

Five Year Reliability Plan 2025-2029 (M12558)
NSPI Responses to Synapse Energy Economics Information Requests

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1 **Request IR-1:**

2
3 **Please provide NS Power's planned SAIDI and SAIFI, with and without major events, from**
4 **2015-2025 on an annual basis. Please provide in Excel with all supporting data and**
5 **calculations.**

6
7 Response IR-1:

8
9 Please refer to Attachment 1.

Planned Outages - Event Days Included

Year	CI	CH	Avg Annual Customers	SAIFI	SAIDI
2015	104,466	93,752	497,506	0.21	0.19
2016	132,521	199,178	503,202	0.26	0.4
2017	190,357	222,825	506,802	0.38	0.44
2018	148,154	200,473	509,331	0.29	0.39
2019	146,323	250,501	514,963	0.28	0.49
2020	126,005	171,013	516,823	0.24	0.33
2021	150,447	194,249	524,066	0.29	0.37
2022	204,015	333,481	531,271	0.38	0.63
2023	300,867	686,610	537,274	0.56	1.28
2024	417,508	588,857	545,645	0.77	1.08
2025	423,775	618,414	552,449	0.77	1.12

Planned Outages - MED/EED Removed

Year	CI	CH	Avg Annual Customers	SAIFI	SAIDI
2015	104,466	93,752	497,506	0.21	0.19
2016	132,518	199,173	503,202	0.26	0.4
2017	184,177	212,324	506,802	0.36	0.42
2018	144,702	191,740	509,331	0.28	0.38
2019	134,564	237,452	514,963	0.26	0.46
2020	122,974	170,752	516,823	0.24	0.33
2021	150,447	194,249	524,066	0.29	0.37
2022	192,155	330,452	531,271	0.36	0.62
2023	274,983	326,957	537,274	0.51	0.61
2024	417,508	588,857	545,645	0.77	1.08
2025	414,528	614,331	552,449	0.75	1.11

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Request IR-2:

Page 4 of the Reliability Plan states NS Power “has responded with \$1.8 billion in system infrastructure investments over that period [10 years].” Please provide an overview of these investments by category of expenditure (e.g. vegetation management-distribution, reconductoring, etc.) on an annual basis and in total across all years.

Response IR-2:

NS Power has not gone through the project by project review necessary to break out the investment into granular categories such as reconductoring, structure replacements, etc. Below is a table of that shows the \$1.8 billion broken out by Distribution, Transmission and Vegetation Management.

Year	Transmission	Distribution	Vegetation Management	Total
2014	50.4	51.7	1.8	103.9
2015	53.5	59.8	3.7	117.0
2016	52.3	68.0	6.1	126.4
2017	82.7	74.0	11.1	167.8
2018	75.1	101.7	19.1	196.0
2019	45.5	158.7	14.3	218.5
2020	41.1	136.1	10.4	187.6
2021	50.3	106.4	16.4	173.1
2022	51.1	199.6	15.6	266.2
2023	91.8	132.7	21.9	246.4
Total				1802.7

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1 **Request IR-3:**

2
3 **Please provide NS Power's actual SAIDI and SAIFI, with and without major events, from**
4 **2015-2025 on an annual basis. Please provide in Excel with all supporting data and**
5 **calculations.**

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7 Response IR-3:

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9 Please refer to Attachment 1 for NS Power's Customer Interruptions (CI), Customer Count
10 (Customer Avg), Customer Hours of Interruption (CHI), SAIDI, and SAIFI results with and
11 without major events for 2015-2025.

All Outages SAIDI & SAIFI 2015 - 2025

Year	CI	CHI	Customer Avg	SAIFI	SAIDI
2015	1,188,796	2,417,220	497,506	2.39	4.86
2016	1,721,114	5,988,996	503,202	3.42	11.90
2017	1,424,528	4,345,044	506,802	2.81	8.57
2018	2,322,338	8,283,350	509,331	4.56	16.26
2019	2,328,806	22,597,116	514,963	4.52	43.88
2020	1,399,689	3,395,338	516,823	2.71	6.57
2021	1,342,895	2,936,288	524,066	2.56	5.60
2022	3,090,633	39,778,029	531,271	5.82	74.87
2023	2,667,778	12,375,476	537,274	4.97	23.03
2024	1,502,007	3,460,294	545,645	2.75	6.34
2025	1,610,994	5,627,705	552,449	2.92	10.19

MED/EED Removed SAIDI & SAIFI 2015 - 2025

Year	CI	CHI	Customer Avg	SAIFI	SAIDI
2015	1,189,118	2,416,223	497,506	2.39	4.86
2016	1,369,820	2,744,368	503,202	2.72	5.45
2017	1,059,615	1,934,798	506,802	2.09	3.82
2018	1,165,661	2,446,220	509,331	2.29	4.80
2019	1,465,520	3,305,747	514,963	2.85	6.42
2020	1,180,477	2,225,913	516,823	2.28	4.31
2021	1,342,895	2,936,288	524,066	2.56	5.60
2022	1,364,831	3,247,334	531,271	2.57	6.11
2023	1,447,356	3,128,806	537,274	2.69	5.82
2024	1,502,007	3,460,294	545,645	2.75	6.34
2025	1,283,716	3,259,823	552,449	2.32	5.90

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1 **Request IR-4:**

2
3 **Please provide NS Power's actual SAIDI and SAIFI, with and without major events, from**
4 **2015-2025 on an annual basis, related to distribution system level outages. Please provide in**
5 **Excel with all supporting data and calculations.**

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7 Response IR-4:

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9 Please refer to Attachment 1.

Distribution System Outages (CEA 2 Loss of Supply Removed) - Event Days Included

Year	CI	CH	Avg Annual Customers	SAIFI	SAIDI
2015	757,860	1,532,890	497,506	1.52	3.08
2016	1,317,733	5,240,381	503,202	2.62	10.41
2017	1,072,136	3,810,396	506,802	2.12	7.52
2018	1,722,884	6,482,575	509,331	3.38	12.73
2019	1,874,725	19,982,692	514,963	3.64	38.80
2020	1,155,529	2,959,840	516,823	2.24	5.73
2021	986,127	2,413,943	524,066	1.88	4.61
2022	2,614,475	37,065,489	531,271	4.92	69.77
2023	2,106,152	10,894,234	537,274	3.92	20.28
2024	1,077,692	2,676,782	545,645	1.98	4.91
2025	1,202,977	4,358,447	552,449	2.18	7.89

Distribution System Outages (CEA 2 Loss of Supply Removed) - MED/EED Removed

Year	CI	CH	Avg Annual Customers	SAIFI	SAIDI
2015	757,860	1,532,890	497,506	1.52	3.08
2016	972,441	2,022,243	503,202	1.93	4.02
2017	723,375	1,487,996	506,802	1.43	2.94
2018	899,100	2,001,612	509,331	1.77	3.93
2019	1,082,173	2,553,903	514,963	2.10	4.96
2020	940,583	1,803,906	516,823	1.82	3.49
2021	986,127	2,413,943	524,066	1.88	4.61
2022	1,005,449	2,521,661	531,271	1.89	4.75
2023	1,010,942	2,444,387	537,274	1.88	4.55
2024	1,077,692	2,676,782	545,645	1.98	4.91
2025	899,763	2,161,200	552,449	1.63	3.91

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1 **Request IR-5:**

2
3 **Please provide NS Power's actual SAIDI and SAIFI, with and without major events, from**
4 **2015-2025 on an annual basis, related to transmission system level outages. Please provide in**
5 **Excel with all supporting data and calculations.**

6
7 Response IR-5:

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9 Please refer to Attachment 1.

Transmission System Outages (CEA 2 Loss of Supply Only) - Event Days Included

Year	CI	CH	Avg Annual Customers	SAIFI	SAIDI
2015	431,258	883,333	497,506	0.87	1.78
2016	403,375	748,604	503,202	0.80	1.49
2017	352,392	518,888	506,802	0.70	1.02
2018	599,439	1,800,699	509,331	1.18	3.54
2019	456,233	2,605,756	514,963	0.89	5.06
2020	244,160	435,498	516,823	0.47	0.84
2021	356,768	522,345	524,066	0.68	1.00
2022	476,158	2,712,540	531,271	0.90	5.11
2023	561,626	1,481,242	537,274	1.05	2.76
2024	424,315	783,512	545,645	0.78	1.44
2025	408,017	1,269,258	552,449	0.74	2.30

Transmission System Outages (CEA 2 Loss of Supply Only) - MED/EED Removed

Year	CI	CH	Avg Annual Customers	SAIFI	SAIDI
2015	431,258	883,333	497,506	0.87	1.78
2016	397,379	722,125	503,202	0.79	1.44
2017	336,240	446,802	506,802	0.66	0.88
2018	266,561	444,608	509,331	0.52	0.87
2019	383,347	751,844	514,963	0.74	1.46
2020	239,894	422,007	516,823	0.46	0.82
2021	356,768	522,345	524,066	0.68	1.00
2022	359,382	725,673	531,271	0.68	1.37
2023	436,414	685,373	537,274	0.81	1.28
2024	424,315	783,512	545,645	0.78	1.44
2025	383,953	1,098,623	552,449	0.70	1.99

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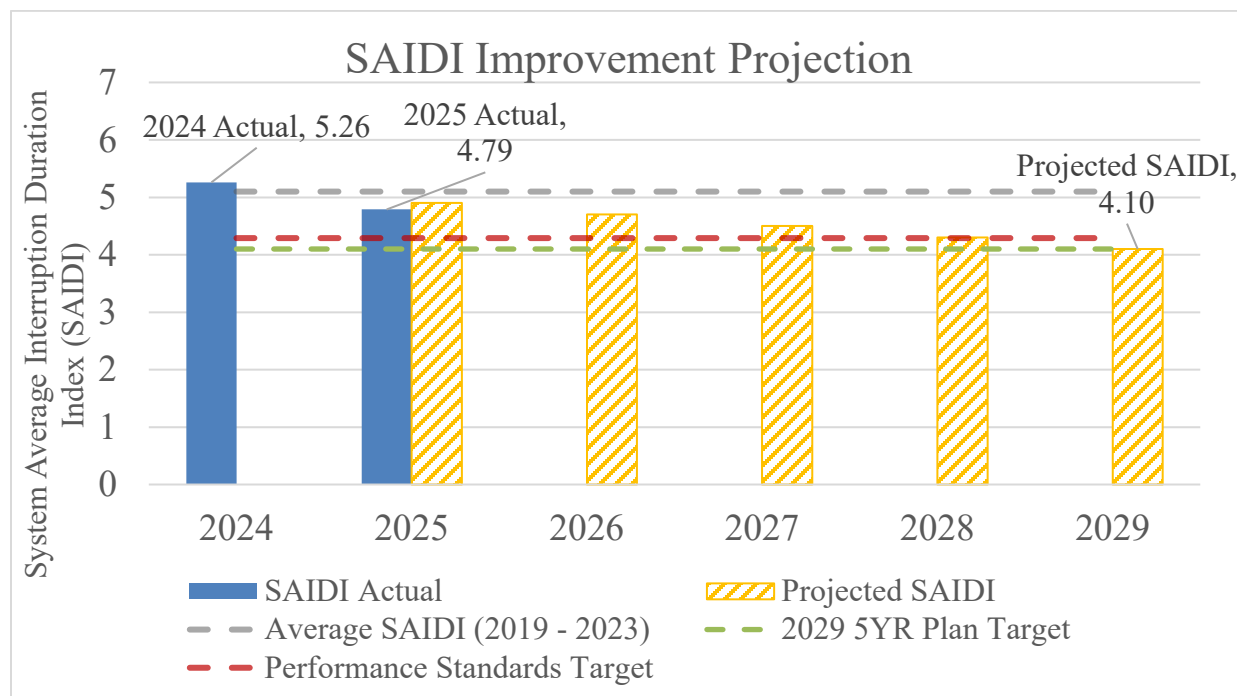
Request IR-6:

Please provide the planned and actual overall reliability improvement (e.g., change in SAIDI and SAIFI) from Reliability Plan investments in 2025. Please provide all supporting evidence, calculations, and quantitative data in Excel to support this response. Please explain how actual values compare to plan values, and the reasons for the differences between the two values.

Response IR-6:

As described in the Five-Year Reliability Plan 2025 update included in NS Power's 2026 Annual Capital Expenditure Plan (M12619) as well as the 2025 Performance Standards Report (M12784) the overall target for these Reliability Plan investments is to deliver a 20 percent improvement to Performance Standards SAIDI by 2029. As illustrated in Figure 28 in the 2025 Performance Standards Report (and replicated below), preliminary indications from the first year of the plan on 2025 performance at a system level indicate that NS Power is trending in the intended direction toward a 20 percent improvement to Performance Standards SAIDI.

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In 2025, NS Power's Performance Standards SAIDI (4.79) was the best result since 2020, and SAIFI (1.57) was the best result since 2012. The targeted investments undertaken in 2025, as well as those in recent years, contributed to these results. The year-by-year SAIDI projections included in Figure 28 are not intended to be precisely reconciled with the actual annual performance in each year as they are not based on results anticipated in a given year but are simply an even allocation of anticipated improvement over each year of the plan. However, this trend does provide a directional reference or comparison to compare against actual performance. Please refer to IR-38 Attachment 2 for the data used to project the 20% improvement in Performance SAIDI.

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Request IR-7:

Has NS Power assessed reliability performance for the following customer types?

(a) end users in different rate classes;

(b) the Mi'kmaq of Nova Scotia;

(c) customers who are medically-dependent on electricity;

(d) communities that are served by equipment that is overloaded or feeders that are constrained;

(e) critical facilities;

(f) customers with or required to have backup power;

(g) other customer types not listed (please identify the customer types).

If so, please provide the results of these assessments.

Response IR-7:

(a-g) NS Power does not assess reliability by specific customer classes or customer types. Reliability is tracked on both a system-wide basis and on an individual feeder basis. Typically, multiple different customer classes and customer types could be represented on a single feeder. NS Power can identify the rate class of a given customer on each feeder; however, it does not currently assess reliability performance using rate class information and does not currently plan to do so. Current performance standards are established at the system and feeder level, and do not provide for the prioritization of

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1 reliability by customer type. As a result, NS Power does not include customer type as a
2 criterion when determining investment decisions.

3
4 Please refer to IR-8 for additional information.

5
6 NS Power uses its asset management mechanism to assess the reliability performance of
7 equipment and feeders. Reliability performance is assessed using a risk-based decision-
8 making approach that considers both leading and lagging indicators, rather than relying
9 solely on past outage events (a lagging indicator). NS Power targets the highest system
10 risks through its asset management framework, with those risk drivers determining the
11 appropriate mix of programs needed to reduce risk and improve reliability. This approach
12 was validated by the EA Technology review of NS Power's asset management program in
13 matters M11067 and M12022. This approach is also congruent with ISO55000-1.

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Request IR-8:

If NS Power has not assessed reliability performance for these customer types to date:

- (a) Has NS Power identified the prevalence of each of these customer types on each feeder? If so, please provide this data.
- (b) If not, are there any barriers to NS Power identifying the prevalence of each customer type on each feeder?
- (c) Is NS Power planning on assessing reliability performance for any of these customer types in the future? If so, which customer types will be assessed and when?

Response IR-8:

- (a) While NS Power can identify the rate class of a given customer on each feeder, the customer types identified in Synapse IR-7 and IR-35 are not tracked by the Company.
- (b) In terms of recording some of the customer types identified in Synapse IR-7 and IR-35, such as the Mi'kmaq of Nova Scotia or low-income customers, NS Power would have to rely on the self-disclosure of customers. NS Power has no authority to compel that information and limited ability to verify or validate any such self-disclosure. Further, NS Power does not wish to seek out additional sensitive personally identifiable information from customers at this time.

As explained when reviewing the Terms of Reference for this review, NS Power does not collect information on customer backup power unless there is a net metering installation that could feed power back into the system and would have to rely on the self-disclosure of customers who consent to such a disclosure. The Company does not track which customers may have their own generators (e.g., GenerLink) or the operational status of

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1 such equipment. Electricity Canada's methodology for calculating performance metrics
2 does not account for behind-the-meter generation. Outages are counted whenever the utility
3 is not supplying a customer's meter, regardless of any customer-owned backup generation.
4

- 5 (c) No, NS Power is not planning to assess reliability performance for any of these customer
6 types in the future for the reasons listed above and for the following reasons. In order to
7 operationalize such segmentation for the purposes of reliability performance analysis, NS
8 Power would have to change its current outage data capture and documentation processes
9 to account for further data recorded on each outage. Such an effort has not been scoped to
10 date by NS Power and the necessary investment in resources and/or software would need
11 to be determined. Additionally, even if modifications were feasible, there is limited ability
12 to re-analyze performance from previous years where such details were not collected, so
13 comparison with past performance would not be possible. NS Power is not planning to
14 adjust its analysis of reliability performance by customer rate class in the future.

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Request IR-9:

Did NS Power meet with the Mi'kmaq of Nova Scotia regarding its Reliability Plan?

(a) If so, when and for what purpose? If not, why not?

(b) If so, did that discussion affect the Reliability Plan investments? In what way(s)?

Response IR-9:

The Reliability Plan was not reviewed in its entirety with the Mi'kmaq of Nova Scotia. NS Power does engage regularly with Mi'kmaq communities and organizations on reliability and other concerns.

(a-b) NS Power's Reliability Advisors and members of NS Power's Mi'kmaq Relations team work closely with Mi'kmaq communities and organizations across Nova Scotia to ensure work impacting their communities is communicated, understood, and adapted as required to the concerns and identified needs of the community.

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Request IR-10:

Did NS Power study and/or consider the impacts of its proposed vegetation management and infrastructure plans on the livelihood of the Mi'kmaq of Nova Scotia including the land, mineral, plant and other natural resources, and animals upon which the Mi'kmaq of Nova Scotia depend for survival and economic wellbeing? If so, when and how? If not, why not?

Response IR-10:

NS Power collaborates with the Mi'kmaq of Nova Scotia in several ways as part of its vegetation management program. Whenever work is planned within a Mi'kmaq community, the vegetation management team works closely with community leaders to ensure that all necessary permissions are obtained before work begins and that all trees and related by-products, such as wood chips, are provided to the community for use as they determine appropriate.

NS Power has also collaborated with its vegetation management contractors to hire individuals from Mi'kmaq communities to support the Company's program. This approach offers a dual benefit: it creates employment opportunities for those in Mi'kmaq communities while also strengthening contractor capacity in an industry where attracting workers remains an ongoing challenge.

Compliance with the Nova Scotia *Endangered Species Act* is very important. For example, Black ash (*Fraxinus nigra*), listed as a threatened species in Nova Scotia since 2013, is considered sacred and holds significant cultural importance to the Mi'kmaq. NS Power takes all practical measures to protect the species, including providing annual awareness training to vegetation management contractors. If a black ash tree is identified, the team consults with Mi'kmaq representatives to determine whether it can be relocated or, where feasible, left in place if risks to the power line can be safely managed through other means.

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Request IR-11:

Did NS Power solicit input on reliability concerns from particular communities, customer types, or customers classes, including but not limited to the Mi'kmaq of Nova Scotia, customers who are medically-dependent on electricity, low-income customers, communities served by equipment that is overloaded or feeders that are constrained, critical facilities, customers with or required to have backup power, and/or Industrial customers?

(a) If so, from which customers and how?

(b) If so, were the concerns from each customer type incorporated into the Reliability Plan and how?

(c) If not, why not?

Response IR-11:

(a) Yes, NS Power has solicited input on reliability concerns across multiple communities and customer types as detailed below:

NS Power employs four Reliability Advisors, one for each operational territory of the province, whose role includes working with community members to ensure reliability concerns and impacts are understood by the Company and that reliability investment plans are informed by this feedback. This engagement has focused on areas experiencing reliability challenges and would include communities representing a wide variety of customers such as those detailed in the question.

