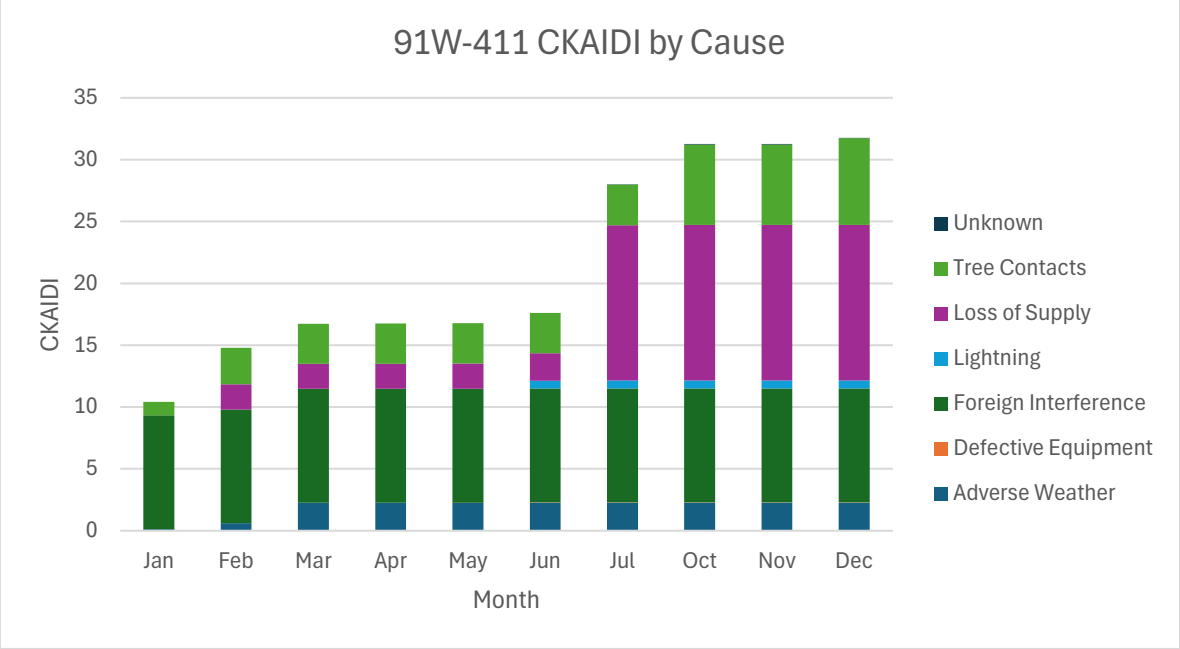
Figure 35 – 91W-411 CKAIDI in 2024



Reliability Analysis

The leading cause of outages on feeder 91W-411 in 2024 was loss of supply. Loss of supply events are outages where the supply to the distribution feeder has been lost either from a transmission or substation issue. It's important to note, the previously mentioned outage event involving wildlife interference is categorized as a loss of supply event due to its occurrence at the substation. Other leading causes of outages in 2024 for feeder 91W-411 were from foreign interference (outages beyond the control of the utility) and tree contacts. **Figure 35** shows the contribution to CKAIDI by cause code.

Figure 36 – 91W-411 CKAIDI Contribution by Cause



*For reporting purposes, the wildlife interference event of July 20th, due to its occurrence at a substation, is coded as 'Loss of Supply'.

Immediate action was taken to address the substation and loss of supply interruptions on this feeder. The reliability action plan for feeder 91W-411, as detailed below, outlines extensive vegetation management and proactive reliability investments.

Feeder 91W-411 Reliability Action Plan

The Reliability Action Plan for feeder 91W-411 involves nearly $5 million in investment in projects since 2021, focusing on targeted work to improve feeder resilience, reduce outage frequency and duration.

In the decision for the Application for Revision of Performance Standards (M10279), NS Power proposed a two-year period before evaluating whether a circuit met the targets to allow additional time for remediation efforts. LEI stated the following regarding NS Power's proposal:

> The standard should not be changed; however, the Board could consider specific situations on a case-by-case basis if NS Power demonstrated that it was proactive in addressing the issues and reasonably requires additional time to resolve the issues before being subject to an administrative penalty.[12]

In its findings, the Board accepted LEI's position. NS Power is asking the Board to consider the additional time required for the completion of the Labelle and Wellington three-phase extension projects (detailed below) on the 91W-411 feeder due to the time required to obtain permits and easements. In addition, the transmission line and protection upgrade projects underway will require until 2026 to begin due to planning, permissions and the lead time on equipment. As outlined in this section, NS Power has been proactively addressing reliability issues on this feeder and requires additional time for the full benefits of these investments to be realized.

[12] M10279, NS Power Performance Standards, NSUARB Decision, February 22, 2022, page 15.

Vegetation Management

The distribution system vegetation management program has oversight of the 156 km of distribution line which makes up feeder 91W-411. Since 2021, NS Power has prioritized vegetation management efforts, totaling over $860,000 and over 36 km of tree trimming on this feeder. A further 10 km of tree trimming has been identified and planned for 2025. **Figure 37** demonstrates the impact which overgrown vegetation can have on NS Power's infrastructure. By completing vegetation management, NS Power reduces the risk of trees and other vegetation contacting power lines.

Figure 37 – Vegetation Management Around 91W Substation (Before and After)

Targeted Equipment Replacements and Upgrades

Approximately 21 poles are planned for replacement in 2025 at the locations shown below in **Figure 38.** This work will replace existing poles which have been identified as requiring replacement with new, more resilient poles.

Figure 38 – Pole Replacement Locations on 91W-411

In addition to the pole replacements planned in 2025, NS Power will be upgrading the line protection on 91W-411 by replacing one TripSaver protective device and installing a new TripSaver device. These devices act to reduce the number of customers impacted by an outage by automatically isolating a fault to a smaller area.

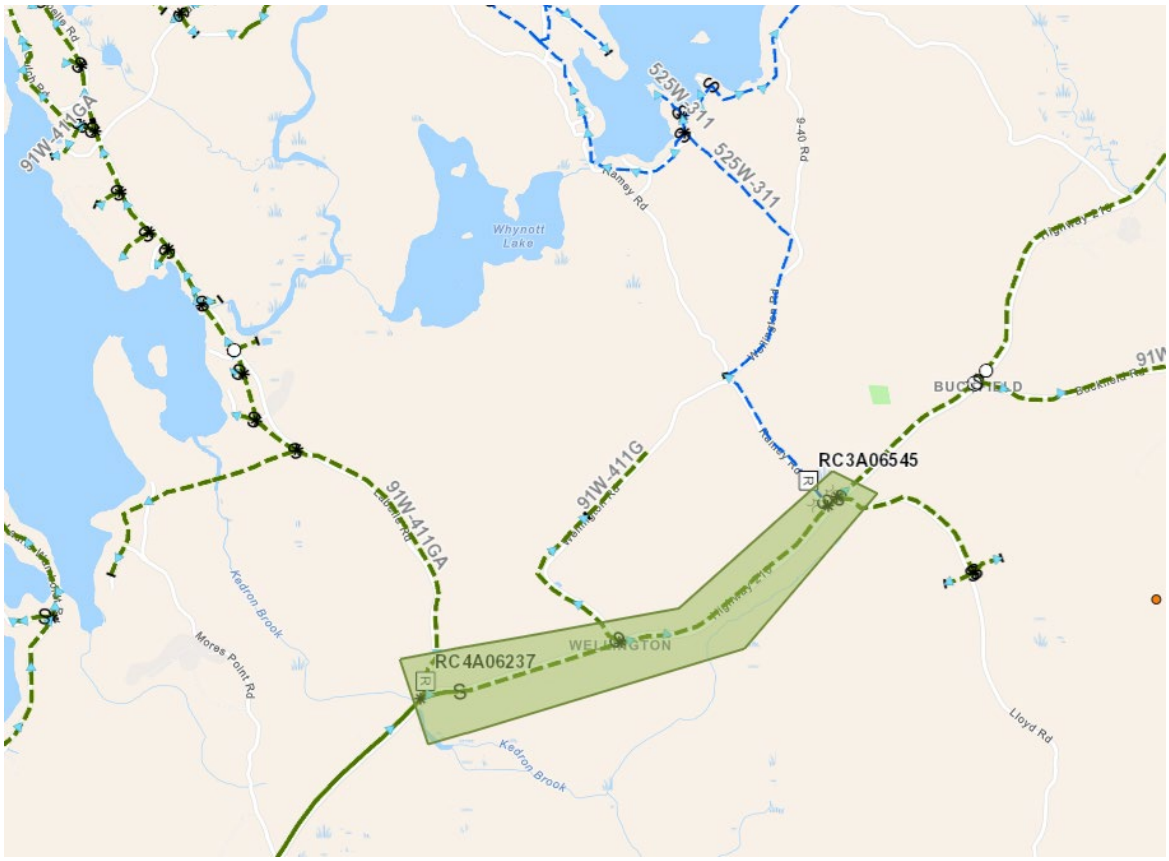
Figure 39 highlights the area where NS Power will upgrade approximately 5.3 km of existing single-phase line to a three-phase line, extending from Highway 210 along Labelle Road to Narrows Road. This project includes replacing 47 poles with more resilient poles and four transformers, installing eight additional poles, and adding one TripSaver recloser and one

three-phase recloser along the 5.3km section being upgraded. By addressing load balancing issues on the existing line, this upgrade will enhance reliability in the area. Additionally, relocating off-road sections to the roadside will improve crew accessibility, reduce outage durations, and further strengthen reliability on 91W-411.

Figure 39 – Labelle Road Phase Extension

Figure 40 highlights the area where NS Power will upgrade approximately 2.2 km of single-phase line to three-phase from Labelle Road to Ramey Road. This upgrade is necessary to provide capacity for load growth and resolve feeder balancing issues that have been identified. This work requires significant coordination with local landowners and the Department of Public Works to obtain easements and permits.

Figure 40 – Wellington Phase Extension



NS Power's reliability investments for 91W-411 can be found in **Figure 41.**

Figure 41 – 91W-411 Reliability Investments 2021-2026

Year	Project	Description	Investment	Status
2021	Vegetation Management	Targeted Vegetation Management - 431 Spans	$558,576	Completed
2022	Vegetation Management	Targeted Vegetation Management – 178 Spans	$248,844	Completed
2023	Vegetation Management	Targeted Vegetation	$45,360	Completed

Year	Project	Description	Investment	Status
		Management – 24 Spans		
2024	L-5532 Replacements and Upgrades	Replacing and upgrading identified equipment on transmission line 5532	$330,103	Completed
2024	Vegetation Management	Targeted Vegetation Management – 23 Spans	$15,684	Completed
2025	Vegetation Management	Targeted Vegetation Management – ~10km	$200,000	Planned
2025	Labelle Road Phase Extension	Upgrading 5.3 km to 3-phase line along Labelle Road	$1,159,255	Planned
2026	Wellington Road Phase Extension	Upgrading 2.2 km to 3-phase line on Highway 210	$400,000	Planned
2026-2027	L-5532 Replacements and Upgrades Phase 1	Upgrades identified equipment on L-5532	$2,100,000	Planned
TOTAL			$5,057,822	

NS Power has invested over $5 million in reliability-focused projects on feeder 91W-411 since 2021, including $3.9 million planned for vegetation management and line upgrades in 2025-2027. These ongoing investments will further enhance reliability by building on previous improvements, with anticipated reductions in overall outage duration on feeder 91W-411 in

2025. More time is required for the benefits of these reliability investments to be realized and to evaluate and confirm the effectiveness of the reliability plan for feeder 91W-411. As noted above, there has been sustained investment in the feeder, but the progress of the work has been hampered by delays such as acquiring easements from customers and permits from the Department of Public Works. When the vegetation management is carried out and the upgrades and replacements are complete, feeder 91W-411 will experience significant improvement in both outage frequency and duration.

Appendix J provides a map that uses outage data from the 61 outage events with reliability investments planned or recently completed on this feeder.

4.0 CUSTOMER-LEVEL RELIABILITY DATA

In its order on the 5-year review of Performance Standards on April 7, 2022. The Board stated the following:

> The Board orders as follows:
>
> …
>
> To report on the progress of the development of customer-level reliability data through the ADMS system in the 2022 Performance Standards Report, including any other available information from other [Electricity Canada] utilities on this topic.[13]

NS Power has outlined the following stages of the project to develop customer-level reliability metrics:

1. Concept
2. Data Validation
3. Database design
4. Data transfer
5. Beta testing of metric calculation
6. Produce first operational values of metric (*Present Stage)

The Company continues to produce the operational values for Customers Experiencing Long Interruption Duration (CELID-8), and Customers Experiencing Multiple Interruptions (CEMI-4 and CEMI-5). CELID-8 is defined as the percentage of customers who experience interruptions with cumulative duration longer than or equal to a given threshold (in this case, 8 cumulative hours). CEMI represents the percentage of customers experiencing a volume of sustained interruptions greater or equal to a threshold (in this case 4 and 5 interruptions for

[13] M10279, NS Power Performance Standards, NSUARB Order, April 7, 2022, page 2.

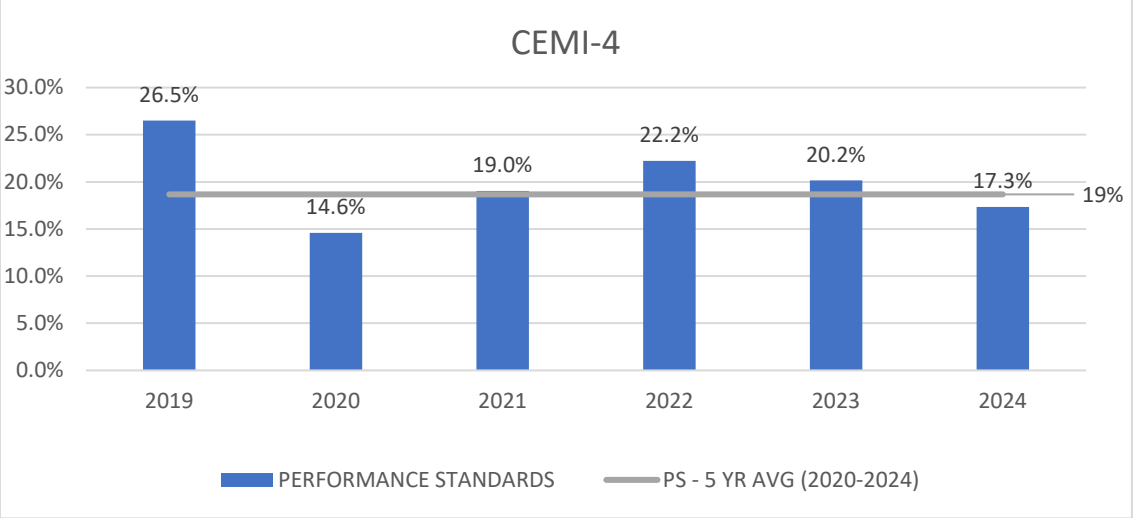
CEMI-4 and CEMI-5 respectively).[14] The preliminary values can be found in **Figure 42**, **Figure 43** and **Figure 44**.

As with any new complex reporting system, time is required to develop a baseline for comparison, ensure accuracy of reported data, and to gain perspective about how best to interpret and make sound investment decisions based on the resulting customer level reliability trends.

Figure 42 – Percentage of NS Power Customers Experiencing Multiple Interruptions - 4 and 5 (MED, EEDs and Planned excluded)

CEMI (PS) BINS	2018	2019	2020	2021	2022	2023	2024	5-YR AVG (2020-2024)
4	15.5	26.5	14.6	19.0	22.2	20.2	17.3	**18.7**
5	8.4	14.3	7.5	10.7	11.1	11.4	8.9	**9.9**

Figure 43 – CEMI-4 2019 -2024



[14] IEEE Guide for Electric Power Distribution Reliability Indices, IEEE Std 1366-2022, page 17.

Figure 44 – CEMI-5 2019 -2024

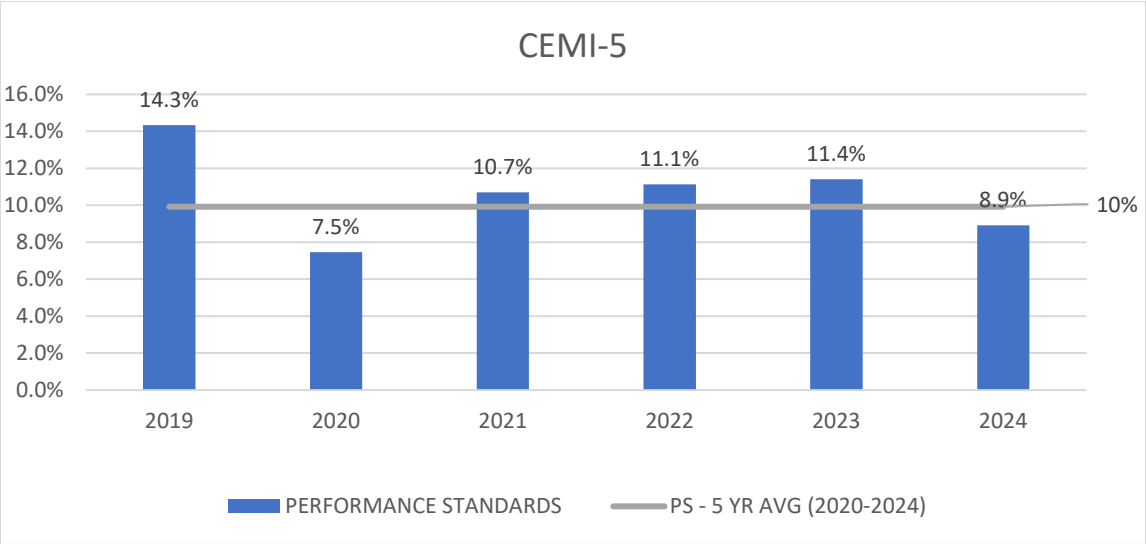
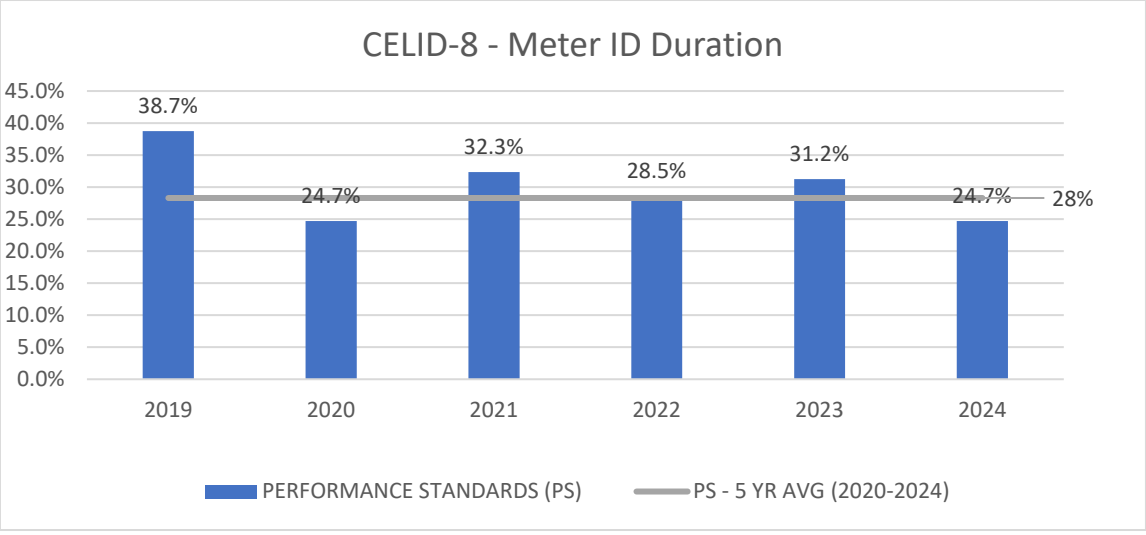


Figure 45 – Percentage of Customers Experiencing Long Interruption Duration - 8 hours Cumulative (MEDs, EEDs and Planned Outages Removed)

	2018	2019	2020	2021	2022	2023	2024	5-Year Average (2018-2022)
CELID-8	22.1	38.7	24.7	32.3	28.5	31.2	24.7	28.3

Figure 46 – Customers Experiencing Long Interruption Duration (CELID)-8 2019-2024



Per the Board's direction, NS Power has updated the analysis of other Electricity Canada utilities and explored to what extent they are utilizing these metrics. In 2024, no Electricity Canada member utility reported a change in their use or reporting of reliability metrics from what was reported in 2023. **Figure 47** shows the summarized results from Electricity Canada member utilities.

Figure 47– Summary of Customer Level Reliability Metric Use by Electricity Canada Utilities

Utilities	CEMI	CELID	CEMM	OTHER
Ontario				
Alectra	No	No	No	No
Algonquin	No	No	No	No
Elexicon	No	No	No	No
FortisON	No	No	No	No
Hydro One	Yes	Yes	No	No
Hydro Ottawa	No	No	No	No
IESO	No	No	No	No
London Hydro	No	No	No	No
Oakville Hydro	No	No	No	No
OPG	No	No	No	No
Toronto Hydro	No	No	No	No
Utilities Kingston	No	No	No	No
British Columbia				
BC Hydro	Yes	No	No	No
Fortis BC	No	No	No	No
Saskatchewan				
Saskatoon Light & Power	No	No	No	No
SaskPower	No	No	No	No
Newfoundland and Labrador				
Newfoundland and Labrador Hydro	No	No	No	No
Newfoundland Power Inc.	No	No	No	No
New Brunswick				
New Brunswick Power	No	No	No	No
Saint John Energy	No	No	No	No
Alberta				
ENMAX	No	No	No	No
EPCOR	No	No	No	No

Utilities	CEMI	CELID	CEMM	OTHER
FortisAlberta	No	No	No	No
ATCO	No	No	No	No
Quebec				
Hydro Quebec	No	No	No	No
Manitoba				
Manitoba Hydro	No	No	No	No
Prince Edward Island				
Maritime Electric	No	No	No	No
Yukon				
Yukon Energy Corporation	No	No	No	No
ATCO Electric Yukon	No	No	No	No
Northwest Territories				
Northwest Territories Power Corporation	No	No	No	No
Northland Utilities (ATCO Electric)	No	No	No	No
Nunavut				
Qulliq Energy Corporation	No	No	No	No

This analysis included 32 Electricity Canada member utilities. Of the 32 utilities reviewed, only two currently measure customer-level reliability metrics: BC Hydro, which provides annual updates on CEMI-4 as part of its reliability reporting, and Hydro One which measures CEMI and CELID, but which tracks the information for internal purposes only. BC Hydro operates under significantly different conditions from NS Power, in particular with respect to exposure to severe weather events such as hurricanes. As such, NS Power does not consider BC Hydro's reported metrics for CEMI an appropriate comparator for benchmarking or target-setting. Manitoba Hydro previously tracked and reported CEMI-4 and CELID-8 as business unit performance measures between 2009 and 2012, but has since stopped tracking them.

With this information, and before considering standards in relation to this data, it will be important to understand how these metrics are being measured, used and reported in other jurisdictions. At present, there is limited data available to determine comparator values in other utilities or to establish benchmarks. NS Power will continue to monitor the use of customer-level reliability metrics and will continue to report on them annually.

5.0 MAJOR EVENT DAYS AND EXTREME EVENTS DAYS IN 2024

NS Power experienced no event days in 2024 as defined by the established methodology, however the province still experienced over 99 hours of wind gusts above 80 km/h in 2024.

The IEEE 1366-2012 Standard methodology defines a Major Event Day as:

> A day in which the daily System Average Interruption Duration Index (SAIDI) exceeds a Major Event Day threshold value. For the purposes of calculating daily system SAIDI, any interruption that spans multiple calendar days is accrued to the day on which the interruption began. Statistically, days having a daily system SAIDI greater than T_{med} are days on which the energy delivery system experienced stresses beyond that normally expected (such as during severe weather). Activities that occur on Major Event Days should be separately analyzed and reported.[15]

SEDs, MEDs, and EEDs are defined by the same standard methodology as the IEEE 1366-2012 standard but with different beta values:

- Significant Events: 2.0 Beta
- Major Events: 2.5 Beta
- Extreme Events: 3.5 Beta[16]

Using the IEEE methodology, in 2024 the customer hours of interruption (CHI) threshold for an SED is 99,206, a MED is 251,987 CHI, and an EED is 1,625,760 CHI. This means that the accumulated CHI during a 24-hour period must exceed these thresholds for the day to be subject to the corresponding adverse weather response standards.

[15] M07387, Exhibit N-23, LEI Response to Undertaking 1, September 23, 2016, page 16.
[16] M07387, Exhibit N-1, London Economics International LLC, Consultation Paper: Setting Performance Standards for Nova Scotia's electricity sector, May 15, 2016, page 55.

Change in Major and Extreme Event Day Thresholds

As detailed in Section 3, MED and EED thresholds have increased significantly since 2017, by 60 percent and 51 percent, respectively. Consequently, the significant event days (SEDs) experienced in 2024 would have qualified as Major Event Days (MEDs) under the 2017 thresholds. This would have resulted in their exclusion from Performance Standards reliability metrics, leading to a 2024 SAIDI that met the annual target. As shown in **Figure 47**, the three SEDs in 2024 contributed 1.05 to the overall SAIDI of 5.26. Removing this impact, as would have occurred under the 2017 thresholds, results in a 2024 SAIDI of 4.21, which is below the annual target of 4.29.

Figure 48 – 2024 SAIDI with SEDs Removed

2024 SAIDI	2024 SED SAIDI	2024 SAIDI SED Removed	2024 SAIDI Target
5.26	1.05	4.21	4.29

6.0 PLANNED OUTAGES ON NS POWER'S SYSTEM

With respect to planned outages, the NSUARB directed the following in its 2017 Annual Performance Standards Report decision:

> The Board … directs NSPI to include a year-over-year comparative analysis of planned outages in its future annual reports. In addition, NSPI's reports are to include a summary of steps taken to reduce the number and duration of planned interruptions.[17]

As part of NS Power's increased investment in reliability work, planned power outages are required to complete all of this work safely. As reliability investment increases, so will the number of planned outages. They are a necessary part of completing a robust reliability program safely. Whenever practical and when it is safe to do so, NS Power completes planned reliability and upgrade work with the power line energized so that there is no outage impact to customers. In some circumstances, the line must be de-energized for the Powerline Technicians to complete the work safely. When a planned outage is required to complete reliability and upgrade work safely, NS Power follows an established Planned Outage Request process that incorporates outage mitigation considerations and planned outage approvals.

When it is necessary to schedule a planned outage, NS Power considers what can be done to minimize the number of customers affected by the outage and minimize the duration of the outage. This includes:

- Evaluating whether a portion of the load can be transferred to adjacent feeders, transmission lines or substations;
- Determining whether the customers can be sectionalized and back-fed from another feeder;
- Deciding whether multiple crews can be used to minimize the outage duration; and

[17] M08574, NS Power 2017 Annual Performance Standards Report, NSUARB Decision Letter, May 1, 2018, page 5.

- Determining whether load pick-up jumpers or circuit switchers can be installed.

The need for each planned outage is reviewed and approved by NS Power's operational personnel (Energy Delivery Supervisor, Regional Engineer, Operations Manager, or Director Regional Operations and Director of Customer Care). The level of approval required depends on the number of customers affected and the duration of the outage. These approvers validate the need for the planned outage to complete the reliability and capital line work safely and confirm that all outage mitigation considerations have been evaluated and will be in place to minimize the duration of the outage and the number of customers affected.

NS Power aims to provide enough advance notice to customers so that they can be prepared for the planned outage and, if required, make alternate plans. The Company's preference is to schedule the start time and duration of planned events with the customers' involvement, and in many cases, planned outages are rescheduled to a time that works best for the majority of affected customers. As part of the ongoing relationship building with local governments and representatives, NS Power also updates elected officials about planned outages in their areas so that constituents are aware of upcoming outages.

The 2024 planned outage SAIDI and SAIFI values of 1.08 and 0.78 respectively are shown in **Figure 50**. On average, approximately 78 percent of NS Power customers experienced a planned outage event in 2024; the overall duration of these outages was approximately 2.3 hours, and on average they impacted 256 customers as shown in **Figure 49**.

Figure 50 provides the planned outage SAIDI value per month and **Figure 51** shows the planned SAIFI values by month for 2023 and 2024.

Figure 49 – 2023 and 2024 Planned Outage SAIDI and SAIFI

Year	Count of Planned Outages	Planned Outage SAIDI	Planned Outage SAIFI
2023	1938	0.62	0.56
2024	1666	1.08	0.78

Figure 50 – Planned Outages 2023 vs 2024

Year	Average Duration of Planned Outage (hours)	Average Number of Customers Impacted by Outage
2023	1.97	147
2024	2.21	256

Figure 51 – 2023 and 2024 Planned Outage SAIDI by Month

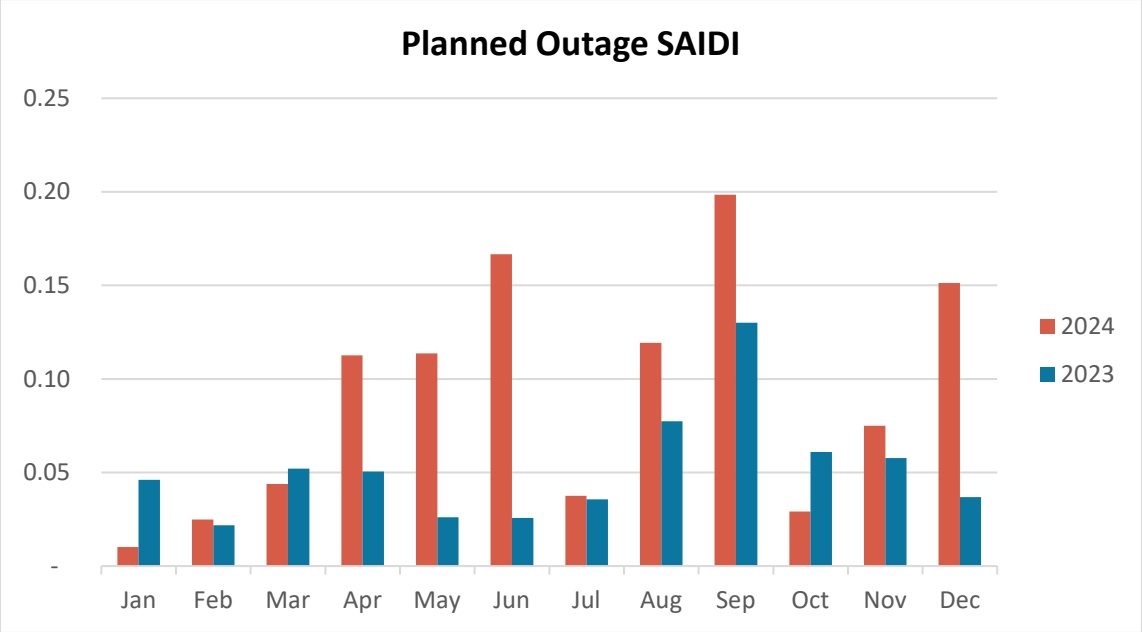
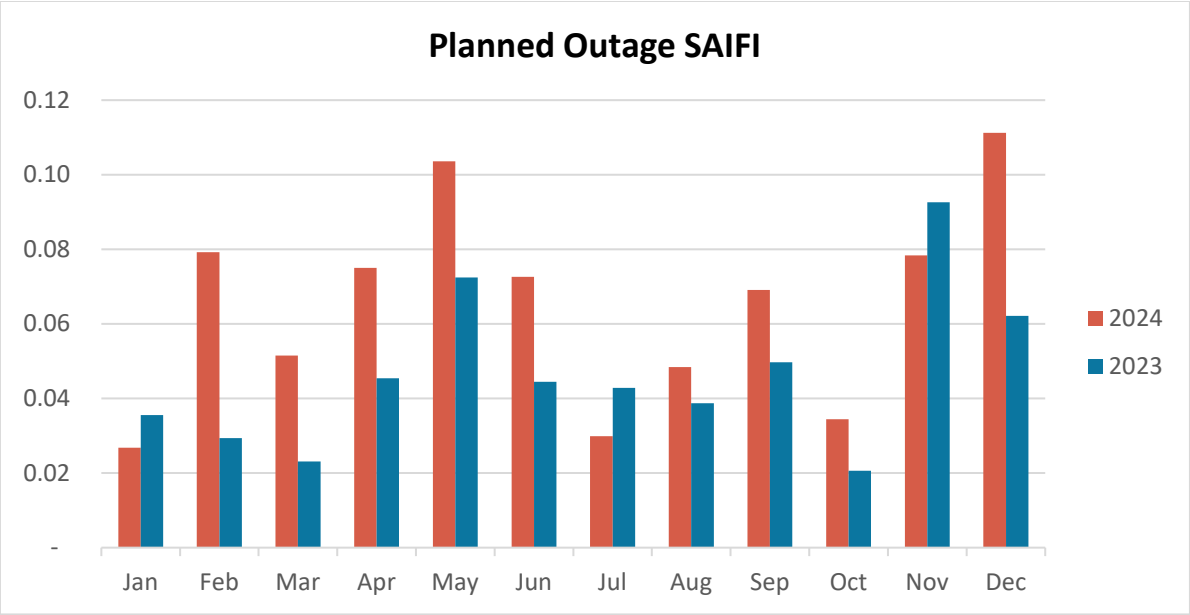


Figure 52 – 2023 and 2024 Planned Outage SAIFI by Month



During regular business operations, crews directly reach out to customers with a knock on their door to coordinate a brief outage to facilitate safely completing reliability and upgrade work in real time. These outages are not coded as planned outages.

Overall, there were fewer planned outages in 2024 than in 2023, as shown in **Figure 48. Figure 52** further breaks down this planned outage data by month and **Figure 53** by outage type by month. Safely completing reliability and capital upgrade work accounted for most planned outages in 2024. 130 of the 1666 planned outages impacted a single customer and 685 impacted between 2 and 10 customers.

Figure 54 breaks down outage duration by outage type. Nova Scotia Power's commitment to investing in reliability and improving resiliency in the power system is evident as planned outages associated with safely completing reliability and capital upgrades accounted for 59 and 23 percent respectively of total events.

Figure 53 – Planned Outages by Month

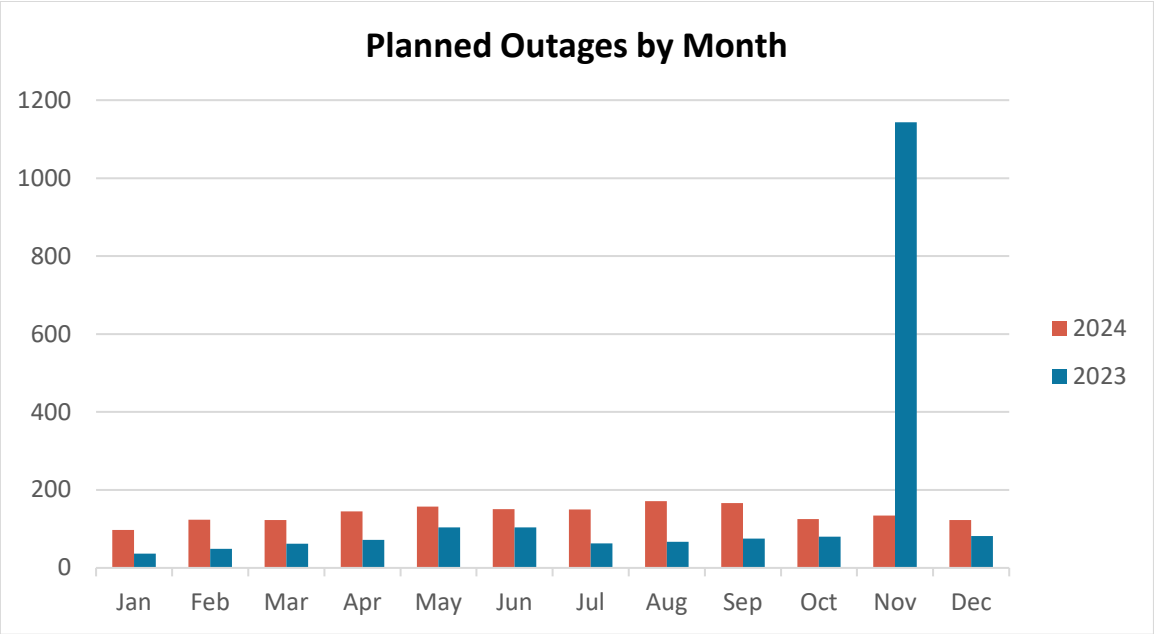
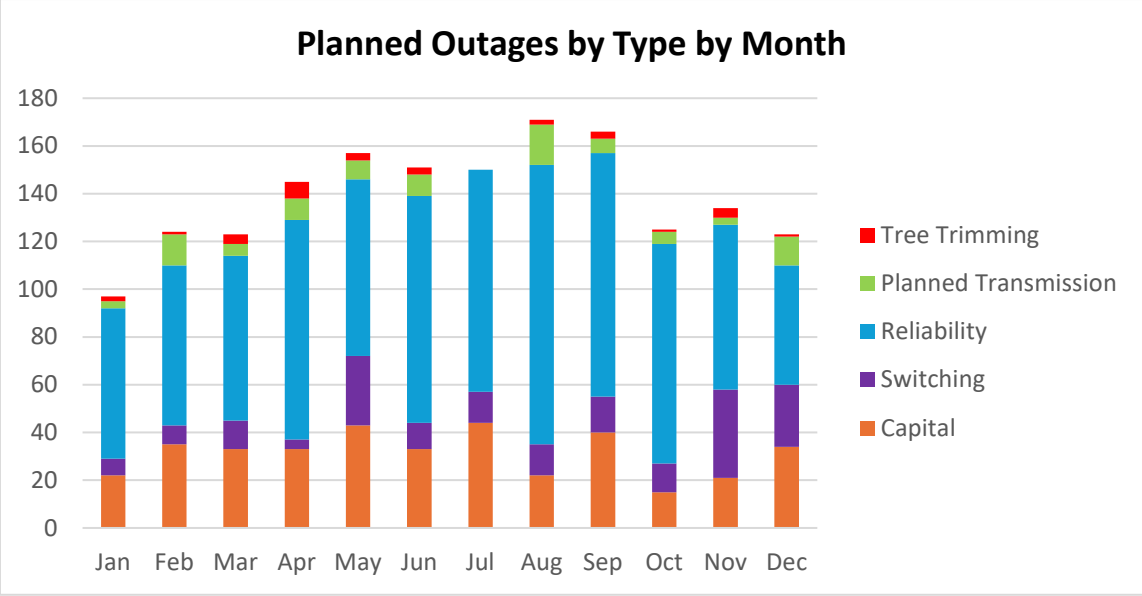
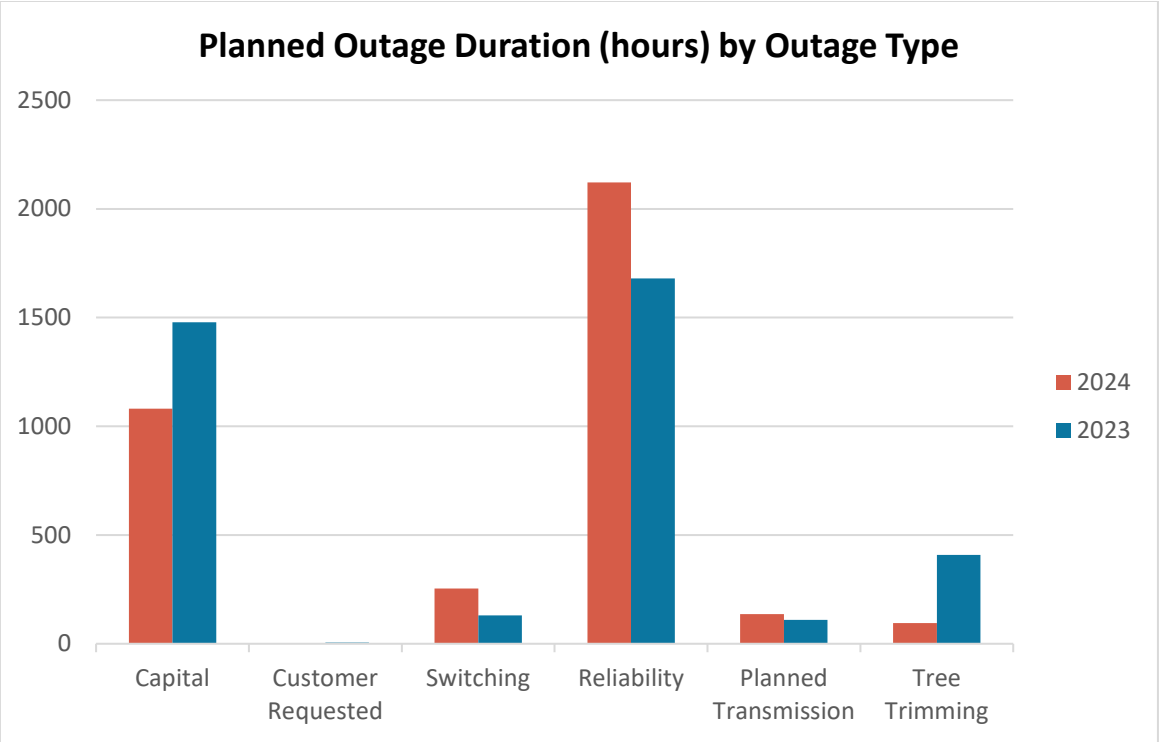


Figure 54 – Planned Outages by Type by Month



*Reliability was formerly labeled as Maintenance. All categories of planned outages impact reliability.

Figure 55 – Planned Outage Duration by Outage Type



*Reliability was formerly labeled as Maintenance. All categories of planned outages impact reliability.

Appendix K provides a detailed list of each of the 1666 planned outages in 2024.

NS Power seeks opportunities to perform work under live line techniques and avoid planned outages as much as possible, but in some cases planned outages are required to complete work safely by employees and to ensure customer safety.

7.0 2025 PERFORMANCE STANDARDS

The proposed 2025 Performance Targets are summarized in **Figure 55** and are submitted for the NSUARB's review and approval. The complete standards and the applicable derivations or calculations are fully set out in **Appendix O**.

Figure 56 – 2025 Performance Standards Targets

Standard	2025 Performance Targets
SAIDI	≤ 4.29
SAIFI	≤ 2.05
CKAIDI	81S-305, 91W-411, 85S-401, 78W-302, 30N-412, 80W-301, 78W-301
CKAIFI	91W-411, 57S-401, 76V-301, 24C-442, 57W-401, 57W-402
Notification of EOC Opening	NS Power to notify customers of the decision to open the EOC within 4 hours of the decision to open.
Outage Call Answer Rate	A minimum of 85% of calls answered within 45 seconds at Customer Care Centre during severe outage events.
Polite Disconnects	10% or less annually
ETR Updates without delay	ETR updates provided without delay
Percent Customers restored in 48 hours	Significant Event Days – 95.05% customers restored within 48 hours
	Major Event Days - 91.98% customers restored within 48 hours
	Extreme Event Days 78.38% customers restored within 48 hours
Outage Report	Outage Report required for events impacting greater than 30,000 customers.

Standard	2025 Performance Targets
Regular Business Call Answer Rate	A minimum of 70% of calls shall be answered within 30 seconds at NS Power Customer Care Centre
Percent Estimated Bills	No more than 2% of customer bills shall be estimated annually
Customer Notification of Outages	Notify all customers of an outage as soon as NS Power has knowledge of an outage event.
New Service Connection Times	Service Installation No Pole: ≤3.0 days
	Service Installation Pole or Transformer: ≤4.9 days
	Service Installation Temporary to Permanent: ≤3.2 days
	Service Installation Line Extension <10 Poles: ≤6.2 days
	Service Installation Line Extension ≥10 Poles: ≤13.7 days

1

8.0 CONCLUSION

NS Power's performance standards results in 2024 are the best they have been in the last several years. This is in spite of continued climate change challenges, more hours of wind gusts over 80 km/h and the change in classification of what days are considered to be storms for the purposes of reliability reporting.

Although NS Power did not meet its SAIDI target or the CKAIDI target for feeder 91W-411, it met all other metrics. The Company knows that there is more to do in terms of storm hardening the system and addressing the reliability challenges and it is committed to doing this work on behalf of customers.

The results in 2024 demonstrate that NS Power's plans are working. The establishment of the Reliability Team and the direct connections with customers has enabled a more precise and focused approach to reliability all over the province. The Five-Year Reliability Plan commits $1.3 billion in investment over the next five years and should result in NS Power being able to meet the SAIDI and SAIFI reliability requirements consistently.

There is always more to be done, and NS Power is focusing on the areas with the most risk and criticality in terms of equipment and vegetation.

There were no storm-related outage events which were considered MEDs or EEDs in 2024, meaning that even when there were tens of thousands of customers without power due to winter storms, those events are considered "blue-sky" or normal operating conditions for the purpose of determining NS Power's reliability performance. Outages beyond NS Power's control – such as due to wildlife interference or motor vehicle accidents – also factor in as part of the reliability measurements. When these factors are taken into account, NS Power's reliability is better than it has been since 2005. These factors demonstrate that NS Power reliability investments are focused on the right areas. Work is continuing to ensure reliability performance improves and performance standards are met consistently.

While the Board can exercise its discretion in terms of imposing an administrative penalty on NS Power for failing to meet the Performance Standards, NS Power urges the Board to consider the improvements in SAIFI and the new service connection times when assessing the overall performance. Section 52E(1) of the *Public Utilities Act* says,

> The amount of any administrative penalty to be paid by Nova Scotia Power Incorporated is the amount determined by the Board or prescribed by the regulations to be appropriate in order to promote future compliance with the performance standards and not for a punitive purpose or effect or for redressing a wrong done to society at large.

NS Power is fully committed to complying with the performance standards. The Five-Year Reliability Plan is an example of its commitment. The projects set out in the ACE Plan each year are examples of its commitment to comply with the standards. NS Power has invested $1.2 million on Feeder 91W-411 between 2021 and 2024, and the feeder's reliability improvement plan targets a further $3.86 million from 2025 to 2027. This $5 million investment in the feeder demonstrates NS Power's commitment to ensuring that the customers fed by 91W-411 have fewer and shorter outages in future. The Company invests prudently in reliability while being mindful of the importance of affordability for customers.

Customers do not benefit from administrative penalties in a way which is commensurate with the harm of outages. Any penalty imposed by the Board is paid for by NS Power's shareholders, and the money is applied against the FAM balance. But that money could be better spent for targeted reliability investments in the areas which need it most.

NS Power asks the Board not to impose an administrative penalty as a result of the 2024 Performance Standards. The Company is aware of what needs to be done to improve reliability and is on track to making those incremental improvements each year. The importance of reliability is at the forefront of many of NS Power's investment decisions, as is the potential cost to customers. In a world where the utility is transitioning to decarbonization at an accelerated rate and where the challenges of climate change have real and lasting impact, NS

Power is committed to meeting and exceeding its performance standards while keeping costs as affordable as possible for customers. The Company embraces its accountability in the areas of reliability, adverse weather response and customer service not for the sake of meeting legislated requirements, but because it is the right thing to do for customers every day.

The Company asks the Board to approve the 2025 Performance Standards as set out above and reiterates its request not to be subject to an administrative penalty.

Appendix A

Regular Business Call Answer Response

Supporting Documentation

NS Power 2024 Results for Regular Business Calls Answered within 30 Seconds

		Total Interactions	Service Level MTD Percentage	Service Level YTD Percentage
Customer Care: 70 % Percentage of calls answered within 30 seconds	January	78,999	73.50	73.50
	February	81,828	85.32	79.53
	March	80,992	75.21	78.09
	April	74,306	78.06	78.09
	May	67,515	83.38	79.03
	June	70,038	90.07	80.77
	July	63,790	86.10	81.48
	August	57,061	87.34	82.09
	September	58,891	81.21	82.01
	October	72,916	75.66	81.37
	November	70,541	72.65	80.59
	December	87,672	84.87	81.02
	YTD	864,549		81.02

Appendix B

Customer Bills Estimated

Supporting Documentation

NS Power 2024 Results for Customer Bills Estimated

Month	Bills Produced	Bills Estimated	Percentage Estimated
January	347,381	1,954	0.6%
February	322,934	3,823	1.2%
March	332,427	2,396	0.7%
April	333,757	2,204	0.7%
May	335,457	2,513	0.7%
June	325,850	2,972	0.9%
July	342,349	2,744	0.8%
August	331,145	6,566	2.0%
September	336,384	2,366	0.7%
October	335,392	7,120	2.1%
November	338,064	1,896	0.6%
December	332,818	1,988	0.6%
YTD	4,013,958	38,542	1.0%

Appendix C

ETRS Communicated Without Delay & Outage Communication

Supporting Documentation

The following tables provide detail of the availability of the operational systems which process outage calls and manage outage map functionality. **Figure 1** shows data delivery details for ADMS (processes outage calls) and the Kubra Storm Centre (outage map). Data delivery refers to instances when the system was unavailable. **Figure 2** shows uptime information for the outage operational systems for 2024.

Figure 1: ADMS and Kubra Storm Centre data delivery details

System	Data delivery issue	Notes
ADMS	4	Primarily data synchronization or enterprise service bus issues.
Kubra Storm Centre	0	Kubra experienced no issues.

Figure 2: Outage Operational System Uptime and Comments

Application	2024 Uptime	Comments
ADMS	99.96%	205 mins total down-time over the year The down time consisted of 4 of instances of shorter duration down- time which were quickly identified and addressed. The Contingency Process was activated in these instances.
NSP Outage Map (primary map)	100 %	The Kubra outage map system had no interruptions in 2024.
BCP Outage Site (contingency site)	100 %	The Back up Contingency Site was available at all times during 2024.
HVCA	99.89%	The HVCA system experienced a planned interruption on November 16th for 9.5 hours.

Application	2024 Uptime	Comments
Social Media	100 %	Social Media Channels (ex., Twitter, Facebook, Instagram, etc.) were available with NS Power outage updates throughout 2024.

The data for the Outage Communication metric is provided by the NSPI Outage Management System and uptime reporting from the NSPI Outage Map website. The metric is derived to reconcile the time when new outages or changed ETRs are updated in the NSPI Outage Management System and the time that ETRs are sent to the NSPI Outage Map website. Any time that the NSPI Outage Map website is not available is factored into the final metric.

Appendix D

New Service Connection Times 2024 Supporting Data

Month	Average Number of Business Days (by Service Installation Type)				
	No Pole	Pole or Transformer	Temporary to Permanent	Line Extension <10 Poles	Line Extension ≥10 Poles
January	3.78	6.61	4.18	8.51	10.11
February	3.55	9.27	2.99	9.44	15.00
March	2.51	7.10	2.77	12.69	31.50
April	2.92	7.88	3.19	8.15	7.14
May	1.93	4.98	2.58	6.55	4.60
June	1.58	3.34	1.65	4.73	7.33
July	1.53	3.02	1.59	5.24	5.40
August	1.30	3.92	0.97	4.50	0.00
September	1.34	3.39	1.13	4.32	2.25
October	1.41	2.63	1.18	3.68	6.20
November	1.58	3.11	2.73	4.43	3.88
December	2.38	3.10	2.01	3.42	0.00
2024 Result	**2.14**	**4.71**	**2.23**	**6.01**	**7.52**
2024 Target	3.0	4.9	3.2	6.2	18.1

The data for the New Service Connection Times metric is extracted from Maximo using NC-SD, NC-PTX, TP, NC-LE1, and NC-LE2 order types for all completed work for the month or timeframe desired.

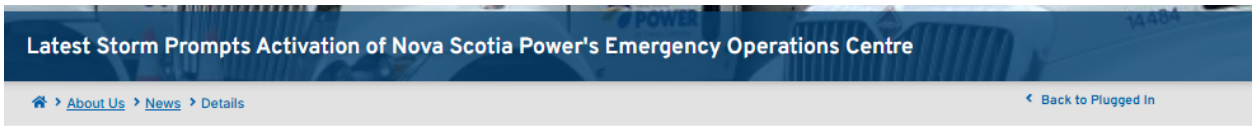
Appendix E

2024 Storm Day Media Communications Documentation

Storm Date	Communication Types	Date of Emergency Operations Centre Opening	Time of Emergency Operations Centre Opening
January 10, 2024	1. NS Power Website 2. Social Media	January 10, 2024	08:00

Supporting documentation for each storm date is provided below and numbered in accordance with the table above.

1. NS Power Website – January 9, 2024



Latest Storm Prompts Activation of Nova Scotia Power's Emergency Operations Centre

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Jan 09, 2024

HALIFAX – Nova Scotia Power will open its Emergency Operations Centre (EOC) Wednesday morning (January 10) at 8 AM ahead of the latest windstorm expected to hit the province.

"Our team has been monitoring the weather forecasts over the last several days. In light of the high winds expected to reach 90–100+ km an hour across the province, we will be activating our Emergency Operation Centre," said Matt Drover, Nova Scotia Power's Storm Lead. "This will ensure we are best coordinating our storm response, so we're ready to respond to any impact that comes as a result of those high winds," said Drover.

Crews are getting ready and will be positioned across the province ahead of the storm. Nova Scotia Power will be working closely with the Nova Scotia Emergency Management Office as well.

"The storm is anticipated to be similar to other windstorms that impacted the province in December, and the strength of these winds is expected to impact the electricity grid as well," said Drover. "The number one cause of power outages during storms is trees coming into contact with power lines. Our crews are prepared to safely respond to this type of damage as quickly as possible," said Drover.

Trees coming into contact with power lines is the number one cause of outages during storms. That's why Nova Scotia Power has been increasing its investment in tree trimming. In 2023, $32 million was invested in trimming, cutting, and removing trees and widening rights of ways. That was up $7 million from the year before. This year, nearly $45 million will be invested in this work.

Outage Information

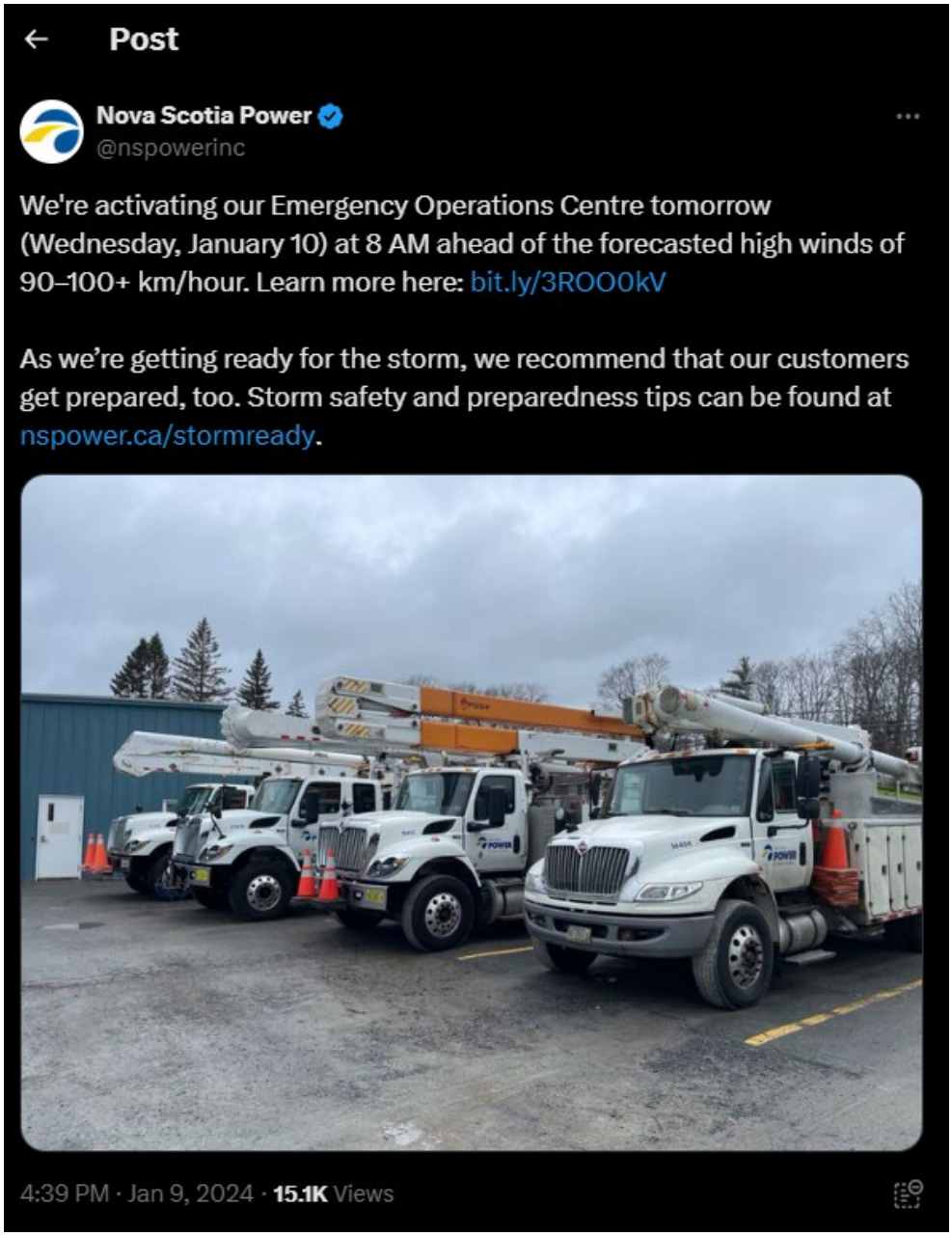
Customers can report outages and get estimated restoration times online at outagemap.nspower.ca or by calling 1-877-428-6004. As crews are able to assess the extent of damage or impacts to equipment, estimated restoration times may be updated.

For more information, please visit: **www.nspower.ca/storms**.

Safety and storm preparedness tips can be found here: **www.nspower.ca/stormready**.

2. Social Media – January 9, 2024

Twitter



Facebook


Nova Scotia Power · Follow
January 9, 2024 ·
Tuesday, January 9, 2024 at 4:38 PM
Operations Centre tomorrow (Wednesday, January 10) at 8 AM
ahead of the forecasted high winds of 90–100+ km/hour.
As we're getting ready for the storm, we recommend that our customers get prepared, too. Storm safety and preparedness tips can be found at nspower.ca/stormready.
NSPOWER.CA
Latest Storm Prompts Activation of Nova Scotia Power's Emergency Operations Centre
1.3K
318 comments 225 shares
Like
Comment
Share

Appendix F

Outage Calls Answered Within 45 Seconds

Supporting Documentation

	Event	Total Interactions	Service Level MTD Percentage	Service Level YTD Percentage
Storm Response: 85% of calls answered within 45 seconds		No Events Met MED or EED Status in 2024		

The data for the Outage Calls Answered in 45 seconds metric is extracted from CISCO Unified Intelligence Center (CUIC) and High-Volume Call Answer (HVCA) systems, using the following parameters:

- The reported data is for MED and above events and does not include regular business.
- Customers who abandon/hang up within 45 seconds are not included in the service level calculation

Appendix G

Polite Disconnection Rate

Supporting Documentation

NS Power 2024 Results for Polite Disconnection Rate

		Total Polite Disconnects	MTD Percentage	YTD Percentage
Storm Response: 10 % annual polite disconnect rate	January	14	0.17	0.17
	February	73	0.77	0.49
	March	697	8.11	2.96
	April	3	0.04	2.37
	May	61	0.97	2.14
	June	3	0.04	1.84
	July	1	0.01	1.55
	August	11	0.17	1.40
	September	56	1.20	1.39
	October	3	0.05	1.27
	November	0	0.00	1.17
	December	11	0.15	1.09
	YTD	933		1.09

The data for polite disconnects metric is extracted from the Interactive Voice Response (IVR) production database.

Appendix H

SAIDI / SAIFI Documentation

SAIDI / SAIFI Results 2015-2024

Year	SAIFI	SAIDI
2015	2.23	4.67
2016	2.46	5.06
2017	1.73	3.40
2018	2.00	4.43
2019	2.58	5.99
2020	2.05	3.98
2021	2.27	5.23
2022	2.19	5.16
2023	2.18	5.21
2024	1.97	5.26

Customer Interruption, Customer Hours of Interruption and Customer Count 2024

Month	CI	CH	Customer Count
Jan	107,694	272,129	541,040
Feb	189,898	665,314	541,766
Mar	113,321	339,535	542,908
Apr	93,380	260,277	543,725
May	43,237	87,346	544,108
Jun	104,009	189,422	544,870
Jul	59,838	157,962	545,955
Aug	45,775	96,391	547,079
Sep	41,124	99,914	547,613
Oct	98,777	232,674	548,780
Nov	64,592	161,852	549,625
Dec	114,633	306,714	550,271
Average	**89,690**	**239,128**	**545,645**
Total	**1,076,278**	**2,869,530**	

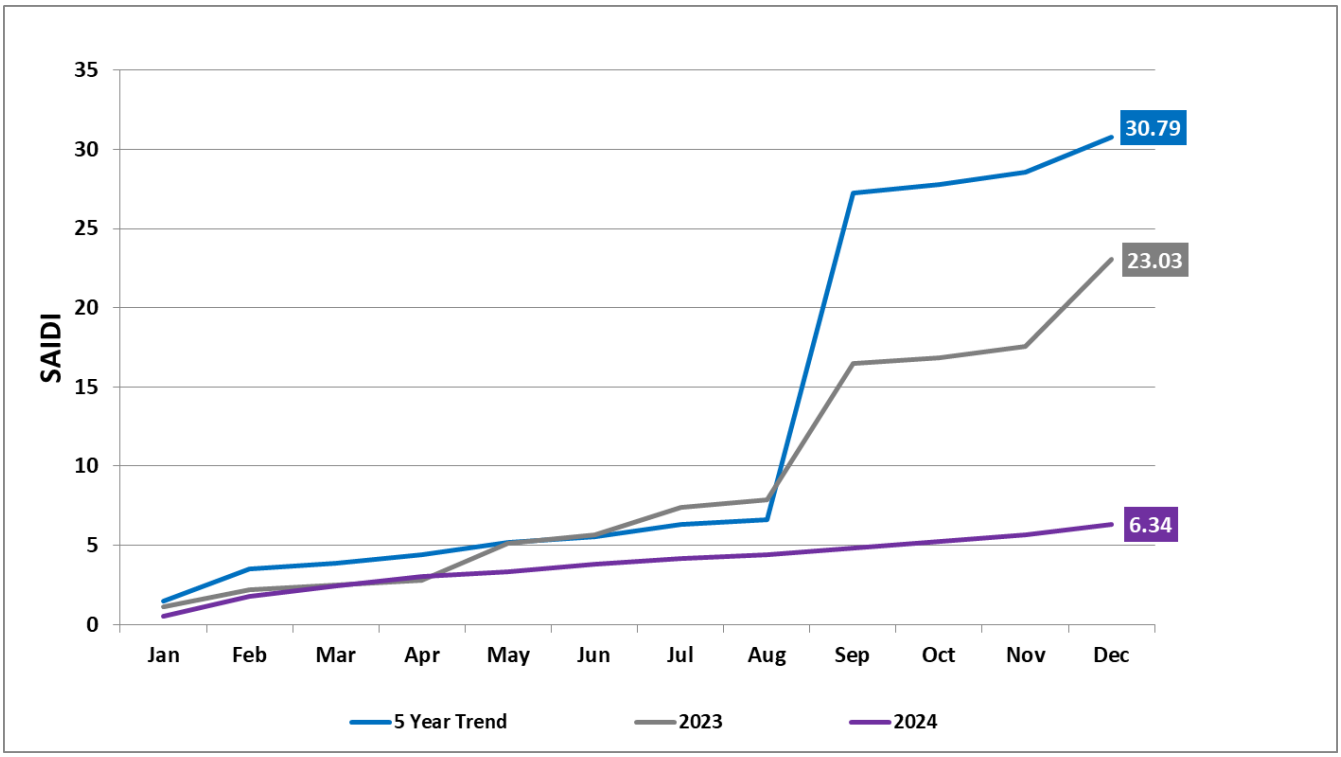
Monthly SAIDI 2022-2024

SAIDI (cumulative by month)			
Month	2022	2023	2024
Jan	0.69	0.58	0.50
Feb	1.34	1.03	1.73
Mar	1.82	1.27	2.36
Apr	2.24	1.56	2.83
May	2.56	1.91	2.99
Jun	2.72	2.43	3.34
Jul	3.11	2.73	3.63
Aug	3.21	3.18	3.80
Sep	3.29	3.43	3.98
Oct	4.21	3.73	4.41
Nov	4.94	4.40	4.70
Dec	5.16	5.21	5.26
Total	**5.16**	**5.21**	**5.26**

Monthly SAIFI 2022-2024

SAIFI (cumulative by month)			
Month	2022	2023	2024
Jan	0.31	0.26	0.20
Feb	0.56	0.45	0.55
Mar	0.77	0.59	0.76
Apr	0.98	0.67	0.93
May	1.19	0.86	1.01
Jun	1.31	1.15	1.20
Jul	1.47	1.31	1.31
Aug	1.52	1.55	1.39
Sep	1.60	1.64	1.47
Oct	1.79	1.76	1.65
Nov	2.11	1.96	1.76
Dec	2.19	2.18	1.97
Total	**2.19**	**2.18**	**1.97**

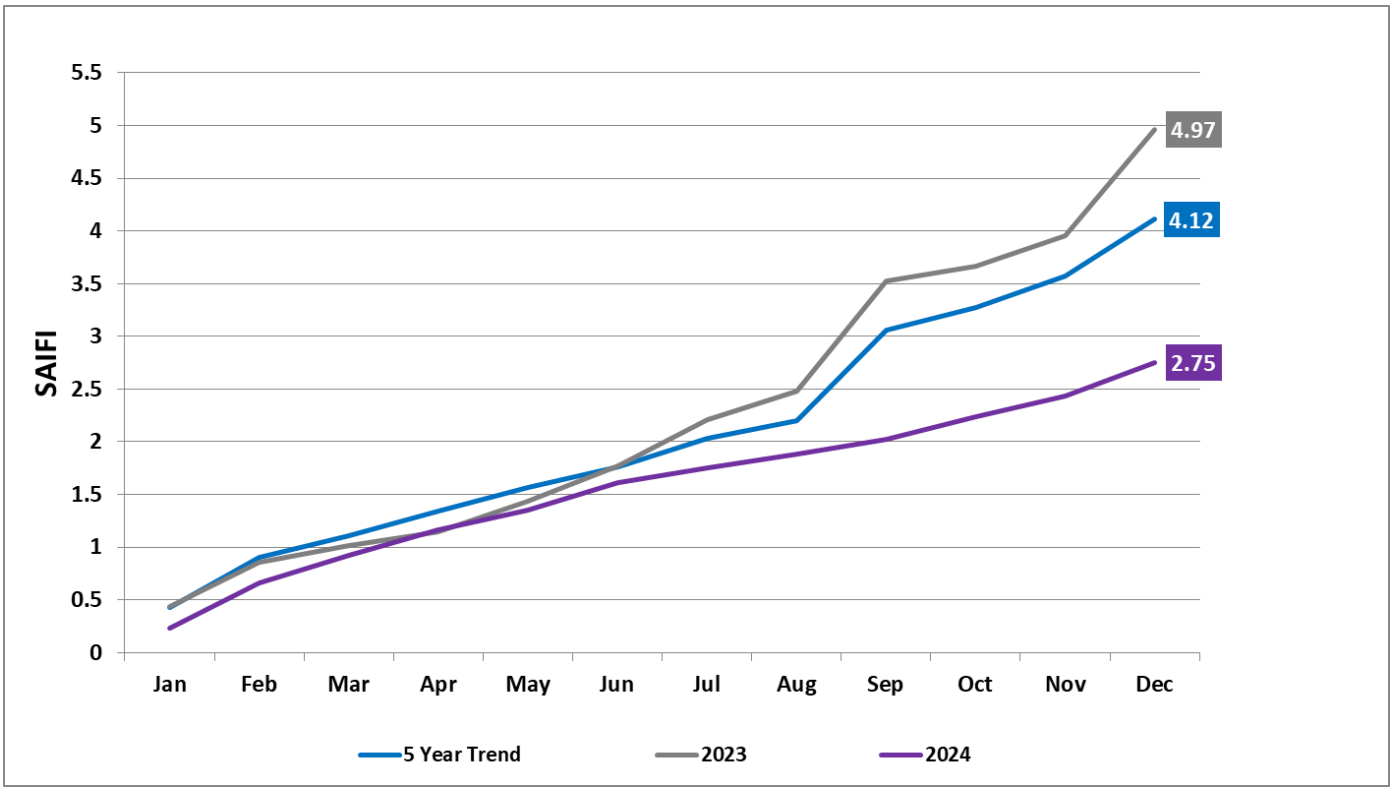
SAIDI "All Events" Results for 2024



2024 All Events SAIDI Results

Month	2023	2024	5 Year Average (2019 – 2023)
Jan	1.14	0.51	1.49
Feb	2.17	1.77	3.48
Mar	2.46	2.44	3.85
Apr	2.80	3.03	4.42
May	5.12	3.30	5.20
Jun	5.66	3.81	5.55
Jul	7.38	4.14	6.32
Aug	7.90	4.43	6.64
Sep	16.49	4.81	27.25
Oct	16.85	5.26	27.76
Nov	17.57	5.63	28.58
Dec	23.03	6.34	30.79

SAIFI "All Events" Results for 2024



2024 All Events SAIFI Results

Month	2023	2024	5 Year Average (2019 – 2023)
Jan	0.44	0.23	0.43
Feb	0.86	0.66	0.91
Mar	1.01	0.92	1.10
Apr	1.15	1.16	1.34
May	1.44	1.35	1.56
Jun	1.77	1.61	1.76
Jul	2.21	1.75	2.03
Aug	2.48	1.88	2.20
Sep	3.53	2.02	3.06
Oct	3.66	2.24	3.27
Nov	3.96	2.43	3.58
Dec	4.97	2.75	4.12

EXCLUSIONS
MED/EXT
Planned

	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
Avg + 2 St. Dev	5.44	6.16	4.88	5.90	5.47	5.81	5.03	20.47	20.51	13.22	17.81	17.81	16.98	19.00
St. Dev	1.84	1.97	1.52	1.92	1.76	1.91	1.58	8.03	7.37	4.67	6.47	7.32	6.09	6.70
Average	1.76	2.22	1.85	2.06	1.95	1.99	1.87	4.41	5.77	3.88	4.87	5.19	4.80	5.59

Source Feeder	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
100C-421	3.28	8.17	4.13	7.02	1.60	2.23	4.39	2.50	18.91	15.69	35.69	10.16	7.18	15.67
100C-422	2.20	3.40	3.37	3.15	2.40	2.43	5.26	3.24	20.16	7.82	21.38	7.81	3.75	21.27
100C-423	1.27	2.09	2.27	3.00	3.42	1.50	3.17	1.29	0.38	6.27	5.26	34.44	2.15	11.82
101H-411	2.22	2.36	1.14	4.08	1.41	3.61	2.20	3.04	3.51	3.54	6.48	4.59	6.01	1.35
101H-412	0.01	1.32	3.02	4.20	2.00	0.18	1.27	0.02	1.21	2.48	5.31	3.21	0.31	2.83
101H-413	2.23	3.67	0.64	3.11	1.17	0.92	0.11	3.11	4.30	1.17	3.53	7.02	1.94	0.60
101H-421	1.11	6.06	2.04	3.47	4.57	3.51	2.05	0.94	9.01	3.04	6.41	3.31	4.03	4.83
101H-422	2.02	2.36	1.13	3.87	3.91	2.98	1.38	6.11	8.69	2.54	9.67	5.26	1.41	5.98
101H-423	3.02	3.21	1.11	2.14	2.08	1.29	0.22	4.79	7.09	1.35	2.45	1.93	1.13	0.41
102W-311	0.05	0.25	0.33	3.32	1.06	0.12	6.07	0.15	0.65	1.02	1.94	2.07	0.59	16.95
102W-312	2.13	1.01	1.74	3.06	0.24	0.24	3.66	3.54	2.02	6.74	1.54	0.52	0.40	15.07
103C-311	0.03	4.18	2.05	5.19	1.03	0.04	1.12	0.11	16.51	7.99	22.17	2.49	0.16	6.37
103C-313	1.01	5.02	1.03	2.06	1.06	0.08	1.03	0.55	17.83	3.11	7.77	2.52	0.31	6.27
103C-314	1.40	5.68	2.40	5.92	5.56	1.49	3.71	1.78	17.50	5.96	23.78	12.26	2.70	14.59
103H-431	3.17	2.10	1.05	0.17	1.34	1.07	0.17	3.72	7.40	0.18	0.60	0.91	0.24	0.73
103H-432	1.49	1.15	1.72	0.79	0.16	0.32	1.21	4.18	4.85	2.08	1.95	0.86	0.89	2.41
103H-433	2.01	3.08	2.08	1.93	0.98	0.02	1.00	4.28	10.05	1.62	3.68	1.96	0.06	2.12
103H-434	4.19	3.69	5.35	3.32	0.09	0.37	2.68	6.26	10.00	4.63	5.86	0.47	1.20	5.73
103W-311	0.28	2.41	0.27	2.08	1.87	1.31	0.75	1.29	3.90	0.60	1.97	6.15	4.45	4.40
103W-312	1.46	4.22	2.51	2.39	1.43	1.22	0.34	2.05	6.46	7.42	2.86	3.18	6.37	0.94
104H-411	3.40	3.97	2.14	2.72	1.20	3.59	1.91	1.43	10.05	8.96	4.18	0.45	4.54	4.30
104H-412	2.88	4.05	2.08	2.59	0.11	1.22	2.80	2.35	4.50	3.32	2.38	0.30	1.36	8.62
104H-413	2.27	3.28	3.95	1.39	3.06	0.63	0.07	0.45	2.68	7.51	4.51	4.36	1.02	0.61
104H-421	4.11	3.12	1.07	1.06	2.13	0.80	3.11	4.69	1.83	0.69	2.32	1.39	1.21	3.36
104H-422	1.34	1.25	2.06	0.47	1.09	0.00	0.01	1.82	1.51	0.85	0.99	0.11	0.01	0.03
104H-423	2.08	1.13	1.12	1.00	0.12	0.15	1.05	2.50	1.31	1.00	0.95	0.30	0.35	1.13
104H-431	1.68	1.10	2.08	2.35	3.97	0.06	2.85	2.35	1.35	0.23	5.30	3.17	0.17	5.61
104H-432	1.98	2.11	4.06	0.08	2.48	0.00	0.02	2.53	3.34	4.92	0.13	1.29	0.00	0.03
104H-433	1.04	1.88	1.07	0.07	1.39	1.03	0.23	2.36	1.47	0.66	0.15	0.73	1.09	0.97
104H-441	1.99	0.23	1.26	1.07	0.03	2.02	3.03	1.98	0.37	1.88	2.15	0.07	5.26	5.15
104H-442	2.00	2.02	1.03	2.98	1.05	1.02	0.01	1.76	1.99	0.21	4.19	1.13	1.46	0.02
104S-311	1.32	4.61	2.12	1.70	1.18	3.03	1.13	3.04	17.26	5.08	4.50	3.16	4.28	3.20
104S-312	1.56	3.29	0.97	0.03	1.22	0.46	1.94	7.07	12.00	6.66	0.09	3.68	1.17	4.26
104S-313	0.76	2.67	3.59	4.33	2.92	1.12	3.93	3.00	9.68	10.76	18.12	8.42	12.90	9.14
108H-411	0.09	1.06	1.02	0.01	0.01	0.26	2.02	0.20	0.47	3.11	0.01	0.03	0.74	9.60
108H-412	0.01	1.00	0.01	0.25	1.02	2.05	1.01	0.02	0.32	0.02	0.14	1.63	3.89	6.00
108H-413	1.05	2.03	1.02	0.16	1.11	2.04	1.13	1.90	1.83	3.06	0.78	1.61	8.27	6.19
111S-311			0.05	0.02	0.01	0.96	1.15			0.05	0.04	0.08	5.83	1.29
111S-312			0.07	0.02	0.47	0.08	3.13			0.08	0.05	1.64	0.39	8.79
111S-313			0.11	0.03	0.03	0.07	2.01			0.58	0.07	0.04	0.17	1.13
111S-314			0.00	0.00	0.00	1.07	2.26			0.00	0.00	0.00	0.48	5.24
113H-431	1.02	1.87	3.50	1.05	1.86	1.20	0.04	1.81	0.33	3.77	0.62	2.54	3.97	0.14
113H-432	2.06	0.03	3.06	2.27	2.21	3.16	0.08	1.94	0.09	2.13	4.48	1.53	4.28	0.22
113H-433	0.27	0.30	0.33	0.75	2.41	6.21	0.18	0.31	0.32	0.39	2.14	3.72	9.65	0.69
113H-434	4.03	1.15	1.13	2.09	0.40	1.84	0.98	3.86	3.28	2.16	3.97	0.54	1.50	0.56
113H-441	0.04	1.52	1.56	1.98	0.05	0.06	1.54	0.06	3.88	1.66	4.76	0.14	0.19	2.72
113H-442	1.12	1.07	0.98	4.46	0.06	2.69	2.02	7.26	1.80	0.77	9.31	0.10	4.14	1.20
113H-443	0.69	1.07	2.18	1.05	2.13	1.50	1.60	0.17	0.69	3.20	2.40	0.76	1.90	0.26
113H-444	1.04	0.04	1.01	1.01	1.05	2.09	2.04	1.59	0.08	2.28	5.24	1.10	3.16	3.63
11N-200			1.00	0.00	0.00	0.00	0.00			0.33	0.00	0.00	0.00	0.00