In 2025, the Reliability Team engaged with customers in over 80 outreach sessions to talk about the reliability investments happening in their communities and to listen to the challenges they experience.

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1
2 NS Power employs a Mi'kmaq Relations team that meets with Mi'kmaw communities and
3 organizations across the province. NS Power engages with these communities and
4 organizations, shares information and receives feedback on operations and projects.

5
6 This feedback continues to inform NS Power's project development including investments
7 as part of the Five-Year Reliability Plan.

8
9 (b) The concerns raised through engagement activities with customers have been incorporated
10 into the development of the Five-Year Reliability Plan primarily by providing further
11 context that can be used to inform NS Power's asset management framework. Feedback
12 from customers on their experience would assist in better understanding key areas of
13 concern that can be incorporated with other key condition and criticality factors such as
14 historical reliability performance.

15
16 Additionally, customer feedback regarding affordability and potential rate impacts has
17 informed NS Power's approach to the pace of reliability performance improvement with
18 costs, as discussed previously.

19
20 (c) N/A.

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Request IR-12:

In developing its performance goals and Reliability Plan, did NS Power consider its reliability performance as compared to other U.S. and Canadian jurisdictions?

(a) If so, which ones and why did NS Power focus on those jurisdictions?

(b) If so, how did NS Power incorporate its consideration of reliability performance relative to other U.S. and Canadian jurisdictions into its Reliability Plan?

(c) If not, why not?

(d) If not, which U.S. and Canadian jurisdictions does it make sense to compare NS Power's reliability performance to moving forward and why?

Response IR-12:

No.

(a-b) Not applicable.

(c-d) NS Power did not consider the reliability performance of other jurisdictions when developing the goals of the Five-Year Reliability Plan. The overarching goal of the plan is to consistently achieve reliability-based performance standards, in particular SAIDI, SAIFI, and adverse weather restoration performance in Nova Scotia. These performance standards were established by the Nova Scotia Energy Board's consultant in 2016 (M07387) and are subject to review by the NSEB every five years (M10279). Since these performance standards have already been set by the NSEB and NS Power is required under the *Public Utilities Act* to achieve them review of performance in other jurisdictions was not required for NS Power to establish the goals of the Reliability Plan. The suitability of

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1 the performance standards (including targets for reliability) in relation to comparable
2 utilities in other jurisdictions is more appropriately considered through the current review
3 of performance standards for 2027-2031 (M12376).

4
5 When selecting appropriate comparators for such purposes, the characteristics of the
6 operating area and macro economic variables should be considered to determine whether
7 comparison is appropriate given the unique situations each utility must manage. These may
8 include:

- 9
- 10 • Geography of service territory, including the influence of a marine environment (i.e.
11 the province of Nova Scotia juts out into the Atlantic Ocean, and experiences
12 significant weather events as a result)
 - 13 • Type, severity, breadth, and frequency of weather events
 - 14 • Forest cover and vegetation types
 - 15 • Mix of urban and rural power system infrastructure
 - 16 • Urban planning
 - 17 • Customer density and system size (number of customers per line km of transmission
18 and distribution system)
 - 19 • Type, severity, breadth, and frequency of weather events
 - 20 • Regulatory and political environment

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Request IR-13:

Please provide the actual SAIDI and SAIFI, with and without major events, of all other Canadian utilities from 2015-2025 on an annual basis. Please provide in Excel with all supporting data and calculations. Please explain and provide supporting data in Excel with all calculations. Please explain if NS Power's current reliability is worse, better, or similar to the current reliability of other Canadian utilities.

Response IR-13:

NS Power is not permitted to provide individual SAIFI and SAIDI performance for other Canadian utilities as it would violate the confidentiality agreements in place between utilities and Electricity Canada. As shown in Figures 59 and 60 of the 2026 ACE Plan (M12619), NS Power does compare favourably to the average of Atlantic Canada utilities, considered the closest utility comparators to NS Power.

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Request IR-14:

In developing its performance goals and Reliability Plan, did NS Power examine the reliability practices of U.S. and Canadian utilities?

(a) If so, which utilities and how did this examination inform the Reliability Plan?

(b) If not, why not?

Response IR-14:

The performance goals as established in the Five-Year Reliability Plan are aligned with achieving the Performance Standards set by Government and the NSEB, specifically SAIDI and adverse weather restoration standards, by 2029. As detailed in Synapse IR-12, these targets are fixed through a well-established mechanism, and no comparison with other utilities would influence the specific targets set under this mechanism.

The areas of focus and related projects of the Five-Year Reliability Plan (Vegetation Management, Storm Hardening - Device Replacements, and Grid Modernization) are certainly consistent with the reliability practices of many other North American utilities. NS Power's participation in working groups within Electricity Canada along with member utilities across Canada as well as reviews of and discussions on the best practices of these utilities provides the Company with valuable insight into how other Canadian utilities are targeting reliability improvements. Additionally, participation in international industry groups such as CEATI and one-on-one discussions with other utilities provide further forums where utility experience with various reliability interventions are gathered for consideration by NS Power.

NS Power's proposed programs and specific actions within the Five-Year Reliability Plan are aligned with these industry best practices as applicable.

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Request IR-15:

Please explain how NS Power defines a “reliability” investment. Would any investment or expenditure on or around overhead powerlines enhance reliability?

(a) How does NS Power determine which investments should be included as a part of the Reliability Plan?

(b) Which reliability-related investments are addressed through other investment plans and why?

Response IR-15:

NS Power defines a reliability investment as any expenditure completed in order to mitigate the risk of not reliably servicing the customer. Any investments on or around overhead powerlines that replace components, mitigate the risk of a failure or potential tree contact, and/or improve the performance of a component would be considered a reliability investment.

(a) All investments that replace, refurbish, or improve upon assets designed to facilitate the delivery of electricity to customers are included as part of the Reliability Plan. Investment that is not included within the reliability plan would be for the connection of new customers or the upgrade of existing customers (which are all done within the New Customer routine capital program).

(b) All Energy Delivery reliability investments are addressed through this plan.

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Request IR-16:

Are the Reliability Plan investments intended to capture “proactive” investments (e.g. before it is necessary), “reactive” investments (e.g. when it is necessary for either compliance or to fix broken equipment), or both? Please explain why the Reliability Plan includes these types of investments.

Response IR-16:

The Reliability Plan includes both proactive and reactive investments, as both contribute to sustainably improving system reliability and resilience.

Proactive investments are those undertaken in advance of failure using leading indicators based on asset condition, criticality, performance, and risk assessments. These investments, such as targeted vegetation management, equipment replacements informed by inspection data, storm hardening initiatives, and grid modernization, are intended to reduce the likelihood, frequency, and impact of future outages and to improve system resilience to adverse weather and emerging risks.

Reactive investments address assets that have failed or are at imminent risk of failure based on lagging indicators and require timely intervention to restore service, maintain safety, or ensure regulatory compliance. A goal of the reliability plan is to reduce equipment failures and their associated impact on the power system. There is, however, an inherent amount of reactive investment present in the operation of a large power system. While these investments may be triggered by a specific event or condition, they are executed using modern standards and designs and are at times integrated with broader storm hardening or modernization objectives. As a result, reactive investments not only restore service but also improve the long-term condition and reliability of the affected assets.

Including both proactive and reactive investments ensures the Reliability Plan effectively balances risk mitigation, cost efficiency, and operational realities. Proactive investments help avoid outages

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- 1 before they occur, while reactive investments are essential to address unavoidable failures and
- 2 emerging conditions, ensuring continued reliable service to customers. Together, these approaches
- 3 support both near-term reliability performance and long-term system resilience.

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Request IR-17:

Please quantify which of the Reliability Plan investments and expenditures are “proactive” (e.g. before it is necessary) versus “reactive” (e.g. when it is necessary for either compliance or to fix broken equipment). Please break this data out by capital and O&M, the category of expenditure (e.g. vegetation management-distribution, reconductoring, etc.), and provide the data on an annual basis and in total across all years.

Response IR-17:

For future years in the Reliability Plan, the forecast expenditure is not broken out by proactive versus reactive. However, 2025 and 2026 can be broken out to show how much reactive work occurred in 2025 and is anticipated to occur in 2026. It is not possible to forecast reactive work further than 2026 because it uses lagging indicators like outage events. All reactive work included in the Reliability Plan is completed under four capital routines shown in the table below:

Reactive Work	2025	2026
D005 – Unplanned Replacement Deteriorated Equipment	\$21.5M	\$22.4M
D008 – Storm Routine	\$3.6M	\$6.9M
T001 – Provincial Transmission Line Replacement (Unplanned)	\$1.7M	\$3.3M
T003 - Provincial: Transmission Substation Primary Equipment *	\$2.9M	\$2.5M
Total	\$29.7M	\$35.1M

* This routine consists of reactive and proactive work. The number here is an estimate of how much reactive work has been completed.

The remaining investment outlined in the Reliability Plan is all considered proactive. Proactive investments leverage the Asset Management Mechanism and leading indicators based on Asset Condition. It is imperative that the effectiveness of investments consider the change in asset risk or condition not just on improvement of the lagging performance indicators such as customer hour

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1 of interruption. Using only lagging performance indicators becomes problematic when used as the
2 sole basis for investment decisions particularly for transmission and substation assets that are
3 prioritized based on condition not the number of outages they experienced. If the utility were to
4 change its Asset Management methodology from using both leading and lagging indicators it
5 would result in an under investment in this asset class not because the assets are unimportant, but
6 because prioritizing historical performance alone is structurally unable to capture their true risk
7 profile. No operating costs included in the reliability plan are considered reactive.

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Request IR-18:

Please provide Figure 1: Forecast Investment by Reliability Program 2025-2029 (\$ million) on page 5 of the Reliability Plan, in Excel with all supporting data, calculations, and work papers. As part of this response, please provide the unit cost assumed for each program (e.g., \$/circuit mile or \$/asset) and the derivation of that unit cost with all supporting data. For the \$/asset costs, please estimate a \$/circuit mile cost based on the average number of assets per circuit mile.

Response IR-18:

Please refer to Attachment 1.

The 2025 investment forecast is based on a portfolio of 147 reliability projects included in NS Power's 2025 ACE Plan. These projects were developed through NS Power's asset management mechanism and include a mix of projects with defined scopes and broader programmatic work addressing condition-based and unplanned reliability needs. All 2025 projects supporting Figure 1 are defined in the 2025 ACE Plan application.

Specific projects had not been defined for 2026–2029, at the time of filing the Five-Year Reliability Plan. Investment levels for these years therefore reflect high-level program budgets.

Where investment is shown in the Plan for individual sub-programs, those amounts were derived by:

- determining each sub-program's relative share of the total program investment in 2025; and
- applying that same proportion to the program-level investment totals for the 2025–2029 planning period.

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1 As a result, sub-program investment totals for 2025–2029 represent a planning-level allocation of
2 program-level investment based on the 2025 ACE Plan portfolio, and do not represent a forecast
3 of specific work or project scope in the out-years.

4
5 While the forecast investment levels shown in Figure 1 were not developed using a bottom-up,
6 project-level build-up of unit costs, as detailed in IR-38 NS Power leverages a programmatic level
7 estimate of cost effectiveness for SAIDI improvement. These estimates are applied at a high level
8 to validate planning-level investment assumptions, including understanding the implied
9 order-of-magnitude work volumes and potential impacts on system reliability. Because specific
10 projects have not been identified for years beyond 2025, specific, project-level costs were not
11 applied in developing the investment forecasts presented in Figure 1.

Figure 1 from Report

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	45	45	65	65	265
Advanced Grid Modernization	9.2	7.9	7.9	15.3	37.6	77.9
Total	206.6	234	251.6	272.7	294.4	1,259.3

2025 ACE Project-Based Investment Breakdown

This includes 147 projects presented in ACE 2025 categorized as reliability investments

Section	Investment Category	2025
4.0	Storm Hardening - Vegetation Management	\$ 45,000,000
4.1	Distribution Corridor Widening with Managed Rights-of-Way	\$ 16,372,529
4.2	Transmission Corridor Widening with Managed Rights-of-Way	\$ 12,526,606
4.3	Establish New Rights-of-Way	\$ 2,922,584
4.4	Trimming and Removal of Trees Around Existing Power Lines	\$ 13,178,282
	Storm Hardening - Targeted Equipment Replacement and	
5.0	Upgrades	\$ 152,400,000
5.1	Distribution System Equipment Upgrades and Replacements	\$ 81,019,331
5.1.1	Build to Roadside	\$ 2,048,566
5.1.2	Reconductoring	\$ 4,379,081
5.1.3	U/G	\$ 6,165,478
5.2	Transmission Upgrades	\$ 32,561,304
5.3	Substation Upgrades	\$ 38,819,365
6.0	Advanced Grid Modernization Programs	\$ 9,232,869
6.1	Connected Assets	\$ 7,654,509
6.1.1	RTUs	\$ 5,155,261
6.1.2	Downline Connectivity	\$ 2,499,247
6.2	FLISR	\$ 1,578,360

Five-Year Plan Allocation Methodology

Program	Sub-Program	2025 Investment	2025 Share of Program (%)	Total 2025-2029 Program Investment (\$)	Allocated 2025-2029 Sub-Program Total (\$)
Storm Hardening - Vegetation Management	Distribution Corridor Widening with Managed Rights-of-Way	\$ 16,372,529	36%	\$265,000,000	\$96,416,004
Storm Hardening - Vegetation Management	Tranmission Corridor Widening with Managed Rights-of-Way	\$ 12,526,606	28%	\$265,000,000	\$73,767,790
Storm Hardening - Vegetation Management	Establish New Rights-of-Way	\$ 2,922,584	6%	\$265,000,000	\$17,210,770
Storm Hardening - Vegetation Management	Trimming and Removal of Trees Around Existing Power Lines	\$ 13,178,282	29%	\$265,000,000	\$77,605,436
Storm Hardening - Targeted Equipment Replacement and Upgrades	Distribution System Equipment Upgrades and Replacements	\$ 81,019,331	53%	\$916,400,000	\$487,179,234
Storm Hardening - Targeted Equipment Replacement and Upgrades	Transmission Upgrades	\$ 32,561,304	21%	\$916,400,000	\$195,795,137
Storm Hardening - Targeted Equipment Replacement and Upgrades	Substation Upgrades	\$ 38,819,365	25%	\$916,400,000	\$233,425,629
Advanced Grid Modernization Programs	Connected Assets	\$ 7,654,509	83%	\$77,964,331	\$64,636,319
Advanced Grid Modernization Programs	FLISR	\$ 1,578,360	17%	\$77,964,331	\$13,328,012

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Request IR-19:

Please provide Figure 2: Contribution to CHI by Outage Cause 2019-2023 (Including all Storms) on page 9 of the Reliability Plan, in Excel with all supporting data, calculations, and work papers.

(a) Please provide all data shown here in Excel by year for 2010-2025 (if available).

(b) Please provide this data in Excel on a feeder-level basis.

(c) The note for this figure states, “*These cause codes have been adjusted from the original Electricity Canada methodology as discussed above to illustrate the additional contribution from tree contacts within Adverse Weather”.

(i) Please provide the Electricity Canada methodology that is referenced here.

(ii) Please describe in more detail how the cause codes were adjusted in this figure.

(d) Please define the scope and contents of each of the following categories and address specific questions:

(i) Adverse weather: Were avalanche, coastal flooding, cold wave, drought, earthquake, hail, heat wave, hurricane, ice storm, inland flooding, landslide, strong winds, tornados, wildfire, and winter weather considered? Which of these natural events were considered?

(ii) Defective equipment: Were aging components, insulation breakdown, and loose connections considered? What other examples were considered?

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1 **(iii) Foreign interference: Were cybersecurity attacks and terrorism considered?**
2 **What other examples were considered?**

4 **(iv) Adverse environment: Were animals, moisture, debris, and corrosion**
5 **considered? What other examples were considered?**

7 **(v) Human element: Were overloading and vandalism considered? What other**
8 **examples were considered?**

10 Response IR-19:

12 (a) Please refer to Attachment 1 for data from 2016–2025. The detailed data requested prior to 2016
13 is unavailable due to a reporting system change at that time. The reallocation of 40% of CHI from
14 adverse weather to tree contacts is presented in Attachment 1 as a separate column (Adverse
15 Weather* and Tree Contacts*) and illustrated in Figure 2: Contribution to CHI by Outage Cause
16 (2019–2023).

18 (b) Please refer to Attachment 1.

20 (c)

22 (i) Please refer to Attachment 2.

24 (ii) As noted on page 9 of the Five-Year Reliability Plan, while there is year-over-year
25 variation, NS Power’s operations and vegetation management subject matter
26 experts estimate that up to 40 percent of CHI coded as “Adverse Weather” can be
27 further attributed to tree contacts. As a result, 40 percent of Adverse Weather CHI
28 was reallocated to Tree Contacts in the adjusted contribution. NS Power field
29 personnel will select “adverse weather” as a cause code when responding to an
30 outage that does not have a clear cause (and resulted in no repairs), but occurred

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1 subsequent to a severe weather event. Field crew experience advises that many of
2 these outages are due to trees, heavy with ice and snow, making contact with the
3 power lines and then subsequently moving away from the lines once the snow and
4 ice burden is removed over the subsequent hours of the event due to melting and
5 wind. Attributing 40 percent of these events to trees is a conservative estimate.

6
7 (d)

8
9 (i) Adverse weather includes interruptions resulting from weather-related conditions,
10 including rain, ice storms, snow, wind, extreme ambient temperatures, freezing fog,
11 and frost. Interruptions resulting from equipment being subjected to abnormal
12 environmental conditions are excluded from adverse weather and are coded under
13 adverse environment, such as salt spray contamination, humidity, corrosion,
14 vibration, fire, or flooding. Please refer to Attachment 2 for Electricity Canada
15 Cause Code Methodology.

16
17 (ii) Defective equipment includes outages with evidence of failed, damaged,
18 deteriorated distribution equipment that were identified by field personnel. Please
19 refer to Attachment 2 for Electricity Canada cause code methodology.

20
21 (iii) No,. Please refer to Attachment 2. The Electricity Canada cause codes do not
22 specifically contemplate cyber attacks or terrorist attacks.

23
24 (iv) Outages caused by animal contact, as well as debris originating from external,
25 non-environmental sources, are classified under Foreign Interference. Please refer
26 to Attachment 2 for Electricity Canada cause code methodology.

27
28 (v) Overload is classified as Unknown/Other when it represents a system condition
29 rather than an identifiable root cause, and where the initiating cause of the overload
30 cannot be determined. Vandalism is classified under foreign interference. Please

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- 1 refer to Attachment 2 for causes included under Human Element using Electricity
- 2 Canada cause code methodology.