EXCLUSIONS
MED/EXT
Planned

	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
Avg + 2 St. Dev	5.44	6.16	4.88	5.90	5.47	5.81	5.03	20.47	20.51	13.22	17.81	17.81	16.98	19.00
St. Dev	1.84	1.97	1.52	1.92	1.76	1.91	1.58	8.03	7.37	4.67	6.47	7.32	6.09	6.70
Average	1.76	2.22	1.85	2.06	1.95	1.99	1.87	4.41	5.77	3.88	4.87	5.19	4.80	5.59

Source Feeder	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
11S-301	5.38	3.13	3.66	2.81	2.06	3.62	1.37	8.76	5.95	11.83	22.54	10.13	15.09	3.13
11S-302	3.06	4.18	2.14	2.57	2.37	2.07	0.07	5.12	12.60	1.05	4.02	3.94	3.08	0.48
11S-303	1.11	0.08	0.03	1.42	0.08	3.02	0.11	1.88	0.17	0.03	1.35	0.86	2.55	0.35
11S-304	0.12	0.11	0.16	0.20	1.10	2.08	1.03	0.38	0.30	0.29	1.11	3.77	3.32	1.69
11S-305	1.21	1.13	0.93	2.45	1.08	3.21	0.10	1.88	1.03	2.07	10.94	10.37	3.26	0.31
11S-306	0.17	1.06	0.04	1.13	0.07	3.05	1.27	0.33	2.77	0.07	2.67	0.99	2.58	1.57
11S-411	4.61	2.34	3.70	7.64	5.91	5.32	1.86	10.29	10.34	13.74	22.70	23.19	16.87	6.53
11S-412	0.08	0.06	0.17	3.10	1.31	2.09	1.14	0.15	0.07	0.48	15.73	1.75	2.24	16.77
124H-301	0.98	2.25	0.03	0.01	2.98	2.01	2.87	2.17	1.21	0.10	0.01	6.91	1.89	5.34
124H-302	0.00	1.05	0.03	0.06	2.00	1.00	1.35	0.00	0.32	0.09	0.18	4.19	0.16	6.92
126H-311	1.05	0.46	2.87	0.06	1.47	1.11	1.46	1.33	0.77	4.86	0.14	5.36	2.00	6.07
126H-312	8.98	2.27	3.01	3.41	2.42	2.69	3.73	12.75	3.46	2.55	3.95	5.21	7.27	12.74
126H-313	0.04	1.10	1.06	0.26	2.09	4.13	4.02	0.17	9.10	0.27	0.72	4.76	2.62	10.10
127H-411	1.74	4.22	3.07	4.61	1.34	4.58	1.04	2.13	6.31	5.91	4.62	0.48	5.01	1.96
127H-412	0.50	0.50	0.00	1.00	0.00	1.00	0.00	0.50	0.98	0.00	0.05	0.00	0.95	0.00
127H-413	0.93	1.00	0.06	1.02	3.09	1.02	3.04	1.97	0.63	0.16	0.09	14.61	1.02	6.05
129H-411	1.07	3.76	0.05	0.09	1.02	0.59	1.09	0.68	4.67	0.18	0.15	1.94	0.21	4.43
129H-412	0.12	2.04	1.08	2.01	1.17	0.92	1.19	0.13	6.13	1.33	6.24	0.73	0.57	1.89
129H-413	0.01	1.12	0.29	1.02	3.90	0.03	1.02	0.03	0.86	0.57	0.98	3.12	0.08	2.20
12V-302	3.36	2.33	1.07	0.08	3.24	1.26	2.59	6.46	3.44	9.63	0.25	6.49	2.42	10.68
12V-303	2.01	3.25	0.13	0.06	3.93	0.94	1.95	2.45	5.19	0.36	0.42	3.96	6.63	8.18
12V-304	1.35	1.46	2.52	1.72	4.03	2.16	1.45	3.29	3.56	6.47	1.86	9.33	2.93	4.96
131H-421	0.05	0.06	0.06	1.17	0.14	0.17	0.11	0.08	0.20	0.08	1.36	0.32	0.52	0.18
131H-422	1.31	1.95	1.11	2.28	2.40	1.93	2.25	1.10	2.64	2.82	3.30	2.82	5.13	7.26
131H-423	1.93	1.67	2.80	3.15	0.97	1.76	0.80	4.26	1.84	1.96	8.31	0.95	5.30	3.57
131H-424	3.14	7.40	1.22	1.67	0.66	0.04	0.04	3.07	10.79	0.59	2.97	0.15	0.05	0.11
137H-411	0.15	3.19	1.05	0.67	1.09	1.26	5.31	0.33	8.52	0.77	0.85	0.46	2.49	21.15
137H-412	0.12	1.12	0.04	0.52	8.11	1.95	5.02	0.31	0.77	0.10	1.28	6.57	10.93	8.59
137H-413	1.17	3.30	1.06	0.17	1.20	2.08	3.71	1.67	6.01	1.22	0.28	2.52	6.19	8.92
137H-414	0.18	3.15	0.12	0.91	1.12	1.10	5.32	0.58	8.05	0.16	3.23	0.55	2.96	14.63
139H-411	1.05	5.60	1.06	2.05	3.02	1.17	1.03	1.34	8.94	2.86	5.02	7.50	2.29	2.01
139H-412				0.06	4.03	2.03	1.01				0.14	1.89	2.94	1.91
139H-413	1.98	0.00	0.04	0.00	2.01	2.03	1.02	2.19	0.00	0.23	0.00	2.03	4.13	2.33
139H-414	3.04	2.12	1.22	0.16	3.27	3.18	2.08	7.51	3.65	2.37	0.15	3.48	4.39	2.77
13V-303	2.51	0.74	0.64	1.55	0.40	0.29	0.52	6.42	17.40	5.42	4.41	1.49	1.05	1.82
14V-303	1.18	2.08	4.00	1.92	2.29	6.08	4.67	5.77	2.91	8.18	2.37	7.64	6.58	32.92
141H-401						1.92	1.01						3.63	0.13
15N-202	2.20	0.11	0.00	1.06				5.42	0.26	0.00	9.39			
15N-203	1.55	0.62	0.47	1.22				6.75	0.14	1.53	8.65			
15N-401	1.28	0.24	1.22	1.70	3.30	1.29	4.83	1.30	0.83	3.07	1.78	3.51	1.13	5.57
15N-402	0.08	0.00	1.36	0.90	2.79	1.01	3.90	0.12	0.00	0.54	2.02	3.27	2.01	5.04
15N-403	0.18	1.16	1.56	1.17	1.17	1.67	2.09	0.60	1.35	1.27	1.88	2.62	4.16	2.78
15N-404	3.43	0.14	1.10	0.07	4.20	1.39	1.36	9.13	0.21	3.08	0.14	3.11	2.87	1.65
15S-301	2.25	0.22	5.20	0.38	5.21	1.36	4.27	2.87	0.22	15.83	1.52	13.60	1.70	8.84
15S-302	0.06	2.14	2.07	1.04	1.13	2.11	3.13	0.19	3.21	6.57	1.04	5.34	1.83	4.08
15S-303	1.14	1.04	1.40	2.15	1.84	1.07	3.08	1.10	0.21	2.47	3.35	4.41	1.00	4.07
16N-301	0.44	2.17	2.05	0.24	2.14	0.05	2.14	2.42	4.08	2.12	1.09	8.66	0.18	6.13
16N-302	1.62	2.37	2.22	4.23	2.09	0.39	2.68	7.09	12.26	2.78	9.02	9.07	1.20	7.39
16V-314	2.16	1.34	2.45	0.29	1.88	3.07	0.28	4.13	12.35	8.34	2.35	12.11	7.25	1.55
16V-315	3.28	1.94	2.42	0.58	1.35	5.01	0.04	5.94	11.14	9.50	1.00	8.76	8.88	0.07

EXCLUSIONS
MED/EXT
Planned

	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
Avg + 2 St. Dev	5.44	6.16	4.88	5.90	5.47	5.81	5.03	20.47	20.51	13.22	17.81	17.81	16.98	19.00
St. Dev	1.84	1.97	1.52	1.92	1.76	1.91	1.58	8.03	7.37	4.67	6.47	7.32	6.09	6.70
Average	1.76	2.22	1.85	2.06	1.95	1.99	1.87	4.41	5.77	3.88	4.87	5.19	4.80	5.59

Source Feeder	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
16W-301	1.31	2.25	2.68	1.50	0.35	0.81	2.04	2.92	3.64	2.22	3.36	1.38	1.36	6.81
16W-302	0.09	4.51	3.52	3.08	1.61	0.47	1.91	0.45	6.11	5.18	6.37	2.64	1.13	6.56
17N-201	1.20	1.01	1.01	2.00	0.07	0.00	0.00	15.73	0.12	0.89	3.31	0.32	0.00	0.02
17N-202	0.03	1.10	0.00	0.00	0.08	0.06	0.00	0.03	0.28	0.00	0.00	0.34	0.07	0.01
17N-203	0.38	2.01	0.02	0.02	0.19	0.24	0.01	0.08	2.12	0.03	0.12	0.42	0.21	0.03
18V-411	5.09	1.04	2.07	1.05	1.47	0.50	2.13	7.75	1.34	10.19	5.61	3.23	0.85	7.18
18V-412	5.87	1.34	3.11	2.42	2.37	0.02	2.03	21.13	4.65	11.42	6.53	2.96	0.13	12.07
18V-413	6.90	1.92	2.34	3.22	1.87	0.09	1.17	17.97	2.77	9.09	8.71	1.88	0.71	6.00
19C-203	2.00	2.00	1.02	4.01	0.03	5.99	1.69	4.14	32.99	4.81	13.34	0.13	5.88	2.83
19C-204	4.33	3.67	2.13	4.94	1.02	5.08	1.02	9.29	6.89	7.54	15.88	0.32	5.93	2.52
19W-311	2.75	5.19	3.02	6.05	0.14	0.22	1.46	4.98	11.09	8.23	13.71	0.48	0.25	1.91
19W-312	1.06	3.15	2.09	6.76	1.16	0.05	1.94	2.09	4.25	3.08	6.89	2.01	0.16	5.45
1C-411	1.19	2.97	1.16	1.78	1.07	1.18	2.67	1.89	6.66	3.80	4.44	5.43	2.11	5.37
1C-412	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	3.35	0.00	4.45	16.29	0.00
1C-413			1.00	0.00	0.00	1.00	1.00			32.55	0.00	0.00	8.19	5.87
1H-403	2.00	1.00	2.01	0.09	0.76	2.72	1.01	0.75	1.39	15.24	0.07	5.27	1.27	0.68
1H-405	0.00	1.00	1.00	0.00	0.00	2.00	1.65	0.00	1.41	11.33	0.00	0.00	3.72	1.94
1H-415	0.04	1.58	0.00	2.03	1.12	2.01	1.02	0.06	1.91	0.00	3.83	0.52	3.27	0.65
1H-419	0.00	0.96	0.00	2.00	1.50	1.63	1.00	0.00	1.35	0.00	6.08	2.07	2.48	0.59
1H-424	0.00	1.35	0.00	0.00	2.03	2.02	1.00	0.00	1.46	0.00	0.00	2.88	2.97	0.64
1H-427	1.99	2.03	0.06	0.00	0.02	2.10	0.02	0.68	4.13	0.11	0.00	0.12	0.85	0.03
1H-429	0.00	0.67	0.00	0.00	0.67	0.00	0.00	0.00	0.93	0.00	0.00	0.46	0.00	0.00
1H-431	0.03	2.00	0.00	0.00	0.00	1.00	2.00	0.04	2.80	0.01	0.00	0.00	1.78	1.50
1H-454	2.81	5.05	1.98	0.04	0.03	2.07	0.01	6.89	3.84	2.80	0.12	0.05	0.72	0.07
1N-402	2.64	5.27	0.68	8.61	3.90	4.45	2.41	11.80	8.24	2.39	18.68	8.48	8.07	5.06
1N-403	3.06	0.03	2.04	1.10	5.82	2.12	2.08	8.94	0.07	2.68	0.83	6.65	2.56	3.75
1N-404	0.51	0.03	0.05	2.03	0.11	1.47	0.69	2.01	0.19	0.24	2.90	3.65	1.66	1.13
1N-405	1.09	2.34	3.19	2.84	1.74	4.47	2.76	2.47	4.78	3.60	4.39	5.94	4.64	5.11
1N-421	1.12	1.04	2.30	3.08	2.08	2.02	2.31	3.72	0.24	6.64	6.72	5.05	5.04	3.67
1V-442	0.00	1.00	0.00	0.00	0.00	2.00	0.00	0.00	0.05	0.00	0.00	0.00	3.78	0.00
1V-443	0.16	5.86	3.88	1.29	4.48	6.78	2.81	0.86	8.21	9.19	4.53	9.93	16.59	7.44
1W-411	1.00	1.86	2.14	3.86	4.00	4.86	1.00	0.17	3.63	15.61	3.18	41.52	25.95	12.94
20H-301	3.27	2.21	1.55	0.36	4.16	0.05	0.55	9.77	1.72	2.26	0.98	6.15	0.19	1.56
20H-302	3.04	1.00	2.18	0.00	1.16	1.07	0.00	5.08	0.90	17.49	0.00	2.72	4.36	0.01
20H-303	3.06	2.09	1.57	2.19	1.11	1.17	1.51	5.98	3.11	0.74	3.65	0.60	7.69	2.79
20H-304	2.28	4.03	0.03	1.08	1.19	1.02	1.23	8.13	4.64	0.06	0.38	0.39	4.31	1.68
20H-305	2.14	2.93	0.12	0.06	4.19	0.18	0.03	8.87	7.71	0.14	0.16	5.59	1.23	0.08
20H-306	2.09	1.06	4.21	1.02	4.03	1.04	0.19	7.69	1.11	1.39	1.52	2.26	5.14	0.17
20N-201	0.00	1.00	1.36	2.00	0.04	1.00	8.00	0.00	0.76	2.44	5.83	0.03	0.46	29.35
20N-203	0.38	1.06	0.07	0.00	0.01	0.00	1.03	0.66	0.70	0.06	0.00	0.15	0.00	0.39
20N-204	0.11	1.25	1.02	1.00	0.25	0.02	1.03	1.31	0.28	0.81	1.43	0.80	0.04	6.92
20V-311	3.57	2.85	1.35	4.35	5.31	0.04	3.25	7.65	7.46	1.92	14.08	3.85	0.15	5.35
20W-311	1.05	2.05	1.02	2.07	1.02	0.02	1.01	2.11	1.90	1.18	3.68	7.96	0.08	0.65
20W-312	1.04	2.05	2.07	3.02	1.02	1.06	2.01	2.10	1.99	3.89	7.41	3.91	0.61	4.78
21W-311	3.10	3.02	1.12	1.04	1.08	0.26	1.03	3.94	8.89	1.20	5.34	3.61	0.39	0.28
21W-312	1.15	3.14	2.06	1.01	0.01	0.03	2.01	2.75	10.29	2.66	5.28	0.05	0.06	1.41
22C-401	1.00	4.03	3.07	0.74	2.72	1.06	2.27	7.17	9.43	6.60	2.26	2.09	1.67	7.17
22C-402	2.49	6.71	2.73	6.90	6.07	2.97	0.79	10.83	21.46	9.12	34.06	20.18	8.11	3.61
22C-403	1.30	6.78	4.15	5.75	14.24	2.33	7.52	4.13	16.36	11.15	16.38	30.79	4.60	29.38
22C-404	1.91	10.82	4.78	6.05	4.11	4.56	4.78	5.89	33.15	11.86	16.88	9.19	15.71	11.89

EXCLUSIONS
MED/EXT
Planned

	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
Avg + 2 St. Dev	5.44	6.16	4.88	5.90	5.47	5.81	5.03	20.47	20.51	13.22	17.81	17.81	16.98	19.00
St. Dev	1.84	1.97	1.52	1.92	1.76	1.91	1.58	8.03	7.37	4.67	6.47	7.32	6.09	6.70
Average	1.76	2.22	1.85	2.06	1.95	1.99	1.87	4.41	5.77	3.88	4.87	5.19	4.80	5.59

Source Feeder	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
22N-401	5.00	1.36	1.09	3.18	3.41	1.21	0.10	14.66	2.44	5.12	5.32	6.01	6.56	0.31
22N-402	1.37	3.96	1.88	2.28	7.22	4.28	1.15	2.82	9.17	5.06	4.60	12.81	18.52	1.82
22N-403	0.41	0.05	2.56	0.68	1.95	3.86	0.39	0.99	0.30	5.48	1.21	5.04	11.99	0.91
22N-404	2.18	3.06	2.05	2.03	1.05	3.02	0.06	1.53	4.43	4.47	3.12	2.33	13.58	0.30
22V-313	2.00	0.27	2.06	0.17	4.08	2.08	2.01	11.30	0.37	1.57	0.32	10.07	3.25	3.21
22V-314	3.02	0.00	1.03	0.04	3.01	2.01	1.05	8.76	0.01	0.14	0.04	8.61	3.22	1.80
22V-321	0.03	0.13	1.04	2.10	4.06	3.09	1.11	0.17	0.14	0.22	2.87	11.07	3.64	1.95
22V-322	1.04	1.03	1.14	0.09	3.95	2.01	1.14	0.32	1.31	0.37	0.17	9.29	3.10	3.27
22W-311	3.18	1.41	2.12	1.64	2.72	0.07	2.72	1.34	3.24	2.79	2.55	5.80	0.12	1.70
22W-312	2.84	2.20	3.05	4.08	1.54	0.80	3.31	2.31	3.25	2.71	6.49	8.03	0.89	4.71
22W-313	2.16	1.61	1.32	2.36	0.21	0.07	1.09	0.69	2.42	1.96	2.92	0.23	0.14	0.88
23H-301	2.11	0.28	0.05	1.18	3.16	2.24	0.11	0.22	0.82	0.08	4.76	3.38	11.34	0.22
23H-302	2.09	1.09	1.08	1.07	3.12	2.03	1.12	0.34	1.12	3.30	7.61	4.04	11.58	2.43
23H-303	2.02	0.05	0.45	3.22	2.03	1.07	0.03	0.21	0.11	1.33	2.02	0.38	11.18	0.10
23H-304	3.15	3.26	3.33	2.59	5.27	1.68	1.05	3.43	6.69	4.17	4.40	3.77	12.08	2.86
23W-301	2.02	1.57	0.31	5.25	1.47	0.81	4.23	0.29	5.48	1.90	6.85	1.47	1.07	18.43
23W-302	4.09	3.10	3.22	9.03	1.98	1.10	3.37	12.29	12.72	7.94	13.66	5.17	2.67	13.56
24C-442	2.14	3.64	7.19	6.34	3.69	6.64	5.35	2.86	12.49	22.24	19.24	7.08	7.45	40.20
24C-443	1.13	4.06	0.58	0.45	1.43	1.66	2.70	0.49	4.84	1.88	3.85	3.82	3.81	10.45
25W-301	1.91	2.87	0.34	8.80	1.38	1.43	2.04	1.22	11.24	5.51	15.92	1.70	48.81	7.70
25W-302	2.81	1.21	4.14	7.02	0.48	1.48	4.40	6.07	4.60	11.17	11.44	1.17	3.31	17.35
25W-303	1.21	4.12	2.14	5.06	0.23	1.02	3.06	0.70	6.03	3.74	7.38	0.31	0.15	9.65
2C-401	0.39	2.31	2.19	0.08	3.79	1.30	0.41	1.15	10.91	5.73	0.29	10.73	2.54	2.90
2C-402	4.59	9.03	5.04	8.19	4.80	1.34	2.22	8.30	16.27	22.01	44.76	16.79	2.18	6.42
2H-411	2.02	2.02	2.03	2.40	0.83	0.84	4.48	1.58	2.87	2.82	3.38	1.30	4.63	6.42
2H-412	1.16	4.03	0.07	0.00	1.01	0.00	0.03	3.40	4.43	0.11	0.00	1.62	0.02	0.05
2H-413	1.90	4.02	3.06	2.06	2.05	0.15	1.06	3.27	7.60	4.42	0.48	2.36	0.39	1.75
2H-421			0.13	0.15	0.05	0.05	3.16			0.57	0.43	0.19	0.17	5.86
2H-422				1.64	0.07	1.15	0.03				4.78	0.09	1.24	0.04
2H-423							0.01							0.02
2H-424			0.20	2.23	2.21	2.04	0.09			0.40	1.95	2.98	5.47	0.22
30N-411	3.19	1.00	1.31	1.21	2.12	2.39	1.68	26.89	1.81	2.62	1.12	4.86	10.55	4.84
30N-412	1.20	0.97	3.48	0.08	2.17	8.53	3.64	3.78	3.12	12.01	0.51	16.92	26.66	22.27
36V-301	1.06	2.18	2.74	1.26	2.27	1.46	3.66	5.11	3.04	4.90	1.78	5.58	5.84	10.96
36V-302	3.72	3.82	1.17	0.36	1.16	3.49	2.45	9.92	6.71	2.87	1.36	3.93	13.43	6.70
36V-303	1.05	1.53	1.34	0.98	1.73	2.52	4.17	7.07	5.19	3.33	2.06	3.80	7.44	11.37
36W-301	1.91	2.73	0.84	6.08	0.32	1.52	0.43	11.10	19.80	3.92	13.56	1.76	3.25	1.69
36W-304	4.60	0.79	2.29	8.18	0.23	1.04	0.13	12.98	3.60	11.57	12.14	0.41	0.16	2.19
37N-411	6.33	2.72	2.04	1.60	3.20	2.24	3.03	36.36	8.71	3.61	2.45	10.58	24.90	10.15
37N-412	3.89	6.87	1.14	0.95	5.80	1.22	2.16	13.19	19.11	2.62	2.34	21.90	6.40	14.79
37N-413	6.95	2.21	4.95	0.44	3.92	3.18	1.32	25.50	31.77	11.12	0.15	31.98	15.09	4.90
37N-414	0.07	0.13	3.44	0.83	1.22	1.48	0.27	0.10	1.27	6.31	1.73	7.52	2.26	1.73
37W-201	1.29	0.33	0.09	6.06	0.02	1.22	0.00	2.78	0.56	0.36	13.07	0.09	0.50	0.00
37W-202	1.01	0.06	0.21	5.69	0.24	1.11	0.01	1.25	0.33	0.63	14.32	1.63	0.96	0.01
37W-203	1.00	0.00	0.00	5.00	0.00	1.00	0.00	1.20	0.00	0.00	11.13	0.00	0.07	0.00
3N-411	4.20	1.06	2.00	0.10	1.21	2.05	2.05	1.72	2.87	0.89	0.12	4.49	2.72	10.14
3N-412			1.24	0.36	1.33	1.32	5.19			1.11	0.46	4.03	0.72	16.93
3S-301	0.04	1.46	1.26	1.13	3.07	0.07	0.12	0.17	2.80	2.79	0.64	1.76	0.36	3.23
3S-302	0.03	0.10	1.83	2.06	2.40	1.32	0.09	0.10	0.26	7.08	2.37	1.44	8.70	0.31
3S-303	0.03	1.10	1.06	7.16	2.13	1.30	1.06	0.14	9.68	0.59	17.16	0.85	3.45	1.00

EXCLUSIONS
MED/EXT
Planned

	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
Avg + 2 St. Dev	5.44	6.16	4.88	5.90	5.47	5.81	5.03	20.47	20.51	13.22	17.81	17.81	16.98	19.00
St. Dev	1.84	1.97	1.52	1.92	1.76	1.91	1.58	8.03	7.37	4.67	6.47	7.32	6.09	6.70
Average	1.76	2.22	1.85	2.06	1.95	1.99	1.87	4.41	5.77	3.88	4.87	5.19	4.80	5.59

Source Feeder	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
3S-307	3.26	1.37	1.46	2.13	3.23	1.86	1.23	4.23	6.42	2.33	1.94	4.18	2.99	3.46
3S-308	1.04	0.04	1.10	3.08	5.47	1.04	2.06	3.51	0.14	1.24	2.66	5.81	2.43	33.38
3S-309	2.02	0.27	2.10	2.08	2.08	1.27	0.20	6.07	1.10	3.11	6.44	1.03	2.56	0.79
3S-403	2.81	5.78	1.28	4.84	4.05	5.28	2.22	7.48	12.92	4.27	27.30	7.33	39.36	11.06
3S-405	0.04	0.00	0.08	0.92	2.03	1.03	0.06	0.17	0.00	0.31	4.62	0.31	2.16	0.23
3W-201	0.89	0.90	4.10	2.80	1.30	1.00	1.00	0.79	0.04	9.63	7.09	3.73	0.02	12.34
40H-302	2.06	2.04	2.57	0.11	0.20	1.24	1.12	2.15	0.41	3.72	0.13	0.34	4.20	0.63
40H-303	0.02	0.00	2.28	0.05	0.04	4.11	3.04	0.03	0.00	2.64	0.11	0.03	2.55	3.69
40H-304	0.08	1.32	3.31	1.06	1.05	0.01	1.11	0.12	0.53	6.96	1.76	0.48	0.01	0.20
40H-305	1.04	0.02	0.03	0.04	0.18	0.12	2.32	0.68	0.04	0.05	0.08	0.23	0.52	1.81
40H-401	1.03	1.02	0.03	0.04	0.01	0.07	2.04	0.09	2.52	0.10	0.07	0.02	0.17	2.61
46W-301	2.37	0.86	3.32	7.78	1.03	1.31	0.84	3.69	4.85	9.29	14.06	5.04	1.37	3.64
46W-303	1.05	2.36	2.43	5.40	1.83	2.06	0.84	1.42	5.31	5.48	7.25	3.95	4.57	5.16
48H-301	1.06	1.12	3.44	2.08	0.10	0.04	5.11	1.14	2.31	5.69	6.91	1.65	0.17	7.86
48H-302	2.14	2.03	3.01	4.01	1.23	1.02	1.13	2.63	3.00	2.02	8.51	0.69	1.54	0.40
48H-303	1.59	1.01	3.14	2.01	1.02	1.41	2.28	1.48	0.07	3.49	6.51	0.19	2.56	4.80
48H-304	2.22	2.21	1.03	2.39	2.23	0.04	1.27	1.98	3.99	0.61	7.51	1.58	0.22	0.66
48W-201	1.05	0.99	0.10	0.06	0.11	0.24	2.09	1.48	0.96	0.08	0.20	0.50	2.49	12.18
48W-203	1.00	0.00	0.00	0.00	0.02	0.02	2.00	1.20	0.00	0.00	0.00	0.02	0.08	12.18
48W-204	1.00	0.02	0.01	1.06	0.04	0.03	2.00	1.29	0.07	0.02	0.48	0.20	0.17	12.18
49N-332	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4C-424	1.92	5.11	2.38	1.06	5.74	2.54	2.63	3.38	8.23	9.09	5.10	15.13	6.19	6.34
4C-430	4.10	4.12	1.32	1.71	2.59	0.74	3.98	7.08	14.05	2.33	4.68	12.63	1.78	11.17
4C-432	1.99	1.00	0.54	2.80	1.52	2.61	2.51	1.97	1.26	1.21	6.02	4.70	11.62	6.93
4C-441	3.60	4.21	3.07	4.60	4.45	3.69	0.57	4.13	6.90	7.23	22.24	15.14	14.48	2.74
4C-442	0.00	2.00	0.00	1.00				0.00	0.67	0.00	1.78			
4N-311	2.50	4.85	2.26	0.22	4.85	0.48	2.97	3.98	10.38	0.58	0.70	12.31	2.19	11.18
4N-312	0.61	0.57	2.83	0.46	4.31	2.29	3.43	1.82	2.03	1.89	1.19	20.13	6.73	8.11
4N-313	5.07	2.45	2.12	1.51	5.71	6.00	4.70	8.49	4.97	0.50	2.05	21.05	18.27	9.52
4S-321	0.28	1.10	0.53	0.59	0.62	2.51	0.64	0.29	2.29	1.27	1.30	3.23	5.63	1.61
4S-322	0.01	0.19	2.00	0.02	2.14	1.06	0.00	0.01	0.40	0.19	0.09	20.15	1.24	0.01
4S-323	0.16	0.63	1.11	2.93	3.31	0.97	0.07	0.02	3.69	0.30	8.95	5.68	0.59	0.17
4S-324	0.02	1.03	0.06	1.23	0.37	1.19	0.03	0.04	2.24	0.14	2.00	0.73	0.87	0.18
4S-331	1.08	2.08	2.04	2.11	3.47	1.22	0.40	2.07	5.13	4.07	7.34	3.87	2.32	1.51
4S-332	0.19	0.04	2.00	0.43	1.70	1.01	0.44	0.31	0.15	1.38	2.27	4.31	1.02	1.15
4S-333	0.03	1.38	0.12	0.04	0.66	0.13	1.95	0.05	1.41	0.21	0.67	3.24	0.48	3.49
4S-334	0.00	0.00	2.01	0.00	0.67	1.16	0.05	0.00	0.00	3.63	0.00	4.59	1.29	0.42
4W-211	0.00	3.00	4.00	1.40	2.25	1.00	0.00	0.00	9.18	6.69	7.97	1.59	0.02	0.00
50N-311	0.00	0.10	0.00	0.08	0.00	1.00	1.00	3.30	0.19	0.00	0.15	0.00	1.09	1.00
50N-410	2.83	3.04	5.69	3.17	2.56	2.95	4.30	6.39	8.43	8.51	9.23	10.08	10.21	7.48
50N-411	0.03	2.74	5.68	1.11	1.10	3.89	2.77	0.07	3.53	4.97	3.39	1.32	7.96	3.51
50N-412	0.66	1.87	2.31	1.57	0.70	1.19	3.27	1.71	3.65	3.98	3.90	2.46	1.55	3.48
50N-415	1.36	0.25	7.07	3.29	3.00	1.41	0.08	0.74	0.69	9.44	7.88	3.56	4.11	0.17
50V-401	0.22	0.47	0.50	1.11	1.06	0.26	0.39	0.52	1.20	1.01	1.62	2.08	0.23	0.63
50V-402	2.14	0.02	1.06	1.24	0.04	1.44	0.31	8.09	0.04	1.61	1.54	0.10	2.19	2.52
50W-411	0.04	3.88	0.08	1.20	1.43	1.07	1.15	0.29	6.54	0.41	2.47	2.82	2.60	2.98
50W-412	1.47	5.16	3.68	2.79	2.60	3.07	1.95	4.38	16.38	17.73	7.17	3.87	6.89	6.82
51V-301	0.13	0.15	1.77	0.38	1.02	2.22	0.30	0.14	0.17	1.61	0.85	3.49	4.45	1.12
52V-251	0.00	0.00						0.00	0.00					
54H-301	5.01	2.09	1.85	5.05	0.08	2.15	0.04	8.13	2.32	1.03	8.82	0.31	0.48	0.09

EXCLUSIONS
MED/EXT
Planned

	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
Avg + 2 St. Dev	5.44	6.16	4.88	5.90	5.47	5.81	5.03	20.47	20.51	13.22	17.81	17.81	16.98	19.00
St. Dev	1.84	1.97	1.52	1.92	1.76	1.91	1.58	8.03	7.37	4.67	6.47	7.32	6.09	6.70
Average	1.76	2.22	1.85	2.06	1.95	1.99	1.87	4.41	5.77	3.88	4.87	5.19	4.80	5.59

Source Feeder	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
54H-302	1.08	1.19	5.63	2.06	0.01	2.24	1.04	1.10	0.60	6.24	4.82	0.08	7.24	0.41
54H-303	2.05	1.99	1.00	4.58	0.03	1.07	2.02	4.32	2.13	0.95	10.74	0.03	0.50	2.69
54H-304	1.02	4.03	5.23	4.06	0.04	3.59	0.62	1.06	4.34	6.33	6.74	0.10	4.58	2.01
55N-201	0.00	1.01	1.00	0.21	0.08	1.01	0.00	0.01	0.94	0.04	0.54	0.89	0.93	0.00
55N-202	0.01	2.29	1.44	0.34	1.00	2.11	0.01	0.08	6.49	1.08	2.18	0.66	2.45	0.02
55N-203	0.17	1.07	1.04	0.15	0.15	1.02	1.02	0.19	2.17	0.08	0.28	0.27	1.07	0.32
55N-204	1.28	0.07	1.16	0.15	0.17	2.06	1.04	1.92	0.21	0.15	0.13	0.83	1.28	6.60
55V-313	1.74	0.78	2.34	1.64	2.24	1.67	2.45	5.13	1.89	14.70	2.88	8.85	1.24	2.52
55V-314	1.68	2.20	1.26	1.90	2.49	2.02	2.83	5.62	5.02	2.97	5.77	5.51	1.05	2.88
55V-322	0.42	0.94	1.60	1.37	0.35	1.06	3.29	1.70	1.94	3.68	2.02	0.32	0.34	4.71
55V-323	0.89	1.08	1.24	1.74	0.19	1.26	2.14	4.40	0.42	2.66	2.78	0.71	0.72	2.29
56N-401	2.83	1.69	3.49	2.68	2.94	2.67	1.50	3.18	2.81	5.29	4.47	5.50	7.15	3.43
56N-402	0.00	0.00	1.00	0.09	0.18	1.09	0.00	0.00	0.00	0.04	0.79	0.53	1.23	0.00
56N-414	4.15	1.87	3.24	2.10	2.89	4.82	4.01	5.42	7.31	2.44	4.02	17.09	16.86	11.30
57C-417	0.03	1.03	0.04	1.07	1.06	0.07	3.02	0.05	1.42	0.05	4.28	4.63	0.23	26.06
57C-422	3.10	2.14	2.96	2.65	3.56	1.72	2.33	17.73	4.76	4.44	5.99	6.30	3.76	5.66
57C-426	4.23	2.63	4.07	2.69	4.23	1.58	7.12	11.58	7.18	7.90	12.88	29.60	5.19	50.49
57S-401	2.41	4.36	4.19	2.40	6.58	8.37	5.02	6.72	8.42	10.25	9.73	24.72	29.76	14.14
57S-402	3.79	4.85	3.66	2.71	5.54	2.91	4.21	11.80	10.22	8.05	14.45	19.02	13.90	22.71
57W-401	3.93	2.86	5.58	2.62	4.87	10.42	7.26	18.67	11.01	10.40	3.34	19.64	13.41	13.78
57W-402	0.19	4.05	5.84	2.29	2.06	8.23	5.31	0.63	18.78	8.87	3.23	6.03	6.49	4.57
58C-403	6.67	7.21	2.11	5.10	4.17	0.28	2.98	9.03	28.40	6.96	48.89	6.08	1.01	6.94
58C-405	2.95	9.16	3.75	7.18	1.79	2.14	2.46	7.49	32.60	8.53	20.13	4.20	5.57	3.36
58H-421	0.10	1.02	1.04	4.04	3.03	5.03	3.07	0.43	2.04	0.95	6.81	8.56	12.88	2.61
58H-431	1.20	2.02	0.06	4.87	4.47	3.28	2.10	1.98	3.25	0.16	9.07	10.92	2.59	1.74
59C-401	0.10	4.42	4.06	4.02	4.94	1.37	0.48	0.25	17.91	14.69	14.48	12.41	0.66	0.91
59C-402	2.10	8.37	5.04	6.35	2.59	2.03	2.35	6.16	29.81	12.14	29.07	10.72	9.06	8.69
59C-403	1.00	7.40	2.30	1.29	0.07	0.02	1.32	5.51	20.16	2.26	5.24	0.43	0.14	3.61
62H-301	0.00	0.00	0.00	0.00	1.97	2.00	0.00	0.00	0.00	0.00	0.00	2.26	8.63	0.00
62H-302	2.05	0.01	0.15	1.06	2.76	2.24	1.92	2.28	0.00	1.06	1.13	2.08	5.82	3.72
62H-303	0.00	1.00	1.02	0.00	0.00	4.04	0.09	0.00	0.25	3.03	0.00	0.00	5.09	0.27
62H-304	0.08	0.10	0.11	1.00	0.21	4.02	0.74	0.14	0.64	0.30	1.26	0.30	5.03	2.25
62N-411	3.13	2.14	2.93	2.07	4.03	1.22	1.05	3.54	3.88	2.23	1.08	2.68	0.64	0.33
62N-412	1.17	1.82	2.02	3.78	4.08	1.01	0.10	0.52	3.24	1.50	3.77	3.87	2.45	0.06
62N-413	2.51	3.19	4.11	6.19	5.44	4.77	4.69	3.19	6.52	5.33	7.88	12.92	5.52	5.81
62N-414	0.22	3.07	2.33	4.88	4.43	2.17	1.08	0.47	5.21	2.21	3.16	6.54	2.53	1.35
62N-415	1.57	1.40	3.30	4.29	5.36	3.79	0.09	4.71	3.87	3.22	2.56	9.52	8.88	0.26
62N-416	1.83	1.67	3.38	3.36	5.13	1.23	1.74	1.51	3.88	3.13	2.61	4.98	1.36	3.14
63V-311	2.24	1.06	1.69	2.21	0.44	1.16	1.08	2.17	2.30	3.14	3.22	1.19	1.06	4.21
63V-312	0.12	1.75	1.09	1.89	0.63	1.45	1.65	0.40	2.33	6.07	3.67	0.86	4.14	5.23
63V-313	2.32	1.14	0.20	2.44	1.20	2.30	4.76	6.50	3.80	1.50	5.78	4.30	2.46	7.65
64V-301	2.93	0.25	1.31	2.19	1.18	1.80	1.80	5.44	0.61	2.95	5.15	4.03	2.63	2.38
64V-302	1.00	0.00	1.52	1.15	0.00	0.00	0.00	1.44	0.06	2.17	1.65	0.01	0.01	0.00
64V-303	0.00	0.00		1.20	1.00	2.00	1.08	0.00	0.00		1.62	3.37	3.82	6.23
65V-301	3.98	4.28	6.44	3.33	5.01	2.30	1.02	7.56	4.45	11.62	6.66	6.61	7.59	4.84
65V-302	2.46	5.51	0.64	0.53	0.76	0.13	0.38	7.49	9.39	3.47	2.11	1.97	0.41	1.27
65V-303	0.40	5.72	1.09	2.07	0.07	1.09	1.51	0.60	15.76	0.92	10.08	0.21	1.35	3.18
67C-411	4.31	8.89	2.72	7.50	2.06	1.70	1.30	15.02	34.14	14.90	39.97	5.41	5.89	2.19
67C-412	0.90	7.41	2.45	1.43	3.95	1.50	1.87	12.65	22.63	5.95	6.51	13.81	5.03	7.25
6N-301	1.19	1.10	1.03	0.23	2.19	3.23	3.01	1.39	3.48	0.35	0.39	1.43	20.97	4.75

EXCLUSIONS
MED/EXT
Planned

	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
Avg + 2 St. Dev	5.44	6.16	4.88	5.90	5.47	5.81	5.03	20.47	20.51	13.22	17.81	17.81	16.98	19.00
St. Dev	1.84	1.97	1.52	1.92	1.76	1.91	1.58	8.03	7.37	4.67	6.47	7.32	6.09	6.70
Average	1.76	2.22	1.85	2.06	1.95	1.99	1.87	4.41	5.77	3.88	4.87	5.19	4.80	5.59

Source Feeder	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
6N-302	0.09	1.01	0.17	0.43	1.05	7.29	3.02	0.21	3.08	0.56	0.52	0.20	30.85	5.69
6S-221	0.14	1.22	0.12	0.00	0.15			0.27	3.92	0.11	0.01	0.85		
6S-223	1.03	0.00						1.66	0.00					
6S-224	0.06	0.00	1.00	0.00				0.08	0.01	2.94	0.00			
6S-225	0.07	2.16	0.01	1.09	0.07			0.17	2.18	0.04	3.50	1.66		
6W-201	0.25	4.25	2.25	2.00	1.00	2.00	0.00	0.18	30.18	1.06	0.54	0.07	0.96	0.00
70V-311	3.08	2.62	2.90	1.46	2.10	0.34	4.25	6.35	4.40	7.72	2.42	4.32	0.91	9.23
70V-312	3.12	3.95	2.40	2.33	4.65	2.66	3.11	6.56	7.77	5.03	5.87	9.24	7.95	7.67
70W-203	0.00	1.00	2.00	4.11	0.11	1.06	1.17	0.01	2.30	0.55	0.58	0.33	0.20	0.32
70W-204	0.00	1.17	2.00	4.00	0.01	1.00	1.00	0.00	2.49	0.57	0.17	0.03	0.04	0.08
70W-311	1.15	1.53	2.81	5.87	2.88	6.68	2.08	3.69	4.79	2.83	7.75	4.88	12.21	1.61
70W-312	0.14	1.03	2.17	5.06	2.14	1.04	2.01	0.15	2.35	1.58	1.31	1.81	0.14	1.57
70W-313	1.23	4.21	3.22	6.76	1.37	4.24	2.95	1.33	12.46	2.26	6.65	3.21	7.76	3.42
70W-314	0.15	1.86	2.73	4.00	1.09	1.00	1.00	0.09	2.56	1.14	0.18	4.69	0.05	0.12
70W-321	0.10	2.15	2.10	5.14	1.05	3.34	1.72	0.28	3.73	0.76	1.17	1.35	4.44	1.64
70W-322	0.03	1.07	2.01	4.03	1.03	1.02	3.07	0.04	2.45	0.57	0.51	1.57	0.10	6.56
73W-411	2.14	4.76	3.02	3.75	2.65	5.91	3.25	3.80	9.74	3.57	14.63	21.34	15.60	7.87
73W-412	0.06	2.02	2.01	2.02	0.02	1.01	2.02	0.18	2.67	0.68	10.34	0.07	4.58	1.73
74N-411	1.12	1.21	0.34	0.39	2.18	2.50	2.39	2.26	3.58	0.79	0.39	1.51	10.03	10.66
74N-412	1.86	2.78	3.70	1.50	2.30	5.10	4.80	6.18	9.81	8.05	2.66	14.91	7.68	29.92
74V-301	2.00	1.74	1.03	0.01	2.64	1.01	1.00	3.28	7.85	0.13	0.02	3.04	3.62	10.29
74V-302	1.11	2.00	1.00	0.13	2.00	1.00	1.00	1.01	6.55	0.05	0.17	1.94	3.59	10.42
74W-301	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75N-251	0.00	0.00						0.00	0.00					
76V-301	3.94	3.11	7.80	3.94	3.52	11.33	6.29	12.64	10.77	18.86	8.61	14.11	24.82	16.90
76W-201	7.00	0.00	0.00	0.00	2.00	4.00	2.00	14.45	0.00	0.00	0.00	5.30	12.75	12.86
77V-301	2.64	2.05	0.00	1.01	1.78	0.11	0.00	3.47	2.83	0.01	0.63	3.00	0.28	0.01
77V-302	2.25	4.65	2.36	1.32	2.98	0.19	3.45	4.65	9.84	13.53	2.74	15.63	0.62	3.91
77V-303	0.31	2.26	1.60	0.37	1.96	0.03	0.58	0.40	3.32	4.63	1.58	2.73	0.05	1.11
77V-401	4.28	4.99	6.06	4.59	3.69	3.44	5.42	9.88	9.42	14.72	23.00	4.71	8.17	15.99
78W-301	8.28	1.58	1.26	1.29	5.04	3.67	2.94	23.85	6.32	4.25	4.41	10.50	17.77	22.16
78W-302	7.76	1.65	0.35	1.06	3.07	3.80	3.58	17.90	3.81	0.88	1.58	5.68	17.64	21.96
79V-401	2.04	4.86	2.47	2.12	1.33	1.35	0.56	4.50	5.72	3.45	6.37	3.49	4.87	2.79
79V-402	1.49	1.07	2.06	2.46	2.68	1.46	0.82	0.61	0.17	1.29	1.90	4.19	4.12	2.62
79V-403	2.25	5.66	1.32	1.07	2.11	1.48	1.31	2.39	5.49	1.37	0.62	4.06	4.57	1.93
7N-211	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7N-301	4.84	3.60	0.34	0.16	1.17	2.65	3.05	8.11	14.03	0.36	0.32	2.13	6.43	9.71
7N-302	4.32	1.16	2.07	1.12	0.56	0.27	3.03	5.89	3.46	3.87	0.32	4.52	0.52	4.97
7W-202				0.00	0.00	0.00	0.67				0.00	0.00	0.00	2.19
80W-301	7.39	0.32	0.61	1.94	4.38	4.26	2.46	15.54	1.05	1.76	3.44	17.80	17.23	20.70
80W-302	7.00	0.00	0.00	0.00	3.00	4.00	3.50	14.50	0.00	0.00	0.00	5.22	12.33	17.72
80W-303	7.00	0.00						14.50	0.00					
81N-411	3.50	1.10	1.05	4.29	2.43	1.92	1.67	6.76	2.58	1.64	4.08	13.15	6.14	10.29
81N-412	2.64	3.48	1.24	2.07	2.77	1.31	3.95	18.42	3.85	2.12	7.02	13.89	3.70	11.71
81S-301	2.16	1.22	0.15	2.16	1.32	6.19	3.33	4.73	0.77	0.43	4.28	4.71	4.57	16.24
81S-302	2.22	1.35	1.42	0.31	2.90	9.52	4.15	3.95	3.40	3.32	0.97	13.34	11.75	11.83
81S-303	2.04	3.52	2.31	1.10	1.04	8.35	3.05	8.71	4.22	6.71	1.92	1.87	21.31	14.92
81S-304	1.03	2.08	1.05	0.18	1.19	5.22	3.11	3.10	2.21	2.23	0.27	1.37	12.64	10.44
81S-305	2.12	1.10	3.07	0.32	0.63	7.18	4.15	4.02	1.53	2.76	0.79	2.32	22.93	21.59
81S-306	3.75	0.16	4.35	1.29	1.78	6.38	3.21	9.29	0.39	7.14	7.89	4.91	10.66	10.60

EXCLUSIONS
MED/EXT
Planned

	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
Avg + 2 St. Dev	5.44	6.16	4.88	5.90	5.47	5.81	5.03	20.47	20.51	13.22	17.81	17.81	16.98	19.00
St. Dev	1.84	1.97	1.52	1.92	1.76	1.91	1.58	8.03	7.37	4.67	6.47	7.32	6.09	6.70
Average	1.76	2.22	1.85	2.06	1.95	1.99	1.87	4.41	5.77	3.88	4.87	5.19	4.80	5.59

Source Feeder	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
81S-307	2.10	0.22	0.25	1.20	1.20	6.11	2.08	3.32	0.47	0.79	3.24	17.58	7.83	9.43
81W-Dist	0.00	0.27	0.68	2.09	2.72	0.17	0.24	0.00	0.58	1.18	8.01	7.70	1.14	0.62
82S-302	0.01	1.00	3.71	1.97	1.05	2.02	0.13	0.04	1.57	6.58	2.33	0.67	6.61	0.19
82S-303	0.19	1.08	2.03	0.44	2.16	5.07	0.06	0.52	1.89	2.35	0.90	7.13	11.93	0.23
82S-304	1.38	1.80	2.40	1.10	0.54	1.47	1.07	1.75	3.22	3.27	0.99	3.46	1.11	8.53
82V-401	1.66	0.47	4.93	1.80	0.73	5.15	2.72	5.01	4.26	6.41	5.38	1.52	13.73	5.27
82V-402	1.21	2.34	3.96	6.11	3.45	7.81	0.96	2.28	8.92	4.54	10.19	8.10	8.47	3.91
82V-403	0.05	4.27	2.04	3.13	0.05	2.60	0.38	0.19	4.25	5.20	6.75	0.11	4.50	0.86
82V-422	0.99	0.13	0.13	3.69	0.94	4.14	0.06	0.10	1.54	0.24	4.54	2.27	2.71	0.27
82V-423	2.77	2.46	1.89	5.45	0.66	5.12	1.43	5.14	2.64	1.93	4.24	1.29	7.23	4.96
82W-Dist	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83V-301	1.85	1.02	1.25	4.75	0.86	1.32	2.41	5.70	2.86	8.03	7.78	3.34	2.36	9.22
83V-302	0.44	0.09	0.04	2.40	0.06	0.00	0.05	0.35	0.09	0.08	1.78	0.09	0.02	0.19
83V-303	4.79	0.49	1.24	2.83	0.30	2.22	1.86	16.93	1.57	1.45	5.31	0.96	3.91	3.86
84S-302	1.09	4.46	1.03	1.02	6.04	0.04	3.03	0.52	16.35	0.49	2.18	22.35	0.38	5.66
84S-303			0.00	2.09	3.77	0.08	2.00			0.00	12.45	87.54	0.75	4.75
84S-304	0.40	1.00	1.44	0.90				0.65	4.40	2.61	3.54			
84S-305	1.03	2.45	3.36	0.44	2.14	2.03	1.11	1.74	6.96	11.32	1.63	5.33	3.13	3.37
84W-301	1.14	4.21	2.06	1.40	2.36	2.66	0.63	1.63	8.37	2.41	0.79	1.95	13.72	1.91
84W-302	0.14	1.22	0.19	2.20	0.17	1.93	1.08	0.47	40.59	0.78	4.38	0.66	11.99	1.52
85S-401	17.45	7.64	4.85	3.79	7.98	7.50	3.90	67.68	38.34	14.30	16.87	13.83	22.54	18.28
85S-402	4.43	2.03	1.18	1.78	1.04	1.41	1.54	15.66	1.52	3.19	4.92	4.06	2.53	3.15
85S-405*	9.00							107.03						
87H-311	0.38	1.45	1.84	0.25	1.12	2.40	4.02	0.84	3.45	1.62	1.86	15.57	7.29	16.54
87H-312	2.11	0.31	2.21	0.55	2.67	1.15	1.25	8.16	0.96	1.32	0.84	21.31	1.27	5.39
87H-313	1.19	2.73	4.47	2.30	2.23	2.63	2.26	2.85	8.02	5.66	4.97	21.28	10.19	9.23
87W-311	2.43	4.56	2.58	1.93	2.86	1.51	3.04	6.24	21.08	3.48	2.27	7.90	5.10	5.73
87W-312	1.39	5.14	2.63	4.11	3.09	3.81	1.29	3.43	27.74	7.56	8.70	4.83	8.00	2.75
88H-401	2.39	5.76	2.61	1.66	5.43	3.51	3.46	9.36	21.31	17.24	9.23	16.36	9.93	12.92
88H-402	5.74	9.60	2.69	1.72	4.15	1.71	2.99	22.83	21.82	17.49	9.81	15.33	5.06	10.61
88W-311	0.14	2.09	1.06	1.04	0.72	1.08	0.21	0.18	2.86	1.07	0.30	0.73	0.54	0.80
88W-312	0.18	3.83	3.38	1.22	3.19	3.08	0.14	0.35	6.70	3.65	1.81	3.87	2.97	0.69
88W-313	3.22	2.05	1.00	0.15	1.01	0.03	2.06	3.95	2.76	0.93	0.51	1.32	0.07	4.04
88W-314	1.05	3.66	1.46	2.25	0.44	1.05	1.59	2.85	8.40	1.89	1.99	0.75	5.99	3.15
88W-321	0.00	0.00						0.00	0.00					
88W-322	0.57	1.15	1.01	4.01	0.13	0.01	2.49	0.83	1.79	0.32	2.25	0.10	0.03	5.06
88W-323	1.47	2.44	1.21	6.19	3.27	0.06	4.12	9.23	15.08	0.70	8.04	5.49	0.17	12.76
89H-401	1.39	3.31	3.10	1.68	2.14			4.49	14.06	11.77	7.09	2.64		
89W-301	1.09	3.00	2.02	0.82	1.02	0.00	2.99	1.23	2.78	0.58	1.07	4.54	0.00	3.88
89W-302	1.09	4.82	3.55	1.08	1.09	0.22	3.90	1.29	5.53	1.90	1.81	4.62	1.39	10.93
89W-303	2.47	2.77	4.60	0.69	1.15	1.24	2.56	6.91	6.06	9.06	1.05	5.07	3.72	7.82
89W-304	1.02	2.05	3.11	1.10	1.63	0.97	1.33	1.12	2.83	2.67	1.22	7.74	2.75	2.63
91W-411	0.27	6.39	4.82	4.70	5.15	8.87	8.63	1.24	25.75	10.67	4.95	20.22	16.54	31.81
92H-331	1.23	3.32	3.37	3.05	2.01	2.14	2.20	1.67	7.11	2.27	2.49	6.38	1.12	6.23
92H-332	1.05	4.42	0.45	1.81	3.07	4.39	1.09	2.36	8.46	0.55	0.83	2.80	14.41	1.34
92H-333/L-3202	0.00	1.54	0.15	2.00	0.00	0.00	0.00	0.00	3.31	0.42	5.94	0.00	0.00	0.00
92H-334	0.05	2.33	1.09	1.20	0.21	1.56	0.75	0.09	5.91	1.56	0.48	0.72	9.17	1.99
92W-302	0.33	6.50	2.09	0.76	2.13	1.56	6.76	0.69	7.52	4.67	1.32	3.59	1.57	17.86
93V-311	2.12	3.21	4.24	2.24	4.25	3.26	1.48	12.38	14.76	8.16	2.59	10.58	6.89	3.25
93V-312	2.16	2.11	4.13	1.03	1.11	7.11	2.06	12.29	11.96	7.92	0.98	8.69	13.29	3.91

EXCLUSIONS
MED/EXT
Planned

	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
Avg + 2 St. Dev	5.44	6.16	4.88	5.90	5.47	5.81	5.03	20.47	20.51	13.22	17.81	17.81	16.98	19.00
St. Dev	1.84	1.97	1.52	1.92	1.76	1.91	1.58	8.03	7.37	4.67	6.47	7.32	6.09	6.70
Average	1.76	2.22	1.85	2.06	1.95	1.99	1.87	4.41	5.77	3.88	4.87	5.19	4.80	5.59

Source Feeder	2018 CKAIFI	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2018 CKAIDI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI
93V-313	3.65	5.54	7.45	0.16	2.49	4.27	2.14	12.51	19.05	15.87	1.01	9.27	10.36	6.40
93V-314	2.12	1.17	3.00	0.13	2.61	3.04	1.09	11.89	10.33	7.25	0.54	8.75	6.62	0.61
95H-251	3.43	2.80	3.54	2.17	5.68	2.95	1.16	11.11	30.52	12.84	17.68	9.31	14.40	14.71
96H-411	4.06	6.60	4.07	4.25	5.57	3.85	3.84	12.67	13.46	17.36	12.78	14.42	15.76	16.70
96H-412	3.24	7.58	5.47	1.26	4.58	3.71	5.24	7.87	46.76	29.26	3.43	19.47	11.40	16.80
99H-311	0.01	1.02	2.16	2.05	0.07	3.94	2.02	0.02	3.98	5.83	3.41	0.26	4.22	3.65
99H-312	3.12	1.80	2.00	3.01	1.21	1.88	4.36	4.01	5.49	5.45	2.73	4.05	3.81	7.63
99V-311	0.26	0.01	2.12	2.16	1.15	2.01	0.30	0.41	0.01	1.31	5.02	0.33	3.22	0.64
99V-312	4.16	0.12	3.13	5.18	3.24	3.22	1.96	13.23	0.13	1.74	6.06	4.67	3.97	2.67
99V-313	1.27	0.05	1.03	1.05	1.17	1.00	0.00	2.19	0.06	0.12	0.64	0.45	1.91	0.00
99V-314	4.07	2.42	2.32	2.01	2.65	1.57	1.52	13.83	4.25	1.83	8.92	5.75	3.68	4.22
9C-301	2.00	2.75	0.00	1.80	1.97	1.00	0.00	3.03	13.64	0.00	7.35	4.84	1.50	0.00
9C-302	0.00	2.00	1.00	1.00	1.00	0.00	0.00	0.00	10.17	0.15	5.84	2.36	0.00	0.00
9C-303	1.88	9.00	0.12	1.11	2.91	1.05	0.07	43.90	34.68	0.81	6.10	6.51	2.02	0.22
9C-304	0.06	1.97	0.04	1.04	1.03	2.01	3.10	0.09	9.96	0.04	6.92	2.42	10.05	10.75
L-4048	2.00	0.00	0.00	1.00	0.00	0.00	1.00	4.93	0.00	0.00	5.03	0.00	0.00	1.02
L-4049	1.07	1.98	1.01	0.01	1.13	1.07	0.37	2.67	2.67	2.86	0.03	0.84	4.01	0.68

APPENDIX J

Feeder Investment Maps

91W-411 INVESTMENT MAP

The following map shows the feeder extents of 91W-411, a 25-kV circuit feeding 1,265 customers out of the Middlefield substation. This map overlays the locations of each outage event experienced by these customers in 2024 with the locations of recent reliability investment projects.

Single customer events are summarized in the legend to simplify the map. “Service Point Events” refers to the total number of single-customer outages.

The map can be interpreted as follows:

- Outages are identified by circles. The size of the circle corresponds to the number of customers impacted by that event by protection device.

- Each outage has a “call out” box which depicts the total customer hours (duration) of the device. The “customer hours” is calculated by multiplying the number of customers impacted by an event with the total hours (duration) of the outage.

- Reliability projects are displayed as hatched rectangles and vegetation management projects are depicted by hatched rectangles.

91W-411 : 2025

0 0.5 1 2 3 4
Kilometers

N

Customer Hours of Interruption

#

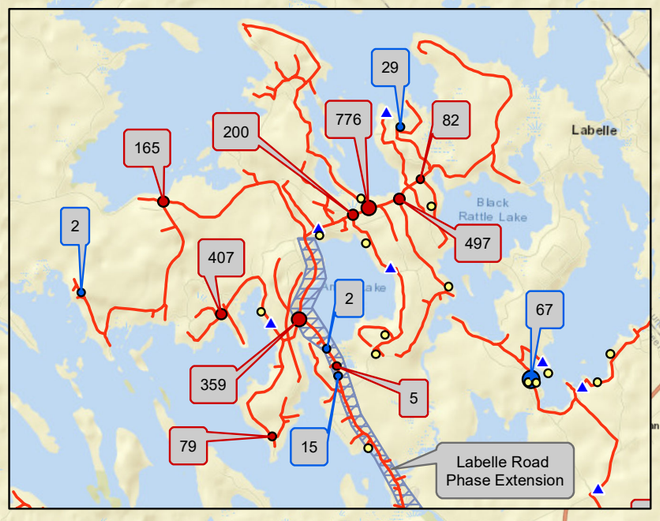
Service Point Events: 23

Average of CHI per Single Cusomer: 7.2

LabelleRoad Phase Extension

Wellington Phase Extension

562
16
448
1585
310
11
24
20
21183
3294
91W Substation
132
32
2



Areas of Interest

Areas of Interests

- Labelle Road Phase Extension
- Wellington Phase Extension

- Crossarm Replacement
- Install TripSaver
- Pole Replacements

Service Points

Customer Impact

- 1

Fuses

Customer Impact

- 1 - 17
- 18 - 41
- 42 - 110
- 111 - 339

91W-411 Device Replacement

- Crossarm Replacement
- Install TripSaver
- Pole Replacements

Transformers

Customer Impact

- 1
- 2 - 9

Vegetation Management

- 2021, 2022, 2023
- 2024

Dynamic Devices

Customer Impact

- 912

- 91W-411 Feeder
- 91W Substation

This drawing provides reference to Nova Scotia Power Inc. equipment,for the purpose of performing services on our behalf. At any given timethe configuration of the actual power system may vary from this representation.No drawing should be relied on for personal safety.

Work Depot:
LIV
91W-411_2025-02-20.MXD

Last revised by: Katie Chute
Date revised: March 26, 2025

Nova Scotia POWER An Emera Company

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
1/2/2024	77V-302	10:09	10:52	42.24	20.416	29	Reliability
1/3/2024	12V-304	09:18	12:09	170.94	14.245	5	Reliability
1/3/2024	22C-404	09:56	15:40	343.68	28.64	5	Reliability
1/3/2024	7N-301	10:39	14:27	227.76	26.572	7	Capital
1/3/2024	73W-411	14:45	15:07	22.68	1.134	3	Capital
1/3/2024	50N-412	19:31	21:35	123.66	2.061	1	Reliability
1/4/2024	24C-442	09:33	15:53	380.04	6.334	1	Tree Trimming
1/4/2024	93V-312	10:11	15:00	288.24	43.236	9	Reliability
1/4/2024	57S-402	10:33	13:32	178.5	23.8	8	Capital
1/4/2024	131H-422	16:59	17:12	13.08	403.736	1852	Reliability
1/5/2024	82V-402	09:39	10:56	76.74	5.116	4	Capital
1/5/2024	50W-411	12:43	13:56	72.42	10.863	9	Reliability
1/5/2024	99H-311	13:13	13:58	44.76	2.238	3	Capital
1/6/2024	1H-405	08:09	08:27	18.3	1.83	6	Reliability
1/8/2024	83V-303	08:04	13:38	333.96	495.374	89	Capital
1/8/2024	70W-313	09:40	11:05	85.02	9.919	7	Reliability
1/8/2024	59C-402	10:16	16:42	386.16	19.308	3	Capital
1/8/2024	81S-303	11:06	14:20	193.86	38.772	12	Reliability
1/8/2024	70W-313	11:46	16:51	305.22	20.348	4	Reliability
1/8/2024	57S-402	13:45	14:43	58.38	3.892	4	Capital
1/8/2024	100C-422	18:24	21:00	155.16	15.516	6	Capital
1/9/2024	70W-313	08:03	13:06	303.78	45.567	9	Reliability
1/9/2024	50W-412	10:12	10:25	12.48	60.944	293	Capital
1/9/2024	113H-444	10:40	15:35	295.2	88.56	18	Reliability
1/9/2024	3N-412	10:43	12:17	93.54	9.354	6	Reliability
1/9/2024	50W-412	11:32	11:40	7.68	21.76	170	Reliability
1/9/2024	57S-402	12:10	15:12	182.04	21.238	7	Reliability
1/9/2024	50W-412	12:59	13:07	8.58	6.006	42	Reliability
1/9/2024	23H-304	13:06	14:31	84.84	12.726	9	Reliability
1/9/2024	50W-412	14:42	14:46	4.02	16.348	244	Reliability
1/9/2024	37W-203	20:00	20:07	7.02	54.756	468	Planned Transmission
1/9/2024	36W-304	20:00	20:07	7.02	138.996	1188	Planned Transmission
1/10/2024	30N-411	14:05	14:32	27.48	83.814	183	Switching
1/10/2024	73W-412	17:42	20:25	163.02	8.151	3	Reliability
1/10/2024	1H-454	19:12	19:52	39.36	15.088	23	Switching
1/11/2024	87H-313	09:06	09:39	33.12	4.968	9	Reliability
1/15/2024	67C-411	09:00	11:58	177.6	112.48	38	Reliability
1/15/2024	131H-422	09:29	11:07	97.68	9.768	6	Reliability
1/15/2024	4S-324	11:16	15:19	242.7	60.07	16	Reliability
1/15/2024	4C-441	12:33	16:17	223.44	40.964	11	Reliability
1/15/2024	57S-402	13:34	14:36	62.88	11.528	11	Capital
1/15/2024	96H-411	15:34	18:37	182.82	12.188	4	Reliability
1/16/2024	57S-402	00:00	00:04	4.26	296.141	4171	Planned Transmission
1/16/2024	2C-402	08:56	13:05	249.06	145.285	35	Capital
1/16/2024	20H-306	10:15	11:21	65.58	26.232	24	Capital
1/16/2024	37N-413	12:15	14:40	145.2	193.6	80	Reliability
1/16/2024	4S-324	13:17	15:02	104.64	47.088	27	Reliability
1/16/2024	88W-312	22:22	23:09	46.56	225.04	290	Switching
1/17/2024	2C-402	08:34	11:47	193.02	12.868	4	Reliability
1/17/2024	70W-313	09:16	11:04	108.54	5.427	3	Reliability
1/17/2024	2H-424	10:04	10:28	23.64	3.94	10	Reliability
1/17/2024	50W-412	11:24	12:56	91.98	191.625	125	Capital
1/17/2024	2C-402	12:19	15:47	207.66	10.383	3	Capital
1/17/2024	15S-301	13:15	15:18	122.76	16.368	8	Reliability
1/17/2024	16W-301	13:42	14:24	42.18	0.703	1	Reliability
1/18/2024	101H-422	11:34	16:04	269.94	71.984	16	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
1/18/2024	131H-422	14:28	14:42	13.98	432.215	1855	Switching
1/19/2024	48H-303	13:16	14:01	44.46	65.208	88	Switching
1/20/2024	50N-411	11:01	12:11	70.68	18.848	16	Capital
1/21/2024	85S-401	19:57	20:06	8.52	316.092	2226	Switching
1/22/2024	2C-402	08:31	13:56	325.08	54.18	10	Reliability
1/22/2024	101H-422	09:10	15:15	365.22	194.784	32	Reliability
1/22/2024	57C-426	09:13	11:12	119.52	153.384	77	Reliability
1/22/2024	22N-401	10:49	13:31	162.36	21.648	8	Capital
1/22/2024	58C-405	13:14	14:27	73.62	38.037	31	Reliability
1/23/2024	73W-411	07:51	09:10	79.08	6.59	5	Reliability
1/23/2024	73W-411	09:08	10:09	60.06	1.001	1	Reliability
1/23/2024	87W-312	10:31	11:28	56.82	5.682	6	Reliability
1/23/2024	81S-303	10:33	11:40	67.32	24.684	22	Reliability
1/23/2024	101H-422	10:55	13:47	172.08	8.604	3	Capital
1/23/2024	2C-402	11:22	14:42	200.16	3.336	1	Reliability
1/23/2024	2C-402	11:24	14:42	197.58	6.586	2	Reliability
1/24/2024	73W-411	07:54	08:59	64.38	8.584	8	Reliability
1/24/2024	73W-411	09:01	10:56	114.96	3.832	2	Reliability
1/24/2024	81W-Dist	10:09	12:18	128.82	62.263	29	Reliability
1/24/2024	104H-431	10:27	12:25	118.44	59.22	30	Reliability
1/24/2024	73W-411	11:31	12:34	63.48	5.29	5	Capital
1/24/2024	1N-421	12:13	12:56	42.66	2.844	4	Reliability
1/24/2024	113H-434	12:34	14:39	124.44	342.21	165	Tree Trimming
1/24/2024	73W-411	12:34	13:43	68.7	8.015	7	Reliability
1/24/2024	99H-311	12:40	15:03	143.34	9.556	4	Reliability
1/24/2024	4N-312	13:27	14:34	67.44	24.728	22	Reliability
1/25/2024	62N-413	09:25	09:49	23.52	3.92	10	Reliability
1/25/2024	126H-312	09:40	09:52	12.18	0.609	3	Capital
1/25/2024	131H-422	09:52	10:15	22.98	0.766	2	Reliability
1/26/2024	58C-403	10:01	12:44	163.32	43.552	16	Reliability
1/26/2024	102W-312	10:09	11:53	104.16	208.32	120	Reliability
1/26/2024	23H-304	12:42	13:24	42.54	5.672	8	Reliability
1/26/2024	20N-203	12:48	14:27	99.72	21.606	13	Reliability
1/27/2024	101H-422	13:15	13:57	42.24	22.528	32	Reliability
1/29/2024	139H-412	14:32	14:49	17.46	24.444	84	Switching
1/30/2024	88W-314	09:53	11:46	113.22	15.096	8	Reliability
1/30/2024	73W-411	11:32	12:35	62.64	5.22	5	Reliability
1/30/2024	101H-422	13:15	15:11	116.4	3.88	2	Reliability
1/30/2024	100C-421	13:45	15:15	89.88	5.992	4	Reliability
1/31/2024	101H-422	09:01	10:49	108	76.77	44	Capital
1/31/2024	131H-423	11:20	11:52	32.64	2.72	5	Capital
2/1/2024	16V-315	09:34	12:46	192.9	35.365	11	Reliability
2/1/2024	16V-315	09:36	12:47	191.52	19.152	6	Reliability
2/1/2024	81W-Dist	10:00	11:14	74.04	20.978	17	Capital
2/1/2024	2C-402	10:03	12:14	130.86	8.724	4	Reliability
2/1/2024	127H-411	11:01	12:14	72.72	6.06	5	Reliability
2/1/2024	4N-313	13:12	13:50	37.86	2.524	4	Reliability
2/1/2024	101H-422	13:50	14:37	46.5	12.4	16	Capital
2/2/2024	88W-314	09:06	10:51	104.94	13.992	8	Capital
2/2/2024	113H-433	09:25	15:26	361.38	24.092	4	Reliability
2/2/2024	131H-422	10:25	10:43	17.22	2.009	7	Reliability
2/2/2024	54H-304	10:59	12:09	69.54	3.477	3	Reliability
2/3/2024	82V-401	13:53	16:15	141.72	21.258	9	Switching
2/3/2024	104H-422	14:07	17:03	175.56	11.704	4	Reliability
2/6/2024	L-4049	10:36	12:41	124.56	145.32	70	Capital
2/6/2024	96H-411	11:35	12:06	30.6	4.59	9	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
2/7/2024	22W-312	08:47	09:34	46.56	10.088	13	Reliability
2/7/2024	73W-411	08:50	10:41	111.12	7.408	4	Capital
2/7/2024	81S-306	09:39	11:30	110.16	31.212	17	Switching
2/7/2024	22W-312	10:27	10:48	21.54	4.667	13	Capital
2/7/2024	54H-301	11:15	15:17	241.98	108.891	27	Reliability
2/7/2024	82V-423	11:45	14:47	181.26	3.021	1	Capital
2/7/2024	22W-312	12:17	12:56	38.94	11.033	17	Capital
2/7/2024	22W-312	13:54	14:20	25.38	2.538	6	Capital
2/7/2024	11S-301	18:01	18:48	47.1	0.785	1	Reliability
2/8/2024	131H-422	08:59	11:59	180.24	441.588	147	Capital
2/8/2024	22W-312	09:30	10:48	78.42	9.149	7	Capital
2/8/2024	99V-314	10:47	11:56	69	32.2	28	Capital
2/8/2024	22W-312	12:29	12:55	25.86	5.603	13	Capital
2/9/2024	88W-314	04:59	05:19	19.98	1484.514	4458	Planned Transmission
2/9/2024	16W-302	04:59	05:25	25.92	1464.912	3391	Planned Transmission
2/9/2024	81W-Dist	10:57	12:57	120.42	58.203	29	Reliability
2/9/2024	57S-402	13:11	14:26	75	2.5	2	Reliability
2/9/2024	70W-313	13:53	14:54	60.78	6.078	6	Reliability
2/9/2024	126H-313	21:38	22:05	27.24	821.286	1809	Switching
2/11/2024	1H-419	08:05	08:31	26.4	0.44	1	Reliability
2/12/2024	126H-313	10:01	11:04	63	5.25	5	Reliability
2/12/2024	113H-432	10:16	10:59	43.08	4.308	6	Capital
2/12/2024	101H-413	10:25	14:13	228.06	64.617	17	Reliability
2/13/2024	67C-412	08:17	13:14	297.18	14.859	3	Reliability
2/13/2024	46W-301	08:21	11:25	184.08	15.34	5	Capital
2/13/2024	100C-421	08:48	10:19	90.72	7.56	5	Reliability
2/13/2024	2C-402	08:54	14:07	313.08	182.63	35	Reliability
2/13/2024	96H-411	08:58	11:52	174.24	1347.456	464	Reliability
2/13/2024	77V-401	09:56	11:43	106.86	103.298	58	Capital
2/13/2024	56N-414	10:20	11:10	49.68	2.484	3	Capital
2/13/2024	55V-323	13:22	15:15	113.22	18.87	10	Reliability
2/13/2024	37W-203	19:00	19:05	5.28	41.184	468	Planned Transmission
2/13/2024	36W-304	19:00	19:05	5.28	104.72	1190	Planned Transmission
2/14/2024	65V-303	12:50	14:47	117	13.65	7	Reliability
2/14/2024	62N-416	13:47	14:58	70.86	11.81	10	Reliability
2/14/2024	3S-307	15:21	15:56	35.1	3.51	6	Switching
2/15/2024	73W-411	07:54	09:01	67.32	3.366	3	Reliability
2/15/2024	73W-411	09:55	10:55	59.64	4.97	5	Reliability
2/15/2024	73W-411	10:55	11:36	40.98	4.781	7	Reliability
2/15/2024	88W-312	10:58	11:41	43.38	10.122	14	Reliability
2/15/2024	81W-Dist	11:40	14:39	178.74	113.202	38	Capital
2/15/2024	62N-412	13:05	14:35	89.82	8.982	6	Capital
2/16/2024	22N-401	09:40	11:17	97.32	48.66	30	Reliability
2/16/2024	22N-401	09:41	11:17	95.7	27.115	17	Reliability
2/16/2024	126H-312	09:47	14:41	293.7	19.58	4	Tree Trimming
2/16/2024	50N-411	17:29	18:20	50.7	0.845	1	Reliability
2/17/2024	50N-412	07:58	11:33	215.58	43.116	12	Reliability
2/17/2024	50N-411	15:40	16:15	34.38	4.011	7	Reliability
2/18/2024	50N-411	09:35	10:00	24.54	2.454	6	Reliability
2/18/2024	59C-402	10:34	11:38	64.02	98.164	92	Switching
2/18/2024	79V-401	13:52	14:04	11.7	47.775	245	Capital
2/18/2024	50N-411	14:08	14:20	11.94	1.592	8	Switching
2/18/2024	50N-411	14:31	15:05	34.02	1.701	3	Reliability
2/19/2024	103H-432	09:10	09:48	38.28	28.072	44	Capital
2/19/2024	103H-432	09:11	09:49	38.1	16.51	26	Capital
2/19/2024	3S-403	10:15	15:18	302.58	54.62	11	Capital

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
2/19/2024	56N-401	11:39	13:19	100.02	10.002	6	Reliability
2/20/2024	1H-403	08:32	12:54	262.26	48.081	11	Capital
2/20/2024	73W-411	09:12	10:27	75.3	6.275	5	Reliability
2/20/2024	16W-301	10:04	12:39	155.46	15.546	6	Reliability
2/20/2024	67C-412	10:43	13:18	154.68	18.046	7	Reliability
2/20/2024	111S-312	15:23	16:57	94.56	12.608	8	Reliability
2/21/2024	73W-411	08:44	09:50	65.46	4.364	4	Reliability
2/21/2024	16W-301	09:05	13:33	268.86	4.481	1	Capital
2/21/2024	103H-434	10:03	10:33	29.1	4.85	10	Reliability
2/21/2024	20H-304	10:16	13:32	195.96	803.436	246	Reliability
2/21/2024	50W-411	10:17	10:44	27.42	2.285	5	Reliability
2/21/2024	36V-301	10:19	11:52	92.58	91.037	59	Reliability
2/21/2024	40H-302	10:32	12:34	121.92	10.16	5	Reliability
2/21/2024	50W-412	10:59	12:35	96.54	16.09	10	Capital
2/21/2024	73W-411	11:39	13:22	103.14	5.157	3	Capital
2/21/2024	50W-412	12:49	12:53	4.38	0.292	4	Reliability
2/21/2024	50W-412	13:16	15:22	126.84	2.114	1	Capital
2/22/2024	22N-404	05:10	05:12	1.74	216.746	7474	Planned Transmission
2/22/2024	78W-301	07:44	08:37	53.46	3.564	4	Reliability
2/22/2024	78W-301	08:38	10:08	89.34	5.956	4	Reliability
2/22/2024	36V-303	09:48	10:38	50.28	3.352	4	Reliability
2/22/2024	4C-441	09:57	11:51	113.82	163.142	86	Reliability
2/22/2024	20N-203	10:14	11:39	85.92	42.96	30	Capital
2/22/2024	92W-302	10:56	11:39	42.54	259.494	366	Reliability
2/23/2024	12V-303	06:00	06:03	2.82	163.466	3478	Planned Transmission
2/23/2024	70V-312	06:00	06:03	2.82	133.668	2844	Planned Transmission
2/23/2024	74V-302	06:01	06:03	1.8	2.7	90	Planned Transmission
2/23/2024	36V-303	10:28	11:20	52.86	104.839	119	Capital
2/23/2024	54H-304	10:44	12:20	96.24	9.624	6	Reliability
2/23/2024	22C-404	10:55	14:05	190.14	38.028	12	Reliability
2/24/2024	99V-313	22:56	04:07	311.46	10.382	2	Reliability
2/25/2024	16V-315	09:43	12:33	170.22	73.762	26	Reliability
2/26/2024	74V-302	06:00	06:13	13.02	19.53	90	Planned Transmission
2/26/2024	65V-301	06:00	06:13	12.48	902.512	4339	Planned Transmission
2/26/2024	12V-303	06:00	06:13	13.02	754.726	3478	Planned Transmission
2/26/2024	70V-312	06:00	06:13	13.02	617.148	2844	Planned Transmission
2/26/2024	73W-411	09:09	10:18	68.22	5.685	5	Reliability
2/26/2024	81S-303	11:11	13:38	146.82	2.447	1	Reliability
2/26/2024	59C-402	11:24	17:09	345.18	34.518	6	Capital
2/26/2024	81N-412	14:49	16:14	85.62	8.562	6	Capital
2/27/2024	70W-313	08:32	09:19	46.92	0.782	1	Reliability
2/27/2024	63V-313	08:38	16:12	454.14	68.121	9	Capital
2/27/2024	4C-441	08:58	13:52	294.42	19.628	4	Reliability
2/27/2024	59C-402	10:17	13:40	202.2	3.37	1	Capital
2/27/2024	4N-312	12:19	13:04	44.76	26.856	36	Reliability
2/27/2024	23H-301	12:25	13:29	64.02	1.067	1	Reliability
2/28/2024	81S-305	10:54	15:28	274.62	9.154	2	Capital
2/28/2024	7N-301	10:56	11:44	47.82	23.113	29	Reliability
2/28/2024	73W-411	12:09	13:12	63.06	4.204	4	Reliability
2/28/2024	7N-301	12:12	12:40	27.3	9.1	20	Reliability
2/28/2024	65V-301	17:59	18:19	19.98	1444.221	4337	Planned Transmission
2/29/2024	4N-312	02:39	06:44	244.8	44.88	11	Switching
2/29/2024	15S-303	17:26	17:45	18.96	4.424	14	Switching
3/1/2024	131H-423	09:37	12:02	145.68	7.284	3	Reliability
3/1/2024	20H-303	11:58	12:09	10.92	267.358	1469	Capital
3/1/2024	15S-303	14:30	14:44	14.22	5.925	25	Switching