Row Labels	Adverse Environment	Defective Equipment	Foreign Interference	Human Element
2016	14,322	535,303	192,038	2,590
2017	59,088	554,063	157,384	9,150
2018	42,782	704,721	215,836	3,079
2019	46,072	878,070	333,370	421
2020	9,636	449,828	277,278	406
2021	10,052	465,752	241,183	2,394
2022	135,037	1,896,129	336,009	3,371
2023	728,749	753,161	342,477	2,050
2024	10,104	513,704	383,159	532
2025	812	516,909	332,861	328

	Adverse Environment	Defective Equipment	Foreign Interference	Human Element
2019-2023 CHI	929,545	4,442,942	1,530,316	8,641
% Contribution	1%	5%	2%	0%
2016-2025 CHI	1,056,652	7,267,641	2,811,595	24,320
% Contribution	1%	7%	3%	0%

Lightning	Loss of Supply	Scheduled Outage	Unknown	Tree Contacts	Adverse Weather
41,617	748,604	57,980	121,093	2,279,451	1,995,987
18,076	518,888	112,038	223,571	1,495,926	1,181,100
4,460	1,800,699	86,163	651,617	1,604,335	3,169,581
128,756	2,605,756	132,729	205,292	4,803,859	13,454,123
39,425	435,498	98,793	199,174	989,488	895,810
49,662	522,345	117,475	163,611	680,499	683,315
53,134	2,712,540	141,455	299,538	12,761,769	21,439,047
511,683	1,481,242	191,663	410,003	4,091,892	3,862,555
36,345	783,512	349,946	150,269	770,960	461,763
16,830	1,269,258	427,676	254,277	2,055,782	752,972

Lightning	Loss of Supply	Scheduled Outage	Unknown	Tree Contacts	Adverse Weather
782,661	7,757,382	682,116	1,277,618	23,327,506	40,334,851
1%	10%	1%	2%	29%	50%
899,989	12,878,342	1,715,920	2,678,446	31,533,960	47,896,254
1%	12%	2%	2%	29%	44%

Adverse Weather*	Tree Contacts*
1,197,592	3,077,845
708,660	1,968,366
1,901,749	2,872,167
8,072,474	10,185,508
537,486	1,347,812
409,989	953,825
12,863,428	21,337,388
2,317,533	5,636,914
277,058	955,666
451,783	2,356,971

Adverse Weather*	Tree Contacts*	Total
24,200,911	39,461,447	81,073,578
30%	49%	
28,737,752	50,692,462	108,763,120
26%	47%	

2019-2023 Feeder Outage Data

Feeder Source	Adverse Environment	Defective Equipment	Foreign Interference	Human Element	Lightning	Loss of Supply	Scheduled Outage	Unknown	Adverse Weather	Tree Contacts	Adverse Weather*	Tree Contacts*	Total
100C-421	3272.127333	46311.888	16499.10567	31.224	256.506333	21189.057	823.6803333	4518.30233	136442.1537	50863.59433	81865.2922	105440.4558	280207.639
100C-422	0	8023.461667	599.825	6.416666667	5.096	14697.308	4.55	1154.355	40958.33237	17767.74267	24574.99942	34151.07561	83217.0874
100C-423	0	142.4743333	255.63	0	0	153.767	0	13.738	1194.639	5.2	716.7834	483.0556	1765.44833
101H-411	0	4798.753667	7213.084	0	2311.198	6706.224	2146.416	626.027333	194019.8413	104308.3397	116411.9048	181916.2762	322129.884
101H-412	0	7148.63	4426.021	0	6555.721	5675.622	209.796	72.172	47165.649	11620.244	28299.3894	30486.5036	82873.855
101H-413	0	27674.42667	35218.835	0.64	13227.432	10667.084	8563.108	4928.28867	344928.832	152461.0097	206957.2992	290432.5425	597669.656
101H-421	0	9633.494667	5585.357667	0	3276.191	20786.952	34.605	578.079667	145494.9153	153135.7033	87296.9492	211333.6695	338525.299
101H-422	0	337.1173333	5807.398333	0.682	18228.758	9712.984	15781.02833	2221.82733	70591.48767	26425.07233	42354.8926	54661.6674	149106.355
101H-423	0	20402.872	5865.284	4.042	22640.1447	23940.938	69.411	703.233	79677.34967	24238.78267	47806.4098	56109.72253	177542.057
102W-311	0	794.934	243.449	69.245	4.717	14135.021	218.9943333	318.810333	32921.52033	19136.774	19752.9122	32305.38213	67843.465
102W-312	13.331	2567.821667	474.889	2.555	4.3	30596.258	783.7686667	4841.11867	64294.07367	39353.99333	38576.4442	65071.6228	142932.109
103C-311	44.76	8810.590333	83.00433333	0	0	20972.39883	0	162.666	8784.985	158.609	5270.991	3672.603	39017.0135
103C-313	0	277.3496667	55.498	1.483333333	3.441	4801.668472	0	474.91	110.345	812.503	66.207	856.641	6537.19847
103C-314	8.856	12885.12267	135.4383333	3.699333333	6.24033333	22863.42111	633.013	1524.09967	18351.97833	1428.522667	11011.187	8769.314	57840.3914
103H-431	1504.776	1856.837667	7548.392	60.557	982.4	3541.396	10.122	58.007	19717.48133	1254.975	11830.4888	9141.967533	36534.944
103H-432	0	14974.19133	16338.58	0	56658.8077	3799.944	1454.659	8368.58733	242929.992	32706.60333	145757.9952	129878.6001	377231.365
103H-433	0	6344.673	7921.595667	0	10.6143333	3141.821	366.618	3120.638	48425.993	4726.884	29055.5958	24097.2812	74058.837
103H-434	51.979	21935.82067	35391.73933	0	2667.18433	10949.19	4900.913	5402.23767	251815.668	126595.5977	151089.4008	227321.8649	459710.33
103W-311	0	4141.241667	1372.182	0	1070.62	9048.632	1009.992333	1939.039	60509.41733	97609.29367	36305.6504	121813.0606	176700.418
103W-312	2116.271	10003.286	944.8876667	0	5947.094	8267.715	250.433	1115.88833	126130.575	64614.38333	75678.345	115066.6133	219390.533
104H-411	0	15611.774	18288.47789	0	6011.79167	17851.39477	12004.768	1401.983	392683.4903	281034.7877	235610.0942	438108.1838	744888.467
104H-412	21	1008.231667	5960.996667	0	85.4	5504.531458	349.77	3091.314	114585.4104	5044.961	68751.24626	50879.12517	135651.615
104H-413	0	16140.03	18683.30862	280.2	621.283333	6954.385812	2951.477367	1612.23167	238293.0184	501922.554	142975.811	597239.7613	787458.489
104H-421	0	17576.817	2831.966155	0	117.992	2772.496208	9800.935438	3554.668	174107.19	50572.34967	104464.314	120215.2257	261334.414
104H-422	0	2371.066667	1059.651	0	0	987.35	512.075	48.3993333	79921.93633	21466.42667	47953.1618	53435.2012	106366.905
104H-423	82.628	1097.126333	1047.655667	0	208.3	4270.63	1086.724	130.424333	70884.17333	34352.912	42530.504	62706.58133	113160.574
104H-431	7.684	4727.480333	5979.652	0	648.54	351.536	2528.39	6929.542	318465.679	16621.62267	191079.4074	144007.8943	356260.126
104H-432	0	8911.350333	2845.867667	0	4449.9	0	152.076	2478.59167	152118.6947	21615.796	91271.2168	82463.27387	192572.276
104H-433	0	21392.75567	1535.774333	7.993	158.15	4989.376	201.222	3358.467	198558.985	34199.157	119135.391	113622.751	264401.88
104H-441	0	6728.122333	428.7893333	0	698.86	3148.882	2759.289	137.000333	104376.3489	93114.917	62625.80933	134865.4566	211392.209
104H-442	0	18120.742	349.799	0	0	10729.46371	313.214	157.954	268183.4333	1660.407667	160910.06	108933.781	299515.014
104S-311	29.58333333	7714.398333	10128.91233	0	4.287	7285.68	23.585	4955.80033	24513.547	67606.99	14708.1282	77412.4088	122262.783
104S-312	0	721.0276667	1002.128333	0	341.523	1357.65	179.5	258.721333	600.6266667	9445.256	360.376	9685.506667	13906.433
104S-313	7.804	4483.004	4750.797	0	23.8053333	4211.406	1704.711333	305.334	26443.828	52427.44867	15866.2968	63004.97987	94358.1383
108H-411	0	984.9933333	1663.077	0	0	0	114.795	40.298	42055.66067	3.491	25233.3964	16825.75527	44862.315
108H-412	0	54.03866667	47.621	0	1876.218	668.388	3.216666667	183.801	47882.90533	9.699	28729.7432	19162.86113	50725.8877
108H-413	0	57682.62767	4627.056667	3.283	2.024	1.217	901.9926667	2412.96933	129010.9823	211074.3353	77406.5894	262678.7283	405716.488
111S-311	0	43295.90167	1.428	0	0	601.2	0	16.541	13297.787	7163.055	7978.6722	12482.1698	64375.9127
111S-312	0	133.63	113.1346667	0	0	1077.651	11.016	185.194	19201.408	50707.081	11520.8448	58387.6442	71429.1147
111S-313	0	188.5453333	69.934	0	6.872	665.829	9.36	162.193	425.836	58.438	255.5016	228.7724	1587.00733
111S-314	0	574.534	3.001	0	0	41.28	110.092	2427.733	985.54	28.497	591.324	422.713	4170.677
113H-431	18917.054	16242.71267	3877.735	0	908.932667	0	2296.155	406.764	216181.8943	1309.337	129709.1366	87782.09473	260140.585
113H-432	14828.55	3103.79	12369.58133	2.835	373.265	3795.064	406.652	287.935	151695.7387	54569.37267	91017.4432	115247.6681	241432.784
113H-433	16899.402	6420.646333	8081.771	0	2864.501	3809.319	637.5053333	4058.701	197518.6507	177256.8133	118511.1904	256264.2736	417547.31
113H-434	24634.985	18160.19767	5934.239667	0	1254.476	0	828.207	562.023	375210.7027	62342.4575	225126.4216	212426.7386	488927.288
113H-441	17145.672	19743.34044	559.5836667	0	0	7205.986	3763.804344	4447.25767	304763.3553	12594.91332	182858.0132	134500.2555	370223.913
113H-442	0.491	15485.30089	9035.953333	0	411.023	19656.879	2487.85799	4404.743	179325.6383	10785.039	107595.383	82515.29434	241592.926
113H-443	19608.669	18158.43767	1253.958667	0	541.825	10415.212	167.687	230.280667	272244.558	24808.844	163346.7348	133706.6672	347429.472
113H-444	0	45.381	1779.985667	5.75	68.445	6828.674	26.982	11.975	39369.26867	16220.468	23621.5612	31968.17547	64356.9293
11N-200	0	0	0.331	0	0	0	0	0	0	0	0	0	0.331

11S-301	3.213	19604.92767	1758.555	2.264	44.801	7437.226	18.401	41128.6903	571065.4223	210407.925	342639.2534	438834.0939	851471.425
11S-302	425.4033333	21239.082	575.0196667	0	228.112	5750.488	10685.16033	4698.41	346940.8483	31206.929	208164.509	169983.2683	421749.453
11S-303	0	953.0473333	157.0416667	12.262	7.609	4623.586	51.563	363.368333	249090.822	6898.377333	149454.4932	106534.7061	262157.677
11S-304	10.222	564.2536667	3255.399667	0	131.041	3093.517	40.473	176.574	407040.1013	32257.763	244224.0608	195073.8035	446569.345
11S-305	0	12955.344	2945.309667	1.69	1.594	3827.444	1462.881667	1825.916	444229.541	63680.75933	266537.7246	241372.5757	530930.48
11S-306	0	81.671	512.4906667	0	0	436.678	22.308	33.5	78166.413	34677.528	46899.8478	65944.0932	113930.589
11S-411	1252.932	26534.857	89009.42633	90.572	1282.28333	35084.932	151.055	8217.78133	215852.9683	447883.4833	129511.781	534224.6707	825360.291
11S-412	1.134	729.2113333	3529.776	0	0	15894.567	23.892	1013.61633	99150.22567	156812.8143	59490.1354	196472.9046	277155.237
124H-301	776.685	1130.377667	637.0846667	0	0	7059.735	3.876	5.745	0	0	0	0	9613.50333
124H-302	0	1931.975667	1221.416	0	0	5103.036	43.201	11.4163333	753.061	6222.944	451.8366	6524.1684	15287.05
126H-311	0	120471.854	5470.052583	0	585.955	5073.322	126.7566667	1195.82833	220427.4373	16889.58033	132256.4624	105060.5553	370240.786
126H-312	3.864	35315.86533	1876.709083	10.878	50.831	8095.733	347.297	5528.576	47926.78033	168955.971	28756.0682	188126.6831	268112.505
126H-313	0	2308.222	12906.64767	0	152.004	7923.558	31.944	1671.47733	138883.9873	58703.73967	83330.3924	114257.3346	222581.58
127H-411	18.34	16882.131	4153.183667	0	11761.1837	4832.065333	9453.979	3007.41733	97679.48933	128239.9477	58607.6936	167311.7434	276027.737
127H-412	0	0	0	0	0	1.516	23.206	0	0	1.954	0	1.954	26.676
127H-413	0	1472.283667	8.131666667	0	0	168.354	2.871	13.232	7994.604	196.392	4796.7624	3394.2336	9855.86833
129H-411	0.974	18292.85167	380.421	0	32.04	36333.531	26.375	6926.33467	42372.39567	883.974	25423.4374	17832.93227	105248.897
129H-412	35.262	22500.17933	19809.44467	8.429	141.175333	43331.589	5192.677	2871.75533	235114.8927	51677.45067	141068.9356	145723.4077	380682.855
129H-413	0	7366.21	16835.08867	3.077	1321.37	44296.838	363.334	537.789667	195790.1483	187.036	117474.089	78503.09533	266700.892
12V-302	11.121	4749.454667	6236.993667	0	523.119	98063.835	2247.072	4825.25	136450.7917	101142.3463	81870.475	155722.663	354249.983
12V-303	1.716	2276.883333	4336.426667	0	6.408	85098.873	546.21	495.987667	43672.42667	21346.728	26203.456	38815.69867	157781.659
12V-304	4.759	1602.878333	1458.814333	0	294.845	3591.895	3161.570667	1109.97667	186980.1577	77990.36933	112188.0946	152782.4324	276195.266
131H-421	0	440.2216667	2520.290667	10.85	1532.857	2199.25	5.202	645.528	94993.266	14859.381	56995.9596	52856.6874	117206.846
131H-422	1882.35	6036.365	9472.092667	0	20229.3943	10014.438	7375.602	8949.38333	344314.2943	193565.0973	206588.5766	331290.8151	601839.017
131H-423	7.374	17971.79967	10404.89767	0	11778.92	3432.35	109.546	1067.107	208340.7343	127043.2833	125004.4406	210379.5771	380156.012
131H-424	0	19767.343	11091.77967	2.703	2362.89333	1137.766667	7.27	2694.27667	86572.941	46825.06867	51943.7646	81454.24507	170462.042
137H-411	202661.937	12978.64633	12172.28	4.525	7048.80067	9510.557	689.665	10553.1253	55174.513	82577.08333	33104.7078	104646.8885	393371.133
137H-412	486560.86	4870.289333	9339.072	0	621.78	137.54	3319.746	6782.549	29639.841	92474.937	17783.9046	104330.8734	633746.614
137H-413	0	14290.19267	23027.048	0	5283.785	12480.252	213.645	280.438667	87960.375	66352.639	52776.225	101536.789	209888.375
137H-414	1.085	8103.265667	950.2936667	15.362	215.105	10272.321	1402.806333	4304.274	180030.8383	32807.314	108018.503	104819.6493	238102.665
139H-411	0	830.183	438.156	0	34.4786667	503.018	71.906	3806.446	53921.749	1578.818	32353.0494	23147.5176	61184.7547
139H-412	0	153.467	9.897	1.283333333	0	3.9	2.146	104.895	5262.225	121.512	3157.335	2226.402	5659.32533
139H-413	0	497.1466667	74.658	0	3.05	613.98	9.433333333	7.745	469.464	0	281.6784	187.7856	1675.477
139H-414	3235.204	1266.574333	23006.68233	0	164.819333	1585.84	1051.657	214.390333	44066.54133	13318.90367	26439.9248	30945.5202	87910.6123
13V-303	0.302	1193.549	510.8643333	0	323.212	63.059	4973.294667	7157.435	149976.8367	59595.151	89986.102	119585.8857	223793.704
141H-401	0	3745.8	0	0	0	0	12.409	0	6033.489	0	3620.0934	2413.3956	9791.698
14V-303	0	17.547	0	0	0	1080.538667	263.9233333	222.512	43.589	34.131	26.1534	51.5666	1662.241
15N-202	0	124.86	0	0	0	6490.914	6924.376	100.802	0	32.84933333	0	32.84933333	13673.8013
15N-203	0	30.97154623	125.0186667	0	0	789.31	859.2266667	28.696	2641.248	66.888	1584.7488	1123.3872	4541.35888
15N-401	50.48466667	5909.329	7009.512667	8.288	577.259667	18134.215	5446.545667	36790.9593	371951.286	191281.6223	223170.7716	340062.1367	637159.502
15N-402	0	201.6446667	32.4	0	0	683.889	233.9543333	685.089	3.064	218.191	1.8384	219.4166	2058.232
15N-403	120.1413333	5359.431667	6493.878333	5.103333333	270.341	2484.007	2284.508	2222.634	116695.4227	39100.76667	70017.2536	85778.93573	175036.234
15N-404	0	11080.43533	3803.991	16.532	465.61	12590.942	15179.07	4528.79133	183104.8027	151339.0873	109862.8816	224581.0084	382109.262
15S-301	1.866	96762.494	7155.419667	15.234	0	4520.944	125.475	3483.51733	272067.8933	19631.35633	163240.736	128458.5137	403764.2
15S-302	0	11064.43167	6819.659333	0	0	3307.995	244.459	279.946	132661.315	3473.215333	79596.789	56537.74133	157851.021
15S-303	0.719	2159.284	135.629	3.399	0	2986.593	142.8096667	2830.098	231245.6373	11520.725	138747.3824	104018.9799	251024.894
16N-301	1.677	16913.47367	3901.537667	0	285.155	45114.128	2.854	2074.86433	120761.9097	119493.8953	72457.1458	167798.6592	308549.495
16N-302	1.77	5791.777667	10120.04267	0	71.3226667	19436.048	406.398	2737.63867	78704.08	56789.869	47222.448	88271.501	174058.947
16V-314	1.381	645.838	3517.648667	0	1412.557	54546.06067	4980.01	1764.75833	85470.654	117991.9807	51282.3924	152180.2423	270330.888
16V-315	32.217	2834.178333	332.049	0	864.164667	34186.24533	282.295	245.631667	14663.02167	53087.94467	8797.813	58953.15333	106527.747
16W-301	24.837	7308.857667	117.837	708.89	591.359	28987.399	2817.082	6242.711	26088.56967	36831.48416	15653.1418	47266.91202	109719.026
16W-302	2.684	3277.316667	557.9016667	3.252	5097.164	19500.125	1276.308	1384.79967	101803.2383	53308.53697	61081.943	94029.83231	186211.326