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
3/2/2024	70V-311	12:23	13:36	73.08	367.836	302	Capital
3/3/2024	1H-427	08:49	08:59	10.56	0.176	1	Capital
3/3/2024	81N-412	09:03	15:42	398.22	6.637	1	Capital
3/4/2024	63V-311	09:24	11:57	153.6	38.4	15	Capital
3/4/2024	74N-411	10:00	13:41	220.86	312.885	85	Reliability
3/4/2024	89W-303	10:22	11:34	71.34	4.756	4	Reliability
3/4/2024	40H-302	10:40	11:51	70.92	17.73	15	Reliability
3/4/2024	1C-411	11:00	11:46	45.72	4.572	6	Reliability
3/4/2024	89W-303	11:34	12:23	48.72	4.06	5	Switching
3/4/2024	50N-410	12:56	13:30	33.48	2.232	4	Reliability
3/4/2024	89W-303	13:00	13:51	50.34	2.517	3	Reliability
3/4/2024	11S-301	14:18	14:42	23.64	8.274	21	Reliability
3/5/2024	88W-314	07:44	11:59	254.94	33.992	8	Reliability
3/5/2024	70W-312	07:47	08:45	58.68	5.868	6	Reliability
3/5/2024	4C-430	09:09	14:08	298.5	14.925	3	Reliability
3/5/2024	70W-311	09:18	10:38	79.8	13.3	10	Reliability
3/5/2024	88W-314	12:00	15:50	229.92	42.152	11	Reliability
3/5/2024	50N-415	13:30	14:39	69	1.15	1	Reliability
3/5/2024	59C-402	14:35	19:00	265.08	8.836	2	Capital
3/5/2024	11S-304	15:59	17:17	78.12	11.718	9	Reliability
3/6/2024	22N-404	05:00	05:02	1.74	216.978	7482	Planned Transmission
3/6/2024	88W-314	07:41	12:18	276.6	36.88	8	Reliability
3/6/2024	4C-441	08:26	11:08	161.94	178.134	66	Reliability
3/6/2024	100C-421	08:26	11:13	167.46	44.656	16	Capital
3/6/2024	83V-303	09:13	13:04	231.42	11.571	3	Capital
3/6/2024	99H-312	10:45	10:48	3.3	51.095	929	Switching
3/6/2024	48H-301	17:15	17:43	28.08	7.956	17	Switching
3/6/2024	74V-302	22:00	22:03	3.48	5.278	91	Planned Transmission
3/6/2024	12V-303	22:00	22:03	3.48	201.782	3479	Planned Transmission
3/6/2024	70V-312	22:00	22:03	3.48	165.184	2848	Planned Transmission
3/6/2024	65V-301	23:00	02:15	195.18	14137.538	4346	Planned Transmission
3/8/2024	1N-403	11:08	15:16	248.28	57.932	14	Capital
3/8/2024	22V-321	11:29	13:43	134.58	67.29	30	Capital
3/8/2024	70V-312	12:13	14:01	108.12	133.348	74	Capital
3/8/2024	4C-424	12:33	12:55	22.2	4.07	11	Reliability
3/9/2024	3S-303	12:21	12:47	26.34	768.689	1751	Switching
3/11/2024	50N-415	09:31	11:05	93.78	7.815	5	Reliability
3/12/2024	89W-303	08:50	09:54	63.6	2.12	2	Reliability
3/12/2024	4C-430	08:52	15:48	416.64	131.936	19	Capital
3/12/2024	1H-454	09:23	10:43	79.62	341.039	257	Capital
3/12/2024	89W-303	09:57	11:16	79.38	2.646	2	Reliability
3/12/2024	48H-302	10:21	11:25	63.18	4.212	4	Capital
3/12/2024	4N-312	10:52	12:05	73.14	2.438	2	Reliability
3/12/2024	50N-412	11:06	12:21	74.82	12.47	10	Capital
3/12/2024	50N-412	11:08	12:21	72.84	9.712	8	Capital
3/12/2024	4C-424	11:12	13:42	149.94	7.497	3	Capital
3/12/2024	89W-303	11:34	12:25	51.54	4.295	5	Reliability
3/12/2024	67C-412	12:36	13:48	72.24	3.612	3	Reliability
3/12/2024	4C-430	13:02	14:15	72.9	6.075	5	Reliability
3/12/2024	85S-401	15:08	17:31	143.04	2462.672	1033	Switching
3/13/2024	50N-412	09:40	10:06	26.16	9.592	22	Reliability
3/13/2024	89W-302	10:30	11:21	51.54	3.436	4	Reliability
3/13/2024	89W-302	11:22	12:10	48	2.4	3	Reliability
3/14/2024	80W-301	08:13	09:15	62.34	2.078	2	Reliability
3/14/2024	67C-412	08:48	13:27	278.82	4.647	1	Reliability
3/14/2024	80W-301	09:17	11:11	113.52	15.136	8	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
3/14/2024	73W-411	10:19	12:15	116.4	3.88	2	Reliability
3/14/2024	3N-412	10:45	11:56	70.44	18.784	16	Reliability
3/14/2024	93V-313	11:07	13:00	112.98	11.298	6	Reliability
3/14/2024	4S-321	12:15	15:38	203.22	40.644	12	Reliability
3/15/2024	18V-413	09:51	14:34	282.36	131.768	28	Capital
3/15/2024	23W-301	11:11	12:08	57.12	2.856	3	Switching
3/15/2024	113H-444	14:23	15:10	46.92	534.888	684	Switching
3/18/2024	88W-314	07:46	15:23	456.42	22.821	3	Capital
3/18/2024	88W-314	07:49	15:22	453.66	60.488	8	Capital
3/18/2024	54H-302	09:49	12:12	143.64	16.758	7	Reliability
3/18/2024	57W-401	09:54	10:50	55.8	1.86	2	Capital
3/18/2024	57W-401	11:09	12:43	94.38	3.146	2	Reliability
3/18/2024	40H-305	13:10	15:43	152.04	32.942	13	Reliability
3/19/2024	57W-401	08:26	09:38	71.94	3.597	3	Reliability
3/19/2024	67C-412	09:30	10:40	70.2	3.51	3	Reliability
3/19/2024	50N-410	09:53	10:48	54.78	10.043	11	Capital
3/19/2024	57W-401	09:58	11:34	96.78	1.613	1	Reliability
3/19/2024	104S-313	10:07	11:12	65.58	9.837	9	Tree Trimming
3/19/2024	104S-313	10:08	11:13	65.16	1.086	1	Tree Trimming
3/19/2024	57W-401	13:41	17:04	202.98	10.149	3	Reliability
3/20/2024	57W-401	08:37	09:30	53.16	4.43	5	Reliability
3/20/2024	50W-412	09:33	14:34	301.62	5.027	1	Reliability
3/20/2024	57W-401	09:46	10:44	58.5	5.85	6	Reliability
3/20/2024	57W-401	11:35	13:49	134.76	4.492	2	Reliability
3/21/2024	87H-312	17:54	19:17	82.74	23.443	17	Reliability
3/22/2024	88W-323	10:45	12:01	75.36	8.792	7	Tree Trimming
3/22/2024	55V-314	12:17	14:19	121.8	28.42	14	Capital
3/22/2024	4N-313	13:01	13:56	54.12	51.414	57	Reliability
3/22/2024	73W-411	13:02	13:25	22.56	3.384	9	Tree Trimming
3/24/2024	79V-402	19:52	20:40	47.76	7.164	9	Switching
3/25/2024	59C-402	08:59	11:07	128.04	38.412	18	Capital
3/25/2024	30N-412	10:37	12:06	89.28	19.344	13	Reliability
3/25/2024	3S-308	12:01	13:21	79.8	17.29	13	Reliability
3/25/2024	81N-411	12:47	12:52	5.58	134.013	1441	Switching
3/25/2024	81N-411	14:28	15:27	58.14	37.791	39	Switching
3/25/2024	81N-411	14:30	15:27	57.12	9.52	10	Switching
3/26/2024	88W-314	07:50	10:47	177.3	44.325	15	Reliability
3/26/2024	13V-303	09:01	11:02	120.6	227.13	113	Reliability
3/26/2024	67C-412	09:49	13:02	193.2	25.76	8	Reliability
3/26/2024	20H-302	11:38	12:11	32.46	10.82	20	Reliability
3/26/2024	70W-321	12:13	14:59	166.44	30.514	11	Reliability
3/26/2024	78W-301	13:00	16:06	186.12	155.1	50	Capital
3/26/2024	78W-301	13:00	15:20	139.98	268.295	115	Capital
3/26/2024	78W-301	13:00	15:42	161.94	161.94	60	Capital
3/26/2024	104H-411	14:19	14:48	28.8	15.84	33	Capital
3/27/2024	88W-314	07:39	09:59	139.8	16.31	7	Capital
3/27/2024	80W-301	09:11	10:23	72.36	7.236	6	Reliability
3/27/2024	78W-301	09:17	11:27	130.02	487.575	225	Reliability
3/27/2024	57S-401	09:35	11:11	95.94	11.193	7	Capital
3/27/2024	16V-315	09:55	11:32	96.54	6.436	4	Reliability
3/27/2024	131H-423	10:09	11:48	99	80.85	49	Reliability
3/27/2024	11S-305	10:27	14:35	248.34	86.919	21	Capital
3/27/2024	67C-412	10:33	14:13	220.02	11.001	3	Reliability
3/27/2024	57C-422	11:07	15:56	288.78	19.252	4	Reliability
3/27/2024	4N-313	11:15	12:35	79.32	5.288	4	Reliability
3/27/2024	80W-301	11:39	12:33	54.66	3.644	4	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
3/27/2024	87W-312	11:51	13:06	74.28	2.476	2	Reliability
3/27/2024	4N-313	13:28	14:20	52.02	10.404	12	Reliability
3/28/2024	78W-301	08:59	11:23	144	540	225	Capital
3/28/2024	50W-412	09:44	11:05	81.12	21.632	16	Reliability
3/28/2024	50W-412	11:06	13:28	141.66	21.249	9	Reliability
3/28/2024	62N-411	14:13	16:36	142.98	14.298	6	Reliability
3/28/2024	3S-403	14:44	15:33	49.38	0.823	1	Capital
3/30/2024	58H-431	13:48	14:16	27.84	4.64	10	Reliability
4/1/2024	20H-306	09:17	12:46	209.04	254.332	73	Capital
4/2/2024	1H-403	05:18	06:31	73.74	61.45	50	Capital
4/2/2024	88W-314	08:07	11:23	195.96	26.128	8	Capital
4/2/2024	67C-412	09:18	17:01	463.5	7.725	1	Reliability
4/2/2024	57C-422	09:29	13:35	245.94	32.792	8	Reliability
4/2/2024	57W-401	10:55	11:56	60.84	7.098	7	Reliability
4/2/2024	11S-301	11:53	14:01	128.7	12.87	6	Reliability
4/2/2024	79V-401	12:58	13:42	44.52	181.048	244	Reliability
4/2/2024	78W-301	13:39	15:40	121.08	8.072	4	Capital
4/2/2024	101H-411	17:45	18:43	57.96	13.524	14	Reliability
4/3/2024	50W-411	07:39	08:40	61.38	2.046	2	Reliability
4/3/2024	50W-411	09:02	10:11	69.06	13.812	12	Reliability
4/3/2024	67C-412	09:10	11:59	169.32	53.618	19	Reliability
4/3/2024	16W-301	09:39	12:02	142.32	512.352	216	Capital
4/3/2024	50W-412	12:00	17:30	329.76	32.976	6	Reliability
4/3/2024	113H-442	16:34	18:36	121.14	32.304	16	Reliability
4/3/2024	20H-301	16:35	17:10	34.5	0.575	1	Reliability
4/4/2024	50W-412	07:48	08:56	67.92	3.396	3	Reliability
4/4/2024	22W-311	08:41	10:00	79.62	19.905	15	Reliability
4/4/2024	50W-412	08:57	10:09	71.94	4.796	4	Reliability
4/4/2024	89W-303	10:31	12:17	105.54	19.349	11	Capital
4/4/2024	15N-401	11:30	14:48	198.36	72.732	22	Reliability
4/4/2024	56N-414	12:13	13:35	82.08	5.472	4	Reliability
4/4/2024	22C-401	12:34	14:50	136.08	2.268	1	Reliability
4/7/2024	24C-443	08:45	12:04	198.12	525.018	159	Reliability
4/7/2024	15N-403	09:00	13:54	294.06	7317.193	1493	Capital
4/7/2024	1H-431	12:00	12:49	48.6	0.81	1	Reliability
4/8/2024	89W-303	13:40	15:14	93.12	6.208	4	Reliability
4/9/2024	73W-411	08:14	10:42	147.06	1500.012	612	Tree Trimming
4/9/2024	73W-411	08:15	10:42	147.6	1151.28	468	Tree Trimming
4/9/2024	67C-412	08:36	10:27	111.36	16.704	9	Tree Trimming
4/9/2024	67C-412	10:28	11:42	73.62	2.454	2	Tree Trimming
4/9/2024	82S-303	11:05	11:41	36.36	9.09	15	Reliability
4/9/2024	67C-412	11:42	13:44	121.86	8.124	4	Tree Trimming
4/9/2024	67C-412	11:42	13:44	121.86	79.209	39	Tree Trimming
4/9/2024	99H-311	13:08	15:08	120.12	422.422	211	Reliability
4/9/2024	67C-412	13:59	16:37	157.44	2.624	1	Tree Trimming
4/9/2024	11S-411	14:30	15:22	52.2	2.61	3	Capital
4/9/2024	50W-412	15:45	16:37	52.86	1.762	2	Reliability
4/10/2024	81S-302	04:59	05:40	40.8	1131.52	1664	Reliability
4/10/2024	70W-313	08:37	10:55	138.06	18.408	8	Reliability
4/10/2024	137H-412	09:00	11:13	132.66	740.685	335	Reliability
4/10/2024	104H-421	09:41	16:09	387.24	697.032	108	Capital
4/10/2024	67C-412	12:00	15:22	201.96	3.366	1	Capital
4/11/2024	37W-203	05:30	05:34	4.02	31.356	468	Planned Transmission
4/11/2024	36W-304	05:30	05:34	4.02	79.931	1193	Planned Transmission
4/11/2024	93V-311	09:04	12:55	230.16	115.08	30	Reliability
4/11/2024	57W-401	09:30	10:38	67.14	8.952	8	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
4/11/2024	55V-323	09:57	11:26	88.8	216.08	146	Capital
4/11/2024	50W-412	11:57	12:52	54.54	5.454	6	Reliability
4/11/2024	50W-412	13:42	14:41	58.98	2.949	3	Reliability
4/11/2024	81S-305	14:17	15:31	74.76	13.706	11	Reliability
4/11/2024	63V-313	19:13	19:40	27.12	33.9	75	Switching
4/12/2024	57S-401	21:52	23:46	114.24	99.008	52	Switching
4/14/2024	37W-203	05:31	05:45	14.22	110.916	468	Capital
4/14/2024	36W-304	05:31	05:45	14.22	282.741	1193	Capital
4/14/2024	20H-301	19:42	20:53	71.64	4.776	4	Reliability
4/15/2024	85S-402	08:24	10:22	117.96	72.742	37	Capital
4/15/2024	67C-412	08:54	13:41	287.1	224.895	47	Reliability
4/15/2024	126H-311	09:59	11:41	102.24	5.112	3	Reliability
4/15/2024	113H-433	10:18	11:29	71.22	18.992	16	Capital
4/15/2024	103W-311	12:08	13:46	98.22	1.637	1	Reliability
4/15/2024	82V-402	12:18	13:46	87.96	13.194	9	Reliability
4/15/2024	70W-313	12:34	15:11	157.62	491.249	187	Reliability
4/15/2024	4N-312	15:35	17:01	86.22	273.03	190	Reliability
4/16/2024	77V-401	11:31	13:28	116.58	367.227	189	Reliability
4/16/2024	57S-401	12:23	15:48	204.84	23.898	7	Capital
4/16/2024	76V-301	12:25	12:56	30.48	2.54	5	Capital
4/17/2024	57S-401	08:55	11:31	155.94	7.797	3	Capital
4/17/2024	67C-412	08:57	10:53	116.1	30.96	16	Reliability
4/17/2024	104H-421	10:08	13:03	174.6	14.55	5	Reliability
4/17/2024	85S-402	10:28	13:27	179.82	14.985	5	Capital
4/17/2024	16N-301	10:42	11:46	63.54	7.413	7	Reliability
4/17/2024	87H-313	10:44	17:51	426.54	78.199	11	Capital
4/17/2024	55N-202	10:54	11:07	12.96	1.08	5	Reliability
4/17/2024	55N-202	11:06	11:50	43.44	5.792	8	Reliability
4/17/2024	77V-401	11:30	13:34	123.66	389.529	189	Reliability
4/17/2024	50N-410	12:02	14:41	159.78	2.663	1	Reliability
4/17/2024	57S-401	12:19	16:50	271.14	13.557	3	Capital
4/17/2024	103H-432	23:01	01:22	141.66	8700.285	3685	Reliability
4/18/2024	127H-411	08:55	10:16	81.06	9.457	7	Reliability
4/18/2024	11S-411	09:12	12:42	209.34	589.641	169	Capital
4/18/2024	25W-301	11:05	11:29	23.88	1.592	4	Reliability
4/18/2024	77V-401	12:31	15:00	148.86	468.909	189	Capital
4/18/2024	102W-311	12:56	14:01	65.52	8.736	8	Reliability
4/18/2024	103H-434	13:43	14:20	36.84	4.912	8	Reliability
4/19/2024	73W-411	04:01	05:28	87.06	9081.809	6259	Planned Transmission
4/19/2024	73W-412	04:01	05:29	87.18	247.01	170	Planned Transmission
4/19/2024	70W-204	04:18	04:39	20.76	2832.01	8185	Planned Transmission
4/19/2024	77V-401	13:29	15:27	118.14	372.141	189	Reliability
4/19/2024	87W-312	16:30	16:45	14.28	2.618	11	Reliability
4/20/2024	101H-413	11:08	13:12	124.26	20.71	10	Reliability
4/22/2024	62N-414	08:14	16:52	518.16	8.636	1	Reliability
4/22/2024	4N-312	10:49	14:52	242.52	92.966	23	Reliability
4/22/2024	11S-411	10:56	13:27	150.96	7.548	3	Reliability
4/22/2024	104S-313	11:12	11:32	20.16	0.336	1	Capital
4/22/2024	131H-422	11:20	12:19	58.26	3.884	4	Reliability
4/22/2024	87H-313	12:35	13:48	73.44	6.12	5	Reliability
4/22/2024	25W-302	14:00	14:23	23.64	0.394	1	Reliability
4/22/2024	77V-302	14:07	14:19	11.82	0.788	4	Capital
4/22/2024	25W-302	14:39	14:51	12	0.8	4	Reliability
4/22/2024	126H-311	21:35	22:00	25.02	262.71	630	Switching
4/22/2024	126H-311	21:35	03:07	332.22	5343.205	965	Switching
4/23/2024	73W-411	07:59	08:00	1.14	0.095	5	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
4/23/2024	85S-402	08:00	14:51	410.82	75.317	11	Capital
4/23/2024	104S-313	08:56	10:43	106.98	1.783	1	Reliability
4/23/2024	48H-303	09:19	10:46	86.34	40.292	28	Reliability
4/23/2024	50N-410	10:07	11:52	105.12	35.04	20	Reliability
4/23/2024	46W-301	12:05	12:08	3.54	0.354	6	Reliability
4/23/2024	82V-423	12:40	13:51	70.92	7.092	6	Reliability
4/23/2024	25W-301	12:55	13:38	43.38	103.389	143	Capital
4/23/2024	11S-411	13:36	15:40	123.66	8.244	4	Reliability
4/23/2024	93V-311	16:06	16:22	15.12	292.32	1160	Reliability
4/24/2024	73W-411	08:05	09:25	79.74	3.987	3	Reliability
4/24/2024	85S-402	08:22	13:58	336.06	22.404	4	Reliability
4/24/2024	11S-411	08:40	12:40	239.64	91.862	23	Reliability
4/24/2024	76V-301	09:02	14:18	315.78	152.627	29	Capital
4/24/2024	101H-421	09:47	12:00	132.18	17.624	8	Reliability
4/24/2024	22N-402	10:05	11:10	65.64	5.47	5	Reliability
4/25/2024	85S-402	08:15	11:10	175.5	17.55	6	Capital
4/25/2024	76V-301	09:25	13:05	220.02	18.335	5	Capital
4/25/2024	102W-312	12:30	13:30	59.64	4.97	5	Reliability
4/25/2024	78W-301	14:19	15:28	69.48	177.174	153	Reliability
4/25/2024	62N-416	18:19	19:25	66.06	3.303	3	Reliability
4/26/2024	126H-312	10:40	10:50	9.24	14.322	93	Reliability
4/26/2024	30N-412	10:56	11:51	54.66	7.288	8	Reliability
4/26/2024	87W-311	11:18	11:38	20.34	2.034	6	Reliability
4/26/2024	126H-312	11:38	11:43	5.202	3.0345	35	Reliability
4/26/2024	30N-412	12:00	12:34	33.18	3.318	6	Reliability
4/26/2024	126H-312	13:28	14:25	57.06	104.61	110	Reliability
4/27/2024	11N-200	06:58	07:04	6.12	0.102	1	Planned Transmission
4/27/2024	16N-302	07:00	07:02	2.28	112.48	2960	Planned Transmission
4/27/2024	104S-313	08:35	15:48	433.14	4584.065	635	Capital
4/27/2024	104S-313	13:31	15:43	132.06	2.201	1	Capital
4/28/2024	22C-401	04:01	06:06	124.74	8827.434	4246	Planned Transmission
4/28/2024	95H-251	08:00	10:05	125.64	173.802	83	Planned Transmission
4/28/2024	101H-411	08:59	11:44	165.12	35.776	13	Reliability
4/28/2024	101H-411	09:00	11:44	164.28	41.07	15	Reliability
4/29/2024	82V-402	09:56	10:55	58.62	0.977	1	Reliability
4/29/2024	56N-414	11:02	15:40	278.04	129.752	28	Reliability
4/29/2024	62N-416	11:44	12:27	43.62	5.089	7	Reliability
4/29/2024	88H-401	18:15	19:02	47.7	5.565	7	Reliability
4/30/2024	104S-313	08:28	13:10	282.42	136.503	29	Capital
4/30/2024	83V-303	10:01	15:20	318.96	26.58	5	Reliability
4/30/2024	137H-414	11:03	15:31	268.2	26.82	6	Reliability
5/1/2024	104S-313	07:54	13:28	333.78	77.882	14	Capital
5/1/2024	104S-313	08:27	11:40	193.08	22.526	7	Reliability
5/1/2024	137H-414	09:35	10:30	54.84	11.882	13	Reliability
5/1/2024	129H-412	09:44	10:10	26.04	3.906	9	Reliability
5/1/2024	80W-301	10:01	14:39	278.1	449.595	97	Reliability
5/1/2024	12V-302	10:31	11:05	33.6	160.16	286	Reliability
5/1/2024	85S-402	12:33	15:41	188.16	21.952	7	Capital
5/1/2024	81S-305	13:30	14:21	51.36	19.688	23	Reliability
5/1/2024	81S-305	13:31	14:21	50.52	12.63	15	Reliability
5/1/2024	77V-401	14:21	15:31	69.48	2.316	2	Capital
5/1/2024	23W-302	16:44	16:51	7.14	3.57	30	Switching
5/2/2024	103W-311	09:00	11:24	143.88	40.766	17	Capital
5/2/2024	25W-303	09:52	11:53	121.26	26.273	13	Reliability
5/2/2024	48H-302	11:23	11:48	25.02	2.919	7	Reliability
5/2/2024	48H-302	12:44	14:25	101.1	128.06	76	Capital

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
5/2/2024	11S-411	13:05	14:52	107.58	3.586	2	Reliability
5/2/2024	14V-303	13:17	15:57	159.54	31.908	12	Planned Transmission
5/2/2024	91W-411	13:19	15:01	102	8.5	5	Reliability
5/3/2024	77V-301	06:32	09:06	154.26	586.188	228	Switching
5/3/2024	77V-301	06:32	06:49	17.04	251.624	886	Switching
5/3/2024	126H-312	10:36	11:33	57.78	5.778	6	Reliability
5/3/2024	2C-402	10:44	11:27	42.24	24.64	35	Reliability
5/3/2024	50N-410	11:37	13:00	82.32	27.44	20	Tree Trimming
5/3/2024	137H-414	14:24	14:25	1.44	0.024	1	Reliability
5/4/2024	1H-427	01:07	03:43	155.76	2.596	1	Reliability
5/4/2024	131H-422	13:25	15:20	115.02	9.585	5	Reliability
5/6/2024	62N-414	10:34	11:24	50.04	1.668	2	Reliability
5/6/2024	82V-401	11:16	13:15	119.16	17.874	9	Reliability
5/6/2024	57S-402	13:00	14:08	67.62	16.905	15	Switching
5/6/2024	84W-301	13:58	14:15	17.04	0.284	1	Reliability
5/6/2024	3S-303	17:16	18:16	60	28	28	Switching
5/6/2024	16W-302	22:19	15:11	1011.9	67.46	4	Switching
5/7/2024	101H-411	08:59	09:40	41.16	5.488	8	Reliability
5/7/2024	22N-401	09:52	12:15	143.34	47.78	20	Reliability
5/7/2024	58C-405	11:06	11:58	51.9	3.46	4	Reliability
5/7/2024	56N-414	11:09	13:06	116.76	21.406	11	Reliability
5/7/2024	65V-301	12:21	16:29	248.82	24.882	6	Capital
5/7/2024	81S-301	13:27	14:52	85.32	24.174	17	Reliability
5/7/2024	24C-443	17:14	17:15	1.26	30.261	1441	Switching
5/8/2024	73W-411	08:18	15:37	438.66	43.866	6	Reliability
5/8/2024	22C-402	09:20	12:40	200.16	6.672	2	Reliability
5/8/2024	22N-404	17:01	17:03	2.52	315.042	7501	Planned Transmission
5/8/2024	22N-404	19:01	19:03	1.98	247.5	7500	Planned Transmission
5/9/2024	50N-410	11:27	17:31	364.8	115.52	19	Reliability
5/10/2024	126H-313	10:37	12:20	103.74	5.187	3	Reliability
5/10/2024	126H-311	10:50	14:34	224.4	48.62	13	Capital
5/10/2024	82V-402	10:51	15:30	279.36	791.52	170	Reliability
5/10/2024	50N-410	11:11	13:43	152.04	108.962	43	Switching
5/11/2024	103H-433	09:09	09:29	20.58	402.682	1174	Switching
5/11/2024	126H-312	09:57	12:50	172.98	23.064	8	Switching
5/11/2024	103H-431	14:54	14:57	3.12	56.108	1079	Switching
5/12/2024	3S-302	11:53	13:37	103.86	17.31	10	Reliability
5/13/2024	88W-322	05:31	05:40	9.72	296.46	1830	Planned Transmission
5/13/2024	88W-314	05:31	05:40	9.72	722.844	4462	Planned Transmission
5/13/2024	16W-302	05:31	05:40	9.72	551.124	3402	Planned Transmission
5/13/2024	50W-411	05:49	13:03	433.62	4271.157	591	Switching
5/13/2024	50W-411	05:49	13:03	433.62	7935.246	1098	Switching
5/13/2024	91W-411	09:27	15:37	370.56	37.056	6	Capital
5/13/2024	103W-311	09:57	12:25	147.72	46.778	19	Reliability
5/13/2024	23H-304	10:20	16:26	366.24	122.08	20	Capital
5/13/2024	70W-311	10:24	15:50	326.22	59.807	11	Reliability
5/13/2024	1H-454	19:12	19:59	47.52	0.792	1	Capital
5/13/2024	50N-415	19:19	19:54	34.86	4.067	7	Switching
5/14/2024	23H-304	08:01	14:36	395.28	131.76	20	Reliability
5/14/2024	79V-402	09:39	10:01	21.42	4.998	14	Capital
5/14/2024	79V-402	09:41	11:26	104.64	5.232	3	Capital
5/14/2024	57W-401	10:02	10:45	43.38	10.122	14	Reliability
5/14/2024	7N-302	10:20	13:15	175.5	269.1	92	Capital
5/14/2024	56N-414	10:46	11:06	19.38	1.292	4	Reliability
5/14/2024	59C-403	11:44	13:47	122.46	42.861	21	Capital
5/14/2024	56N-414	12:05	13:08	63.66	5.305	5	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
5/14/2024	1H-427	22:09	03:41	331.62	1370.696	248	Capital
5/15/2024	91W-411	08:28	09:05	36.72	3.672	6	Capital
5/15/2024	16V-315	08:42	10:33	111.24	194.67	105	Reliability
5/15/2024	59C-402	08:58	12:43	224.64	797.472	213	Capital
5/15/2024	73W-411	14:16	15:26	69.96	6.996	6	Reliability
5/16/2024	22C-402	09:37	13:30	232.38	3.873	1	Reliability
5/16/2024	104H-413	10:36	15:48	312.12	468.18	90	Capital
5/16/2024	104H-413	10:46	15:48	302.82	222.068	44	Capital
5/16/2024	6N-301	11:33	12:28	55.32	29.504	32	Capital
5/16/2024	4C-430	14:05	14:41	35.58	3.558	6	Reliability
5/17/2024	73W-412	04:01	06:09	128.34	365.769	171	Capital
5/17/2024	73W-411	04:01	06:09	128.46	13409.083	6263	Capital
5/17/2024	22C-404	09:36	10:54	77.82	7.782	6	Reliability
5/17/2024	18V-413	13:17	16:00	163.5	13.625	5	Reliability
5/17/2024	81W-Dist	14:33	15:35	62.1	33.12	32	Reliability
5/18/2024	2H-424	06:32	18:57	744.9	434.525	35	Capital
5/19/2024	129H-413	09:46	10:31	44.82	5.976	8	Capital
5/20/2024	20H-306	08:55	11:04	128.82	156.731	73	Capital
5/21/2024	73W-411	08:02	15:51	468.42	444.999	57	Capital
5/21/2024	22C-402	09:18	12:10	171.24	14.27	5	Capital
5/21/2024	22C-402	14:37	17:24	166.56	8.328	3	Reliability
5/21/2024	87H-311	14:42	16:30	107.7	1.795	1	Reliability
5/21/2024	50N-311	18:44	20:14	89.4	16.39	11	Planned Transmission
5/22/2024	22C-402	07:51	12:36	285.42	4.757	1	Reliability
5/22/2024	73W-411	09:12	10:06	54	51.3	57	Switching
5/22/2024	57C-422	09:43	15:32	348.84	29.07	5	Reliability
5/22/2024	62N-416	10:50	11:45	54.96	5.496	6	Reliability
5/22/2024	24C-443	10:52	11:18	25.26	137.246	326	Switching
5/22/2024	24C-443	10:52	11:25	32.64	0.544	1	Switching
5/22/2024	20H-305	12:03	13:26	83.64	23.698	17	Reliability
5/22/2024	22C-402	14:29	16:29	119.46	3.982	2	Reliability
5/23/2024	57C-422	08:35	14:06	331.62	27.635	5	Reliability
5/23/2024	58C-403	09:01	11:52	171.48	85.74	30	Capital
5/23/2024	6N-301	10:41	11:25	44.1	33.81	46	Reliability
5/23/2024	55V-313	10:59	11:39	39.42	67.671	103	Capital
5/23/2024	58H-421	12:22	15:31	188.52	43.988	14	Capital
5/23/2024	58C-403	12:28	12:31	2.16	0.972	27	Capital
5/23/2024	58C-403	12:30	14:14	103.98	3.466	2	Capital
5/23/2024	37N-411	19:45	21:09	83.76	1183.808	848	Switching
5/23/2024	37N-411	19:45	21:30	105	1.75	1	Switching
5/24/2024	88W-322	05:45	05:58	13.14	91.761	419	Capital
5/24/2024	88W-323	05:45	05:59	13.08	307.598	1411	Capital
5/24/2024	126H-311	10:08	10:25	16.38	0.273	1	Reliability
5/24/2024	59C-401	10:59	11:27	28.32	64.664	137	Switching
5/24/2024	59C-401	10:59	13:59	180.42	1290.003	429	Switching
5/24/2024	64V-302	17:53	18:31	38.1	10.16	16	Switching
5/24/2024	81S-303	18:12	20:38	145.98	5145.795	2115	Switching
5/25/2024	36V-303	18:32	19:06	34.62	401.592	696	Switching
5/26/2024	22C-401	04:00	06:14	134.88	9545.008	4246	Planned Transmission
5/26/2024	6N-301	11:11	11:22	11.64	1.94	10	Capital
5/26/2024	85S-401	14:31	15:08	36.66	41.548	68	Reliability
5/27/2024	58C-403	08:25	14:14	349.26	75.673	13	Capital
5/27/2024	104S-313	08:31	10:08	96.18	14.427	9	Reliability
5/27/2024	67C-412	10:02	13:01	179.1	20.895	7	Reliability
5/27/2024	73W-411	10:16	10:30	14.64	13.908	57	Capital
5/27/2024	56N-414	11:06	12:59	112.44	5.622	3	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
5/27/2024	73W-411	11:53	13:33	100.62	95.589	57	Capital
5/27/2024	48H-301	12:16	16:14	238.92	35.838	9	Reliability
5/27/2024	78W-301	12:17	12:30	13.02	0.868	4	Reliability
5/27/2024	11S-411	12:33	14:52	139.14	6.957	3	Reliability
5/27/2024	104S-313	12:52	15:07	134.88	4.496	2	Reliability
5/27/2024	48H-301	13:14	14:41	86.94	18.837	13	Reliability
5/27/2024	103H-432	20:00	21:10	70.32	1.172	1	Reliability
5/28/2024	103W-311	09:30	10:40	70.02	15.171	13	Reliability
5/28/2024	58C-403	09:43	12:24	161.04	2.684	1	Capital
5/28/2024	30N-412	10:02	10:15	12.06	5.427	27	Reliability
5/28/2024	58C-403	10:06	12:40	153.06	10.204	4	Capital
5/28/2024	50V-401	11:55	12:38	43.2	12.96	18	Reliability
5/28/2024	50N-410	18:40	19:18	38.28	3.828	6	Reliability
5/29/2024	104S-313	08:08	14:42	394.38	26.292	4	Reliability
5/29/2024	65V-301	08:34	16:00	446.22	7.437	1	Capital
5/29/2024	65V-301	08:34	15:36	421.62	2051.884	292	Capital
5/29/2024	70W-313	08:44	10:46	121.68	2.028	1	Reliability
5/29/2024	88H-401	09:07	09:45	37.32	21.148	34	Switching
5/29/2024	50W-412	09:56	14:28	271.38	696.542	154	Tree Trimming
5/29/2024	58C-405	11:00	14:40	220.62	22.062	6	Capital
5/29/2024	67C-411	14:14	16:37	143.34	4.778	2	Switching
5/29/2024	104S-313	14:47	15:54	66.66	2.222	2	Reliability
5/30/2024	73W-411	08:30	15:21	410.82	390.279	57	Reliability
5/30/2024	104S-313	11:33	13:48	134.88	2.248	1	Reliability
5/30/2024	56N-414	11:51	21:59	607.98	10.133	1	Tree Trimming
5/30/2024	11S-305	14:05	14:13	8.22	4.247	31	Reliability
5/30/2024	104H-421	14:54	15:12	17.76	876.752	2962	Switching
5/30/2024	15N-403	18:59	19:06	6.72	167.328	1494	Switching
5/31/2024	113H-442	08:00	15:06	426.24	1790.208	252	Switching
5/31/2024	89W-302	09:47	10:53	66.06	5.505	5	Reliability
6/1/2024	83V-303	05:01	06:19	77.52	133.076	103	Capital
6/1/2024	50V-402	10:47	12:07	80.1	2451.06	1836	Switching
6/2/2024	58C-405	06:02	07:30	88.32	242.88	165	Capital
6/3/2024	1H-454	02:11	04:26	135.54	22.59	10	Reliability
6/3/2024	73W-411	08:20	12:33	253.26	240.597	57	Reliability
6/3/2024	113H-442	09:34	10:10	35.28	15.288	26	Switching
6/3/2024	89W-302	09:34	10:40	66.12	1.102	1	Reliability
6/3/2024	67C-411	09:49	12:26	156.54	5.218	2	Capital
6/3/2024	67C-411	10:56	11:53	57.18	49.556	52	Capital
6/3/2024	104S-313	11:19	13:25	125.76	18.864	9	Reliability
6/3/2024	113H-442	14:02	15:07	64.74	28.054	26	Reliability
6/3/2024	70W-204	14:30	15:21	51.48	7.722	9	Reliability
6/4/2024	82V-402	09:07	15:10	362.16	54.324	9	Reliability
6/4/2024	19W-312	10:26	12:31	125.1	10.425	5	Reliability
6/4/2024	23H-304	12:59	13:58	59.46	40.631	41	Capital
6/4/2024	73W-411	13:22	16:51	209.34	13.956	4	Reliability
6/4/2024	127H-411	21:59	23:51	112.02	4577.884	2452	Switching
6/5/2024	91W-411	08:36	09:40	64.2	5.35	5	Reliability
6/5/2024	58C-403	09:22	13:11	229.44	3.824	1	Capital
6/5/2024	58C-403	09:24	13:10	226.2	3.77	1	Capital
6/5/2024	23H-304	09:24	16:15	411.48	528.066	77	Reliability
6/5/2024	58C-403	09:26	11:30	123.42	18.513	9	Reliability
6/5/2024	58C-405	09:52	13:25	212.94	24.843	7	Capital
6/5/2024	65V-301	10:17	11:57	100.02	6.668	4	Capital
6/5/2024	65V-301	10:19	11:57	98.04	8.17	5	Capital
6/5/2024	65V-301	11:58	14:39	160.62	24.093	9	Capital

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
6/5/2024	104S-313	14:04	17:21	196.92	26.256	8	Reliability
6/6/2024	104S-313	09:27	11:53	146.04	2.434	1	Reliability
6/6/2024	55N-202	09:53	10:53	60.96	4.064	4	Reliability
6/6/2024	50W-411	10:00	11:00	60.06	5.005	5	Capital
6/6/2024	104S-313	10:03	12:10	127.08	91.074	43	Reliability
6/6/2024	87H-313	11:32	15:29	236.4	19.7	5	Reliability
6/6/2024	73W-411	12:06	15:29	203.58	13.572	4	Reliability
6/6/2024	37W-202	15:42	16:14	31.92	127.68	240	Switching
6/7/2024	58H-431	09:14	10:14	60.6	8.08	8	Reliability
6/7/2024	56N-414	09:26	10:20	54.12	0.902	1	Reliability
6/7/2024	15S-303	10:51	12:00	68.64	10.296	9	Reliability
6/8/2024	1H-403	09:30	10:54	83.4	165.41	119	Reliability
6/8/2024	13V-303	09:44	11:35	111.78	14.904	8	Reliability
6/8/2024	81S-303	12:20	13:45	84.3	9.835	7	Reliability
6/9/2024	57S-402	05:00	05:02	1.98	138.138	4186	Planned Transmission
6/9/2024	20W-312	05:00	08:22	201.24	529.932	158	Planned Transmission
6/9/2024	20W-311	05:00	08:22	201.24	1952.028	582	Planned Transmission
6/9/2024	9C-302	06:01	08:26	145.2	745.36	308	Planned Transmission
6/9/2024	22W-312	08:26	10:54	148.02	46.873	19	Reliability
6/9/2024	62H-304	09:37	18:05	507.6	135.36	16	Capital
6/10/2024	58C-405	07:17	13:38	380.64	482.144	76	Capital
6/10/2024	40H-302	09:35	19:19	584.34	9.739	1	Reliability
6/10/2024	50W-412	09:54	13:50	236.04	137.69	35	Reliability
6/10/2024	58C-405	12:08	14:34	145.98	31.629	13	Capital
6/10/2024	104S-313	13:39	15:53	133.14	2.219	1	Reliability
6/11/2024	58C-403	08:35	10:58	143.28	21.492	9	Capital
6/11/2024	104S-313	08:57	12:40	223.56	175.122	47	Reliability
6/12/2024	104S-313	09:01	13:11	250.74	911.022	218	Capital
6/12/2024	77V-401	09:39	12:53	193.92	16.16	5	Reliability
6/12/2024	80W-301	09:50	14:54	304.32	20.288	4	Reliability
6/12/2024	48H-301	11:16	14:01	164.82	13.735	5	Reliability
6/12/2024	56N-414	12:12	15:07	175.08	8.754	3	Reliability
6/13/2024	67C-412	08:52	14:26	334.2	33.42	6	Reliability
6/13/2024	2C-402	09:01	15:16	375.24	62.54	10	Capital
6/13/2024	70V-311	09:09	12:31	202.32	23.604	7	Reliability
6/13/2024	56N-414	10:12	10:26	14.28	0.714	3	Reliability
6/13/2024	58H-421	10:32	15:07	275.04	50.424	11	Reliability
6/13/2024	104H-423	10:39	15:32	292.68	48.78	10	Reliability
6/13/2024	78W-301	10:48	14:07	198.48	16.54	5	Reliability
6/13/2024	15S-303	11:17	12:19	61.62	11.297	11	Reliability
6/13/2024	4N-312	11:53	12:35	41.94	3.495	5	Reliability
6/14/2024	4C-432	09:21	10:18	57.42	218.196	228	Capital
6/14/2024	81S-306	11:52	12:53	61.56	8.208	8	Reliability
6/14/2024	4S-331	12:45	17:20	274.68	4.578	1	Switching
6/14/2024	81S-305	23:13	23:45	31.86	38.232	72	Switching
6/15/2024	1H-419	07:09	07:17	7.92	0.66	5	Capital
6/15/2024	1H-419	07:53	11:06	192.66	16.055	5	Reliability
6/15/2024	25W-302	14:35	15:07	31.56	1013.602	1927	Switching
6/16/2024	101H-413	13:06	14:43	97.26	16.21	10	Capital
6/17/2024	62H-302	07:16	18:16	660.78	704.832	64	Capital
6/17/2024	83V-301	09:42	10:35	53.04	20.332	23	Reliability
6/17/2024	104S-313	13:01	16:21	200.58	10.029	3	Reliability
6/18/2024	58C-403	08:09	15:09	420	140	20	Capital
6/18/2024	67C-411	08:56	11:35	158.64	50.236	19	Capital
6/18/2024	101H-413	08:59	15:48	408.36	381.136	56	Reliability
6/18/2024	9C-303	09:00	12:18	197.94	310.106	94	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
6/18/2024	104S-313	09:04	11:42	157.74	10.516	4	Reliability
6/18/2024	67C-411	10:04	11:53	108.6	19.91	11	Capital
6/18/2024	62N-416	10:13	10:20	6.42	1.712	16	Reliability
6/18/2024	56N-401	10:21	11:34	72.6	8.47	7	Reliability
6/18/2024	11S-303	10:43	16:19	335.58	33.558	6	Reliability
6/18/2024	62N-415	11:45	12:30	44.16	0.736	1	Reliability
6/18/2024	56N-414	11:55	16:41	285.6	28.56	6	Reliability
6/18/2024	22W-312	12:30	12:54	24.06	2.406	6	Reliability
6/18/2024	4C-430	12:52	14:40	107.82	3.594	2	Reliability
6/18/2024	62H-302	15:52	16:23	30.6	1.02	2	Reliability
6/19/2024	50W-412	08:14	09:38	84.24	7.02	5	Reliability
6/19/2024	80W-301	09:11	10:23	71.7	4.78	4	Reliability
6/19/2024	103W-312	09:11	15:57	405.84	33.82	5	Tree Trimming
6/19/2024	48H-301	09:57	14:58	301.62	482.592	96	Reliability
6/19/2024	25W-301	10:32	12:12	99.42	67.937	41	Capital
6/19/2024	48H-301	10:43	13:28	165.36	41.34	15	Capital
6/19/2024	70W-313	15:41	16:32	51.18	1.706	2	Switching
6/19/2024	48W-203	16:57	18:02	64.26	781.83	730	Planned Transmission
6/20/2024	103W-312	07:50	16:05	494.82	41.235	5	Tree Trimming
6/20/2024	67C-411	09:00	11:04	123.66	224.649	109	Capital
6/20/2024	15S-302	10:14	12:26	131.94	8.796	4	Reliability
6/20/2024	84W-301	10:24	11:13	49.38	0.823	1	Reliability
6/20/2024	3S-301	10:28	12:44	135.54	15.813	7	Reliability
6/21/2024	3S-403	10:54	11:38	44.52	3.71	5	Reliability
6/21/2024	74N-411	13:09	14:32	82.56	8.256	6	Reliability
6/21/2024	104H-442	16:16	17:00	43.8	11.68	16	Reliability
6/22/2024	104H-433	08:22	09:22	60.48	557.424	553	Reliability
6/22/2024	104H-433	08:27	08:33	5.94	55.044	556	Reliability
6/22/2024	20W-311	09:17	10:20	63.24	9.486	9	Reliability
6/22/2024	104H-433	09:34	09:42	7.32	130.906	1073	Reliability
6/23/2024	36V-301	00:01	08:52	531.48	35591.444	4018	Planned Transmission
6/23/2024	22V-322	00:01	08:54	533.7	18821.82	2116	Planned Transmission
6/23/2024	57S-402	05:30	05:35	4.44	309.69	4185	Planned Transmission
6/23/2024	2H-413	10:47	12:05	77.46	11.619	9	Reliability
6/23/2024	54H-302	11:18	11:30	12.12	3.838	19	Reliability
6/23/2024	50W-412	14:03	14:17	14.7	1.47	6	Reliability
6/23/2024	88H-401	17:37	18:44	66.72	10.008	9	Reliability
6/23/2024	81S-305	22:39	23:19	40.02	151.409	227	Switching
6/24/2024	58C-403	09:47	11:45	118.2	61.07	31	Reliability
6/24/2024	91W-411	09:54	12:08	133.2	13.32	6	Reliability
6/24/2024	11S-411	12:42	13:28	45.84	4.584	6	Reliability
6/24/2024	58C-403	12:58	16:15	196.62	150.742	46	Reliability
6/24/2024	91W-411	13:03	14:59	115.68	3.856	2	Reliability
6/25/2024	67C-412	08:13	17:35	561.9	93.65	10	Capital
6/25/2024	58C-405	08:18	12:45	267.12	71.232	16	Reliability
6/25/2024	56N-414	08:29	14:19	349.62	134.021	23	Capital
6/25/2024	25W-302	09:58	10:57	59.22	151.011	153	Capital
6/25/2024	87H-311	10:06	12:20	133.44	2.224	1	Reliability
6/25/2024	50W-412	11:24	13:28	123.54	4.118	2	Reliability
6/26/2024	103H-433	00:20	04:20	239.82	47.964	12	Reliability
6/26/2024	103H-433	00:21	04:19	237.84	130.812	33	Reliability
6/26/2024	50N-410	09:07	09:31	24	1.6	4	Reliability
6/26/2024	23W-302	09:48	10:40	52.02	2.601	3	Reliability
6/26/2024	16W-301	10:02	12:40	158.34	390.572	148	Capital
6/26/2024	57S-402	11:23	13:36	132.96	11.08	5	Reliability
6/26/2024	50V-401	15:47	17:40	112.44	1387.88	2105	Switching

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
6/26/2024	22N-401	18:59	19:49	49.38	2214.693	2691	Reliability
6/26/2024	22N-401	19:49	20:55	65.94	18.683	17	Reliability
6/26/2024	137H-412	22:59	01:36	157.2	7337.47	3079	Reliability
6/27/2024	88H-402	12:22	13:21	58.98	3264.543	3321	Planned Transmission
6/27/2024	103W-311	12:37	13:25	48.3	2.415	3	Reliability
6/27/2024	77V-302	14:00	14:31	31.32	39.15	75	Reliability
6/28/2024	101H-411	09:55	12:50	175.08	11.672	4	Reliability
6/28/2024	65V-302	10:17	10:59	41.22	98.241	143	Reliability
6/28/2024	87H-312	12:48	13:32	44.7	1.49	2	Capital
6/28/2024	50N-412	14:33	15:21	47.64	7.94	10	Reliability
6/28/2024	88H-402	16:19	17:23	64.14	11.759	11	Tree Trimming
6/29/2024	104H-411	10:30	12:49	138.84	157.352	68	Reliability
6/30/2024	4C-424	13:18	13:41	23.16	7.72	20	Switching
7/2/2024	70W-321	08:59	13:32	273.54	41.031	9	Reliability
7/2/2024	57S-402	09:03	09:38	34.74	3.474	6	Reliability
7/2/2024	55V-323	09:43	10:44	60.36	33.198	33	Reliability
7/2/2024	55V-323	09:43	11:56	133.08	6.654	3	Capital
7/2/2024	55V-323	09:43	11:57	133.32	13.332	6	Capital
7/2/2024	57S-402	10:51	14:26	215.64	21.564	6	Reliability
7/2/2024	104S-312	12:08	14:53	165.72	11.048	4	Reliability
7/2/2024	4C-430	13:26	17:00	213.36	10.668	3	Reliability
7/3/2024	4C-424	09:33	10:46	72.84	24.28	20	Reliability
7/3/2024	101H-413	09:52	16:20	387.96	6.466	1	Reliability
7/3/2024	104S-312	09:58	15:08	310.5	41.4	8	Reliability
7/3/2024	3S-307	10:08	11:20	72.06	8.407	7	Reliability
7/3/2024	23W-301	10:45	12:49	123.84	2.064	1	Reliability
7/3/2024	2H-424	12:06	13:42	96.18	27.251	17	Reliability
7/3/2024	36W-301	14:12	16:18	125.82	4.194	2	Capital
7/3/2024	12V-302	15:47	15:49	2.16	0.036	1	Reliability
7/4/2024	23H-304	07:59	16:44	525.06	936.357	107	Reliability
7/4/2024	104S-311	08:47	16:04	436.38	14.546	2	Capital
7/4/2024	73W-411	08:59	11:58	178.68	14.89	5	Reliability
7/4/2024	56N-414	09:27	11:45	137.7	2.295	1	Reliability
7/4/2024	25W-301	09:52	12:54	181.26	21.147	7	Reliability
7/4/2024	104S-311	10:14	11:03	49.2	1.64	2	Capital
7/4/2024	103W-311	10:28	14:05	216.96	126.56	35	Reliability
7/4/2024	104S-312	12:32	13:57	85.74	4.287	3	Reliability
7/4/2024	104H-413	13:11	16:02	170.7	42.675	15	Capital
7/4/2024	113H-434	13:54	15:50	116.22	7.748	4	Reliability
7/4/2024	23H-304	19:09	19:52	42.96	7.876	11	Switching
7/5/2024	1C-411	21:04	21:11	7.2	175.44	1462	Switching
7/5/2024	1C-411	21:04	21:28	24.06	3.208	8	Switching
7/6/2024	4S-332	07:30	15:27	1916.64	31.944	1	Capital
7/7/2024	62H-304	13:04	16:03	178.56	800.544	269	Reliability
7/8/2024	104H-413	09:11	14:43	331.56	403.398	73	Capital
7/8/2024	104S-311	09:38	15:30	351.78	17.589	3	Capital
7/8/2024	104S-312	14:29	16:59	149.76	7.488	3	Reliability
7/9/2024	16N-302	10:45	10:47	1.44	20.736	864	Switching
7/9/2024	30N-412	12:31	17:40	309.3	5.155	1	Reliability
7/9/2024	62H-302	13:06	13:25	19.02	2.536	8	Reliability
7/9/2024	3S-403	14:06	15:12	66	2.2	2	Reliability
7/9/2024	3S-403	14:08	15:13	64.62	2.154	2	Reliability
7/9/2024	3S-403	14:09	15:13	64.02	2.134	2	Reliability
7/10/2024	46W-303	08:08	09:28	79.86	1.331	1	Reliability
7/10/2024	104S-311	08:28	09:01	32.82	1.094	2	Reliability
7/10/2024	104S-311	08:29	09:01	31.68	0.528	1	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
7/10/2024	104S-311	08:40	14:44	364.14	24.276	4	Reliability
7/10/2024	58C-405	10:03	14:46	282.36	108.238	23	Capital
7/10/2024	13V-303	10:15	12:24	128.88	158.952	74	Reliability
7/10/2024	85S-401	12:30	12:40	10.5	0.875	5	Switching
7/10/2024	3S-403	12:41	15:10	149.4	32.37	13	Reliability
7/10/2024	48W-204	13:22	15:16	113.94	3.798	2	Reliability
7/11/2024	54H-301	11:06	11:42	35.94	2.396	4	Reliability
7/11/2024	57S-401	11:33	13:04	90.24	4.512	3	Reliability
7/11/2024	22C-402	12:02	13:01	58.92	4.91	5	Reliability
7/11/2024	3S-309	19:42	20:30	47.94	139.825	175	Switching
7/11/2024	2C-402	20:05	21:11	65.58	2.186	2	Reliability
7/12/2024	57S-401	11:25	13:25	119.82	7.988	4	Reliability
7/12/2024	23H-302	12:39	13:59	79.92	43.956	33	Reliability
7/13/2024	16V-314	11:14	13:18	124.14	18.621	9	Reliability
7/13/2024	2H-422	11:29	16:16	287.64	23.97	5	Reliability
7/13/2024	40H-304	13:16	16:18	182.04	33.374	11	Reliability
7/14/2024	59C-402	08:27	11:13	165.96	1886.412	682	Capital
7/14/2024	4S-334	17:11	17:47	35.94	11.381	19	Switching
7/14/2024	70W-321	20:17	22:28	130.2	3682.49	1697	Switching
7/14/2024	70W-322	20:18	22:28	130.26	2225.275	1025	Switching
7/15/2024	104H-413	08:27	14:45	377.88	157.45	25	Capital
7/15/2024	104H-413	08:30	14:45	375.24	62.54	10	Capital
7/15/2024	12V-304	10:38	15:33	294.3	68.67	14	Capital
7/15/2024	57W-401	15:25	16:19	54	2.7	3	Reliability
7/15/2024	84S-305	17:43	18:19	36	9	15	Reliability
7/16/2024	104S-311	08:29	12:01	211.86	3.531	1	Capital
7/16/2024	50N-415	08:31	15:26	414.54	48.363	7	Reliability
7/16/2024	104H-413	08:34	13:50	316.08	131.7	25	Capital
7/16/2024	104S-312	08:55	13:09	253.44	359.04	85	Reliability
7/16/2024	81S-303	10:55	11:38	42.9	5.72	8	Reliability
7/16/2024	104S-311	12:03	14:15	132	37.4	17	Capital
7/16/2024	81S-305	12:05	13:06	60.72	11.132	11	Reliability
7/16/2024	81S-303	13:27	14:20	53.16	0.886	1	Capital
7/16/2024	4S-332	14:00	16:13	133.38	2.223	1	Capital
7/16/2024	50W-411	14:05	18:11	246.12	32.816	8	Reliability
7/17/2024	70V-311	10:29	15:07	277.8	64.82	14	Reliability
7/17/2024	57W-401	10:42	11:35	52.2	4.35	5	Reliability
7/17/2024	59C-403	10:48	13:15	147.84	14.784	6	Capital
7/18/2024	12V-302	09:13	09:55	42.54	237.515	335	Capital
7/18/2024	103W-311	11:57	13:57	119.76	3.992	2	Reliability
7/18/2024	81S-306	12:09	12:17	7.74	2.193	17	Reliability
7/18/2024	81S-305	12:39	13:37	58.5	21.45	22	Reliability
7/18/2024	76V-301	12:47	13:09	21.3	4.615	13	Reliability
7/18/2024	67C-412	18:35	18:47	12.78	47.286	222	Switching
7/19/2024	55V-314	05:54	07:02	67.44	898.076	799	Capital
7/19/2024	70W-311	11:30	11:42	12.06	234.768	1168	Capital
7/19/2024	1H-431	14:18	17:28	189.66	9.483	3	Switching
7/20/2024	70W-321	05:31	05:49	17.52	495.816	1698	Capital
7/20/2024	70W-313	05:31	05:50	18.84	651.236	2074	Capital
7/20/2024	48H-302	10:33	11:11	37.5	4.375	7	Capital
7/20/2024	50N-415	14:28	15:39	70.98	8.281	7	Reliability
7/21/2024	50N-412	05:59	07:58	118.62	773.007	391	Capital
7/21/2024	23H-301	11:18	12:04	45.36	7.56	10	Reliability
7/21/2024	11S-411	13:33	14:27	54.54	9.09	10	Reliability
7/22/2024	104S-312	09:28	14:31	303.3	20.22	4	Capital
7/22/2024	11S-411	11:10	12:22	71.64	3.582	3	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
7/22/2024	62N-411	11:20	12:21	61.92	10.32	10	Reliability
7/22/2024	14V-303	13:28	15:12	104.04	20.808	12	Reliability
7/23/2024	50N-410	08:25	14:22	356.28	112.822	19	Capital
7/23/2024	67C-412	08:57	12:34	216.9	65.07	18	Reliability
7/23/2024	4C-424	09:42	11:25	102.78	166.161	97	Capital
7/23/2024	4C-424	09:43	11:24	101.28	160.36	95	Capital
7/23/2024	37N-411	10:34	13:06	151.56	10.104	4	Capital
7/23/2024	37N-411	10:34	11:57	82.86	1169.707	847	Capital
7/23/2024	104S-311	11:20	14:14	173.52	2.892	1	Capital
7/23/2024	104S-312	11:26	14:11	165.72	8.286	3	Reliability
7/23/2024	81S-302	11:30	12:09	39.42	7.227	11	Reliability
7/23/2024	4C-424	11:44	14:06	141.66	224.295	95	Switching
7/23/2024	15S-302	12:15	13:12	57.12	5.712	6	Reliability
7/23/2024	3S-303	12:20	12:55	35.34	8.835	15	Reliability
7/23/2024	58H-431	18:07	18:47	39.96	5.328	8	Reliability
7/24/2024	77V-302	09:45	11:19	94.38	17.303	11	Reliability
7/24/2024	104S-312	09:55	11:44	109.8	3.66	2	Reliability
7/24/2024	104H-413	11:26	15:24	238.32	99.3	25	Capital
7/24/2024	11S-301	12:50	14:26	95.16	3.172	2	Reliability
7/24/2024	50N-410	14:21	15:10	48.78	15.447	19	Reliability
7/24/2024	15S-302	14:33	15:16	43.56	5.808	8	Reliability
7/25/2024	104H-413	09:38	12:47	188.4	72.22	23	Reliability
7/25/2024	22N-401	10:25	11:32	67.08	7.826	7	Reliability
7/25/2024	58C-405	11:45	14:06	141.42	2.357	1	Capital
7/25/2024	104H-413	12:48	14:49	121.14	2.019	1	Capital
7/25/2024	62N-416	13:37	15:49	132.3	28.665	13	Reliability
7/28/2024	73W-411	10:49	11:46	56.58	15.088	16	Reliability
7/28/2024	22C-401	12:50	13:37	46.26	299.148	388	Switching
7/29/2024	88H-401	08:29	10:45	135.9	77.01	34	Reliability
7/29/2024	50N-411	08:40	10:34	113.4	15.12	8	Reliability
7/29/2024	55N-204	09:54	15:26	331.8	44.24	8	Reliability
7/29/2024	55N-204	09:55	15:25	330.24	88.064	16	Reliability
7/29/2024	4S-332	10:20	12:13	113.76	1.896	1	Capital
7/29/2024	3S-308	11:39	11:46	6.84	1.596	14	Reliability
7/29/2024	3S-308	11:48	12:58	69.48	4.632	4	Reliability
7/29/2024	4N-312	12:19	17:20	301.08	25.09	5	Capital
7/29/2024	80W-301	12:53	15:41	168.24	19.628	7	Reliability
7/29/2024	4S-332	13:03	14:25	81.84	12.276	9	Reliability
7/30/2024	84W-301	07:51	09:12	80.16	9.352	7	Reliability
7/30/2024	4N-312	08:31	09:40	68.46	7.987	7	Capital
7/30/2024	4S-332	08:46	09:00	14.34	11.711	49	Capital
7/30/2024	4N-312	09:47	11:57	129.9	2.165	1	Reliability
7/30/2024	93V-313	10:00	14:45	285	90.25	19	Capital
7/30/2024	23W-302	10:33	14:02	208.38	1677.459	483	Capital
7/30/2024	4S-332	11:23	12:36	72.36	1.206	1	Reliability
7/30/2024	103W-311	12:53	14:33	99.36	6.624	4	Reliability
7/30/2024	36W-301	13:37	14:47	70.38	2.346	2	Capital
7/31/2024	103W-311	08:25	12:38	253.38	16.892	4	Reliability
7/31/2024	57C-426	08:44	12:37	232.68	19.39	5	Reliability
7/31/2024	78W-301	08:47	13:08	261	43.5	10	Reliability
7/31/2024	56N-401	14:02	14:37	35.04	8.76	15	Reliability
8/1/2024	84S-305	00:01	00:23	22.26	1.484	4	Reliability
8/1/2024	81S-301	09:12	10:58	106.08	7.072	4	Reliability
8/1/2024	4S-332	12:43	14:02	78.78	64.337	49	Capital
8/1/2024	84W-301	14:41	15:05	23.4	0.78	2	Reliability
8/1/2024	15N-404	22:39	23:54	75.12	71.364	57	Switching

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
8/2/2024	104H-411	10:12	10:45	32.76	0.546	1	Reliability
8/2/2024	20H-303	11:17	14:06	168.78	19.691	7	Reliability
8/2/2024	85S-401	12:02	14:24	142.44	26.114	11	Capital
8/2/2024	104H-413	12:45	14:07	81.96	16.392	12	Reliability
8/3/2024	93V-313	10:00	10:15	15	13.5	54	Switching
8/4/2024	82S-304	10:30	13:49	199.2	33.2	10	Reliability
8/4/2024	57C-426	22:43	23:27	44.7	134.1	180	Switching
8/6/2024	88H-402	09:20	10:09	49.26	3.284	4	Capital
8/6/2024	15S-303	09:36	10:08	31.86	1.062	2	Reliability
8/6/2024	70W-313	09:58	10:54	56.16	4.68	5	Reliability
8/6/2024	70W-313	10:02	14:51	288.78	38.504	8	Reliability
8/6/2024	104H-413	10:09	10:58	49.68	19.044	23	Reliability
8/6/2024	4S-322	10:19	17:09	409.62	27.308	4	Capital
8/6/2024	20H-301	10:41	15:22	281.28	661.008	141	Reliability
8/6/2024	15S-301	12:37	13:32	55.32	1.844	2	Reliability
8/6/2024	15S-301	12:39	13:05	25.86	5.603	13	Reliability
8/6/2024	11S-303	13:07	14:06	58.98	9.83	10	Reliability
8/6/2024	6N-301	14:02	15:17	74.94	71.193	57	Capital
8/6/2024	101H-423	14:15	15:12	57.66	1.922	2	Capital
8/7/2024	4S-322	07:29	16:56	566.64	37.776	4	Capital
8/7/2024	99V-314	08:58	11:02	124.62	124.62	60	Capital
8/7/2024	73W-411	09:16	15:20	363.96	30.33	5	Reliability
8/7/2024	15N-401	09:32	12:21	168.48	25.272	9	Reliability
8/7/2024	3S-307	09:56	12:32	156.6	13.05	5	Reliability
8/7/2024	22N-403	10:10	10:21	11.7	59.085	303	Reliability
8/7/2024	40H-401	10:22	11:31	68.94	17.235	15	Reliability
8/7/2024	104H-421	12:27	14:12	105.54	36.939	21	Reliability
8/7/2024	22C-402	13:52	16:04	132	2.2	1	Reliability
8/7/2024	104H-413	14:14	16:25	131.04	74.256	34	Reliability
8/7/2024	22C-404	15:35	15:49	14.04	1.17	5	Reliability
8/7/2024	59C-402	21:21	22:34	72.72	255.732	211	Switching
8/8/2024	56N-414	08:37	10:22	104.52	67.938	39	Reliability
8/8/2024	70W-313	08:42	16:16	453.48	60.464	8	Reliability
8/8/2024	46W-301	09:55	10:23	27.48	2.748	6	Reliability
8/8/2024	46W-303	12:08	12:11	2.64	0.308	7	Reliability
8/8/2024	1N-421	18:51	19:06	15.18	5.313	21	Switching
8/9/2024	20H-301	09:14	12:47	213.48	67.602	19	Reliability
8/9/2024	103W-312	09:40	11:00	79.56	9.282	7	Reliability
8/9/2024	78W-301	09:53	14:15	262.62	21.885	5	Reliability
8/9/2024	16N-302	10:22	14:08	225.66	259.509	69	Reliability
8/9/2024	87H-312	13:32	14:23	50.28	9.218	11	Reliability
8/9/2024	87H-312	13:33	14:23	50.34	2.517	3	Reliability
8/10/2024	18V-413	14:23	20:49	385.14	32.095	5	Reliability
8/12/2024	25W-302	06:43	06:45	1.8	90.99	3033	Planned Transmission
8/12/2024	2H-411	08:19	08:32	12.96	1057.32	4895	Switching
8/12/2024	4N-312	09:00	15:45	405.36	398.604	59	Reliability
8/12/2024	70W-321	09:18	09:56	37.98	5.697	9	Reliability
8/12/2024	3S-309	10:47	12:19	92.34	23.085	15	Reliability
8/12/2024	81S-307	11:04	12:06	62.46	4.164	4	Reliability
8/12/2024	50W-412	11:14	12:32	77.4	5.16	4	Reliability
8/12/2024	20H-303	13:27	14:23	55.32	7.376	8	Reliability
8/12/2024	111S-314	13:30	13:46	16.8	1.12	4	Reliability
8/12/2024	113H-442	14:31	15:39	68.1	10.215	9	Reliability
8/12/2024	91W-411	15:41	16:19	37.8	3.78	6	Reliability
8/12/2024	4N-311	16:26	20:27	240.66	60.165	15	Reliability
8/12/2024	82V-402	19:59	20:56	57.84	3.856	4	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
8/13/2024	70W-313	00:00	05:59	358.68	12410.328	2076	Reliability
8/13/2024	70W-314	00:01	05:57	355.92	3873.596	653	Reliability
8/13/2024	40H-401	10:02	10:58	55.98	2.799	3	Reliability
8/13/2024	48H-303	13:04	14:01	57.78	12.519	13	Reliability
8/14/2024	76V-301	06:34	07:07	32.46	168.251	311	Planned Transmission
8/14/2024	14V-303	06:34	06:44	9.72	1.944	12	Planned Transmission
8/14/2024	4N-312	09:08	13:49	281.7	159.63	34	Reliability
8/14/2024	23H-301	10:21	11:52	91.62	6.108	4	Reliability
8/14/2024	46W-301	10:45	10:58	13.08	0.654	3	Reliability
8/14/2024	139H-414	13:05	14:50	105.36	15.804	9	Reliability
8/14/2024	92H-331	13:44	14:09	25.38	0.846	2	Reliability
8/14/2024	70W-204	14:44	17:45	181.2	54.36	18	Reliability
8/14/2024	56N-414	21:00	03:23	383.46	20195.56	3160	Reliability
8/14/2024	56N-401	21:01	03:24	383.04	7309.68	1145	Reliability
8/15/2024	91W-411	07:26	09:10	104.76	33.174	19	Tree Trimming
8/15/2024	11S-304	08:27	12:51	263.82	13.191	3	Reliability
8/15/2024	23H-304	09:40	15:08	328.56	197.136	36	Reliability
8/15/2024	57C-426	10:35	12:58	143.58	820.799	343	Switching
8/15/2024	48H-304	10:46	11:36	49.5	14.025	17	Reliability
8/15/2024	22W-312	11:00	12:33	93.66	12.488	8	Reliability
8/15/2024	4N-313	13:05	14:07	62.16	1.036	1	Reliability
8/16/2024	14V-303	06:36	07:17	40.98	8.196	12	Planned Transmission
8/16/2024	76V-301	06:54	07:17	23.04	119.424	311	Planned Transmission
8/16/2024	20H-306	10:38	10:42	3.84	0.064	1	Switching
8/18/2024	25W-302	09:27	12:01	154.02	56.474	22	Reliability
8/18/2024	131H-423	22:05	00:48	162.6	168.02	62	Switching
8/19/2024	14V-303	06:34	06:57	23.04	4.608	12	Planned Transmission
8/19/2024	76V-301	06:39	06:58	18.24	94.544	311	Planned Transmission
8/19/2024	70W-311	09:21	10:42	81.48	4.074	3	Capital
8/19/2024	101H-411	10:30	10:32	2.04	75.922	2233	Switching
8/19/2024	20H-301	11:45	13:19	94.14	6.276	4	Capital
8/19/2024	70W-322	12:49	14:00	71.46	8.337	7	Reliability
8/20/2024	57C-426	06:03	18:16	733.92	11106.656	908	Capital
8/20/2024	14V-303	06:28	06:42	14.28	2.856	12	Reliability
8/20/2024	76V-301	06:28	06:42	14.28	74.018	311	Planned Transmission
8/20/2024	11S-301	08:51	14:56	364.8	6.08	1	Reliability
8/20/2024	55V-314	09:01	15:17	376.44	18.822	3	Capital
8/20/2024	1V-443	09:05	15:05	360.72	96.192	16	Reliability
8/20/2024	17N-201	10:17	12:25	127.74	25.548	12	Reliability
8/20/2024	30N-412	11:11	12:23	72.48	19.328	16	Reliability
8/20/2024	30N-412	12:36	14:31	115.26	7.684	4	Reliability
8/20/2024	48H-301	13:24	13:50	25.92	6.48	15	Reliability
8/20/2024	141H-401	22:01	03:17	316.2	52.7	10	Capital
8/21/2024	104H-413	07:34	16:54	559.56	317.084	34	Reliability
8/21/2024	50W-411	08:01	09:17	76.38	5.092	4	Reliability
8/21/2024	89W-303	09:37	17:11	454.08	7.568	1	Reliability
8/21/2024	6N-301	12:25	16:00	214.56	75.096	21	Reliability
8/21/2024	30N-412	12:55	14:43	107.94	1.799	1	Reliability
8/21/2024	20H-301	13:10	14:54	103.2	6.88	4	Reliability
8/22/2024	137H-412	01:16	01:55	38.76	187.986	291	Reliability
8/22/2024	L-4049	08:17	13:43	325.68	70.564	13	Reliability
8/22/2024	89W-303	09:07	17:27	499.8	24.99	3	Capital
8/22/2024	30N-412	10:25	11:36	71.94	7.194	6	Reliability
8/22/2024	11S-411	10:31	12:14	102.72	10.272	6	Reliability
8/22/2024	20H-301	12:11	14:05	114	24.7	13	Reliability
8/22/2024	20H-304	13:22	14:52	90.18	25.551	17	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
8/23/2024	14V-303	07:02	07:11	9	1.8	12	Planned Transmission
8/23/2024	76V-301	07:02	07:11	9	46.65	311	Planned Transmission
8/23/2024	58C-405	11:15	11:53	37.68	10.676	17	Reliability
8/23/2024	4N-311	11:41	13:28	106.38	1.773	1	Reliability
8/23/2024	113H-432	12:14	12:45	31.26	4.168	8	Reliability
8/23/2024	22C-404	12:46	15:04	137.64	29.822	13	Reliability
8/23/2024	77V-303	23:18	01:21	122.46	14.287	7	Switching
8/24/2024	82V-401	08:37	11:03	146.76	29.352	12	Reliability
8/24/2024	23H-302	10:46	11:00	13.92	0.232	1	Reliability
8/24/2024	104H-433	11:00	11:16	16.74	3.069	11	Reliability
8/24/2024	23H-302	11:54	12:57	62.7	16.72	16	Switching
8/25/2024	59C-402	13:18	14:43	85.08	9.926	7	Reliability
8/25/2024	40H-302	16:01	17:30	89.52	7.46	5	Reliability
8/26/2024	74N-411	08:24	14:42	378.06	945.15	150	Reliability
8/26/2024	30N-412	10:28	11:24	56.34	11.268	12	Capital
8/26/2024	11S-411	10:33	13:12	159.66	10.644	4	Reliability
8/26/2024	89W-303	12:05	12:30	24.72	21.012	51	Reliability
8/27/2024	14V-303	06:28	06:41	13.02	2.604	12	Planned Transmission
8/27/2024	76V-301	06:28	06:41	13.02	67.487	311	Planned Transmission
8/27/2024	67C-412	09:04	11:18	133.62	8.908	4	Reliability
8/27/2024	3S-307	09:15	09:23	8.1	0.135	1	Reliability
8/27/2024	20H-301	09:20	12:04	164.16	51.984	19	Reliability
8/27/2024	89W-303	09:47	13:40	232.26	3.871	1	Reliability
8/27/2024	78W-301	10:03	12:25	142.68	7.134	3	Reliability
8/27/2024	70W-313	10:40	15:02	261.54	34.872	8	Reliability
8/27/2024	82V-403	10:44	12:54	129.18	8.612	4	Capital
8/27/2024	57S-402	10:48	11:11	23.34	1.556	4	Reliability
8/27/2024	101H-423	14:10	15:25	74.88	6.24	5	Reliability
8/27/2024	62N-416	15:25	18:10	165.12	24.768	9	Reliability
8/28/2024	14V-303	06:30	06:39	8.82	1.764	12	Planned Transmission
8/28/2024	76V-301	06:30	06:39	8.82	45.717	311	Planned Transmission
8/28/2024	73W-411	08:15	08:59	43.5	6.525	9	Capital
8/28/2024	62N-416	08:29	12:12	222.78	111.39	30	Capital
8/28/2024	50N-412	08:36	12:05	208.92	41.784	12	Reliability
8/28/2024	126H-313	09:12	09:50	38.04	3.804	6	Reliability
8/28/2024	129H-411	09:41	11:05	84	12.6	9	Reliability
8/28/2024	81S-305	10:31	11:31	59.22	20.727	21	Reliability
8/28/2024	70W-313	10:32	15:44	312.36	26.03	5	Capital
8/28/2024	82V-401	10:53	12:04	70.8	8.26	7	Reliability
8/28/2024	96H-411	10:56	18:58	481.74	80.29	10	Capital
8/28/2024	131H-423	12:14	12:55	41.16	8.918	13	Reliability
8/28/2024	70W-203	13:07	14:45	97.86	9.786	6	Switching
8/28/2024	104S-313	15:12	16:27	74.94	2.498	2	Capital
8/29/2024	3S-307	08:42	09:28	46.14	0.769	1	Reliability
8/29/2024	70W-313	10:12	14:09	236.82	19.735	5	Capital
8/29/2024	56N-414	10:37	16:54	376.92	25.128	4	Reliability
8/29/2024	58C-405	12:39	15:14	155.64	2.594	1	Reliability
8/30/2024	14V-303	06:30	06:32	1.8	0.36	12	Planned Transmission
8/30/2024	76V-301	06:30	06:32	1.8	9.33	311	Planned Transmission
8/30/2024	57W-402	06:30	06:32	1.8	39.54	1318	Planned Transmission
8/30/2024	57S-401	11:54	12:47	52.44	8.74	10	Reliability
8/31/2024	4N-313	05:03	06:02	58.74	1099.417	1123	Reliability
8/31/2024	2H-422	07:42	15:06	443.34	7.389	1	Tree Trimming
8/31/2024	62N-415	11:02	11:33	31.08	1.036	2	Reliability
9/1/2024	15N-401	11:34	20:30	536.82	134.205	15	Reliability
9/1/2024	103H-434	14:39	16:30	110.4	6622.16	3599	Switching