17N-201	0	950.2	0	0	3.06666667	9349.926	0	250.004	20191.23833	210.7153333	12114.743	8287.210667	30955.1503
17N-202	0	64.86	0	0	0	10243.039	0	462.665667	16043.95367	900.7986667	9626.3722	7318.380133	27715.317
17N-203	1.014	788.17	5.013333333	0	0	11271.085	1.2	70.777	6482.575333	3246.238667	3889.5452	5839.2688	21866.0733
18V-411	0	3575.116333	58.86833333	2.766666667	52.1753333	8561.773	16.953	849.456333	38939.33967	23577.62967	23363.6038	39153.36553	75634.0783
18V-412	0	1708.144333	883.1373333	1.606	606.876	9614.506	13.056	973.028	64192.437	26830.49867	38515.4622	52507.47347	104823.289
18V-413	0	10907.13933	459.3426667	0	2287.721	21863.754	4070.002333	3055.48667	180486.4247	29594.206	108291.8548	101788.7759	252724.077
19C-203	0	196.8826667	25.926	117.775	344.256	14767.843	2211.948	4.453	2118.862149	118.587	1271.317289	966.1318594	19906.5328
19C-204	0	1020.828333	199.913	191.805	559.416	23934.275	1985.131	638.055	3458.153145	114.596	2074.891887	1497.857258	32102.1725
19W-311	11.968	2136.093667	970.372	0	1106.213	8043.099	1234.81	92.5023333	6908.250667	6552.915	4144.9504	9316.215267	27056.2237
19W-312	0	6166.053	734.7393333	0	375.818667	21360.69967	49.34	377.287333	28998.09167	7275.649333	17398.855	18874.886	65337.679
1C-411	11.55966667	16194.54833	551.7446667	58.307	396.219	7582.939	2911.047333	2640.25167	47503.61709	4672.902667	28502.17026	23674.3495	82523.1364
1C-412	0	62.22	0	0	0	10.05	0	0	358.009	0	214.8054	143.2036	430.279
1C-413	0	0	0	0	0	32.55	0	8.186	157.368	0	94.4208	62.9472	198.104
1H-403	0	22006.74166	1.628	0	0	2531.795	9180.45	410.063667	0	0	0	0	34130.6783
1H-405	0	390.9630062	0	0	0	256.07	59.351	0	0	0	0	0	706.384006
1H-415	0	1044.198	128.988	0	2.73	7525.848	73.164	102.234333	28275.436	14781.136	16965.2616	26091.3104	51933.7343
1H-419	0	394.7066667	0	132.05	0	166.739	419.913	228.616	5.716666667	0	3.43	2.286666667	1347.74133
1H-424	0	1145.799	0	1654.358	0	1287.669	2423.688333	123.108	2.796	0	1.6776	1.1184	6637.41833
1H-427	0	9041.449	6217.397667	0	12006.5887	4174.906	4418.564667	1917.03867	71923.21633	19030.632	43153.9298	47799.91853	128729.793
1H-429	0	0	0	1.384	0	2.794	0	0	0	0	0	0	4.178
1H-431	0	13.895	1145.2	1.951	0	2633.959	74.91733333	0	0	0	0	0	3869.92233
1H-454	0	32798.21667	5151.162	0	0	4941.64	76.10233333	7728.52033	53368.43967	4428.122333	32021.0638	25775.4982	108492.203
1N-402	3.98	6611.312	10276.52667	0	994.32	11177.528	3408.525	9594.97933	173497.5063	425216.2333	104098.5038	494615.2359	640780.911
1N-403	2.108	4335.456	2682.879667	11.013	458.559333	4909.418	1115.343	6293.59	172875.2917	72190.62633	103725.175	141340.743	264874.285
1N-404	0	181.29	138.0393333	0	104.483333	1686.868	11.508	1071.79733	55640.348	61612.19433	33384.2088	83868.33353	120446.528
1N-405	2.053	10361.476	2354.796	8.278	4305.463	8302.754	3198.243	6964.76367	259135.9957	429965.6387	155481.5974	533620.0369	724599.461
1N-421	0	4194.101944	27156.378	5.478	3.044	3828.029	4860.726	8427.22633	293258.605	44148.79233	175955.163	161452.2343	385882.381
1V-442	0	13.57	0	0	0	128.4953333	0	0	0	25.118	0	25.118	167.183333
1V-443	3.367333333	11951.12733	8808.58	0	32369.1533	30511.026	1165.695	17355.7697	192526.4833	268116.9293	115515.89	345127.5227	562808.131
1W-411	0	48.062	0	0	0	520.217	4.862666667	89.73	1106.261333	208.688	663.7568	651.1925333	1977.821
20H-301	0	5166.062667	4248.690167	0	750.067333	1702.645	187.504	1723.273	90461.763	126393.4483	54277.0578	162578.1535	230633.454
20H-302	0	35.381	19354.986	35.964	1852.4	1661.842	2595.703333	2547.966	32479.32033	1201.373	19487.5922	14193.10113	61764.9357
20H-303	0	5298.091667	395.18	595.326	18401.752	1442.441	271.45	500.768	147642.121	45451.819	88585.2726	104508.6674	219998.949
20H-304	33.88733333	8327.484	388.5806667	2.133333333	17322.9113	2866.045	379.027	1713.06533	139648.9467	77965.37167	83789.368	133824.9503	248647.452
20H-305	0	3655.301667	617.162	0	5396.23533	2019.815	5711.148667	1161.45	132888.0877	104186.466	79732.8526	157341.7011	255635.666
20H-306	0	9190.744667	15340.08033	0	2415.64	2526.335	73.491	47.561	163588.1587	26378.91533	98152.8952	91814.1788	219560.926
20N-201	0	21.168	0	0	0	1431.686667	186.047	626.788667	4965.171667	306.672	2979.103	2292.740667	7537.534
20N-203	0	67.81333333	0	0	0	14078.66867	1924.814	294.384	45289.228	11063.779	27173.5368	29179.4702	72718.687
20N-204	0	12154.63733	466.731	0	3.1	18472.37767	3345.828	8433.59867	7420.758667	5582.409	4452.4552	8550.712467	55879.4403
20V-311	0	1411.707333	321.22	17.52	231.096667	6854.527	130.728	19706.0347	73662.15233	71818.688	44197.2914	101283.5489	174153.674
20W-311	5.983333333	297.8896667	2719.893	0	13.498	13665.76283	25.10633333	81.166	726.968	32.335	436.1808	323.1222	17568.6022
20W-312	0	370.8146667	9.534666667	0	4.11666667	3046.9385	2.696	246.366333	1807.633667	376.479	1084.5802	1099.532467	5864.5795
21W-311	1.185	223.019	1404.660333	2.692	75.6073333	9452.557	733.2816667	610.466667	15224.61133	24.04166667	9134.7668	6113.8862	27752.122
21W-312	0	1214.754333	20.129	0	0	6646.093	786.691	2.222	1179.918	8498.816667	707.9508	8970.783867	18348.624
22C-401	0	2298.572333	48.48266667	0	90.326	1251.788	0.668	175.705	8883.397936	998.036	5330.038762	4551.395175	13746.9759
22C-402	1.803	9114.282333	1234.963	0.985	2349.76433	5240.624	1461.103333	1937.47367	85535.82725	18850.57733	51321.49635	53064.90823	125727.403
22C-403	0	9990.002	216.495	0	2650.31501	7662.228	4110.186	2911.87067	55895.66801	32201.11433	33537.4008	54559.38154	115637.879
22C-404	1319.928667	102151.674	7292.896667	142.302	562.405	22850.452	1057.511667	10574.1557	194370.9726	75793.22467	116622.5835	153541.6137	416115.523
22N-401	28.40333333	10686.68433	3239.103667	0	1293.254	40748.777	18.34866667	5383.008	202397.1047	25400.79467	121438.2628	106359.6365	289195.478
22N-402	0.832	25634.41367	5179.133	1.906	924.958333	41437.474	2033.846667	12360.9983	665802.163	274814.4173	399481.2978	541135.2825	1028190.14
22N-403	0	3263.304667	4539.521667	0	1020.308	15120.234	617.68	1896.912	46803.68333	20294.752	28082.21	39016.22533	93556.3957
22N-404	0	1401.210667	543.7923333	0	993.457	8845.357	78.476	1141.379	24530.081	7406.637667	14718.0486	17218.67007	44940.3907

22V-313	39.78333333	197.9353333	173.826	0	126.627333	12696.752	26.148	16.1196667	1744.346	2209.604667	1046.6076	2907.343067	17231.1423
22V-314	0	11.789	8.054333333	0	0	6221.612	1.574	92.4176667	3156.508667	0	1893.9052	1262.603467	9491.95567
22V-321	20.25	1697.222	158.077	0	5.718	29318.902	31.875	138.697667	6665.053	9723.520333	3999.0318	12389.54153	47759.315
22V-322	0.833333333	6517.79	96.04466667	0	17.778	2821.54	356.269	123.788667	53169.734	4036.881333	31901.8404	25304.77493	67140.659
22W-311	4.721	4132.157	6077.036	0	3804.50667	15661.188	33.35533333	22447.2917	31800.10133	28981.92233	19080.0608	41701.96287	112942.279
22W-312	0	12374.192	194.987	0	240.413	14655.486	96.377	1926.954	13555.92767	29270.21967	8133.5566	34692.59073	72314.5563
22W-313	5.692666667	1423.952333	848.424	0	682.026	13666.594	1238.911	1605.052	24211.116	3286.335	14526.6696	12970.7814	46968.103
23H-301	0	7451.748	4157.654	0	2383.23867	15272.05	986.21	644.756	83637.51133	14757.731	50182.5068	48212.73553	129290.899
23H-302	0	548.2283333	93.64733333	7.553	0	18900.082	1964.037	5160.05367	153432.809	28206.47667	92059.6854	89579.60027	208312.887
23H-303	729.54	11443.7786	666.4513333	0	1195.78333	27400.601	7831.626	860.759333	160961.6273	38247.31267	96576.9764	102631.9636	249337.48
23H-304	174.96	25425.66583	2361.235667	1.93	3227.47233	40208.892	5866.248	929.091667	261834.2197	119099.2197	157100.5318	223832.9075	459128.935
23W-301	8.43	445.32	685.809	0	29.696	92398.66167	99.824	96.0726667	1238.302333	14562.50633	742.9814	15057.82727	109564.622
23W-302	0	4400.515667	868.397	0	468.950667	332506.1977	4680.295667	1463.204	73203.569	43151.17667	43922.1414	72432.60427	460742.306
24C-442	4.57	25481.93733	2246.483	634.198	3592.288	760.718	725.1666667	1117.18333	129713.9326	17859.565	77828.35957	69745.13805	182136.042
24C-443	3.376	5862.564667	5871.591	8.584	162.950667	2076.639	1401.408	10138.4067	57847.81896	20089.39633	34708.69138	43228.52392	103462.735
25W-301	27178.649	1852.846333	196.344	0	381.004	13574.944	54.005	3622.525	107051.5177	78216.25067	64230.9106	121036.8577	232128.086
25W-302	795.096	1315.387667	3441.424	0	674.806	74674.63167	1024.256333	838.251333	11900.49767	40055.98533	7140.2986	44816.1844	134720.336
25W-303	0	2999.054	359.0726667	0	2969.65567	67184.21367	2981.826	783.267667	24124.03433	42240.397	14474.4206	51890.01073	143641.521
2C-401	4.394	796.173	191.702	0	8.537	1809.68	147.935	2355.25767	20868.792	4448.244667	12521.2752	12795.76147	30630.7153
2C-402	214.878	68740.78367	7679.987	8.207333333	812.57	4140.18	1006.370667	4697.67067	113274.2022	127785.2813	67964.52131	173094.9622	328360.131
2H-411	0	33969.16467	14371.679	3.449	17761.99	100591.462	1237.587	948.423333	210254.1336	145188.637	126152.4801	229290.2904	524326.526
2H-412	112.5	692.6986667	17.73966667	0	7005.78333	2914.523	51.83666667	203.4	28748.35367	46839.416	17249.0122	58338.75747	86586.251
2H-413	0	6297.119667	2547.365	0	9204.464	7498.19	809.6336667	4444.29867	33445.065	194013.7433	20067.039	207391.7693	258259.879
2H-421	9.919	2941.020667	715.233	0	0	1568.712	312.105	154.57	87400.79333	1252.361667	52440.476	36212.679	94354.7147
2H-422	0	45.86	9422.55	18.09	0	802	76.536	10.512	17261.563	408.4946667	10356.9378	7313.119867	28045.6057
2H-424	0	5388.632	4094.049	3.624	0	38980.09	958.749	22.168	93352.041	42712.235	56011.2246	80053.0514	185511.588
30N-411	0.711	755.3943333	1200.259333	0	58.46	20.637	1266.750667	572.027667	74147.979	60434.08867	44488.7874	90093.28027	138456.308
30N-412	1.459	14950.84133	108.0343333	0	17.1803333	0	4365.032	3442.09933	103816.9923	63480.038	62290.1954	105006.8349	190181.677
36V-301	0.599	2384.516333	1109.859	0	96.5933333	13588.191	1576.974	323.57	48959.69933	16271.88067	29375.8196	35855.7604	84311.8827
36V-302	4155.2	5086.953667	402.209	0	92.624	43383.39033	6000.791	12970.3327	201201.983	35996.67533	120721.1898	116477.4685	309290.159
36V-303	0	2012.503333	523.084	0	218.330333	28015.23867	6607.061	5246.26467	91988.68567	191709.7567	55193.2114	228505.2309	326320.924
36W-301	1079.894667	2715.106667	242.0843333	160.132	26.8246667	85165.12152	2262.136667	994.747	13799.87867	38408.95633	8279.9272	43928.9078	144854.883
36W-304	0.756	2629.167667	4101.863	0	154.264	43236.10781	367.287	482.778667	7426.877667	5096.414667	4456.1266	8067.165733	63495.5165
37N-411	0	6624.807667	135.0846667	4.333333333	10131.677	9007.203	2412.949333	1705.89433	193586.9623	52000.43367	116152.1774	129435.2186	275609.345
37N-412	2.27	6801.516333	1296.297	0	157.44	9290.362	3267.226	5332.27333	128567.906	38741.89133	77140.7436	90169.05373	193457.182
37N-413	1.809	8833.202	16740.19267	0	0	5601.212	11.305	431.72	83590.48467	42569.42333	50154.2908	76005.6172	157779.349
37N-414	0	6051.986667	1438.529	4.922	1960.12167	12733.272	2070.058333	7207.75033	78213.878	64124.662	46928.3268	95410.2132	173805.18
37W-201	0	545.099	0	0	62.912	19994.56	12.122	49.392	6777.976	208.4016667	4066.7856	2919.592067	27650.4627
37W-202	0	1263.497	0	0	740.608	18571.702	23.422	13.4946667	456.674	355.623	274.0044	538.2926	21425.0207
37W-203	0	0	0	0	0	1246.565333	0.986	0	0	0	0	0	1247.55133
3N-411	0	7.543	50.88333333	0	0	2127.837333	0	10.559	689.706	124.147	413.8236	400.0294	3010.67567
3N-412	0	182.4103333	761.2253333	0	21.9466667	258.475	2700.076	162.712	77108.616	12892.67633	46265.1696	43736.12273	94088.1377
3S-301	0	2556.971667	172.1226667	0	15.16	1634.605	42.11166667	37.6573333	153013.5793	47435.88133	91808.1476	108641.3131	204908.089
3S-302	0	16569.97133	9976.957667	1.465	198.202	2936.506	4281.76	210.031	14177.77933	139366.487	8506.6676	145037.5987	187719.159
3S-303	128.067	21305.15767	1439.736333	0	13.932	8174.437	333.762	12142.984	111840.2337	175386.6257	67104.1402	220122.7191	330764.935
3S-307	16.307	325145.0203	6589.166333	6.706	0	3643.153	2529.847	495.016	45387.05667	40744.72567	27232.234	58899.54833	424556.998
3S-308	2007.932	7917.764333	3138.898	0	0	2766.731	124.872	62.43	22313.13533	86188.029	13387.8812	95113.28313	124519.792
3S-309	2.766666667	11869.359	195.98	1.728	1.919	5399.72	3548.119667	477.004333	254350.8303	8414.27	152610.4982	110154.6021	284261.697
3S-403	11.71433333	18785.169	38371.171	0	613.354	1227.106	918.2226667	2699.156	248630.9373	230350.3097	149178.5624	329802.6846	541607.14
3S-405	0	5.159	3.776	0	0	72.44	0	69.2516667	120.12	4944.872	72.072	4992.92	5215.61867
3W-201	0	20.118	0	0	89.443	469.2103333	200.2466667	81.15	825.438	15.496	495.2628	345.6712	1701.102
40H-302	0	6458.120667	6201.368	0	0	107690.564	1435.908667	357.566	53785.31133	48558.729	32271.1868	70072.85353	224487.568