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
9/1/2024	104H-423	21:39	22:14	35.52	20.128	34	Switching
9/2/2024	99H-311	12:35	12:42	7.26	1.573	13	Capital
9/2/2024	99H-311	14:59	16:26	86.52	18.746	13	Capital
9/2/2024	2H-413	15:24	15:39	14.64	3.66	15	Tree Trimming
9/3/2024	58C-405	09:15	14:38	322.68	5.378	1	Reliability
9/3/2024	7N-301	10:04	15:37	333.18	5.553	1	Reliability
9/3/2024	81S-305	10:31	11:31	60.48	9.072	9	Reliability
9/3/2024	113H-444	10:42	11:21	38.52	5.778	9	Reliability
9/3/2024	70W-313	10:56	15:36	279.78	37.304	8	Reliability
9/3/2024	126H-312	11:22	12:10	48.12	88.22	110	Reliability
9/3/2024	59C-402	12:09	13:25	76.14	7.614	6	Reliability
9/3/2024	40H-305	12:49	14:22	92.88	24.768	16	Reliability
9/4/2024	58C-405	08:44	13:00	255.6	187.44	44	Reliability
9/4/2024	87H-312	09:50	16:24	394.02	91.938	14	Reliability
9/4/2024	103H-434	10:06	13:13	187.38	530.91	170	Capital
9/4/2024	20H-301	10:27	12:33	125.82	8.388	4	Reliability
9/4/2024	81W-Dist	10:38	11:04	26.22	25.346	58	Reliability
9/4/2024	108H-413	10:38	11:06	27.9	59.985	129	Reliability
9/4/2024	23H-301	10:41	15:00	259.26	51.852	12	Reliability
9/4/2024	48H-301	11:04	13:20	135.96	27.192	12	Reliability
9/4/2024	3S-307	11:14	12:08	54.42	8.163	9	Reliability
9/4/2024	37N-412	13:53	15:45	111.72	9.31	5	Capital
9/4/2024	58H-431	14:08	15:58	109.68	32.904	18	Reliability
9/5/2024	4C-430	09:13	14:40	327.12	16.356	3	Reliability
9/5/2024	37N-412	09:50	12:48	177.96	26.694	9	Reliability
9/5/2024	3S-308	09:51	16:32	401.04	20.052	3	Reliability
9/5/2024	50W-412	09:55	10:39	44.46	6.669	9	Reliability
9/5/2024	55V-314	10:09	11:55	105.9	100.605	57	Reliability
9/5/2024	104S-313	10:56	11:10	14.28	0.476	2	Reliability
9/5/2024	37N-413	11:05	12:08	63.36	21.12	20	Capital
9/5/2024	62N-416	12:45	13:02	17.16	1.144	4	Capital
9/5/2024	104S-313	12:52	13:14	21.96	0.732	2	Reliability
9/6/2024	81W-Dist	10:10	13:19	189.36	268.26	85	Reliability
9/6/2024	73W-411	10:46	14:56	250.74	614.313	147	Capital
9/6/2024	92H-334	13:10	13:55	44.88	3.74	5	Switching
9/7/2024	2H-424	15:32	17:51	139.74	67.541	29	Switching
9/8/2024	84W-301	08:03	08:11	8.16	1.36	10	Reliability
9/8/2024	84W-301	08:21	08:41	19.56	2.282	7	Reliability
9/8/2024	2H-411	09:48	17:46	477.9	7.965	1	Reliability
9/8/2024	58H-421	15:30	16:29	58.44	118.22	122	Reliability
9/9/2024	4W-211	06:57	07:05	7.56	0.504	4	Planned Transmission
9/9/2024	12V-304	08:56	11:23	147.18	31.889	13	Reliability
9/9/2024	104H-433	09:46	15:30	344.1	28.675	5	Capital
9/9/2024	85S-401	10:07	10:21	13.44	0.448	2	Capital
9/9/2024	9C-304	10:13	10:45	31.86	1.062	2	Reliability
9/9/2024	92H-331	11:56	12:35	38.76	3.876	6	Reliability
9/9/2024	99H-311	12:09	15:22	192.36	41.678	13	Reliability
9/9/2024	55V-313	12:58	14:09	71.52	1.192	1	Reliability
9/10/2024	3S-301	09:18	10:45	86.64	8.664	6	Reliability
9/10/2024	50W-412	09:50	10:40	50.28	0.838	1	Reliability
9/10/2024	7N-302	11:02	11:29	26.4	14.08	32	Capital
9/10/2024	4N-311	11:29	12:32	63	15.75	15	Reliability
9/10/2024	37N-412	11:38	14:08	150	12.5	5	Reliability
9/10/2024	57S-401	11:52	12:38	46.56	0.776	1	Reliability
9/10/2024	59C-401	14:19	14:54	35.64	49.896	84	Switching
9/10/2024	36W-301	14:33	14:55	21.54	8.616	24	Capital

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
9/10/2024	92H-334	16:09	16:43	33.42	665.615	1195	Switching
9/11/2024	16W-301	07:58	13:18	319.68	5.328	1	Reliability
9/11/2024	83V-301	07:58	17:45	586.2	1905.15	195	Capital
9/11/2024	89W-302	09:06	11:00	114.48	5.724	3	Reliability
9/11/2024	58C-405	09:10	12:59	229.56	19.13	5	Reliability
9/11/2024	11S-411	10:04	11:24	80.1	2.67	2	Reliability
9/11/2024	87H-313	11:31	15:50	258.54	17.236	4	Reliability
9/11/2024	15S-301	11:36	15:42	246.66	41.11	10	Reliability
9/11/2024	91W-411	12:04	16:07	242.34	16.156	4	Capital
9/11/2024	73W-411	14:25	15:13	47.88	67.032	84	Capital
9/11/2024	70W-321	14:33	16:47	133.86	2.231	1	Capital
9/11/2024	36W-301	15:02	15:14	11.52	6.336	33	Reliability
9/11/2024	1V-443	22:35	23:57	81.84	2887.588	2117	Switching
9/12/2024	16W-302	07:24	11:51	267.36	17.824	4	Reliability
9/12/2024	15S-301	08:44	11:11	147.66	12.305	5	Capital
9/12/2024	37N-411	08:45	10:34	109.32	9.11	5	Reliability
9/12/2024	70W-204	08:48	10:02	73.86	11.079	9	Reliability
9/12/2024	104H-421	10:12	10:31	19.74	11.515	35	Reliability
9/12/2024	15S-303	13:25	14:55	89.22	37.175	25	Capital
9/12/2024	50N-410	14:11	15:12	60.6	2.02	2	Reliability
9/12/2024	4W-211	16:18	17:03	45.6	3.04	4	Planned Transmission
9/13/2024	40H-302	10:46	10:52	6.06	0.808	8	Reliability
9/13/2024	1C-411	13:23	15:16	112.8	35.72	19	Reliability
9/14/2024	93V-313	09:04	12:18	194.7	2086.535	643	Capital
9/14/2024	4N-311	11:23	11:45	22.44	63.206	169	Capital
9/14/2024	4N-311	11:46	12:36	50.46	164.836	196	Capital
9/14/2024	4N-311	12:39	13:55	76.02	8.869	7	Reliability
9/15/2024	87H-312	00:00	04:13	252.48	5415.696	1287	Planned Transmission
9/15/2024	87H-313	00:01	04:16	255.3	8527.02	2004	Planned Transmission
9/15/2024	104H-422	10:56	13:59	182.94	3.049	1	Capital
9/16/2024	2H-422	00:46	05:20	273.6	15558.72	3412	Reliability
9/16/2024	104S-313	08:09	10:40	151.02	1228.296	488	Capital
9/16/2024	67C-411	10:47	14:10	203.4	20.34	6	Reliability
9/16/2024	81S-307	11:35	12:51	75.96	11.394	9	Reliability
9/16/2024	23H-304	11:49	15:16	207.24	200.332	58	Reliability
9/16/2024	73W-411	12:52	15:30	157.98	13.165	5	Reliability
9/16/2024	85S-401	12:58	13:31	33.3	5.55	10	Reliability
9/16/2024	88W-323	13:36	14:17	41.1	7.535	11	Reliability
9/16/2024	3S-403	15:29	19:18	228.72	3.812	1	Capital
9/17/2024	73W-412	08:09	10:38	149.28	2.488	1	Reliability
9/17/2024	15S-302	08:56	10:59	122.58	147.096	72	Capital
9/17/2024	93V-313	09:51	12:41	169.68	19.796	7	Reliability
9/17/2024	4C-424	11:12	12:29	77.7	15.54	12	Switching
9/17/2024	4N-312	12:24	17:15	290.88	53.328	11	Reliability
9/17/2024	88W-314	12:50	14:47	117.06	15.608	8	Reliability
9/17/2024	126H-312	13:05	14:37	91.98	3.066	2	Reliability
9/17/2024	70W-322	13:13	15:22	128.64	6.432	3	Reliability
9/17/2024	11S-301	18:50	19:35	44.94	4.494	6	Reliability
9/17/2024	1H-415	18:54	20:55	121.56	6.078	3	Reliability
9/17/2024	59C-402	21:10	00:20	190.26	453.453	143	Switching
9/17/2024	59C-402	21:10	00:20	190.02	570.06	180	Switching
9/18/2024	129H-413	09:39	10:36	56.22	9.37	10	Capital
9/18/2024	113H-433	09:45	12:42	176.4	2.94	1	Reliability
9/18/2024	15S-301	09:57	10:43	46.08	5.376	7	Reliability
9/18/2024	81S-302	11:40	12:12	31.98	3.198	6	Reliability
9/18/2024	129H-412	13:05	13:42	36.9	6.765	11	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
9/19/2024	99V-311	09:43	10:57	74.28	6.19	5	Reliability
9/19/2024	87H-313	10:26	13:31	185.88	15.49	5	Reliability
9/19/2024	137H-412	14:08	15:05	57.12	3.808	4	Reliability
9/20/2024	4C-430	08:54	11:58	183.42	116.166	38	Reliability
9/20/2024	4C-430	08:57	11:57	179.82	1420.578	474	Reliability
9/20/2024	50V-402	09:35	14:37	301.92	342.176	68	Reliability
9/21/2024	126H-312	01:41	04:44	182.7	4167.41	2121	Switching
9/21/2024	81S-305	08:50	09:46	56.1	14.96	16	Reliability
9/21/2024	104H-421	09:56	16:02	366.66	213.885	35	Reliability
9/22/2024	25W-302	08:24	09:18	54.12	9.922	11	Capital
9/22/2024	101H-421	13:02	14:04	62.1	4.14	4	Tree Trimming
9/22/2024	2H-422	23:30	00:34	64.14	42.76	40	Reliability
9/23/2024	70W-203	00:59	04:15	195.72	27159.412	8326	Planned Transmission
9/23/2024	73W-412	00:59	04:23	203.58	21932.352	6464	Planned Transmission
9/23/2024	104S-312	09:00	14:20	320.04	229.362	43	Reliability
9/23/2024	84W-301	09:09	11:45	155.64	18.158	7	Reliability
9/23/2024	81S-302	10:12	16:24	371.88	49.584	8	Capital
9/23/2024	83V-301	10:48	14:16	207.78	17.315	5	Reliability
9/23/2024	70W-321	10:52	14:19	207.06	13.804	4	Reliability
9/23/2024	23H-304	12:30	17:24	294.54	358.357	73	Capital
9/23/2024	57S-401	13:21	14:48	87.36	4.368	3	Reliability
9/24/2024	91W-411	08:28	14:47	379.5	430.1	68	Tree Trimming
9/24/2024	104S-313	08:58	09:31	32.28	118.898	221	Capital
9/24/2024	81S-304	14:25	16:15	110.46	14.728	8	Capital
9/25/2024	58C-405	09:02	12:45	223.68	48.464	13	Reliability
9/25/2024	11S-411	11:24	12:51	87.12	8.712	6	Reliability
9/25/2024	57S-402	11:26	14:01	155.82	158.417	61	Capital
9/25/2024	81S-303	11:46	13:57	131.46	2.191	1	Capital
9/25/2024	54H-301	13:17	14:10	53.16	13.29	15	Reliability
9/25/2024	70W-311	13:30	14:44	73.92	3.696	3	Reliability
9/26/2024	84W-301	09:02	09:37	35.16	1.758	3	Reliability
9/26/2024	15N-404	09:11	13:00	228.3	60.88	16	Reliability
9/26/2024	104S-313	09:17	10:16	59.4	3.96	4	Reliability
9/26/2024	58C-405	10:15	12:12	117.48	33.286	17	Reliability
9/26/2024	104H-421	10:42	16:55	372.78	24.852	4	Capital
9/26/2024	59C-402	10:59	11:33	33.3	3.33	6	Reliability
9/26/2024	50W-412	11:02	13:50	168.84	11.256	4	Reliability
9/26/2024	4C-441	11:08	12:39	91.02	77.367	51	Capital
9/26/2024	82S-303	11:19	14:57	218.16	39.996	11	Capital
9/26/2024	57W-401	11:33	12:43	70.44	11.74	10	Reliability
9/26/2024	113H-433	13:30	17:46	256.14	21.345	5	Switching
9/27/2024	70W-311	09:51	11:18	87.06	26.118	18	Reliability
9/27/2024	101H-421	11:20	15:14	233.46	7.782	2	Switching
9/27/2024	73W-411	12:24	12:54	29.82	2.485	5	Reliability
9/27/2024	88H-402	13:36	13:48	11.64	0.582	3	Capital
9/27/2024	12V-303	14:23	15:32	69.3	11.55	10	Capital
9/27/2024	20H-301	19:15	19:35	20.46	570.152	1672	Switching
9/27/2024	81S-302	19:58	21:31	92.28	32.298	21	Switching
9/28/2024	81S-302	09:25	13:35	250.14	41.69	10	Reliability
9/30/2024	23H-303	09:55	15:47	351.66	275.467	47	Capital
9/30/2024	88W-312	10:28	17:48	439.14	87.828	12	Capital
9/30/2024	104S-313	11:25	14:21	176.04	41.076	14	Capital
10/1/2024	126H-312	10:16	11:54	98.16	3.272	2	Reliability
10/1/2024	4S-324	10:22	14:59	276.96	64.624	14	Reliability
10/1/2024	77V-401	11:52	15:17	204.96	51.24	15	Reliability
10/2/2024	99V-314	09:06	10:03	56.34	3.756	4	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
10/2/2024	56N-401	09:37	13:01	204.18	27.224	8	Capital
10/2/2024	70W-313	09:39	11:16	97.14	6.476	4	Reliability
10/3/2024	59C-402	09:29	11:12	103.44	5.172	3	Reliability
10/3/2024	67C-412	09:35	13:25	230.58	19.215	5	Reliability
10/3/2024	11S-411	09:57	10:59	62.64	10.44	10	Reliability
10/3/2024	82S-303	10:17	14:13	235.86	55.034	14	Reliability
10/4/2024	22W-311	01:55	03:32	96.36	1268.74	790	Switching
10/4/2024	87H-312	10:04	11:46	101.4	6.76	4	Reliability
10/4/2024	62N-411	10:05	12:02	117.6	188.16	96	Capital
10/4/2024	73W-411	11:36	16:06	269.7	13.485	3	Reliability
10/4/2024	65V-303	22:20	02:07	226.86	7.562	2	Reliability
10/5/2024	79V-402	17:42	19:10	88.26	1.471	1	Switching
10/6/2024	6W-201	07:14	09:07	112.56	15.008	8	Planned Transmission
10/6/2024	87W-311	13:23	13:53	29.46	1.964	4	Switching
10/7/2024	74N-411	11:03	14:27	203.64	47.516	14	Reliability
10/7/2024	3S-403	11:10	14:29	199.26	23.247	7	Reliability
10/7/2024	16V-315	13:02	17:12	250.62	50.124	12	Reliability
10/7/2024	15S-301	13:47	14:38	50.16	4.18	5	Reliability
10/8/2024	84W-301	09:26	10:40	73.44	2.448	2	Reliability
10/8/2024	82S-304	12:51	15:03	131.88	19.782	9	Reliability
10/8/2024	4N-313	13:56	15:08	71.46	2.382	2	Reliability
10/8/2024	4S-324	13:58	14:27	29.94	3.992	8	Capital
10/8/2024	3S-303	18:25	18:51	26.04	9.114	21	Reliability
10/9/2024	23H-304	07:43	17:28	585.54	1493.127	153	Reliability
10/9/2024	73W-411	08:56	10:00	64.5	3.225	3	Reliability
10/9/2024	15S-303	10:19	13:03	164.64	68.6	25	Capital
10/9/2024	3N-412	10:55	14:24	209.34	150.027	43	Reliability
10/10/2024	70V-312	08:52	13:53	300.12	40.016	8	Reliability
10/10/2024	103W-311	09:22	10:58	95.94	7.995	5	Reliability
10/10/2024	62N-416	09:38	10:41	63.12	59.964	57	Reliability
10/10/2024	62N-416	10:42	11:28	45.12	15.04	20	Capital
10/10/2024	22C-404	12:32	13:04	31.62	16.5	36	Reliability
10/10/2024	22C-404	13:06	13:48	42.48	0.708	1	Capital
10/11/2024	77V-301	08:57	10:52	114.54	20.999	11	Reliability
10/11/2024	20H-306	11:57	14:44	167.1	13.925	5	Reliability
10/12/2024	12V-304	14:13	14:57	44.58	783.865	1055	Switching
10/12/2024	58C-403	22:54	23:28	33.78	11.823	21	Planned Transmission
10/12/2024	58C-403	22:54	22:58	3.48	178.408	3076	Planned Transmission
10/12/2024	58C-403	23:57	00:03	6	206.6	2066	Planned Transmission
10/12/2024	58C-403	23:57	00:35	38.46	660.23	1030	Planned Transmission
10/15/2024	82V-422	09:46	14:54	307.86	71.834	14	Reliability
10/15/2024	81S-302	10:17	10:42	25.44	2.968	7	Reliability
10/15/2024	81S-302	10:56	11:23	27.06	2.255	5	Reliability
10/15/2024	87H-313	13:26	14:56	89.7	11.96	8	Reliability
10/16/2024	50N-410	09:22	09:27	4.74	0.869	11	Reliability
10/16/2024	59C-402	09:51	11:02	70.8	11.8	10	Reliability
10/16/2024	111S-311	10:44	11:59	75.42	56.565	45	Capital
10/16/2024	59C-402	11:02	12:08	66.9	7.805	7	Reliability
10/16/2024	46W-303	11:47	12:34	47.16	3.93	5	Reliability
10/16/2024	92H-334	12:21	14:00	99.42	3.314	2	Reliability
10/17/2024	87W-312	12:04	13:10	65.64	1.094	1	Reliability
10/17/2024	126H-312	13:14	14:35	80.7	5.38	4	Capital
10/18/2024	70W-314	09:24	09:30	5.88	2.744	28	Capital
10/18/2024	70W-311	09:41	15:26	344.82	396.543	69	Reliability
10/18/2024	87W-311	10:05	12:11	126	10.5	5	Reliability
10/18/2024	50N-415	10:06	12:06	120.06	2.001	1	Capital

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
10/18/2024	15S-301	11:29	12:12	42.9	8.58	12	Reliability
10/19/2024	1N-402	10:34	13:24	170.1	8.505	3	Reliability
10/19/2024	1N-402	10:34	11:57	83.22	199.728	144	Capital
10/19/2024	3S-309	11:33	13:07	93.78	6.252	4	Reliability
10/19/2024	1N-402	12:58	13:24	25.74	2.145	5	Reliability
10/19/2024	82V-401	14:51	14:57	5.82	13.192	136	Reliability
10/20/2024	127H-413	14:01	14:02	1.26	2.226	106	Switching
10/20/2024	127H-413	14:01	15:06	64.98	8.664	8	Switching
10/20/2024	87W-311	16:17	20:10	233.22	15.46	4	Switching
10/21/2024	113H-442	06:44	19:11	746.94	37.347	3	Capital
10/21/2024	56N-414	08:54	13:15	260.88	100.004	23	Reliability
10/21/2024	104S-313	09:04	09:39	35.28	2.352	4	Reliability
10/21/2024	81S-301	12:36	13:00	23.52	4.704	12	Reliability
10/21/2024	56N-414	13:57	17:42	225	30	8	Reliability
10/21/2024	51V-301	17:12	17:14	1.92	39.808	1244	Switching
10/21/2024	1N-421	18:07	18:56	49.02	156.864	192	Reliability
10/21/2024	15N-404	18:09	19:07	58.26	27.188	28	Reliability
10/22/2024	58C-403	09:00	15:32	391.98	143.726	22	Reliability
10/22/2024	70W-321	09:11	10:24	72.6	6.05	5	Reliability
10/22/2024	70W-321	09:11	10:24	73.08	7.308	6	Reliability
10/22/2024	56N-414	09:21	12:39	198.06	23.107	7	Reliability
10/22/2024	92H-331	09:39	17:50	491.76	213.096	26	Reliability
10/22/2024	57S-402	10:07	10:45	38.58	5.144	8	Reliability
10/22/2024	59C-402	12:34	13:55	81.24	8.124	6	Reliability
10/22/2024	56N-414	12:42	15:55	193.62	22.589	7	Reliability
10/22/2024	137H-412	19:55	20:36	40.26	513.315	765	Switching
10/22/2024	137H-412	20:35	20:36	1.02	39.916	2348	Switching
10/23/2024	56N-414	08:10	13:36	326.52	21.768	4	Reliability
10/23/2024	92H-331	09:27	17:54	506.58	219.518	26	Reliability
10/23/2024	104S-313	09:56	11:06	69.9	3.495	3	Reliability
10/23/2024	101H-422	13:26	15:02	96.06	4.803	3	Reliability
10/24/2024	50N-410	08:15	16:40	504.9	16.83	2	Reliability
10/24/2024	15N-404	10:17	14:40	262.86	56.953	13	Reliability
10/24/2024	56N-414	10:33	11:51	77.46	7.746	6	Reliability
10/25/2024	50N-410	13:05	14:24	79.26	2.642	2	Reliability
10/26/2024	37N-412	09:53	12:15	142.02	989.406	418	Capital
10/27/2024	84S-305	10:05	12:13	128.16	213.6	100	Capital
10/27/2024	74N-412	10:58	11:27	29.04	5.808	12	Reliability
10/27/2024	50W-412	12:45	13:29	44.1	2.205	3	Reliability
10/28/2024	113H-433	09:32	10:39	67.44	5.62	5	Reliability
10/28/2024	55V-313	09:57	12:43	166.08	58.128	21	Reliability
10/28/2024	22C-402	10:53	12:38	104.1	138.8	80	Reliability
10/28/2024	23H-301	11:24	11:32	7.8	31.46	242	Reliability
10/28/2024	23H-301	11:33	14:18	165	291.5	106	Reliability
10/28/2024	50N-410	11:47	11:55	8.76	113.734	779	Switching
10/28/2024	15S-301	18:23	20:57	153.96	4839.476	1886	Switching
10/29/2024	104S-313	08:54	10:06	72	2.4	2	Reliability
10/29/2024	92H-331	09:17	13:40	262.32	113.672	26	Reliability
10/29/2024	25W-302	09:53	09:56	3.42	19.779	347	Tree Trimming
10/29/2024	129H-412	10:22	12:07	104.7	12.215	7	Reliability
10/29/2024	56N-401	11:21	12:02	41.1	23.975	35	Reliability
10/29/2024	50N-410	12:59	15:51	172.32	14.36	5	Reliability
10/30/2024	73W-411	08:35	10:01	85.92	1.432	1	Reliability
10/30/2024	65V-302	10:49	11:34	45.18	51.204	68	Reliability
10/30/2024	104S-313	10:55	11:33	37.86	1.262	2	Reliability
10/30/2024	65V-302	11:37	13:10	92.82	264.537	171	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
10/30/2024	63V-312	13:16	14:10	54.24	98.536	109	Reliability
10/30/2024	63V-312	13:23	14:11	48.72	47.096	58	Reliability
10/30/2024	65V-302	14:13	16:13	120.36	188.564	94	Reliability
10/30/2024	65V-302	14:15	16:14	118.92	71.352	36	Reliability
10/30/2024	12V-302	17:28	18:28	60.3	44.22	44	Reliability
10/31/2024	113H-431	09:41	10:47	66.84	4.456	4	Reliability
10/31/2024	36W-301	10:13	10:47	33.6	2.24	4	Reliability
10/31/2024	3S-307	10:27	12:15	107.4	14.32	8	Reliability
10/31/2024	50N-410	12:54	13:42	48	1.6	2	Capital
11/1/2024	104H-412	03:15	04:04	48.36	20.956	26	Switching
11/1/2024	104H-432	09:40	12:32	172.26	232.551	81	Reliability
11/1/2024	104H-432	10:10	12:33	142.56	54.648	23	Reliability
11/1/2024	50N-410	10:40	13:10	149.94	4.998	2	Reliability
11/1/2024	48H-302	10:55	17:50	414.96	117.572	17	Capital
11/1/2024	104H-413	13:37	14:35	58.26	4808.392	4952	Switching
11/1/2024	4N-312	19:11	19:48	37.14	15.475	25	Switching
11/2/2024	15N-403	13:23	13:33	10.14	4.394	26	Reliability
11/3/2024	2C-402	09:17	11:27	129.6	2887.92	1337	Switching
11/4/2024	103W-312	08:59	16:04	424.74	445.977	63	Tree Trimming
11/4/2024	57S-401	13:19	14:15	55.62	0.927	1	Capital
11/5/2024	81N-412	09:01	13:00	238.8	366.16	92	Tree Trimming
11/5/2024	57W-401	10:54	12:02	67.62	10.143	9	Capital
11/5/2024	73W-411	12:04	13:26	81.66	66.689	49	Capital
11/5/2024	84W-302	12:37	12:52	15	3	12	Reliability
11/6/2024	63V-313	09:42	11:03	81.18	8.118	6	Reliability
11/6/2024	99H-312	10:33	12:31	118.68	25.714	13	Capital
11/6/2024	81N-412	12:26	16:46	259.86	21.655	5	Reliability
11/6/2024	1C-411	17:15	19:23	127.8	61.77	29	Capital
11/7/2024	1C-413	02:43	09:29	405.84	6.764	1	Reliability
11/7/2024	103W-311	09:50	13:31	221.22	7.374	2	Reliability
11/7/2024	2H-423	10:27	13:26	178.74	50.643	17	Reliability
11/7/2024	126H-311	10:33	13:56	203.22	20.322	6	Reliability
11/8/2024	126H-312	10:47	11:08	20.46	10.571	31	Capital
11/8/2024	113H-433	11:00	15:10	250.62	16.708	4	Reliability
11/8/2024	15S-301	11:03	11:21	17.22	3.157	11	Capital
11/8/2024	4N-312	11:45	13:17	92.1	62.935	41	Reliability
11/8/2024	101H-422	11:57	15:58	240.42	72.126	18	Capital
11/8/2024	73W-411	12:55	13:32	36.9	90.405	147	Reliability
11/9/2024	1C-411	08:39	09:44	64.2	80.25	75	Reliability
11/9/2024	56N-401	14:47	14:48	1.02	19.17	1150	Switching
11/9/2024	15N-401	19:54	20:12	18.54	1492.779	4831	Switching
11/10/2024	108H-412	09:39	11:55	136.26	2.271	1	Reliability
11/11/2024	93V-311	13:18	13:38	20.4	400.52	1178	Switching
11/12/2024	67C-411	10:37	12:31	113.88	17.082	9	Reliability
11/12/2024	62N-413	10:46	11:40	53.82	1.794	2	Reliability
11/12/2024	40H-302	11:28	11:41	12.84	1.926	9	Reliability
11/12/2024	3S-307	13:17	13:58	41.1	5.48	8	Capital
11/12/2024	54H-303	17:34	22:12	278.46	7077.525	1525	Switching
11/12/2024	12V-304	19:36	20:06	29.94	525.946	1054	Switching
11/13/2024	50N-410	08:41	12:11	209.82	55.952	16	Reliability
11/13/2024	3S-307	09:54	11:17	83.04	11.072	8	Reliability
11/13/2024	84W-301	09:59	10:20	21.12	0.352	1	Capital
11/13/2024	82V-422	10:27	10:39	11.82	552.388	2804	Switching
11/13/2024	22V-322	10:39	11:05	26.04	3.906	9	Reliability
11/13/2024	15S-303	10:44	11:40	56.64	4.72	5	Reliability
11/13/2024	37W-201	11:03	11:34	30.06	0.501	1	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
11/13/2024	15S-301	11:20	11:54	34.14	10.242	18	Switching
11/13/2024	3S-307	11:43	12:42	58.56	5.856	6	Reliability
11/13/2024	81S-303	14:27	14:53	25.98	3.897	9	Reliability
11/13/2024	20H-305	17:08	18:30	81.6	13.6	10	Reliability
11/13/2024	81S-304	17:58	18:10	12.72	2.544	12	Reliability
11/13/2024	50N-412	22:40	23:30	49.44	127.72	155	Switching
11/14/2024	84S-303	01:46	05:17	211.08	935.788	266	Switching
11/14/2024	103H-432	05:15	09:03	227.34	303.12	80	Switching
11/14/2024	62N-414	08:47	16:13	446.64	468.972	63	Reliability
11/14/2024	50N-410	11:57	12:21	23.94	415.758	1042	Switching
11/14/2024	50N-410	13:54	14:00	5.82	168.683	1739	Switching
11/14/2024	4N-313	18:13	18:28	15.18	3.795	15	Switching
11/15/2024	74N-412	05:30	05:51	20.28	233.896	692	Switching
11/15/2024	1H-431	05:58	06:15	17.64	1.176	4	Switching
11/15/2024	1V-443	09:20	09:55	34.98	3.498	6	Reliability
11/15/2024	57S-401	10:53	12:52	119.16	488.556	246	Switching
11/15/2024	3S-308	13:19	14:13	53.64	4.47	5	Reliability
11/16/2024	87H-313	10:18	12:30	132.24	8.816	4	Reliability
11/16/2024	3S-308	22:13	22:23	10.08	103.55	759	Switching
11/16/2024	3S-308	22:27	03:28	301.74	40.232	8	Switching
11/17/2024	3S-308	03:20	03:28	8.52	106.642	751	Switching
11/17/2024	24C-443	18:35	19:01	25.14	5.447	13	Tree Trimming
11/18/2024	78W-302	08:23	14:08	345.54	34.554	6	Reliability
11/18/2024	104S-311	08:54	10:17	83.34	12.501	9	Reliability
11/18/2024	104H-411	09:20	14:07	287.22	488.274	102	Capital
11/18/2024	2H-421	09:23	12:14	170.82	54.093	19	Reliability
11/18/2024	67C-412	11:07	11:37	29.82	0.994	2	Capital
11/18/2024	81S-302	12:16	12:46	29.34	1.956	4	Reliability
11/18/2024	4N-311	13:45	15:24	98.16	26.176	16	Reliability
11/19/2024	58C-405	08:18	12:49	270.84	22.57	5	Reliability
11/19/2024	4N-312	08:58	12:05	186.66	124.44	40	Reliability
11/19/2024	99H-312	09:51	15:12	320.52	202.996	38	Reliability
11/20/2024	70W-203	04:58	05:14	16.02	147.918	554	Planned Transmission
11/20/2024	103W-311	08:47	10:50	122.82	12.282	6	Reliability
11/20/2024	4N-312	09:26	11:00	93.24	35.742	23	Reliability
11/20/2024	37W-201	10:59	12:44	105.12	3.504	2	Reliability
11/20/2024	103W-312	15:25	16:00	34.86	4.067	7	Reliability
11/21/2024	83V-302	08:35	12:41	245.94	8.198	2	Capital
11/21/2024	24C-443	08:43	10:26	102.96	2524.236	1471	Switching
11/21/2024	83V-302	08:43	12:39	235.98	11.799	3	Capital
11/21/2024	104S-313	09:04	12:10	185.7	43.33	14	Reliability
11/21/2024	37W-202	09:45	10:31	45.9	1.53	2	Reliability
11/21/2024	82V-422	09:59	10:11	12.36	1.236	6	Reliability
11/21/2024	37W-201	11:06	11:58	52.86	1.762	2	Reliability
11/21/2024	4N-312	12:31	12:42	10.5	1.05	6	Reliability
11/21/2024	24C-443	13:39	13:44	5.52	29.992	326	Switching
11/21/2024	100C-422	13:39	13:44	5.16	97.96	1145	Switching
11/22/2024	113H-433	11:04	12:52	108.18	9.015	5	Reliability
11/22/2024	81S-306	11:58	13:37	98.94	155.006	94	Reliability
11/23/2024	1H-431	08:11	08:38	26.94	0.449	1	Capital
11/23/2024	85S-401	17:16	17:24	7.74	292.056	2264	Switching
11/23/2024	104H-411	20:30	20:53	22.68	173.88	460	Switching
11/24/2024	67C-412	09:49	10:14	24.48	20.4	50	Switching
11/24/2024	93V-313	09:58	10:52	54.06	2.703	3	Reliability
11/24/2024	58H-421	10:36	10:44	8.04	0.134	1	Switching
11/24/2024	11S-411	12:30	14:36	125.94	12.594	6	Reliability

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
11/24/2024	11S-411	12:31	14:37	126.72	25.344	12	Reliability
11/24/2024	103W-311	15:10	16:34	84.36	12.654	9	Reliability
11/25/2024	67C-411	03:18	04:48	90	16.5	11	Reliability
11/25/2024	104S-313	08:58	12:17	199.68	29.952	9	Reliability
11/25/2024	83V-302	10:24	13:21	176.28	14.69	5	Capital
11/25/2024	126H-312	11:36	12:37	60.66	2.022	2	Reliability
11/25/2024	22W-312	15:41	16:47	65.58	9.837	9	Switching
11/25/2024	50V-401	18:34	20:36	121.44	141.68	70	Reliability
11/26/2024	85S-401	09:15	13:41	265.14	159.084	36	Capital
11/26/2024	62H-303	09:41	21:03	682.2	2274	200	Reliability
11/26/2024	104S-312	10:52	16:22	330.3	121.11	22	Reliability
11/26/2024	50N-411	11:35	12:53	77.76	18.144	14	Reliability
11/26/2024	15N-404	12:52	14:41	108.36	39.732	22	Reliability
11/27/2024	1W-411	07:01	18:07	666.48	88.864	8	Planned Transmission
11/27/2024	3W-201	07:13	17:28	615.96	102.66	10	Planned Transmission
11/27/2024	93V-312	09:31	12:02	151.26	126.05	50	Reliability
11/27/2024	22C-404	12:50	14:24	94.14	6.276	4	Reliability
11/27/2024	56N-401	12:51	14:20	88.14	8.814	6	Reliability
11/27/2024	91W-411	13:30	15:16	105.96	7.064	4	Capital
11/27/2024	99V-312	15:57	18:46	169.08	1634.44	580	Switching
11/27/2024	93V-311	20:08	23:41	213.3	4187.79	1178	Switching
11/28/2024	57W-401	09:04	15:36	392.28	13.076	2	Reliability
11/28/2024	89W-302	09:37	15:22	344.94	80.486	14	Reliability
11/28/2024	59C-402	10:06	12:08	122.04	40.68	20	Capital
11/28/2024	63V-313	10:29	15:38	309.24	262.854	51	Capital
11/28/2024	62N-412	12:06	13:58	112.02	13.069	7	Reliability
11/28/2024	129H-412	20:18	20:26	7.98	752.115	5655	Switching
11/29/2024	89W-303	10:29	19:15	525.96	17.532	2	Switching
11/30/2024	62N-416	05:48	09:36	227.64	2879.646	759	Switching
11/30/2024	88H-402	12:19	12:21	1.56	42.744	1644	Tree Trimming
11/30/2024	89W-304	16:34	17:22	47.34	5.523	7	Switching
12/1/2024	57S-402	00:01	09:11	549.78	38713.675	4225	Planned Transmission
12/1/2024	15N-404	11:33	12:03	30	260	520	Capital
12/1/2024	1N-405	11:33	12:04	31.02	552.156	1068	Capital
12/1/2024	131H-423	12:26	16:54	267.96	13.398	3	Reliability
12/2/2024	50N-410	08:52	14:36	344.16	172.08	30	Reliability
12/2/2024	56N-401	09:02	14:13	310.98	57.013	11	Reliability
12/2/2024	91W-411	09:15	10:59	104.04	3.468	2	Reliability
12/2/2024	36V-303	10:39	11:48	68.16	155.632	137	Capital
12/2/2024	73W-411	10:45	14:29	224.58	18.715	5	Capital
12/2/2024	113H-443	13:10	13:57	47.28	7.092	9	Capital
12/2/2024	1N-405	14:38	16:40	122.64	2.044	1	Capital
12/2/2024	77V-302	15:34	16:05	30.72	1.024	2	Reliability
12/3/2024	2H-422	10:57	15:02	244.56	48.912	12	Reliability
12/3/2024	3S-301	12:11	13:55	103.98	8.665	5	Reliability
12/3/2024	84W-302	13:53	14:20	26.88	20.608	46	Reliability
12/3/2024	84W-302	13:54	14:20	25.74	6.864	16	Reliability
12/3/2024	88W-323	21:20	21:57	36.96	16.016	26	Reliability
12/3/2024	15N-401	22:38	00:49	131.76	79.056	36	Switching
12/4/2024	22N-404	04:59	05:03	3.72	467.852	7546	Planned Transmission
12/4/2024	4C-424	09:43	13:05	201.66	1240.209	369	Switching
12/4/2024	4C-424	09:43	09:47	3.9	5.785	89	Switching
12/4/2024	82S-304	09:52	10:16	23.82	1.985	5	Reliability
12/4/2024	65V-302	11:09	12:01	52.32	4.36	5	Reliability
12/4/2024	92H-331	11:11	11:31	20.46	19.096	56	Capital
12/4/2024	4S-333	13:01	13:32	31.26	8.336	16	Capital