40H-303	0	407.4603333	25.669	0	111.072	3164.975	697.501	2022.643	33842.51233	36.906	20305.5074	13573.91093	40308.7387
40H-304	0	6044.837667	1669.906667	0	150.866667	11130.157	288.156	258.509	70172.99633	7507.408333	42103.7978	35576.60687	97222.8377
40H-305	52.724	562.217	59.129	3.576	409.039333	7134.226	301.012	6.57233333	802.085	35390.66333	481.251	35711.49733	44721.244
40H-401	0	353.237	77.61866667	0	0	962.854	5.843	79.7513333	96186.294	25455.10533	57711.7764	63929.62293	123120.703
46W-301	0	5633.846333	962.5123333	0	1576.46367	11655.96567	253.217	928.551333	81589.05067	38199.38733	48953.4304	70835.0076	140798.994
46W-303	0	4045.071333	619.8806667	0	131.495333	37766.20833	74.22833333	585.484333	25263.09033	28212.83133	15157.8542	38318.06747	96698.29
48H-301	8	27621.581	2845.699667	0	4616.154	15141.013	2349.607	572.952667	104215.8383	15140.43833	62529.50297	56826.77365	172511.284
48H-302	0	4612.010333	950.417	0	1.545	47393.175	42.521	153.846333	76602.59688	19022.36933	45961.55813	49663.40809	148778.481
48H-303	0	3334.283	888.609	0	0	52501.431	556.994	1657.45933	22249.77966	1050.301	13349.8678	9950.212864	82238.857
48H-304	0	4918.634667	1857.602	0	255.904	5944.682	3202.017	2892.83367	52811.41351	17.668	31686.84811	21142.2334	71900.7548
48W-201	1.114	690.0316667	0	0	3794.981	0	145.677	19.691	51955.065	28.144	31173.039	20810.17	56634.7037
48W-203	0	4.361	1.096	0	729.288	3045.738	3.306	0	615.459	0	369.2754	246.1836	4399.248
48W-204	0	309.435	26.25	0	4549.282	30504.238	447.161	11.794	1469.445333	12.182	881.6672	599.9601333	37329.7873
4C-424	226.899	22936.16733	6456.531	0	557.193333	0	1483.725333	2353.385	113437.4817	79462.613	68062.489	124837.6057	226913.996
4C-430	0	37936.752	2166.878667	1.233333333	694.289333	0	2198.002	3971.64	293025.654	269269.5723	175815.3924	386479.8339	609264.022
4C-432	0	13953.492	367.2156667	0	869.512667	2041.05	1755.334	1792.777	189388.3653	78682.07358	113633.0192	154437.4197	288849.82
4C-441	4.171	13405.04267	3070.325333	0	980.401	3069.588	4067.753333	1422.98067	491305.4363	280583.7458	294783.2618	477105.9204	797909.444
4C-442	0	0.016666667	2.427	0	0	0	0	0	0	0	0	0	2.44366667
4N-311	14.8	1241.633333	228.1743333	3.586	892.706333	16413.171	459.9336667	8100.56067	174810.3957	179036.0753	104886.2374	248960.2336	381201.036
4N-312	7.485	36699.80467	1188.712667	3.123	598.463	31415.731	1253.15	24852.4337	346281.0661	542238.697	207768.6397	680751.1234	984538.666
4N-313	23.62233333	2170.210667	253.0016667	0	190.231333	21105.41533	0	33611.0873	186344.3827	277128.4647	111806.6296	351666.2177	520826.416
4S-321	18	5032.413	595.508	0	0	0	20.247	7356.52933	117998.5127	261047.6647	70799.1076	308247.0697	392068.875
4S-322	9180.902	3772.587667	5.508	2.502	69.64	0	442.346	32.145	106530.8813	3064.009	63918.5288	45676.36153	123100.521
4S-323	0	19016.085	103.6776667	0	0	423.192	0	1029.025	26208.637	4738.897667	15725.1822	15222.35247	51519.5143
4S-324	0	3731.289	30.59733333	0	0	0	318.5856667	498.899333	305837.2287	6389.72	183502.3372	128724.6115	316806.32
4S-331	0	8712.355421	177.4166667	2.85	111.045	1641.2	28.073	9483.314	55604.73967	77501.51267	33362.8438	99743.40853	153262.506
4S-332	656.071	1483.504	347.9396667	2.886	405.803	0	72.711	557.537	55828.99867	8845.217333	33497.3992	31176.8168	68200.6677
4S-333	0	657.587	1522.723333	0	0	0	318.8383333	44.545	73964.54833	100738.437	44378.729	130324.2563	177246.679
4S-334	0	451.958	0	0	0	0	0	92.121	61464.70233	832.376	36878.8214	25418.25693	62841.1573
4W-211	0	0	3.339	0	25.068	373.0616667	0.435	13.178	18	8.53	10.8	15.73	441.611667
50N-311	0	2318.52	0	0	1.813	11.946	0	0	0	801.781	0	801.781	3134.06
50N-410	4.865	35710.48233	2295.487333	7.051	7769.177	19628.942	2703.337	11198.716	358781.7627	390038.3967	215269.0576	533551.1017	828138.217
50N-411	9.38	14272.77667	2087.574	240.841	183.406	16317.46267	1259.966	368.828667	195394.6327	54026.26433	117236.7796	132184.1174	284161.132
50N-412	3743.487	35782.00667	4143.381	0	708.949333	24081.286	3162.252	1963.079	364767	32138.471	218860.2	178045.271	470489.912
50N-415	0	5990.796333	2064.238667	1.287	2654.125	6820.477	736.5703333	105.578	121116.9047	110620.8743	72670.1428	159067.6362	250110.851
50V-401	0.569	307.9433333	2333.109333	0	19.605	0	6675.216	4594.972	82153.76167	23163.30167	49292.257	56024.80633	119248.478
50V-402	0	7084.807333	339.7486667	0	1154.485	20655.504	7136.068	216.326667	26889.24067	11536.87167	16133.5444	22292.56793	75013.052
50W-411	1.254	1055.830333	224.45	0	47762.0637	0	155.802	529.616	95304.26544	13477.12467	57182.55927	51598.83084	158510.406
50W-412	207.168	16528.07567	2071.858667	0	102335.805	0	1312.191	27697.1127	495469.0412	323572.6552	297281.4247	521760.2716	969193.908
51V-301	0	1063.137333	841.033	0	603.840333	4581.411	156.965	7528.16567	78192.74733	10275.04633	46915.6484	41552.14527	103242.346
54H-301	0	6432.155667	2076	0	0	54044.03967	1080.159185	3044.896	129834.3927	21438.55667	77900.6356	73372.31373	217950.2
54H-302	864.9	5804.703667	8027.643667	1.313	2437.79533	41918.766	688.583	787.362	33095.14	148077.5347	19857.084	161315.5907	241703.741
54H-303	0	13392.68233	1347.356	0	538.812	36451.44033	1592.550148	99.4	126170.1113	22.792	75702.0668	50490.83653	179615.144
54H-304	2.621	17950.42967	2937.101	0	3074.008	42508.785	1071.421667	2499.091	96854.37667	7794.414333	58112.626	46536.165	174692.248
55N-201	119.813	656.2763333	1.378	0	0	368.704	0	10.503	59166.03367	3863.566667	35499.6202	27529.98013	64186.2747
55N-202	1468.102	959.698	209.613	1.95	25.696	537.652	675.323	153.023667	5606.155667	18361.39567	3363.6934	20603.85793	27998.609
55N-203	0	133.682	569.938	0	0	362.028	0	754.119	1929.156333	19643.888	1157.4938	20415.55053	23392.8113
55N-204	0	4510.368667	17.172	0	0	649.219	1766.537	183.29	44.416	5751.743333	26.6496	5769.509733	12922.746
55V-313	0	3272.938333	1795.565	0	2175.37233	2831.598	563.142	22265.3683	139031.9593	52272.41333	83419.1756	107885.1971	224208.357
55V-314	0	1675.022667	7340.728667	0	906.900333	2241.473	528.5906667	4931.709	77821.051	29105.34733	46692.6306	60233.76773	124550.823
55V-322	5.27	978.7943333	1516.601667	0	135.372667	2175.163	66.835	1432.68433	21325.28967	9351.047	12795.1738	17881.16287	36987.0577
55V-323	1.462	317.0323333	110.679	0	695.79	1832.168	241.229	190.812667	15753.82667	7911.295	9452.296	14212.82567	27054.2947

56N-401	7.462	17506.09733	5635.664667	0	45.968	1865.859	106.631	2072.96033	165013.9943	34542.549	99008.3966	100548.1467	226797.186
56N-402	0	22.024	0	0	0	18.456	0	0	740.512	637.846	444.3072	934.0508	1418.838
56N-414	2.528333333	41411.71467	4272.415333	20.037	2440.62733	13909.93533	1595.307	19808.016	484119.3067	601153.6703	290471.584	794801.393	1168733.56
57C-417	0	258.2393333	211.8476667	0	0	0	1.839	3.81666667	3955.964	1113.037	2373.5784	2695.4226	5544.74367
57C-422	4.309	24170.22933	1747.285333	0	731.678333	0	3509.155	893.014	173824.782	155946.9053	104294.8692	225476.8181	360827.358
57C-426	1.218	36360.79267	4500.575667	1232.658	14006.366	0	12220.66967	4709.17267	259580.6953	176453.8127	155748.4172	280286.0908	509065.961
57S-401	29322.684	50684.74667	3083.279333	31.965	7054.096	417529.1	1522.574	17051.3133	238140.9597	71711.98933	142884.5758	166968.3732	836132.707
57S-402	3	32022.36767	5761.047333	1.454	6798.13367	68141.76	8496.600333	17045.6747	234432.3927	146096.5897	140659.4356	239869.5467	518799.02
57W-401	806.025	4216.320333	7067.966667	26.126	2396.29267	129747.7218	7861.344333	1176.15967	101210.3187	42928.22467	60726.1912	83412.35213	297436.5
57W-402	1.818	635.226	40.26966667	0	47.164	29775.34839	2613.759	401.467	21227.56667	12971.21667	12736.54	21462.24333	67713.8354
58C-403	105.0513333	17859.85361	474.2903333	104.798	35.6676667	38941.68798	2780.777	2295.81367	126700.9732	33356.455	76020.58391	84036.84427	222655.368
58C-405	16.217	14419.02867	1172.303333	0	84.3	51682.46179	4304.113	3203.33433	41072.79333	62046.10067	24643.676	78475.218	178000.652
58H-421	115.9	11187.55433	18199.36033	21.733	9261.431	31237.74306	142.96	2256.45867	86298.44367	4451.202	51779.0662	38970.57947	163172.786
58H-431	804.199	11899.67467	7777.186333	2.225	830.481667	24552.19594	285.869	5047.292	56845.29333	15468.369	34107.176	38206.48633	123512.786
59C-401	1.733333333	18026.28633	139.8043333	0	928.481452	8102.802	93.499	281.885333	57759.562	5121.358667	34655.7372	28225.18347	90455.4125
59C-402	15.16033333	51813.09233	1749.752	0	88.1043333	25670.715	6136.223333	16179.456	187796.137	88334.799	112677.6822	163453.2538	377783.439
59C-403	0	5744.584667	704.3846667	8.183333333	29.911	10520.528	1541.385667	180.131	40009.25033	11930.983	24005.5502	27934.68313	70669.3417
62H-301	0	3102.733	2208.229	0	0	0	202.3456667	773.228	11278.13172	29255.772	6766.879031	33767.02469	46820.4394
62H-302	0	4237.896	16124.26567	0	1.617	240.144	1483.607	2147.311	189423.2273	234418.8623	113653.9364	310188.1533	448076.93
62H-303	0	5759.453667	0	0	319.388	62.59	354.8433333	1179.649	42788.029	0	25672.8174	17115.2116	50463.953
62H-304	0	80098.071	81.394	0	1336.77367	277.86	3249.784	6606.147	105089.7793	2897.376	63053.86759	44933.28773	199637.185
62N-411	49.85033333	33677.75333	1271.690667	0	0	9228.746333	1827.880333	2262.256	15058.49633	75021.607	9035.0978	81045.00553	138398.28
62N-412	0	3069.684	2901.656333	0	0	7124.978333	589.059	601.819	56752.86967	7194.787	34051.7218	29895.93487	78234.8533
62N-413	0.736	34539.82333	21606.43033	0	936.844333	19452.56033	96.934	4158.202	348815.135	235231.5267	209289.081	374757.5807	664838.192
62N-414	1.097	17944.32033	712.8086667	0	25.208	16422.604	322.833	16015.1747	319515.0807	181972.2633	191709.0484	309778.2956	552931.39
62N-415	0	56004.787	8242.467	1.21	2390.33133	13936.348	2464.57	5037.29633	241275.52	117080.2103	144765.312	213590.4183	446432.74
62N-416	10.075	31419.151	5044.713333	0	423.237	23040.46467	1949.687333	8162.06667	121325.3483	208842.042	72795.209	257372.1813	400216.785
63V-311	0	1069.329	1272.876667	0	538.546667	4641.015	1185.577	6391.68667	42807.73967	37075.604	25684.6438	54198.69987	94982.3747
63V-312	0	1700.643	422.6523333	0	64.0133333	4063.374	362.858	3836.802	80235.62767	24958.32133	48141.3766	57052.5724	115644.292
63V-313	7.69	5266.207667	830.4376667	0	2543.473	7863.975	579.431	13307.8557	124954.619	83784.884	74972.7714	133766.7316	239138.573
64V-301	22.232	379.5116667	82.69933333	0	523.398667	3741.536	1099.272	21148.5733	74852.704	9761.205667	44911.6224	39702.28727	111611.133
64V-302	0	77.76666667	2.464	0	2.289	1039.321	260.531	1379.595	2436.733333	698.1826667	1462.04	1672.876	5896.88267
64V-303	0	31.694	0	0	0	1062.99	19.404	796.917	0	2.232	0	2.232	1913.237
65V-301	0	6071.843333	2484.114	0	716.883333	1294.624	559.949	1571.018	51586.48	11177.07233	30951.888	31811.66433	75461.984
65V-302	583.883	2008.18	12281.70233	0	86.345	5008.41	3074.207333	2548.59133	183532.595	73827.58133	110119.557	147240.6193	282951.495
65V-303	3.554	4359.561	16411.88733	0	55.074	3242.794	1877.207	281.65	67625.87833	21113.338	40575.527	48163.68933	114970.944
67C-411	380.1383333	26152.14573	3683.593667	0	8178.86067	9346.591	2536.152	5275.11867	255856.4801	98492.072	153513.8881	200834.6641	409901.152
67C-412	352.65	16946.00733	786.844	8.15	107.450667	9139.802	2902.92	2044.806	87858.47233	123593.2339	52715.0834	158736.6228	243740.336
6N-301	0	635.106	381.645	0	9.086	73589.008	1727.529	6706.051	29956.56467	4801.806667	17973.9388	16784.43253	117806.796
6N-302	0	1939.282333	89.206	0	45.948	17854.718	419.06	1675.521	10303.339	3127.140667	6182.0034	7248.476267	35454.215
6S-221	0	174.3563333	893.25	0	0	7833.62	168.552	84.427	29167.61933	247.989	17500.5716	11915.03673	38569.8137
6S-223	0	1.75	0	0	0	0	1345.57	0	0	0	0	0	1347.32
6S-224	0	5.983	0	0	0	11.6	2483.780333	0	11772.60667	0	7063.564	4709.042667	14273.97
6S-225	0	5642.183	531.3873333	0	0	49789.015	245.438	2117.788	36046.30933	14142.39333	21627.7856	28560.91707	108514.514
6W-201	0	14.264	0	0	197.437	89.96533333	1.648	16.535	20.158	38.408	12.0948	46.4712	378.415333
70V-311	2.5	6557.336333	10131.764	0	563.768	92843.32233	378.643	402.202667	72398.54628	49376.34133	43439.12777	78335.75984	232654.424
70V-312	5.713	4585.18	7088.309	0	1366.287	51469.346	174.987	1352.44733	103261.181	41103.513	61956.7086	82407.9854	210406.963
70W-203	0	212.473	0	0.883333333	0	8910.142778	27.841	24.986	7030.337667	2.996	4218.2026	2815.131067	16209.6598
70W-204	0	55.554	0	0	0	8903.092059	22.502	3.506	3741.461	0	2244.8766	1496.5844	12726.1151
70W-311	0	19311.655	3495.437333	0	614.704667	37583.02276	318.578	2008.52067	85491.12167	50058.621	51294.673	84255.06967	198881.661
70W-312	0	2154.155333	1337.510612	1.791	67.609	31793.54197	30.053	2373.183	15253.60833	1022.327667	9152.165	7123.771	54033.7799
70W-313	4.34	3964.646667	7832.094055	0	924.783333	16667.00038	2458.808	3342.294	256962.1423	110032.25	154177.2854	212817.1069	402188.359

70W-314	0	50.78	3238.080333	0	101.31	5616.132329	177.772	365.976	35932.62167	419.6916667	21559.573	14792.74033	45902.364
70W-321	0	770.7436667	3299.638333	0	141.167	76761.11573	435.744	2488.808	125857.8033	66899.19533	75514.682	117242.3167	276654.215
70W-322	0	489.3076667	84.03966667	0	47.283	8311.01879	9.855	654.167667	30770.86467	7435.415	18462.5188	19743.76087	47801.9515
73W-411	85.032	28434.97167	11379.35033	168.718	36624.6532	103065.4309	19919.364	14977.986	1016798.002	592527.749	610078.8011	999246.9497	1823981.26
73W-412	0	0	8.001	0	762.689	5380.77081	0.964	1415.87233	1639.710667	3421.876333	983.8264	4077.7606	12629.8841
74N-411	4.961	850.721	3997.86	0	32.0333333	2723.545	3.664	975.501333	39241.94133	27439.489	23545.1648	43136.26553	75269.716
74N-412	2.116	6656.545	5116.310667	0	1685.48	5473.36	1025.022	3930.70133	77953.668	66092.67867	46772.2008	97274.14587	167935.882
74V-301	0	739.61	9.834	0	5	1972.75	147.729	1.858	3450.754	59.225	2070.4524	1439.5266	6386.76
74V-302	0	76.144	0.36	0	0	197.944	0	1.322	330.467	0	198.2802	132.1868	606.237
76V-301	0	940.321	450.5406667	0	40.5813333	25152.431	8106.294	597.283	50970.45967	7968.143	30582.2758	28356.32687	94226.0537
76W-201	0	0	0	0	0	42.04566667	0	0	107.05	0	64.23	42.82	149.095667
77V-301	0	729.897	2391.675	0	374.436	12694.299	264.632	63.375	34888.79967	3349.116	20933.2798	17304.63587	54756.2297
77V-302	2.642	9731.663333	5212.684	0	1045.461	16918.759	1619.727	13562.454	189262.4027	108738.3775	113557.4416	184443.3386	346094.17
77V-303	186.472	3789.353667	2951.408667	0	82.12	12491.096	273.581	5439.246	99967.00167	8668.813333	59980.201	48655.614	133849.092
77V-401	22.25	46833.65889	34587.09433	1.804	44.98	11291.771	9520.934	487.729	69424.41	69886.80633	41654.646	97656.57033	242101.438
78W-301	4.863	5305.034667	2269.978333	0	369.811	21729.423	671.223	7493.44367	87292.295	37028.20156	52375.377	71945.11956	162164.273
78W-302	12.858	1154.847333	1740.311	0	132.146	12203.156	35.4	347.026	42826.80367	10366.35133	25696.0822	27497.0728	68818.8993
79V-401	21.08333333	27113.05067	2315.552333	36.006	2520.52467	16099.59	384.237	16069.3593	187413.5653	148045.5173	112448.1392	223010.9435	400018.486
79V-402	64.35	52936.743	230.838	4.64	76.762	23726.13867	234.633	1401.882	107701.2167	98129.83233	64620.73	141210.319	284507.036
79V-403	147.294	3479.759333	3141.739	2.005	1360.36333	5736.59	0	686.971	13929.50533	49655.52533	8357.7032	55227.32747	78139.7523
7N-301	53.01	20261.33067	4000.249333	0	105.950333	7605.628	3986.833667	3287.94867	85552.07067	137745.5607	51331.2424	171966.3889	262598.582
7N-302	0	160.1696667	738.5966667	0	92.5726667	31929.30667	1458.518	1111.337	99302.94967	58757.19233	59581.7698	98478.3722	193550.643
7W-202	0	0	0	0	0	0	0	0	24.707	0	14.8242	9.8828	24.707
80W-301	7.841	1216.635	500.8356667	4.925	519.842667	17780.758	13.249	4367.133	95615.083	34058.57467	57369.0498	72304.60787	154084.877
80W-302	0	0	0	0	0	50.58	0	0	28.96666667	240.986	17.38	252.5726667	320.532667
80W-303	0	0	0	0	0	7.424	0	0	14.48333333	0	8.69	5.793333333	21.9073333
81N-411	1.618333333	12373.56167	12809.247	2.785	482.757333	11512.052	4788.640667	18231.5667	127113.894	116421.9533	76268.3364	167267.5109	303738.076
81N-412	8.251	6378.321	18201.548	0	1179.69367	22004.562	678.058	3090.50533	370978.4533	301420.4227	222587.072	449811.804	723939.815
81S-301	2806.898	164435.264	607.7176667	0	46.44	7979.786	20.038	157.434	33757.96733	38988.90167	20254.7804	52492.0886	248800.447
81S-302	6.958	46944.94033	235.7903333	12.595	11.3616667	8160.762	591.7053333	1356.25033	73854.991	299292.7733	44312.9946	328834.7697	430468.127
81S-303	150.168	44933.18967	938.9643333	0	422.248	13471.676	2751.454667	3379.34467	324303.1607	43346.54867	194581.8964	173067.8129	433696.755
81S-304	0	6740.260333	680.455	43.418	2.532	9672.385	7849.904333	255.088667	123630.5193	41348.82667	74178.3116	90801.0344	190223.389
81S-305	28.35533333	43171.625	406.6626667	5.544	76.99	13884.027	4649.931	580.653333	241810.7917	26684.91767	145086.475	123409.2343	331299.498
81S-306	113.475	12401.925	12295.43867	1.565	6.13333333	16377.32	4867.638	12239.9647	201519.696	21300.275	120911.8176	101908.1534	281123.431
81S-307	0	3022.560333	591.6863333	0	0	7329.085	2136.055667	83.436	41265.00767	20094.436	24759.0046	36600.43907	74522.267
81W-Dist	1.139	3604.599333	1845.006667	0	0	42183.632	4209.798	3797.549	66146.86733	14373.819	39688.1204	40832.56593	136162.41
82S-302	0	8665.9	8.072	0	3.523	1149.961	14.814	6201.738	13950.834	39219.817	8370.5004	44800.1506	69214.659
82S-303	0	24307.72233	1932.560667	0	0	7321.399	214.041	466.185333	69495.75567	120329.9517	41697.4534	148128.2539	224067.616
82S-304	39.495	3004.792	2383.445	0	11.9	5972.074	25.393	320.974	53922.262	123704.389	32353.3572	145273.2938	189384.724
82V-401	17.96166667	14396.45067	49361.55733	196.482	699.786	5902.595	57.04133333	6456.03233	367396.5273	95943.17467	220437.9164	242901.7856	540427.608
82V-402	0	91896.27733	15698.30333	2.982	548.852333	5450.84	749.698	17322.9327	264693.572	111458.7017	158816.1432	217336.1305	507822.159
82V-403	0	7974.358333	2127.204667	0	72.875	1779.89	597.497	4267.01967	75438.168	34678.33967	45262.9008	64853.60687	126935.352
82V-422	4.41	8480.905333	1174.643333	0	53.639	2691.2	251.479	10322.273	85202.87067	80209.77167	51121.7224	114290.9199	188391.192
82V-423	18.231	58346.72067	6693.631667	0	3617.33633	2972.75	6105.336	705.480333	171975.147	148765.586	103185.0882	217555.6448	399200.219
83V-301	0.998	3847.545667	2030.884333	0	765.826333	4876.494	347.754	3537.139	114069.7827	67034.37267	68441.8696	112662.2857	196510.797
83V-302	0	2943.209	179.4353333	0	4.017	13587.924	80.782	215.071667	112750.7857	9889.727333	67650.4714	54990.0416	139650.952
83V-303	0	3046.642	1546.067667	4.281	30.6	7549.064	1309.053	1565.983	78034.005	52622.49433	46820.403	83836.09633	145708.19
84S-302	0	3404.539333	1568.666667	0	0	5564.924	0	9.219	9171.467667	7482.643	5502.8806	11151.23007	27201.4597
84S-303	0	26.919	0	0	0	222.904	48.407	17.17	0	930.289	0	930.289	1245.689
84S-304	0	0	0	0	6.03333333	24.25	26.1	48.8086667	0	0	0	0	105.192
84S-305	0	2671.562246	2261.312	0	0	6328.4	5.809	144.679	7546.050667	11603.027	4527.6304	14621.44727	30560.8399
84W-301	1.266666667	7517.272667	260.5886667	0	388.12	40391.936	46.53333333	1210.427	103081.3857	31130.36033	61848.8314	72362.9146	184027.89