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
12/4/2024	15N-404	22:02	01:59	236.7	5071.67	3240	Reliability
12/4/2024	22N-404	23:59	00:02	2.82	354.991	7553	Planned Transmission
12/5/2024	81S-304	19:35	19:51	15.72	3.144	12	Switching
12/5/2024	22C-404	20:26	21:28	61.5	3.075	3	Switching
12/5/2024	80W-301	22:11	23:48	97.14	113.33	70	Reliability
12/5/2024	88W-312	23:09	00:10	60.06	81.081	81	Switching
12/6/2024	4C-441	13:35	14:42	66.78	1.113	1	Capital
12/6/2024	17N-203	15:47	16:27	39.54	77.103	117	Switching
12/7/2024	4N-312	10:55	13:53	178.68	17.868	6	Reliability
12/7/2024	78W-302	23:00	10:01	661.2	5146.34	467	Capital
12/7/2024	76W-201	23:00	09:29	629.52	10.492	1	Planned Transmission
12/7/2024	80W-302	23:00	09:29	629.52	7942.444	757	Planned Transmission
12/7/2024	78W-301	23:00	09:29	629.52	5875.52	560	Planned Transmission
12/8/2024	104H-411	06:28	09:49	201.06	680.253	203	Capital
12/8/2024	15N-404	15:00	17:15	134.76	193.156	86	Reliability
12/8/2024	15N-404	15:00	15:20	20.04	1053.436	3154	Capital
12/8/2024	81S-303	15:42	17:50	127.92	14.924	7	Reliability
12/8/2024	15N-404	16:59	17:15	16.2	851.58	3154	Reliability
12/9/2024	104S-312	08:58	12:16	198.24	353.528	107	Reliability
12/9/2024	50N-410	09:00	13:55	294.72	58.944	12	Reliability
12/9/2024	48W-204	09:01	14:48	347.22	34.722	6	Reliability
12/9/2024	83V-302	09:05	09:52	47.22	13.379	17	Capital
12/9/2024	65V-302	10:46	12:11	84.24	9.828	7	Capital
12/9/2024	81S-303	11:50	14:04	134.28	4.476	2	Reliability
12/9/2024	48W-204	12:43	15:32	169.5	28.25	10	Reliability
12/9/2024	139H-414	13:26	16:23	176.82	35.364	12	Reliability
12/9/2024	83V-301	13:50	14:12	21.78	22.143	61	Capital
12/9/2024	137H-411	18:03	18:36	32.88	440.044	803	Switching
12/9/2024	137H-411	18:09	18:13	4.02	186.193	2779	Switching
12/10/2024	67C-411	08:49	14:33	344.46	218.158	38	Reliability
12/10/2024	104H-442	10:51	17:58	427.44	698.152	98	Reliability
12/10/2024	103W-311	15:27	17:42	135.12	4.504	2	Reliability
12/11/2024	50N-410	03:27	04:28	60.18	19.057	19	Reliability
12/11/2024	81N-412	08:57	10:31	94.44	17.314	11	Capital
12/11/2024	22C-404	09:35	11:36	120.9	646.815	321	Capital
12/11/2024	4C-430	10:00	11:55	115.68	167.736	87	Capital
12/11/2024	103W-311	10:10	14:15	245.22	220.698	54	Reliability
12/11/2024	88H-401	10:54	10:59	5.16	11.61	135	Reliability
12/11/2024	81N-412	11:53	14:56	183	85.4	28	Tree Trimming
12/11/2024	111S-313	12:54	13:59	65.4	9.81	9	Reliability
12/11/2024	58C-403	15:43	17:27	103.62	108.801	63	Switching
12/11/2024	131H-422	22:34	22:45	10.74	346.365	1935	Switching
12/12/2024	36W-304	07:58	08:30	31.56	220.394	419	Switching
12/12/2024	63V-313	11:14	11:32	18.12	1.812	6	Reliability
12/12/2024	16W-302	14:40	15:28	47.28	83.528	106	Switching
12/13/2024	37N-411	10:39	11:23	44.22	632.346	858	Switching
12/13/2024	82V-403	13:46	14:30	44.88	0.748	1	Capital
12/13/2024	25W-301	18:06	18:54	47.16	390.642	497	Switching
12/13/2024	83V-302	23:09	00:41	92.52	21.588	14	Reliability
12/14/2024	82V-401	07:02	12:35	1772.82	29.547	1	Capital
12/14/2024	16W-301	08:01	10:02	120.84	1615.228	802	Reliability
12/14/2024	15N-401	12:30	15:14	164.04	98.424	36	Capital
12/14/2024	55V-322	13:54	16:30	156.06	2.601	1	Capital
12/14/2024	79V-401	19:43	22:34	170.82	17.082	6	Switching
12/15/2024	4N-313	06:13	10:45	271.26	153.714	34	Capital
12/15/2024	4N-313	06:16	10:44	268.38	22.365	5	Capital

Date	Feeder	Start Time (24-hour clock)	Restore Time (24- hour clock)	Duration (Minutes)	Customer Hours of Interruption	Customers Interrupted	CEA Subcause
12/15/2024	4N-313	06:26	10:44	258.54	30.163	7	Capital
12/15/2024	92H-331	21:58	23:24	85.92	87.352	61	Switching
12/16/2024	13V-303	09:36	14:22	285.66	14.283	3	Reliability
12/16/2024	87H-311	10:11	15:48	336.54	16.827	3	Reliability
12/16/2024	19C-204	10:44	11:22	38.22	184.093	289	Switching
12/16/2024	19C-203	10:44	10:48	3.9	11.895	183	Switching
12/16/2024	76V-301	10:53	13:05	132.18	6.609	3	Reliability
12/16/2024	3S-301	11:17	13:05	108.6	1.81	1	Reliability
12/16/2024	19C-203	11:18	11:22	4.02	12.261	183	Switching
12/16/2024	22V-321	12:44	15:11	147	58.8	24	Capital
12/16/2024	99H-312	14:14	14:16	1.872	14.9448	479	Switching
12/17/2024	48W-204	10:12	14:10	238.68	39.78	10	Reliability
12/17/2024	4N-312	10:19	11:32	72.6	7.26	6	Capital
12/17/2024	15S-301	11:03	12:14	71.22	2.374	2	Reliability
12/17/2024	99V-314	11:15	13:45	150.42	17.549	7	Capital
12/17/2024	82S-304	11:30	12:29	59.58	0.993	1	Capital
12/17/2024	4C-430	12:27	13:44	76.98	2.566	2	Reliability
12/18/2024	4W-211	07:16	07:26	10.02	0.668	4	Planned Transmission
12/18/2024	3W-201	07:16	07:26	10.02	1.67	10	Planned Transmission
12/18/2024	19C-204	09:29	15:02	333.78	1068.096	192	Reliability
12/18/2024	84W-302	09:42	11:49	126.36	4.212	2	Capital
12/18/2024	37N-412	10:00	14:17	256.26	34.168	8	Reliability
12/18/2024	100C-421	10:16	12:03	106.98	24.962	14	Capital
12/19/2024	50N-415	09:40	10:05	25.2	2.94	7	Reliability
12/19/2024	58H-431	13:01	22:09	547.62	45.635	5	Capital
12/19/2024	56N-401	14:44	14:52	8.34	0.973	7	Capital
12/19/2024	4W-211	16:15	16:20	4.98	0.332	4	Planned Transmission
12/20/2024	73W-412	04:01	04:17	16.44	1779.356	6494	Planned Transmission
12/20/2024	70W-314	04:01	04:17	16.44	2146.516	7834	Planned Transmission
12/20/2024	70W-203	04:01	04:19	18.12	167.308	554	Planned Transmission
12/20/2024	50N-410	09:42	12:10	147.6	34.44	14	Reliability
12/22/2024	103H-431	10:07	11:30	83.64	2.788	2	Capital
12/22/2024	91W-411	15:29	15:53	23.76	4.356	11	Switching
12/22/2024	62N-415	19:56	22:29	153.12	2.552	1	Switching
12/22/2024	88W-311	22:29	22:33	3.72	54.56	880	Switching
12/23/2024	57S-402	11:54	12:38	43.74	13.851	19	Reliability
12/24/2024	113H-441	09:44	10:48	64.02	88.561	83	Reliability
12/27/2024	81N-411	09:45	11:55	129.78	23.793	11	Reliability
12/29/2024	23W-302	15:10	17:15	124.86	4.162	2	Reliability
12/30/2024	67C-411	11:22	12:26	63.78	110.552	104	Reliability
12/30/2024	6N-301	14:04	14:45	41.34	39.273	57	Switching
12/30/2024	20V-311	20:09	20:27	18.3	0.915	3	Switching

Appendix L

Percentage of Customers Restored Within 48 Hours

Major Event Days

Date (YYYY-MM-DD)	Number of Customers Restored in First 48 Hours	Percentage of Customers Restored in First 48 Hours
2017-02-13	51,484	97.61
2017-03-14	44,683	100.00
2017-11-23	44,271	99.99
2017-12-26	38,249	99.64
2018-01-05	181,079	100.00
2018-01-31	36,018	100.00
2018-03-08	67,053	100.00
2018-03-13	101,372	99.30
2018-03-14	78,573	99.98
2018-11-03	54,218	99.62
2019-07-21	55,177	100.00
2019-09-09	52,662	79.95
2019-09-10	44,337	91.40
2019-09-11	15,588	86.70
2019-11-28	65,408	99.51
2019-12-10	106,801	100.00
2020-02-07	100,039	95.78
2020-02-08	41,652	99.56
2020-02-27	72,874	100.00
2022/07/01	170,993	99.09
2022/08/01	43,200	100.00
2022/01/14	22,619	99.92
2022/01/15	90,181	99.57
2022/02/03	40,551	100.00
2022/02/04	87,979	94.19
2022/02/05	86,366	93.88
2022/02/18	112,679	100.00
2022/09/26	26,069	86.39
2022/09/27	16,047	74.88
2022/09/28	15,443	77.53
2022/09/29	24,370	90.20
2022/12/01	115,779	99.97
2022/12/13	46,228	95.16
2022/12/23	81,302	100.00
2022/12/24	58,036	100.00
2023/01/26	81,868	99.99

Date (YYYY-MM-DD)	Number of Customers Restored in First 48 Hours	Percentage of Customers Restored in First 48 Hours
2023/02/04	109,424	100.00
2023/07/21	30,645	99.49
2023/07/22	95,706	99.42
2023/09/17	45,639	94.87
2023/12/11	132,148	98.67
2023/12/18	92,057	97.26
2023/12/19	52,470	99.72
2023/12/21	99,092	99.88
Average		96.57
Standard Deviation		6.23
Average - Standard Deviation		90.34
2024 Target		91.98
2025 Target		**91.98**

Extreme Event Days

Date (YYYY-MM-DD)	Number of Customers Restored in First 48 Hours	Percentage of Customers Restored in First 48 Hours
2017-12-25	180,396	98.41
2018-01-04	231,445	99.88
2018-11-29	362,453	99.90
2019-09-07	319,988	79.72
2019-09-08	50,778	72.39
2022/09/23	113,932	65.42
2022/09/24	222,526	60.98
2022/09/25	52,439	82.67
2023/09/16	421,550	96.40
Average		83.97
Standard Deviation		14.52
Average - Standard Deviation		69.46
2024 Target		78.38
2025 Target		**78.38**

Significant Event Day (Following a Major or Extreme Event Day)

Date (YYYY-MM-DD)	Number of Customers Restored in First 48 Hours	Percentage of Customers Restored in First 48 Hours
2017/03/15	32,482	100.00
2018/03/09	30,365	99.95
2018/11/04	26,346	100.00
2019/09/12	10,780	91.77
2019/11/29	24,785	99.95
2022/09/30	10,654	85.48
Average		96.19
Standard Deviation		5.65
Average - Standard Deviation		90.54
2024 Target		95.05
2025 Target		**95.05**

Appendix M

Summary of Performance Standards Results by Category

1. Reliability Standards 2024 Results

Standard	Target	2024 Result	Outcome
SAIDI	≤4.29	5.26	Not Achieved
SAIFI	≤2.05	1.97	Achieved
CKAIDI	≤19.00	11S-411: 6.53	Achieved
		4N-313: 9.52	Achieved
		1W-411: 12.94	Achieved
		57S-401: 14.14	Achieved
		91W-411: 31.81	Not Achieved
CKAIFI	≤5.03	85S-401: 3.90	Achieved
		57S-401: 5.02	Achieved

2. Customer Service Response Standards 2024 Results

Standard	Target	2024 Result	Outcome
Regular Business Call Answer Rate	A minimum of 70 % of calls shall be answered within 30 seconds at NS Power Customer Care Centre.	81.3%	Achieved
Percent Estimated Bills	No more than 2% of customer bills shall be estimated annually.	1.0%	Achieved
Customer Notification of Outages	Notify all customers of an outage as soon as NS Power has knowledge of an outage event.	Target Met	Achieved
New Service Connection Times	Service Installation No Pole: ≤3.0 days.	2.14 days	Achieved
	Service Installation Pole or Transformer: ≤4.9 days.	4.71 days	Achieved
	Service Installation Temporary to Permanent: ≤3.2 days.	2.23 days	Achieved
	Service Installation Line Extension <10 Poles: ≤6.2 days.	6.01 days	Achieved
	Service Installation Line Extension ≥ 10 Poles: ≤18.1 days.	7.52 days	Achieved

3. Adverse Weather Response Standards 2024 Results

Standard	Target	2024 Result	Outcome
Notification of EOC Opening	NS Power to notify customers of the decision to open the EOC within 4 hours of the decision to open.	Target Met	Achieved
Outage Call Answer Rate	A minimum of 85% of calls answered within 45 seconds at Customer Care Centre during severe outage events.	No MED or EED Events in 2024	Achieved
Polite Disconnects	10% or less annually.	1.27%	Achieved
ETR Updates without delay	ETR updates provided without delay.	Target Met	Achieved
Percent Customers restored in 48 hours	Extreme Event Days: ≥78.38% of customer restored within 48 hours Major Event Days: ≥91.98% of customers restored within 48 hours. Significant Event Days (Following an EED or MED): ≥95.05% of customers restored within 48 hours	No MED or EED Events in 2024	Achieved
Outage Report for Events Impacting ≥ 30,000 Customers	File Report Within 45 days of the event, or within 75 in the case of a MED or EED	February 2: SED February 29: SED December 12: SED	Achieved

Appendix N

Comparison of Major and Extreme Event Days in 2024

No Major or Extreme Event Days in 2024

Table 1 - Summary of Peak Wind Gusts by Major or Extreme Event Day 2023

Region	Jan 26	Feb 4	Jul 21-22	Sep 16-17	Dec 11	Dec 18-19	Dec 21
Valley	78	76	35	93	89	107	65
South Shore	89	87	35	80	87	93	85
Northern	78	59	46	61	87	89	72
Northeast	82	85	35	n/a	91	96	83
Metro	91	76	31	107	91	94	89
Eastern Shore	100	85	39	102	81	93	102
Cape Breton West	115	95	48	72	93	111	94
Cape Breton East	102	78	43	69	91	91	96

Appendix O

Proposed Performance Standards for 2025

In its Decision on the proposed revisions to the Performance Standards the Board approved the following metrics for the 2022 to 2026 period.

1. Reliability Standards

(i) System Average Interruption Frequency Index ("SAIFI")
(ii) System Average Interruption Duration Index ("SAIDI")
(iii) Circuit Average Interruption Frequency Index ("CKAIFI")
(iv) Circuit Average Interruption Duration Index ("CKAIDI")

Exclusions: These reliability performance metrics are to be estimated for normal conditions, i.e., excluding: (i) major event days (MEDs) and above, as defined by the established MED and extreme event day (EED) thresholds* utilizing the IEEE 1366-2012 Standard 2.5 Beta methodology; and (ii) planned outages; and (iii) adverse weather-associated outages occurring in the second 24-hour period after a MED or EED.

Only those outages occurring in the second 24-hour period after a MED or EED severe event which can be attributed to the same storm system as precipitated the original MED or EED and meet Significant Event Day (SED**) thresholds are to be excluded from the metric calculation. The second 24-hour event, if excluded, will be considered a severe weather event, and be subject to adverse weather response standards.

These exclusions will apply to outage data effective January 1, 2022.

Compliance: NS Power's compliance across all reliability metrics will be assessed on an annual basis.

* The provincial MED and EED thresholds will be calculated utilizing the IEEE 1366-2012 Standard methodology, with the outage data associated with Hurricane Dorian (September 7, 8 and 9, 2019) excluded. Specifically, the events associated with the EEDs on September 7 and 8 and the MED on September 9, 2019 will be excluded.

** The provincial SED threshold for the second 24-hour period after a severe outage event will be calculated utilizing the IEEE 1366-2012 Standard 2.0 Beta methodology.

Standards 1 & 2 – SAIFI and SAIDI

SAIFI and SAIDI are system-wide reliability metrics, commonly used by electric power utilities.

Metrics:

- SAIFI measures the average number of times that a system customer experiences an outage during the specific time period of a study. SAIFI is estimated using the following formula:

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

- SAIDI measures the total duration of an interruption for the average customer, during a given time period. SAIDI is estimated using the following formula:

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

Benchmarks:

The SAIFI and SAIDI benchmarks/targets for NS Power will be set based on a 5-year rolling average plus 1 standard deviation ("SD") approach and reset each year. However, within a 5-year review period (i.e., 2022-2026), targets for any subsequent year (e.g. 2023 target) must be equal to or better than the prior year's target (e.g. 2022 target).

Figure 1 below identifies the SAIDI and SAIFI targets applicable for 2024, based on NS Power's historical data for the period from 2020 to 2024.

Figure 1 – 2025 Targets for SAIDI and SAIFI

Metric	2020	2021	2022	2023	2024	2020-2024 Avg	Std. Dev	2024 Target	Calculated Target	2025 Target
SAIDI	3.98	5.23	5.16	5.21	5.26	4.97	0.50	4.29	5.46	4.29
SAIDI	2.05	2.27	2.19	2.18	1.97	2.13	0.11	2.05	2.24	2.05

The SAIDI and SAIFI values beginning January 1, 2025 will reflect the updated MED thresholds and allow for the removal of the second 24-hour period after a severe event per the established parameters.

Standards 3 & 4 – CKAIFI and CKAIDI

CKAIDI and CKAIFI are linked to circuit level reliability. The goal of these metrics is to mitigate problem circuits that would not normally be captured by system level performance metrics (i.e., SAIDI and SAIFI).

Metrics:

CKAIFI is related to the ***frequency*** of interruptions experienced, which may be tied to a given circuit. CKAIFI is estimated using the following formula:

$$\text{CKAIFI} = \frac{\text{Total Number of Customers Interruptions by Circuit}}{\text{Total Number of Customers Served by Circuit}}$$

CKAIDI is related to the ***duration*** of interruptions experienced, which may be tied to a given circuit. CKAIDI is estimated using the following formula:

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

Benchmarks: The benchmarking methodology for CKAIFI and CKAIDI is as follows:

Any circuit or feeder that is among the worst 5 percent of all NS Power's circuits or feeders for two consecutive years shall be labeled as a problem circuit. Any problem circuit that is among the worst 5 percent of all NS Power's circuits or feeders for the third consecutive reporting year shall be labeled a chronic circuit. If the CKAIFI or CKAIDI values of the chronic circuits in a given year is greater than the average CKAIDI or CKAIFI values plus two standard deviations across all NS Power circuits in the same year, NS Power would have not met the benchmark, and shall be subject to a penalty.

Figure 2 identifies NS Power's circuits that appear among the worst 5 percent of all NS Power's circuits in both 2023 and 2024.

Figure 2 – CKAIDI and CKAIFI 2025 Problem Feeders

Metric	Feeders					
CKAIDI	81S-305	91W-411	78W-302	30N-412	78W-301	80W-301
CKAIFI	91W-411	57S-401	76V-301	24C-442	57W-401	57W-402

If any of the problem circuits identified above are among the worst 5 percent of the company's circuits for the third consecutive reporting year (i.e., 2023) for CKAIFI and CKAIDI respectively, those will be labeled the "chronic circuits" in 2025.

At the end of 2025, NS Power will file and compare the following data:

(i) the CKAIFI and CKAIDI of the chronic circuits in 2025, and
(ii) the average CKAIFI and CKAIDI plus 2 standard deviations of all circuits in 2025.

The comparison of (i) and (ii) will assist the Board in assessing compliance for the year 2025.

2. Adverse Weather Response Standards

The Board has approved the following metrics associated with adverse weather response standards:

(i) Customer notification of an oncoming severe weather event within a specific time frame
(ii) Percentage of calls answered within 45 seconds during a severe outage event
(iii) Polite disconnect rate for all outage calls
(iv) Estimated Time to Restore ("ETR") updates communicated to customers during an outage
(v) Percentage of customers restored within the first 48 hours of a severe weather event – separately for Major Event Days ("MEDs") and Extreme Event Days ("EEDs")[1] and Significant Event Days ("SEDs")[2] if the SEDs were excluded from normal conditions as the second 24-hour event, as discussed in Exclusions associated with reliability performance standards
(vi) Outage Report for adverse weather events impacting ≥ 30,000 customers.

Compliance: NS Power's compliance across all adverse weather response metrics will be assessed on an annual basis.

Standard 5 – Customer notification of an oncoming severe weather event

Metric: All NS Power customers shall be notified of an oncoming severe weather event within a specified number of hours of NS Power having knowledge of the oncoming inclement weather. The notifications shall be provided to all customers using multiple channels, such as the NS Power website, social media and automated messaging.

Benchmark: NS Power shall notify all its customers within 4 hours of NS Power's decision to open the NS Power Emergency Operations Centre. This benchmark shall be fixed for the 2022 to 2026 period.

Standard 6 – Percentage of calls answered within 45 seconds

Metric: Calls answered refers to telephone calls that are answered by a customer service representative after a caller asks to speak to a representative. The wait time associated with the "calls answered" metric is from the time the customer asks to speak to a representative to the time that the call is answered by a representative.

Calls answered using an automated system are not included in the estimation of the metric if a customer chooses to speak to a customer representative. Alternatively, if a customer chooses an automated system, those calls are included in the calculation of this metric.

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[1] MEDs and EEDs are defined using the IEEE 1366-2012 Standard 2.5 and 3.5 Beta methodology, respectively, with the outage data associated with Hurricane Dorian (September 7, 8 and 9, 2019) excluded in accordance with the NSUARB's Decision dated February 22, 2022 (M10279).

[2] SEDs are defined using the IEEE 1366-2012 Standard 2.0 Beta methodology, with the outage data associated with Hurricane Dorian (September 7, 8 and 9, 2019) excluded in accordance with the NSUARB's Decision dated February 22, 2022 (M10279).

Benchmark: A minimum 85 percent of telephone calls answered within 45 seconds at NS Power's Customer Care Centre during each severe outage event (i.e., MEDs and above, as defined by the IEEE 1366-2012 Standard). This benchmark shall be fixed for the 2022 to 2026 period.

Standard 7 – Polite disconnect rate for all outage calls

Metric: A polite disconnect results when a customer on hold waiting for a customer service agent is disconnected after receiving a brief disconnect message. A polite disconnect can result when call lines are very busy, and call volumes may be too high to keep customers on hold.

Benchmark: A 10 percent or less polite disconnect rate will be targeted annually for all outage calls. This benchmark shall be fixed for the 2022 to 2026 period.

Standard 8 – Estimated Time to Restore (ETR) updates

Metric: The performance standard around estimated restoration times shall aim to promptly provide customers with accurate information based on information available with NS Power.

Benchmark: NS Power shall provide ETR updates to all customers with ***no delay***, once new restoration time estimates are known.[3] This benchmark shall be fixed for the 2022 to 2026 period.

Standard 9 – Percentage of customers restored within the first 48 hours of a severe weather event

Metric: This metric has been approved to reasonably quantify the promptness of restoration following a severe weather event and will be estimated separately for (i) MEDs, (ii) EEDs and (iii) SEDs, if the SEDs were excluded from normal conditions as the second 24-hour event, as discussed in Exclusions associated with Reliability Performance Standards.

Benchmark: The targets for this metric shall be based on NS Power's respective historical averages (since 2017) minus one standard deviation. The benchmarks will be updated annually by including the most recent data available at the time of benchmark updating.

With the data provided from 2017 to 2024, there are 6 data points for SEDs, 44 data points for MEDs, and 9 data points for EEDs. **Figure 3** below shows benchmarks to be set for the percentage of customers restored within first 48 hours for MEDs, EEDs and SEDs in 2025.

Figure 3 – 2025 Benchmarks for Percentage of Customers Restored within 48 hours of a MED/EED

Percentage of customers restored with 48 hours of:			
	MEDs	**EEDs**	**SEDs**
2017-2024 Average	96.57	83.97	96.19
Standard Deviation	6.23	14.52	5.65

[3] For the Board to assess whether ETR updates were provided to customers without delay, as part of its annual reports, NS Power shall submit a compliance statement stating this was achieved, and note any exceptions with reasons.

Percentage of customers restored with 48 hours of:			
	MEDs	**EEDs**	**SEDs**
2025 Target	91.98	78.38	95.05

Figure 4 provides the 2025 benchmarks for the event day thresholds for SEDs, MEDs and EEDs.

Figure 4 – 2024 Event Day Thresholds (Customer Hours of Interruption)

SED (CHI)	MED (CHI)	EED (CHI)
95,651	237,489	1.464 million

Standard 9A – Outage Report for events impacting > 30,000 customers

Metric/Benchmark: *NS Power shall submit a report for weather-related outages impacting 30,000 or greater customers. The outage report shall be in the form approved by the NSUARB (Matter M09524). NS Power shall file the outage report within 45 days of the event, or within 75 days in the case of a MED or EED with those impacts.*

3. Customer Service Standards

The Board has approved the following metrics associated with customer service standards:

(i) Percentage of calls answered within 30 seconds
(ii) Percentage of customer bills that can be estimated
(iii) Customer notification of outages
(iv) New service connection times

Compliance: NS Power's compliance across all customer service metrics will be assessed on an annual basis.

Standard 10 - Percentage of calls answered within 30 seconds

Metric: Calls answered refers to telephone calls that are answered by a customer service representative after a caller asks to speak to a representative. The wait time associated with the "calls answered" metric is from the time the customer asks to speak to a representative to the time that the call is answered by a representative. Calls answered using an automated system are not included in the estimation of the metric if a customer chooses to speak to a customer representative. Alternatively, if a customer chooses an automated system, those calls are included in the calculation of this metric.

Benchmark: A minimum of 70 percent of telephone calls shall be answered within 30 seconds at NS Power's Customer Care Centre (under normal conditions – i.e., excluding severe weather conditions, where the adverse weather response benchmark will apply). This benchmark shall be fixed for the 2022 to 2026 period.

Standard 11 – Customer bills estimated

Metric: NS Power may on occasion need to estimate a customer's bill if the customer's meter cannot be accessed and accurately read. For example, during winter months, snowfall and icy conditions create difficulties getting access to meters. This causes NS Power to estimate the bill for the customer or facility whose meter they could not access. When NS Power crews can access the meters, the customer's bill is then adjusted retrospectively to reflect the actual meter reading.

Benchmark: As a percentage of total bills, no more than 2 percent of customer bills shall be estimated annually. This benchmark shall be fixed for the 2022 to 2026 period.

Standard 12 – Customer notifications of outages

Metric/Benchmark: NS Power shall notify all customers of an outage event as soon as NS Power has knowledge of the outage event. This notification shall be followed up with prompt updates on restoration status of the outages. Channels used to communicate this information shall include NS Power's live outage map, social media and automated messaging.

Standard 13 – New service connection times

Metric: The amount of time taken to establish a new service connection provides a valuable gauge of NS Power's customer service and its ability to provide/establish electrical service within a reasonable time frame. There are 5 different types of service level metrics that are measured, and each of these has a specific target for NS Power to meet.

Benchmark: The targets for this metric will be set based on a 5-year rolling average plus 1 SD approach and reset each year. This metric includes a two-day service delivery floor (i.e. no service delivery time will be due less than 48 hours from the time of the request). However, within a 5-year review period (i.e., 2022-2026), targets for any subsequent year (e.g. 2023 target) must be equal to or better than the prior year's target (e.g. 2022 target).

Similar to reliability metrics such as SAIDI and SAIFI, benchmarks for new service connections will also be set for normal conditions, i.e., excluding data for MEDs and EEDs.

Figure 5 identifies the targets for new service connection times (under normal conditions) applicable for 2025, based on NS Power's historical data for the period 2020 to 2024.

Figure 5 – 2025 New Service Connection Time Targets

Service Type	Service Install – No Poles	Service Install – Pole or Transformer	Service Install – Temporary to Permanent	Service Install – Line Ext <10 poles	Service Install – Line Ext ≥10 poles
2020	2.9	4.7	3.2	5.9	14.7
2021	3.0	4.8	3.1	5.9	10.2
2022	3.7	5.6	4.4	6.8	12.5
2023	4.2	6.2	4.7	7.8	12.0
2024	3.2	5.4	3.3	6.6	8.5
2020-2024 Average	3.4	5.3	3.7	6.6	11.6
Standard Deviation	0.5	0.5	0.7	0.7	2.1
2025 Target	3.0	4.9	3.2	6.2	13.7

Exclusion: *When NS Power experiences MEDs and EEDs (as defined using the established MED and EED thresholds via the IEEE 1366-2012 Standard 2.5 and 3.5 Beta methodology respectively with the exclusion of outage data associated with Hurricane Dorian on September 7-9, 2019) in assessing new service connection times, NS Power shall be allowed to exclude: (i) MEDs and 7 days following MEDs; and (ii) EEDs and 14 days following EEDs, to allow for time needed to return to normal conditions.*

Appendix N

Summary of Performance Standards Results Since 2017

Target / Target Met / Target Not Met

	Metric	2017	2018	2019	2020	2021	2022	2023	2024
1	SAIFI	≤2.05 **1.73**	≤2.05 **2.00**	≤2.05 **2.58**	≤2.05 **2.05**	≤2.05 **2.27**	≤2.05 **2.19**	≤2.05 **2.18**	≤2.05 **1.97**
2	SAIDI	≤4.29 **3.40**	≤4.29 **4.43**	≤4.29 **5.99**	≤4.29 **3.98**	≤4.29 **5.23**	≤4.29 **5.16**	≤4.29 **5.21**	≤4.29 **5.26**
3	CKAIFI target (worst 5% of performers)	≤4.66 **16V-314 (1.25)** **1C-411 (0.12)** **3S-301 (1.29)** **50N-410 (0.41)**	≤5.44 **7N-302 (4.31)** **67C-411 (4.32)**	≤6.16 **85S-401 (7.64)** **58C-403 (7.21)** **18V-413 (1.92)** **78W-302 (1.65)**	≤4.88 **85S-401 (4.85)** **88H-402 (2.69)** **58C-403 (2.11)**	≤5.90 **2C-402 (8.19)** **59C-402 (6.35)** **85S-401 (3.79)** **91W-411 (4.70)** **96H-412 (1.26)**	≤5.45 **2C-402 (4.80)** **24C-442 (3.69)** **59C-402 (2.58)**	≤5.81 **22C-402 (2.97)** **11S-411 (5.32)** **62N-413 (4.77)**	≤5.03 **85S-401 (3.90)** **57S-401 (5.02)**
4	CKAIDI target (worst 5% of performers)	≤24.60 **85S-402 (28.25)** **16V-314 (4.02)** **38N-412 (11.81)** **16V-315 (0.08)**	≤20.47 **85S-401 (67.68)** **85S-402 (15.66)** **2C-402 (8.30)**	≤20.51 **85S-401 (38.34)** **85S-402 (1.52)** **18V-413 (2.77)**	≤13.22 **88H-402 (17.49)** **67C-411 (14.90)** **85S-401 (14.30)** **37N-413 (11.12)** **9C-303 (0.81)**	≤17.86 **67C-411 (39.97)** **85S-401 (16.87)** **88H-401 (9.23)** **88H-402 (9.81)** **96H-412 (3.43)**	≤19.81 **11S-411 (22.84)** **2C-402 (16.79)** **100C-421 (10.16)** **24C-442 (7.08)** **67C-411 (5.38)** **77V-401 (4.71)**	≤16.98 **22C-402 (8.11)** **11S-411 (16.87)**	≤19.00 **91W-411 (31.81)** **11S-411 (6.53)** **4N-313 (9.52)** **1W-411 (12.94)** **57S-401 (14.14)**
5	Notification of EOC Opening	**Met**	**Met**	**Met**	**Met**	**Met**	**Met**	**Met**	**Met**
6	Outage Call Answer Rate within 45 seconds	≥85% **96.0**	≥85% **96.3** (01/4-6) **95.8** (01/31-02/1) **97.62** (03/8) **99.18** (03/13-14) **92.43** (11/3-5) **95.65** (11/29-12/1)	≥85% **91.57** (07/21) **94.18** (09/7-17) [Dorian] **95.07** (11/28) **94.25** (12/10)	≥85% **97.90** (02/7-02/9) **96.75** (02/27-29)	≥85% **n/a**	≥85% **97.76** (01/07-10) **99.63** (01/14-18) **94.13** (02/03) **99.15** (02/04-09) **96.56** (02/18-19) **93.31** (09/23-10/10) **86.65** (12/13-16) **95.78** (12/23-24)	≥85% **97.74** (01/26-28) **96.75** (02/04-07) **96.20** (07/21-25) **99.80** (09/16-21) **99.75** (12/11-14) **98.09** (12/18-21) **99.30** (12/21-23)	≥85% **n/a**
7	Polite Disconnects per year	≤10% **2.26**	≤10% **6.6**	≤10% **6.24**	≤10% **0.18**	≤10% **0.05**	≤10% **3.49**	≤10% **1.61**	≤10% **1.27**
8	ETR Updates without Delay	**Met**	**Met**	**Met**	**Met**	**Met**	**Met**	**Met**	**Met**

	Metric	2017	2018	2019	2020	2021	2022	2023	2024
9	Percentage of Customers Restored in 48 hours	MED ≥86.50% **97.61** (2/13) **100.00** (03/14) **99.99** (11/23) **99.64** (12/26) EED≥65.3% **98.41** (12/25)	MED ≥87.40% **100.00** (01/5) **100.00** (01/31) **100.00** (03/8) **99.48** (03/13) **99.98** (03/14) **99.70** (11/3) EED≥66.30 **99.9** (01/4) **99.9** (11/29)	MED ≥88.40% **100.00** (07/21) **79.95** (09/09) **91.40** (09/10) **86.70** (09/11) **99.51** (11/28) **100.00** (12/10) EED≥68.7 **79.82** (09/07) **72.39** (09/08)	MED ≥88.40% **95.78** (02/07) **99.56** (02/08) **100.00** (02/27)	MED ≥88.40% **n/a**	MED≥91.98% 99.09 (01/07) 100.0 (01/08) 99.92 (01/14) 99.57 (01/15) 100.00 (02/03) 94.19 (02/04) 93.88 (02/05) 100.00 (02/18) 86.39 (09/26) 74.88 (09/27) 77.53 (09/28) 90.20 (09/29) 99.97 (12/1) 95.16 (12/13) 100.00 (12/23) 100.00 (12/24) EED≥78.38% 65.53 (10/23) 60.98 (10/24) 82.67 (10/25) SED≥95.05% 85.48 (09/30)	MED≥91.98% 99.99 (01/26) 99.99 (02/04) 99.49 (07/21) 99.42 (07/22) 94.87 (09/17) 98.67 (12/11) 97.26 (12/18) 99.72 (12/19) 99.88 (12/21) EED≥78.38 96.40 (09/16)	MED≥91.98% **n/a** EED≥78.38% **n/a**
	File outage reports within 45 or 75 days	n/a	n/a	n/a	n/a	n/a	**Met** 01/07 01/14-15 01/17-18 02/04-08 02/18 04/19 09/23-24 12/1 12/13 12/23-24	**Met** 01/16 SED 01/26-28 MED 02/04-07 MED 07/21-25 MED 09/16-21 EED/MED 11/27-28 SED 12/11-14 MED 12/18-21 MED 12/21-23 MED	**Met** 02/29 03/24 12/12
10	Regular Calls Answer Rate In 30 Seconds	≥70% **72.0**	≥70% **73.0**	≥70% **66.67**	≥70% **72.76**	≥70% **75.1**	≥70% **71.1**	≥70% **76.30**	≥70% **81.3%**
11	Percentage of Bills Estimated	≤2% **1.1**	≤2% **0.9**	≤2% **2.4**	≤2% **10.7**	≤2% **1.2**	≤2% **0.7**	≤2% **0.7**	≤2% **1.0**
12	Customer Notification of Outages	**Met**	**Met**	**Met**	**Met**	**Met**	**Met**	**Met**	**Met**

	Metric	2017	2018	2019	2020	2021	2022	2023	2024
13	New Service Connections:								
	No Pole	≤2.8 / **2.2**	≤2.4 / **2.0**	≤2.4 / **2.3**	≤2.2 / **2.1**	≤2.22 / **2.18**	≤3.0 / **2.98**	≤3.0 / **3.39**	≤3.0 / **2.14**
	Pole or Tx	≤5.9 / **4.2**	≤5.2 / **4.0**	≤5.0 / **4.6**	≤4.4 / **4.3**	≤4.4 / **4.39**	≤4.9 / **5.09**	≤4.9 / **5.67**	≤4.9 / **4.71**
	Temp-Perm	≤2.9 / **2.3**	≤2.8 / **2.1**	≤2.8 / **2.5**	≤2.8 / **2.6**	≤2.5 / **2.41**	≤3.2 / **3.73**	≤3.2 / **3.86**	≤3.2 / **2.23**
	<10 Poles	≤8.8 / **5.2**	≤7.4 / **5.1**	≤7.2 / **6.3**	≤5.8 / **5.6**	≤5.8 / **5.45**	≤6.2 / **6.38**	≤6.2 / **7.68**	≤6.2 / **6.01**
	≥10 Poles	≤31.7 / **12.1**	≤26.9 / **12.2**	≤26.7 / **21.5**	≤25.8 / **14.6**	≤25.8 / **9.70**	≤18.1 / **12.02**	≤18.1 / **14.12**	≤18.1 / **7.52**
	MED Threshold CHI	157,127	165,849	184,972	211,057	210,750	182,510	231,214	251,987
	EED Threshold CHI	1,075,386	1,109,000	1,254,000	1,431,181	1,398,000	1,129,145	1,492,000	1,625,760
	SED Threshold CHI	n/a	n/a	n/a	n/a	n/a	73,376	90,997	99,206