84W-302	2303.472	671.012	650.686	0	2.729	27632.578	180.713	1449.41867	64531.50733	43381.28067	38718.9044	69193.8836	140803.397
85S-401	12327.24267	44355.002	13679.654	836.136	94.4906667	8494.662	59093.96033	3689.83367	202481.1267	255197.6827	121488.676	336190.1333	600249.791
85S-402	1.659	2803.189333	183.5213333	0	17.823	2005.524	12.114	111.532333	18569.34567	19499.693	11141.6074	26927.43127	43204.4017
87H-311	2.947	1262.926667	6429.225	0	24.748	18190.064	221.328	15484.069	74932.50867	61659.691	44959.5052	91632.69447	178207.507
87H-312	79.683	3683.122667	5983.919667	6.315	65.2566667	18430.992	70.472	3395.775	60926.34433	30404.35333	36555.8066	54774.89107	123046.234
87H-313	8.016666667	13070.955	5998.104667	81.08	3942.35	36392.912	12741.226	19754.685	228646.3133	123653.3823	137187.788	215111.9077	444289.025
87W-311	4.544	20916.85167	10058.99867	0	250.104	11900.457	1252.28756	2509.97867	118984.8607	144885.3547	71390.9164	192479.2989	310763.437
87W-312	23.424	16823.41933	19282.98133	0	2860.609	10324.896	6281.658977	4340.23533	191243.0343	130069.8623	114745.8206	206567.0761	381250.121
88H-401	190.15	6154.874333	3702.995	28.265	8248.78633	428767.8924	1717.306	7274.70367	153869.6627	63647.66	92321.7976	125195.5251	673602.295
88H-402	91.19666667	13495.45833	21810.12567	0	1126.58533	558273.939	4556.518333	8748.86167	162905.2173	77768.561	97743.1304	142930.6479	848776.463
88W-311	0	914.0926667	44.44333333	0	53.409	11993.81	44.66	1104.874	6030.21	132.963	3618.126	2545.047	20318.462
88W-312	4334.319	21008.98433	1638.397	0	14893.2	9971.913	3502.583	2646.227	46005.736	10193.94933	27603.4416	28596.24373	114195.309
88W-313	0	1449.972333	45.37733333	0	35.4	14551.235	0	981.195333	22076.28833	108.8973333	13245.773	8939.412667	39248.3657
88W-314	0	5614.686333	1635.968667	0	14.479	10517.04	523.5846667	1868.26733	15091.711	6732.743333	9055.0266	12769.42773	41998.4803
88W-322	0	592.6286667	6.637	0	0	1465.578	358.498	41.4233333	4581.342333	363.141	2748.8054	2195.677933	7409.24833
88W-323	5.049	6122.896667	410.8396667	0	5.776	5053.377	6343.940333	999.971667	71789.88433	48048.96333	43073.9306	76764.91707	138780.698
89H-401	0	1056.168	28.29233333	0	0	2869.235	333.578	152.257	1041.864333	1775.856333	625.1186	2192.602067	7257.251
89W-301	0	13.967	150.857	2.996	0	2744.846394	0	500.494	7512.895	302.541	4507.737	3307.699	11228.5964
89W-302	0	2694.127	1202.043333	0	601.129	9505.872451	19.41466667	460.557667	54154.18811	2213.535667	32492.51287	23875.21091	70850.8679
89W-303	90.65	12762.164	1276.734	0	168.089333	10049.17275	172.427	1782.235	64379.18467	41764.47992	38627.5108	67516.15379	132445.137
89W-304	1.67	898.809	266.801	0	49.047	2541.848863	3.132	26.5056667	3137.593333	21977.71378	1882.556	23232.75111	28903.1206
91W-411	0	9487.529667	2650.79	0	4179.44367	62405.923	1590.95	1570.55467	260265.9093	98073.23233	156159.5456	202179.5961	440224.333
92H-331	109.091	9261.005667	5933.329333	1.57	418.749	15020.229	109.362	12550.5567	172011.5937	144675.7027	103206.9562	213480.3401	360091.189
92H-332	5.873	20202.52967	1690.405	180.457	202.337	6760.397	23.539	3242.09167	59401.899	19414.69667	35641.1394	43175.45627	111124.225
92H-334	2111.981	9400.076333	308.8306667	2.9	72.235	7322.72	132.988	273.237	36763.72633	17623.57733	22058.2358	32329.06787	74012.2717
92W-302	7.986	2704.537333	1288.964	1.843	418.003	66801.23933	2473.004	1366.78067	20703.30067	31127.384	12421.9804	39408.70427	126893.042
93V-311	21.641	6372.554333	229.662	0	8.787	54890.05395	1212.048333	1751.66815	37836.51067	67010.43867	22701.9064	82145.04293	169333.364
93V-312	11.704	5146.629667	1875.944333	0	154.266	34077.26285	21.58	555.724518	5759.048333	37052.80933	3455.429	39356.42867	84654.969
93V-313	0	18713.28767	6834.519333	0	1140.606	100779.3654	5920.78	2434.55767	59423.09133	211076.9983	35653.8548	234846.2349	406323.206
93V-314	0	274.3046667	3.05	0	0	1154.041214	149.208	26.104	119.09	1335.75	71.454	1383.386	3061.54788
95H-251	2.783333333	229.7753333	251.3303333	0	12.0333333	4199.846	1079.732	2024.34833	2358.701	12808.09	1415.2206	13751.5704	22966.6397
96H-411	187.566	8976.739	8163.843	0	9246.35133	428776.5146	3188.538	17616.0073	86656.48867	46221.74467	51993.8932	80884.34013	609033.793
96H-412	58.371	52786.97367	6981.222667	0	357.105333	94202.40686	5826.793	990.758667	46441.274	224274.56	27864.7644	242851.0696	431919.465
99H-311	0	7093.45	6512.706	0.779	178.399	7838.819	147.534	241.123333	191012.117	13995.341	114607.2702	90400.1878	227020.268
99H-312	14.456	6088.012	288.0473333	0	0	3576.783	870.355	2676.40967	116424.632	5519.032667	69854.7792	52088.88547	135457.728
99V-311	0	1595.086333	50.753	0	0	19971.12983	0	494.228	2055.592667	2418.863667	1233.3556	3241.100733	26585.6535
99V-312	0	1572.199333	1180.488333	22.152	3053.44	4097.864334	10.852	4211.076	83441.60533	40360.571	50064.9632	73737.21313	137950.248
99V-313	0	107.9923333	109.7466667	0	0.66666667	835.2163334	20.11	23.6	197.015	0	118.209	78.806	1294.347
99V-314	7.305	5440.544	4116.975	0	1360.24067	17531.46417	744.6716667	6048.38367	222077.8803	87573.80067	133246.7282	176404.9528	344901.265
9C-301	0	19.662	1.683333333	0	0	3333.02	1	9.189	30.623	154.251	18.3738	166.5002	3549.42833
9C-302	0	0.74	0	0	0	461.047	1.25	0	0	89.65	0	89.65	552.687
9C-303	0	711.8166667	435.596	0	0	2686.116667	56.5	312.240667	11776.92367	7896.019857	7066.1542	12606.78932	23875.2135
9C-304	0	7.778	10.179	0	0	1477.647	154.45	0	732.523	2328.705	439.5138	2621.7142	4711.282
L-3202	0	0	0	0	0	193.0686667	456.204	5.408	38.415	0	23.049	15.366	693.095667
L-4048	0	0	0	0	0	16.688	0	4.034	0	0	0	0	20.722
L-4049	0	38.50466667	0	0	0	30313.09233	0	485.505	388.8636667	830.8163333	233.3182	986.3618	32056.782

CEA DEFINITIONS

CI = Customer Interruptions

Total number of customers without power

CHI = Customer Hours of Interruption

Combination of customers and duration

SAIFI = Average Outage Frequency

Customer interruptions / # of customers

SAIDI = Average Outage Duration

Customer hours of interruption / # of customers

CAIDI = Average Outage Duration (for those interrupted)

Customer hours of interruption / # of customer interruptions

Unknown/other

Interruptions with no apparent cause or reason identified that could have contributed to the outage

Scheduled outage

Interruptions due to the planned disconnection for construction or maintenance purposes

Loss of supply

Interruptions due to problem in the bulk electricity system (transmission)

Tree contacts

Interruptions caused by trees or tree limbs contacting energized circuits

Lightning

Interruptions due to lightning strike on energized circuits

Defective equipment

Interruptions resulting from equipment failures

Adverse weather

Interruptions resulting from weather conditions (e.g. Rain, ice storms, snow, winds, extreme ambient temperatures, freezing fog, or frost)

Adverse environment

Interruptions due to equipment being subjected to abnormal environmental conditions (e.g. Salt spray, contamination, humidity, corrosion, vibration, fire, or flooding)

Human element

Interruptions due to errors of utility staff in construction, maintenance, or operations

Foreign interference

Interruptions due to external contacts beyond the control of the utility (e.g. Birds, animals, vehicles, dig-ins, or other foreign objects)

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1 **Request IR-20:**

2
3 **Did NS Power consider changes to the frequency and severity of these root causes over time**
4 **as part of its Reliability Plan?**

5
6 **(a) If so, what changes to the root causes were considered and how was each change**
7 **factored into the plan? For example, is wildfire risk growing over time and if so, how**
8 **is that change factored into the Reliability Plan?**

9
10 **(b) If not, why not?**
11

12 **Response IR-20:**
13

14 The root causes of outages are considered as inputs to the identification of risks present on NS
15 Power's system and consequently the mitigating measures that would be necessary to mitigate
16 these risks. When developing the overall Five-Year Reliability Plan the contribution of these
17 outage causes was included; however, these outage causes are not and were not the only factor
18 used to build the plan. NS Power would also consider leading indicators such as inspection results,
19 vegetation condition and loading, whether or not these factors had contributed to recent outage
20 performance. This is consistent with NS Power's asset management mechanism used to identify
21 and mitigate risks consistent with the main drivers of those risks. Further, emerging risks such as
22 those from a changing climate would help to inform the development of the plan, including the
23 development of new distribution standards to better resist high winds that would subsequently be
24 incorporated into specific projects.

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1 **Request IR-21:**

2
3 **Did NS Power consider backup power as a potential solution to reliability issues?**

4
5 **(a) If so, how was it considered?**

6
7 **(b) If so, why doesn't this solution appear in the plan?**

8
9 **(c) If not, why not?**

10
11 **Response IR-21:**

12
13 No. Backup power was not considered as a potential solution to address reliability performance
14 within the Five-Year Reliability Plan.

15
16 **(a) N/A.**

17
18 **(b) N/A.**

19
20 **(c)** NS Power does not routinely collect information on customer backup power unless there
21 is a net metering installation that could feed power back into the system. The Company
22 does not track which customers may have their own generators (e.g., GenerLink) or the
23 operational status of such equipment.

24
25 Electricity Canada's methodology for calculating performance metrics does not account
26 for behind-the-meter generation or other sources of backup power. Outages are counted
27 whenever the utility is not supplying a customer's meter, regardless of any customer-owned
28 backup power. Therefore, the presence of backup power does not impact the calculation
29 and ultimate results for metrics such as SAIFI and SAIDI, and consequently should not

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- 1 affect the decision-making process or outage performance metrics that guide the execution
- 2 of the Five-Year Reliability Plan.

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Request IR-22:

- (a) Can NS Power identify the prevalence of customers with backup power on feeders? How robust is NS Power's data on customers with backup power? Does NS Power have data on all installations of backup power, or only a subset of the total installations? Please explain.**

Response IR-22:

- (a) NS Power does not routinely collect information on customer backup power unless there is a net metering installation that could feed customer-generated power back into the system, or if the assets were installed as part of CI 49787 – Intelligent Feeder/Storage Project (SDTC) or CI C0010778 – Smart Grid Nova Scotia Project. The Company otherwise does not track which customers may have their own generators (e.g., GenerLink) or battery storage systems or the operational status of such equipment, so NS Power would only be able to obtain data on a subset of the total installations.

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Request IR-23:

Would it make sense for NS Power to deploy backup power to address reliability issues on feeders that serve a small number of customers?

(a) Why or why not?

(b) If so, would backup power be considered to be a temporary or permanent solution for these customers?

Response IR-23:

Behind-the-meter backup power is not presently utilized to mitigate reliability concerns.

(a) NS Power is mandated to provide power service to customers via their electric meters and the overall transmission and distribution grid. NS Power does not have the mandate or ability to direct the installation of backup power equipment within a customer's premises, nor does NS Power normally track whether customers may have their own backup power equipment or the operational status of such equipment. NS Power's current programs within the Five-Year Reliability Plan are designed to deliver customer load demand in real time and within CSA standards for power quality. Should NS Power's mandate include behind the meter installations in the future, such strategies would be re-considered at that time.

Furthermore, Electricity Canada's methodology for calculating performance metrics, including SAIFI and SAIDI, does not account for behind-the-meter generation or other sources of backup power. Outage events are included whenever the utility is not supplying a customer's meter, regardless of any customer-owned backup power. Therefore, the presence of backup power does not impact the calculation and ultimate results for metrics

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1 such as SAIFI and SAIDI and would not contribute to the achievement of performance
2 standards.

3

4 (b) N/A.

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Request IR-24:

Did NS Power consider diminishing returns in developing its Reliability Plan (e.g., reliability improvements are harder and more expensive to come by as lower hanging fruit is addressed)?

(a) If so, how?

(b) If not, why not?

(c) Is there a point at which the incremental investments would not be worthwhile? Please explain.

Response IR-24:

Yes, NS Power did consider diminishing returns in developing the Five-Year Reliability Plan.

(a) Diminishing returns were represented as a reduction in the effectiveness of investments in the later years of the program, such that an equivalent program investment in year 5 would deliver a smaller reliability benefit than in year 1 of the plan.

(b) N/A.

(c) Within the scope of the Five-Year Reliability Plan, NS Power did not encounter a scenario during plan development where the diminishing returns would have resulted in a significant deterioration in the effectiveness such that investments were no longer worthwhile. However, some of these effects were considered when determining the volume or scale of investments in particular programs within the plan. Please refer to Synapse IR-38 part (c) for an example where limitations resulting from diminishing returns influenced Plan development.

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1 **Request IR-25:**

2
3 **Did NS Power reflect operational constraints (e.g., how many miles a vegetation crew can**
4 **clear in a day) in its Reliability Plan?**

5
6 **(a) If so, how?**

7
8 **(b) If not, why not?**

9
10 **Response IR-25:**

11
12 **Yes.**

13
14 (a) NS Power has considered operational, resourcing, and execution constraints in the
15 development of the Five-Year Reliability Plan. The Company has used historical execution
16 information, along with consideration of the full process of work management and
17 readiness to build its plan and spending at the appropriate pace. The use of external crews
18 and contractors to execute vegetation management and targeted asset replacements are
19 leveraged to account for portions of the additional volume of work in the Plan.

20
21 (b) N/A.

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1 **Request IR-26:**

2
3 **Did NS Power account for the interactions between solutions in its Reliability Plan?**

4
5 **(a) If so, how?**

6
7 **(b) If not, why not?**

8
9 **Response IR-26:**

10
11 In general, when setting the high-level program components, the interactions between different
12 programs were not quantified. When the overarching programs are developed and the overall
13 benefits projected at a system-level, the specific locations (such as the specific feeder sections)
14 and scale of each type of intervention are not yet determined. These are determined based on risk-
15 based decision-making in consideration of the condition and criticality of these assets and systems
16 when constructing specific project scopes in each year. Consequently, the potential interactions
17 between different interventions at a given location could not be and were not specifically
18 quantified.

19
20 However, as is inherent in many interventions, NS Power recognizes that there are compounding
21 effects, such as vegetation management work that may be required to conduct a build-to-roadside
22 or asset replacement project that can provide additional benefits beyond the initial target of a given
23 project. Ultimately, NS Power considers that these interactions are largely already included in the
24 estimated reliability benefits accrued by program and outlined in the Five-Year Reliability Plan
25 since they are based on NS Power's previous experience with such programs, including various
26 compounding effects.

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1 **Request IR-27:**

2
3 **Were any alternative plans considered?**

4
5 **(a) If so, what were the alternatives and why was this plan selected over the other(s)?**

6
7 **(b) If not, why not?**

8
9 **Response IR-27:**

10
11 Within the Reliability Plan, NS Power did evaluate a range of potential interventions and in
12 specific years, NS Power's asset management mechanism is used to effect risk-based decision-
13 making on the specific projects selected for execution.

14
15 (a-b) NS Power's Five-Year Reliability Plan includes recommended investments and projects to
16 allow the Company to consistently meet the established performance standards by 2029.
17 This recommended level of investment and associated pace was selected to balance the
18 need to improve reliability with affordability impacts for customers, as outlined in the
19 Company's GRA filing. This approach was developed with the input of NS Power's SMEs
20 and was ultimately driven by the need to reach the targeted Performance Standards SAIDI.
21 While the overarching goals of the Reliability Plan are not anticipated to change, the plan
22 is evaluated and updated annually to ensure it continues to reflect the updated condition
23 and criticality of assets, the appropriateness of the targeted interventions, and the prudent
24 reliability improvements for customers.

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1 **Request IR-28:**

2
3 **Regarding feeder-level prioritization for reliability and risk, please provide the following**
4 **feeder-level basis for NS Power's service territory in Excel where possible with supporting**
5 **data:**
6

7 **(a) Feeder ID (unique identifier that is consistent among data sets);**
8

9 **(b) Whether the feeder is underground, overhead, or both;**
10

11 **(c) Whether the feeder is distribution or transmission-level;**
12

13 **(d) Overhead circuit miles of the feeder;**
14

15 **(e) Underground circuit miles of the feeder;**
16

17 **(f) SAIDI from 2015-2025 on an annual basis;**
18

19 **(g) SAIFI from 2015-2025 on an annual basis;**
20

21 **(h) Outages by cause (e.g. vegetation, equipment failure, etc.) in each year. If additional**
22 **detail on outage cause is available, please provide (e.g. tree fall-in vs. tree contact,**
23 **specific equipment failure, etc.);**
24

25 **(i) Condition score or indicator;**
26

27 **(j) Number of residential customers;**
28

29 **(k) Number of commercial customers;**
30

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- 1 **(l) Number of industrial customers;**
2
- 3 **(m) Load of residential customers;**
4
- 5 **(n) Load of commercial customers;**
6
- 7 **(o) Load of industrial customers;**
8
- 9 **(p) Ability to access score or indicator;**
10
- 11 **(q) Ability to mitigate score or indicator;**
12
- 13 **(r) Performance standard;**
14
- 15 **(s) Criticality score or indicator;**
16
- 17 **(t) The feeder risk rating (factoring in condition and criticality scores or indicators);**
18
- 19 **(u) An indicator of whether the feeder is targeted, or has already been targeted, for**
20 **Reliability Plan investment, and for which year;**
21
- 22 **(v) Why the feeder is targeted, whether based on risk score or some other criteria;**
23
- 24 **(w) If targeted for Reliability Plan investment, what program(s) include the investments.**
25
- 26 **(x) Expected cost by program for each feeder, if targeted for investment under the**
27 **Reliability Plan.**
28

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1 Response IR-28:

2
3 (a-b) Please refer to Attachment 1.

4
5 (c) All distribution feeders are considered distribution-level.

6
7 (d-e) Please refer to Attachment 1.

8
9 (f-g) Please refer to the 2019 and 2025 Performance Standards Report (M12784) Appendix I,
10 reproduced as Attachment 2.

11
12 (h) Please refer to Attachment 3 containing 2025 Performance Standards outage data by feeder
13 along with cause and sub-cause classifications (MED, EED, and planned excluded).

14
15 (i) Please refer to Attachment 4.

16
17 (j-o) Please refer to Attachment 5 containing total customer count and the average usage rate
18 (kWh) by feeder as it exists in risk calculations. Feeder level customer count and load data
19 by rate class is unavailable due to inherent distribution system changes and not directly
20 reconcilable with risk data provided.

21
22 (p) Please refer to Attachment 6.

23
24 (q) No such data exists.

25
26 (r) Please refer to Attachment 2 for the 2025 Performance Standards Report (M12784) for
27 details of the Performance Standards applicable to NS Power.

28
29 (s-t) Please refer to Attachment 4.

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- 1 (u) For 2025 targeted feeders, please refer to 2026 ACE Plan Appendix G (included as
2 Attachment 7), APPENDIX A: 2025 Highest Priority Distribution Feeders (M12619). For
3 2026 feeders, please refer to 2026 ACE Plan Appendix G (included as Attachment 7),
4 Figure 32: Highest Priority Distribution Feeders in 2026 (M12619).
5
- 6 (v) Feeders were prioritized for interventions through NS Power's asset mechanism that
7 assesses risk and guides mitigating measures. As detailed in Synapse IR-31, this risk rating
8 includes feeder performance.
9
- 10 (w) Please refer to Attachment 7 which is 2026 ACE Appendix G, APPENDIX B: Work
11 Completed (C) and In Progress (P) on 2025 Priority Feeders page 69 of 71 (M12619).
12
- 13 (x) Detailed feeder-level costs by program are not available. Detailed site-level actual unit
14 hours and unit labour costs cannot be isolated for comparison. This is due to several labour
15 categories such as Engineering & Design, Drafting, and Project Management being
16 performed concurrently and not on a site-by-site basis.

Feeder Length Attributes

Feeder	Overhead Circuit Length (km)	Underground Circuit Length (km)	Customer Count
100C-421	114.8	0.1	
100C-422	51.7	0.2	
100C-423	3.2	0.6	
101H-411	31.3	0.5	
101H-412	21.2	1.1	
101H-413	40.3	0.7	
101H-421	84.1	0.9	
101H-422	32.8	2.5	
101H-423	32.3	2.0	
102W-311	77.6	0.6	
102W-312	225.8	0.4	
103C-311	27.5	0.3	
103C-313	11.8	0.6	
103C-314	76.3	0.2	
103H-431	19.6	1.8	
103H-432	62.1	3.9	
103H-433	23.8	2.6	
103H-434	168.7	0.8	
103W-311	77.6	4.5	
103W-312	93.1	0.5	
104H-411	18.7	3.2	
104H-412	0.8	0.8	
104H-413	19.0	2.3	
104H-421	18.6	3.4	
104H-422	5.4	2.1	
104H-423	12.2	0.7	
104H-431	10.8	4.6	
104H-432	1.5	0.8	
104H-433	13.3	2.9	
104H-441	13.7	1.0	
104H-442	10.4	3.2	
104S-311	104.4	0.8	
104S-312	55.9	0.1	
104S-313	130.3	0.9	
108H-411	12.9	3.2	
108H-412	8.8	4.3	
108H-413	20.2	2.5	
111S-311	10.6	0.4	
111S-312	25.4	0.3	
111S-313	12.4	0.8	
111S-314	39.7	0.7	
113H-431	23.9	0.9	
113H-432	59.1	0.2	
113H-433	97.5	0.2	
113H-434	34.4	0.9	
113H-441	35.8	0.4	
113H-442	22.7	0.7	
113H-443	29.6	1.1	

113H-444	20.3	0.2
11S-301	185.6	0.3
11S-302	45.0	0.3
11S-303	17.6	0.4
11S-304	23.2	0.3
11S-305	15.0	1.8
11S-306	16.2	1.3
11S-411	248.9	1.0
11S-412	47.7	0.2
124H-301	4.5	0.4
124H-302	6.7	0.8
126H-311	44.2	0.1
126H-312	109.1	0.1
126H-313	33.0	0.0
127H-411	104.0	0.9
127H-412	3.1	0.0
127H-413	19.8	2.1
129H-411	12.5	2.0
129H-412	36.2	3.9
129H-413	21.8	2.4
12V-302	138.6	0.8
12V-303	40.4	0.3
12V-304	97.6	0.1
131H-421	27.8	0.3
131H-422	13.1	0.2
131H-423	98.7	0.7
131H-424	61.8	0.3
137H-411	131.8	1.5
137H-412	118.4	1.0
137H-413	31.6	3.9
137H-414	11.2	0.6
139H-411	9.0	1.8
139H-412	11.5	2.8
139H-413	8.2	18.6
139H-414	41.7	1.0
13V-303	155.1	0.1
141H-401	11.1	1.7
14V-303	5.0	0.0
15N-401	89.3	2.9
15N-402	9.7	0.6
15N-403	113.9	3.6
15N-404	81.1	1.3
15S-301	37.2	0.2
15S-302	23.1	0.5
15S-303	36.5	0.3
16N-301	100.7	0.2
16N-302	150.8	0.1
16V-314	148.7	0.7
16V-315	71.7	0.1
16W-301	163.9	0.2

16W-302	199.2	0.1
17N-201	2.3	0.1
17N-202	3.2	0.0
17N-203	19.1	0.2
18V-411	71.0	0.1
18V-412	117.9	0.1
18V-413	209.9	0.1
19C-203	5.5	0.0
19C-204	6.9	0.0
19W-311	51.9	0.1
19W-312	60.6	0.5
1C-411	44.7	1.6
1C-412	3.2	0.1
1C-413	5.7	0.0
1H-403	0.0	12.1
1H-405	0.0	2.1
1H-415	4.1	1.6
1H-419	0.0	4.7
1H-424	0.0	2.6
1H-427	5.2	3.5
1H-429	3.0	4.2
1H-431	0.3	4.2
1H-454	5.2	2.2
1H-456	0.0	0.7
1N-402	204.0	1.5
1N-403	49.6	0.6
1N-404	32.3	0.0
1N-405	198.5	0.4
1N-421	34.5	1.0
1V-442	3.0	0.0
1V-443	216.2	0.2
1W-411	1.5	0.0
20H-301	69.5	0.6
20H-302	13.7	2.9
20H-303	75.9	0.4
20H-304	22.8	0.6
20H-305	27.7	2.2
20H-306	20.1	0.7
20N-201	1.8	0.0
20N-203	6.9	0.1
20N-204	7.4	0.0
20V-311	69.4	1.0
20W-311	41.5	0.0
20W-312	16.4	0.1
21W-311	17.9	0.0
21W-312	13.6	0.1
22C-401	26.4	0.3
22C-402	152.8	0.0
22C-403	88.9	0.4
22C-404	233.4	1.2

22N-401	46.7	1.1
22N-402	237.7	0.1
22N-403	124.5	0.1
22N-404	17.1	1.4
22V-313	13.0	0.5
22V-314	7.7	0.3
22V-321	29.2	1.9
22V-322	18.1	3.6
22W-311	66.1	1.1
22W-312	40.9	0.0
22W-313	52.9	0.2
23H-301	10.8	0.3
23H-302	9.5	0.8
23H-303	10.4	1.7
23H-304	16.9	1.1
23W-301	31.7	0.0
23W-302	118.2	0.1
24C-442	123.9	0.1
24C-443	249.5	0.2
25W-301	156.6	2.0
25W-302	53.7	0.3
25W-303	56.9	1.1
2C-401	26.8	0.0
2C-402	219.2	3.0
2H-411	24.3	1.9
2H-412	1.8	5.6
2H-413	19.6	1.5
2H-421	19.6	1.0
2H-422	15.6	1.3
2H-423	22.1	3.5
2H-424	9.3	0.8
30N-411	67.7	0.0
30N-412	65.0	0.0
36V-301	59.5	0.1
36V-302	143.8	0.2
36V-303	149.1	0.2
36W-301	124.1	0.3
36W-304	41.4	0.0
37N-411	94.1	0.5
37N-412	136.6	0.0
37N-413	121.1	0.1
37N-414	73.0	0.6
37W-201	10.9	0.0
37W-202	4.7	0.3
37W-203	0.6	0.0
3N-411	7.0	0.0
3N-412	56.1	0.1
3S-301	56.8	0.8
3S-302	25.7	0.3
3S-303	26.3	0.3

3S-307	38.7	0.4
3S-308	15.1	1.0
3S-309	42.6	0.3
3S-403	216.2	0.1
3S-405	4.8	0.2
3W-201	4.6	0.0
40H-302	22.6	1.3
40H-303	7.5	1.2
40H-304	12.8	0.5
40H-305	8.8	2.4
40H-401	16.8	0.3
45V-201	0.9	0.0
45V-202	3.9	0.2
46W-301	88.6	0.8
46W-303	40.1	0.2
48H-301	18.5	0.3
48H-302	13.1	1.2
48H-303	9.5	1.3
48H-304	9.2	0.6
48W-201	14.1	0.1
48W-203	1.5	0.1
48W-204	5.3	0.1
4C-424	113.4	4.3
4C-430	380.5	0.4
4C-432	156.5	0.1
4C-441	272.1	0.2
4C-442	1.1	0.2
4N-311	151.9	0.3
4N-312	261.0	0.3
4N-313	211.7	0.0
4S-321	18.2	0.4
4S-322	6.2	0.5
4S-323	8.5	0.5
4S-324	22.5	0.8
4S-331	20.3	0.9
4S-332	6.1	0.2
4S-333	15.9	0.7
4S-334	6.8	0.9
4W-211	0.4	0.0
50N-311	1.3	0.3
50N-410	381.6	6.4
50N-411	46.1	0.6
50N-412	51.5	0.3
50N-415	58.6	1.0
50V-401	35.5	3.1
50V-402	39.0	11.3
50W-411	57.0	0.3
50W-412	157.4	0.2
51V-301	45.8	0.2
54H-301	3.4	1.4

54H-302	9.0	0.5
54H-303	1.8	3.1
54H-304	13.1	0.2
55N-201	3.4	0.1
55N-202	4.3	0.0
55N-203	13.0	0.3
55N-204	10.5	0.1
55V-313	190.6	0.1
55V-314	152.2	0.1
55V-322	74.7	0.3
55V-323	50.3	0.6
56N-401	78.7	0.6
56N-402	1.5	0.1
56N-414	429.5	0.1
57C-417	26.2	0.0
57C-422	308.1	0.1
57C-426	288.4	1.9
57S-401	200.2	5.0
57S-402	286.3	0.2
57W-401	152.8	0.8
57W-402	56.1	0.1
58C-403	164.0	5.3
58C-405	223.9	0.5
58H-421	40.4	1.9
58H-431	38.1	2.9
59C-401	77.2	0.0
59C-402	350.1	0.3
59C-403	72.0	0.3
62H-301	2.1	1.5
62H-302	11.9	1.5
62H-303	6.6	0.4
62H-304	12.3	0.4
62N-411	25.5	1.1
62N-412	17.9	0.9
62N-413	213.2	0.8
62N-414	201.1	0.5
62N-415	166.3	0.2
62N-416	173.7	0.4
63V-311	37.5	0.1
63V-312	60.0	0.0
63V-313	114.5	0.2
64V-301	52.1	0.1
64V-302	4.9	0.1
64V-303	4.3	0.0
65V-301	27.7	0.0
65V-302	170.4	0.1
65V-303	88.9	0.5
67C-411	382.4	0.1
67C-412	334.9	0.9
6N-301	29.6	0.2

6N-302	26.7	0.4
6W-201	6.9	0.0
70V-311	163.0	0.2
70V-312	120.7	0.2
70W-203	4.6	0.0
70W-204	3.5	0.0
70W-311	93.1	0.2
70W-312	16.2	0.1
70W-313	127.8	2.3
70W-314	5.4	0.2
70W-321	70.8	0.6
70W-322	14.1	0.4
731N-301	23.9	0.0
732N-301	52.3	0.0
73W-411	719.5	1.0
73W-412	10.1	0.1
74N-411	38.2	0.1
74N-412	114.2	0.1
74V-301	11.1	0.1
74V-302	0.5	0.0
76V-301	80.4	3.6
77V-301	15.6	0.2
77V-302	153.9	0.3
77V-303	51.7	0.4
77V-401	128.0	2.4
78W-301	0.7	0.6
78W-302	0.0	0.0
79V-401	168.9	0.5
79V-402	93.6	3.4
79V-403	90.8	0.8
7N-301	128.8	5.1
7N-302	91.2	0.0
7W-202	0.9	0.0
80W-301	65.4	0.6
80W-302	1.1	0.8
80W-303	0.2	0.0
81N-411	112.5	0.8
81N-412	333.7	0.7
81S-301	22.4	0.2
81S-302	50.8	0.3
81S-303	82.4	0.3
81S-304	13.7	0.4
81S-305	25.6	0.4
81S-306	32.9	0.6
81S-307	12.3	0.3
82S-302	4.6	0.6
82S-303	32.3	0.1
82S-304	37.6	0.9
82V-401	163.8	0.6
82V-402	153.9	1.8

82V-403	58.0	0.6
82V-422	72.8	0.6
82V-423	272.0	0.6
83V-301	86.7	0.5
83V-302	19.8	1.0
83V-303	138.1	0.2
84S-302	23.2	1.4
84S-303	6.2	0.0
84S-305	17.6	0.6
84W-301	106.9	1.9
84W-302	21.7	3.9
85S-401	263.3	2.3
85S-402	122.4	0.2
87H-311	65.9	0.3
87H-312	92.7	0.2
87H-313	168.5	0.2
87W-311	96.5	3.1
87W-312	109.3	13.2
88H-401	251.6	0.4
88H-402	310.0	0.0
88W-311	21.9	0.3
88W-312	47.0	0.5
88W-313	11.7	0.2
88W-314	34.8	0.1
88W-322	25.1	0.4
88W-323	93.6	5.8
89W-301	9.8	0.3
89W-302	53.5	0.3
89W-303	121.4	0.3
89W-304	26.5	0.3
91W-411	159.9	0.3
92H-331	123.8	2.3
92H-332	45.2	0.2
92H-334	48.1	0.6
92W-302	178.9	0.0
93V-311	89.6	0.3
93V-312	42.1	0.3
93V-313	189.9	0.2
93V-314	2.7	0.1
95H-251	8.8	0.0
96H-411	190.5	0.3
96H-412	152.2	1.0
99H-311	11.9	0.7
99H-312	13.1	4.7
99V-311	22.3	0.6
99V-312	34.0	2.2
99V-313	8.6	0.3
99V-314	218.2	2.3
9C-301	11.7	0.4
9C-302	2.9	0.0

9C-303	57.3	1.3
9C-304	10.7	0.0
9H-223	4.1	0.3
L-3202	5.4	0.0
L-4049	7.6	0.0

EXCLUSIONS
MED/EXT
Planned

	2012 KCAIFI	2013 KCAIFI	2014 KCAIFI	2015 KCAIFI	2016 KCAIFI	2017 KCAIFI	2018 KCAIFI	2019 KCAIFI	2012 KCAIDI	2013 KCAIDI	2014 KCAIDI	2015 KCAIDI	2016 KCAIDI	2017 KCAIDI	2018 KCAIDI	2019 KCAIDI
Avg + 2 St. Dev	5.19	5.82	5.42	4.68	4.74	4.66	5.44	6.16	12.78	14.05	14.52	12.20	14.36	24.54	20.47	20.51
St. Dev	1.91	2.14	1.95	1.62	1.63	1.56	1.84	1.97	5.05	5.36	5.41	4.51	5.39	10.41	8.03	7.37
Average	1.37	1.53	1.52	1.45	1.49	1.54	1.76	2.22	2.67	3.33	3.70	3.18	3.57	3.73	4.41	5.77

Feeder Source	2012 KCAIFI	2013 KCAIFI	2014 KCAIFI	2015 KCAIFI	2016 KCAIFI	2017 KCAIFI	2018 KCAIFI	2019 KCAIFI	2012 KCAIDI	2013 KCAIDI	2014 KCAIDI	2015 KCAIDI	2016 KCAIDI	2017 KCAIDI	2018 KCAIDI	2019 KCAIDI
100C-421	1.25	1.61	3.75	1.46	2.56	2.38	3.28	8.17	4.88	2.54	8.74	6.34	10.15	2.07	2.50	18.91
100C-422	0.19	2.57	0.32	1.34	6.92	2.27	2.20	3.40	0.37	3.16	0.82	1.32	9.11	2.11	3.24	20.16
100C-423	0.33	0.33	1.17	0.42	1.07	1.07	1.27	2.09	1.51	1.48	2.87	3.18	2.28	0.48	1.29	0.38
101H-411	5.40	1.16	1.38	1.22	1.29	0.03	2.22	2.36	7.55	1.30	1.18	0.80	1.17	0.06	3.04	3.51
101H-412	1.09	1.01	0.03	0.05	0.02	0.04	0.01	1.32	0.61	0.77	0.11	0.09	0.04	0.08	0.02	1.21
101H-413	1.05	0.12	0.10	0.12	1.07	0.23	2.23	3.67	1.60	0.25	0.30	0.22	0.79	0.36	3.11	4.30
101H-421	6.52	0.02	3.46	1.08	1.03	0.06	1.11	6.06	3.44	0.04	7.55	0.49	0.85	0.11	0.94	9.01
101H-422	3.57	0.17	1.07	1.22	1.19	0.29	2.02	2.36	6.08	0.19	1.18	2.22	2.37	0.68	6.11	8.69
101H-423	3.02	1.09	2.40	1.09	1.21	0.03	3.02	3.21	3.87	1.29	6.94	0.33	0.34	0.05	4.79	7.09
102W-311	7.10	1.19	1.23	1.12	1.08	1.19	0.05	0.25	6.36	2.24	0.96	0.39	0.47	0.19	0.15	0.65
102W-312	0.27	0.24	0.32	0.65	0.63	1.19	2.13	1.01	1.26	0.85	6.08	0.92	3.45	0.39	3.54	2.02
103C-311	1.05	5.29	1.56	1.10	1.11	4.08	0.03	4.18	0.41	2.46	44.93	2.69	3.71	12.13	0.11	16.51
103C-313	0.54	1.09	2.57	0.06	1.50	1.78	1.01	5.02	1.40	1.69	4.45	0.14	1.48	7.04	0.55	17.83
103C-314	0.30	0.08	1.18	1.35	4.05	7.65	1.40	5.68	0.45	0.25	30.64	3.61	9.21	29.23	1.78	17.50
103H-431	0.01	1.01	0.15	0.00	0.01	1.00	3.17	2.10	0.01	3.24	0.34	0.00	0.02	2.19	3.72	7.40
103H-432	0.17	1.00	0.03	0.33	0.10	0.03	1.49	1.15	0.48	1.98	0.06	0.98	0.23	0.07	4.18	4.85
103H-433	0.96	0.02	2.86	1.93	0.51	0.62	2.01	3.08	1.69	0.10	8.76	3.16	0.07	1.31	4.28	10.05
103H-434	1.38	2.16	0.60	3.65	3.43	1.24	4.19	3.69	3.83	8.09	2.73	9.15	3.54	3.37	6.26	10.00
103W-311	3.26	2.15	5.41	0.11	0.20	0.15	0.28	2.41	6.01	0.79	13.63	0.46	0.63	0.67	1.29	3.90
103W-312	1.32	0.29	0.41	0.06	0.35	1.28	0.42	4.22	3.20	1.07	1.15	0.12	1.55	7.03	2.05	6.46
104H-411	3.10	4.09	0.03	0.04	1.29	1.05	3.40	3.97	4.05	0.91	0.06	0.08	3.30	1.26	1.43	10.05
104H-412	1.00	0.11	2.53	1.87	0.12	2.15	2.88	4.05	1.69	0.15	3.39	2.66	0.10	1.83	2.35	4.50
104H-413	3.47	1.60	5.07	0.04	3.08	1.89	2.27	3.28	3.20	1.24	6.24	0.09	2.85	2.82	0.45	2.68
104H-421	1.03	2.00	2.02	3.04	2.02	4.03	4.11	3.12	2.25	0.31	2.71	2.10	2.09	4.52	4.69	1.83
104H-422	6.51	0.00	3.05	0.05	0.24	1.93	1.34	1.25	14.31	0.00	4.26	0.19	0.87	1.33	1.82	1.51
104H-423	0.02	0.06	0.04	1.48	1.70	1.94	2.08	1.13	0.03	0.18	0.12	1.45	1.11	2.04	2.50	1.31
104H-431	0.01	3.19	0.43	0.07	2.52	0.46	1.68	1.10	0.01	0.47	0.64	0.10	3.26	0.58	2.35	1.35
104H-432	0.00	2.93	1.12	1.03	1.98	0.01	1.98	2.11	0.01	6.68	1.68	3.75	2.46	0.01	2.53	3.34
104H-433	0.80	2.76	0.83	0.86	0.50	1.00	1.04	1.88	1.07	3.54	1.93	4.24	0.06	1.20	2.36	1.47
104H-441	2.02	1.04	1.14	0.06	2.07	0.14	1.99	0.23	3.83	1.66	1.11	0.21	2.01	0.47	1.98	0.37
104H-442	2.13	1.01	1.04	0.02	2.07	2.03	2.00	2.02	4.63	1.42	0.41	0.06	1.49	4.24	1.76	1.99
104S-311	0.11	2.32	5.03	2.06	4.14	4.01	1.32	4.61	0.20	6.81	8.71	5.28	5.13	9.48	3.04	17.26
104S-312	0.92	0.86	1.52	0.48	1.54	3.01	1.56	3.29	2.20	7.34	3.03	1.04	2.61	5.08	7.07	12.00
104S-313	0.13	7.42	4.32	1.27	1.11	4.59	0.76	2.67	0.41	37.80	5.24	3.49	6.29	11.24	3.00	9.68
108H-411	0.01	0.91	0.90	0.02	1.05	3.03	0.09	1.06	0.03	2.20	1.61	0.07	2.76	5.84	0.20	0.47
108H-412	0.00	9.40	0.07	1.99	1.02	2.00	0.01	1.00	0.02	7.84	0.58	3.19	0.99	1.85	0.02	0.32
108H-413	0.03	0.00	0.64	0.06	0.08	2.33	1.05	2.03	0.07	0.00	2.97	0.11	0.14	2.15	1.90	1.83
113H-431	2.99	2.89	1.10	2.48	1.86	1.84	1.02	1.87	1.67	5.12	6.00	4.48	1.12	1.12	1.81	0.33
113H-432	1.10	4.23	0.49	1.12	0.05	0.05	2.06	0.03	1.43	4.68	0.74	0.76	0.10	0.09	1.94	0.09
113H-433	0.97	1.04	1.36	1.30	1.32	0.09	0.27	0.30	1.10	0.22	2.47	0.60	2.30	0.56	0.31	0.32
113H-434	0.61	2.03	0.05	4.11	1.07	1.30	4.03	1.15	0.79	0.96	0.09	2.93	2.31	0.70	3.86	3.28
113H-441	0.01	0.12	0.02	1.04	1.34	0.07	0.04	1.52	0.02	0.15	0.03	0.59	4.29	0.10	0.06	3.88
113H-442	0.01	0.05	1.08	1.02	1.04	0.03	1.12	1.07	0.02	0.09	0.76	1.37	1.81	0.07	7.26	1.80
113H-443	0.03	0.58	0.01	2.08	0.05	3.67	0.69	1.07	0.07	0.25	0.08	4.32	0.27	2.10	0.17	0.69
113H-444	0.10	0.63	0.65	0.01	0.07	1.82	1.04	0.04	0.15	0.89	3.11	0.02	0.21	2.18	1.59	0.08
111N-200																
111S-301	7.07	1.40	14.17	3.74	8.03	2.15	5.38	3.13	4.80	3.79	19.57	4.39	29.27	2.32	8.76	5.95
111S-302	2.39	0.16	2.24	2.13	0.17	1.12	3.06	4.18	3.44	0.24	1.83	4.88	0.38	2.36	5.12	12.60
111S-303	0.92	0.02	0.03	1.78	0.04	0.14	1.11	0.08	0.66	0.03	0.03	1.98	0.16	0.25	1.88	0.17
111S-304	0.16	0.02	1.19	2.03	0.19	1.11	0.12	0.11	0.36	0.08	1.36	0.79	0.32	3.32	0.38	0.30
111S-305	0.16	0.52	1.08	3.12	0.03	1.03	1.21	1.13	0.36	1.35	2.02	7.11	0.10	0.26	1.88	1.03
111S-306	0.02	0.17	2.13	2.38	1.00	1.05	0.17	1.06	0.08	0.52	0.92	5.10	1.99	3.14	0.33	2.77
111S-411	3.18	0.29	5.19	3.32	1.94	3.15	4.61	2.34	6.17	2.12	9.96	10.91	4.52	9.31	10.29	10.34
111S-412	0.10	0.07	0.08	3.54	1.21	0.52	0.08	0.06	0.17	0.21	0.22	10.45	2.93	1.21	0.15	0.07
111W-201	0.02	0.24	0.02	1.05	0.00				0.01	0.30	0.04	0.27	0.00			
111W-202	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	0.00	0.00			
111W-203	0.07	0.59	0.05	0.09	0.00				0.12	1.12	0.11	0.18	0.00			
124H-301	0.01	3.21	5.46	0.02	0.19	0.02	0.98	2.25	0.01	3.12	1.90	0.04	0.46	0.10	2.17	1.21
124H-302	2.01	1.01	1.67	0.04	0.03	0.29	0.00	1.05	3.16	1.21	4.54	0.13	0.07	0.70	0.00	0.32

EXCLUSIONS

MED/EXT
Planned

	2012 CKAIFI	2013 CKAIFI	2014 CKAIFI	2015 CKAIFI	2016 CKAIFI	2017 CKAIFI	2018 CKAIFI	2019 CKAIFI	2012 CKAIDI	2013 CKAIDI	2014 CKAIDI	2015 CKAIDI	2016 CKAIDI	2017 CKAIDI	2018 CKAIDI	2019 CKAIDI
Avg + 2 St. Dev	5.19	5.82	5.42	4.68	4.74	4.66	5.44	6.16	12.78	14.05	14.52	12.20	14.36	24.54	20.47	20.51
St. Dev	1.91	2.14	1.95	1.62	1.63	1.56	1.84	1.97	5.05	5.36	5.41	4.51	5.39	10.41	8.03	7.37
Average	1.37	1.53	1.52	1.45	1.49	1.54	1.76	2.22	2.67	3.33	3.70	3.18	3.57	3.73	4.41	5.77
126H-311	1.75	4.06	0.98	0.03	1.03	0.06	1.05	0.46	4.01	15.17	3.51	0.10	1.11	0.21	1.33	0.77
126H-312	0.55	2.56	1.67	0.56	1.52	0.57	8.98	2.27	0.39	2.07	3.12	1.09	0.44	0.17	12.75	3.46
126H-313	0.01	0.18	1.46	0.14	0.07	0.09	0.04	1.10	0.02	0.96	1.08	0.16	0.11	0.31	0.17	9.10
127H-411	0.77	1.18	0.71	2.48	1.54	1.63	1.74	4.22	1.37	0.60	1.94	1.37	0.75	1.56	2.13	6.31
127H-412	0.83	0.00	2.50	0.83	0.50	0.50	0.50	0.50	0.89	0.00	3.36	7.50	0.57	0.01	0.50	0.98
127H-413	2.96	0.04	1.05	2.07	1.01	0.21	0.93	1.00	5.54	0.43	0.22	2.30	2.35	0.20	1.97	0.63
129H-411	0.02	0.42	0.01	0.04	0.05	1.05	1.07	3.76	0.85	0.13	0.01	0.06	0.07	0.17	0.68	4.67
129H-412	0.00	0.01	0.02	1.08	1.09	3.03	0.12	2.04	0.01	0.03	0.03	0.25	1.83	1.09	0.13	6.13
129H-413	0.02	0.01	0.20	0.05	1.28	1.38	0.01	1.12	0.02	0.04	0.31	0.09	1.65	0.65	0.03	0.86
12V-302	0.19	1.22	1.70	1.50	0.97	1.92	3.36	2.33	0.24	2.07	1.49	1.85	1.34	3.94	6.46	3.44
12V-303	0.90	2.15	0.88	0.31	0.07	1.06	2.01	3.25	4.61	12.23	4.37	0.47	0.15	1.96	2.45	5.19
12V-304	0.58	0.08	1.12	2.15	0.24	2.25	1.35	1.46	1.25	0.28	4.18	1.41	0.52	2.76	3.29	3.56
131H-421	9.52	0.09	0.26	0.25	0.03	0.05	0.05	5.14	0.28	0.08	0.74	0.34	0.04	0.07	0.08	0.20
131H-422	4.85	2.22	0.19	1.15	0.49	1.50	1.31	1.95	5.17	3.59	0.47	2.29	0.72	1.72	1.10	2.64
131H-423	0.06	0.03	1.05	0.67	2.25	0.90	1.93	1.67	0.05	0.08	2.97	1.27	2.36	1.18	4.26	1.84
131H-424	1.38	0.89	3.12	1.60	2.14	0.34	3.14	7.40	1.76	1.44	6.21	0.57	3.87	0.48	3.07	10.79
137H-411						0.00	0.15	3.19						0.00	0.33	8.52
137H-412	0.03	0.01	0.00	0.02	0.00	0.01	0.12	1.12	0.07	0.02	0.01	0.04	0.00	0.02	0.31	0.77
137H-413	0.05	2.31	0.58	0.03	0.30	1.53	1.17	3.30	0.13	3.27	0.91	0.06	0.73	1.00	1.67	6.01
137H-414	0.03	1.97	2.24	4.62	1.91	0.54	0.18	3.15	0.11	2.52	1.90	8.87	3.35	1.26	0.58	8.05
139H-411	0.02	0.01	4.10	3.35	3.02	3.03	1.05	5.60	0.02	0.03	9.38	4.35	3.43	2.46	1.34	8.94
139H-413	1.00	0.00	6.13	0.04	0.07	3.02	1.98	0.00	2.61	0.00	7.85	0.13	0.35	6.69	2.19	0.00
139H-414	2.19	0.18	0.34	0.12	2.12	2.26	3.04	2.12	3.72	0.30	0.56	0.18	2.80	2.96	7.51	3.65
13V-303	0.51	3.51	0.91	0.67	0.18	0.59	2.51	0.74	1.23	4.72	1.99	2.04	0.70	1.32	6.42	17.40
14V-303	0.09	0.00	0.09	0.09	0.18	1.00	1.18	2.08	0.23	0.00	0.17	0.43	0.54	0.05	5.77	2.91
15N-202	0.06	0.22	0.01	4.09	0.10	1.74	2.20	0.11	0.21	0.39	0.01	6.23	0.15	4.21	5.42	0.26
15N-203	0.01	0.00	0.01	1.25	0.02	2.05	1.55	0.62	0.06	0.00	0.00	0.06	0.02	1.44	6.75	0.14
15N-401	0.13	0.15	0.13	1.07	3.93	1.53	1.28	0.24	0.34	0.22	0.41	0.07	4.31	2.14	1.30	0.83
15N-402	0.00	0.00	1.01	1.16	0.85	1.00	0.08	0.00	0.00	0.00	1.13	0.51	1.69	1.08	0.12	0.00
15N-403	1.77	0.11	3.28	1.07	0.76	2.76	0.18	1.16	3.02	0.24	1.68	0.17	0.25	3.58	0.60	1.35
15N-404	1.62	0.03	0.02	1.58	4.75	1.13	3.43	0.14	2.71	0.07	0.06	0.73	8.89	1.40	9.13	0.21
15S-301	0.03	1.13	1.09	7.88	3.34	1.26	2.25	0.22	0.13	4.40	0.49	6.77	2.49	1.58	2.87	0.22
15S-302	0.04	0.18	0.10	4.06	1.08	0.02	0.06	2.14	0.25	0.76	0.24	6.16	2.40	0.08	0.19	3.21
15S-303	0.17	0.28	0.25	3.03	4.54	2.08	1.14	1.04	0.17	0.62	0.27	1.36	4.81	2.61	1.10	0.21
16N-301	0.62	0.08	1.04	1.14	1.16	0.05	0.44	2.17	2.15	0.16	0.43	1.73	1.35	0.09	2.42	4.08
16N-302	0.37	1.21	5.99	2.27	1.27	0.08	1.62	2.37	0.93	0.64	14.12	2.71	10.50	0.11	7.09	12.26
16V-314	0.59	1.86	1.98	11.01	4.19	1.25	2.16	1.34	1.63	12.46	7.06	34.45	21.68	4.02	4.13	12.35
16V-315	1.48	1.33	0.56	4.88	1.55	0.03	3.28	0.66	0.66	3.20	2.76	14.02	14.43	0.08	5.94	11.14
16W-301	2.94	1.03	0.61	0.32	0.54	2.21	1.31	2.25	7.41	2.72	1.98	0.59	1.17	1.58	2.92	3.64
16W-302	0.80	2.18	1.33	3.13	3.29	0.61	0.09	4.51	2.19	22.09	3.47	3.64	8.38	1.18	0.45	6.11
17N-201	0.25	1.14	1.41	0.00	0.01	1.20	1.20	1.01	0.37	4.47	1.93	0.01	0.01	0.19	15.73	0.12
17N-202	0.00	1.03	0.00	0.00	0.02	0.09	0.03	1.10	0.00	3.81	0.00	0.01	0.02	1.12	0.03	0.28
17N-203	1.04	1.62	0.01	0.09	0.06	3.01	0.38	2.01	1.52	5.84	0.01	1.12	0.40	17.15	0.08	2.12
18V-411	7.55	5.05	0.20	0.07	3.62	3.10	5.09	1.04	36.89	9.45	1.37	0.12	2.40	7.35	7.75	1.34
18V-412	2.77	1.07	1.02	2.81	4.97	2.35	5.87	1.34	7.53	4.96	0.22	6.72	3.07	6.55	21.13	4.65
18V-413	1.38	1.17	0.76	0.91	1.10	5.98	6.90	1.92	5.46	1.53	1.03	1.03	1.91	11.73	17.97	2.77
19C-203	2.00	0.00	0.00	0.00	1.00	2.00	2.00	2.00	3.42	0.00	0.00	0.00	1.60	6.11	4.14	32.99
19C-204	0.00	0.50	4.00	2.00	2.00	2.50	4.33	3.67	0.00	1.31	9.06	7.00	8.33	5.81	9.29	6.89
19W-311	3.51	5.33	0.36	0.05	0.31	4.02	2.75	5.19	4.08	6.34	0.48	0.12	0.77	5.31	4.98	11.09
19W-312	0.07	1.07	1.02	2.69	0.07	4.00	1.06	3.15	0.12	3.23	2.63	5.37	0.36	5.11	2.09	4.25
1C-411	6.74	3.92	1.47	5.43	5.73	0.12	1.19	2.97	8.62	5.93	3.29	9.73	9.52	0.31	1.89	6.66
1C-412	0.00	1.99	0.00	0.00	4.00	1.00	0.00	0.00	0.01	2.80	0.00	0.00	5.35	1.59	0.00	0.00
1H-403	0.00	2.32	0.07	0.96	0.00	1.03	2.00	1.00	0.00	0.34	0.59	1.50	0.01	3.04	0.75	1.39
1H-405	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	1.41
1H-415	0.00	0.00	1.90	0.00	0.99	1.68	0.04	1.58	0.00	0.05	13.49	0.01	0.29	7.80	0.06	1.91
1H-419	0.00	0.84	1.02	0.27	2.15	0.99	0.00	0.96	0.00	8.27	5.01	0.76	3.77	5.40	0.00	1.35
1H-424	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.35	0.00	4.16	0.00	0.00	0.00	0.00	0.00	1.46
1H-427	1.00	1.06	0.05	3.01	0.00	0.98	1.99	2.03	1.78	2.82	0.39	3.52	0.00	1.39	0.68	4.13
1H-429	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.93
1H-431	0.01	2.13	0.01	1.04	0.00	0.00	0.03	2.00	0.02	2.67	0.01	0.03	0.01	0.00	0.04	2.80
1H-454						0.00	2.81	5.05						0.00	6.89	3.84
1N-402	5.12	1.20	0.82	2.85	2.86	1.18	2.64	5.27	6.99	2.37	1.28	2.91	2.42	1.77	11.80	8.24

EXCLUSIONSMED/EXT
Planned

	2012 KCAIFI	2013 KCAIFI	2014 KCAIFI	2015 KCAIFI	2016 KCAIFI	2017 KCAIFI	2018 KCAIFI	2019 KCAIFI	2012 KCAIDI	2013 KCAIDI	2014 KCAIDI	2015 KCAIDI	2016 KCAIDI	2017 KCAIDI	2018 KCAIDI	2019 KCAIDI
Avg + 2 St. Dev	5.19	5.82	5.42	4.68	4.74	4.66	5.44	6.16	12.78	14.05	14.52	12.20	14.36	24.54	20.47	20.51
St. Dev	1.91	2.14	1.95	1.62	1.63	1.56	1.84	1.97	5.05	5.36	5.41	4.51	5.39	10.41	8.03	7.37
Average	1.37	1.53	1.52	1.45	1.49	1.54	1.76	2.22	2.67	3.33	3.70	3.18	3.57	3.73	4.41	5.77
1N-403	2.11	0.30	0.06	2.28	3.11	1.09	3.06	0.03	1.78	0.67	0.19	2.57	4.08	2.23	8.94	0.07
1N-404	0.04	1.01	1.46	1.07	0.02	0.05	0.51	0.03	0.22	0.12	1.38	0.11	0.09	0.11	2.01	0.19
1N-405	1.32	0.61	3.14	2.32	6.40	1.05	1.09	2.77	0.41	0.41	2.67	3.36	7.28	1.07	2.47	4.78
1N-421	0.09	2.54	1.70	3.15	1.06	3.02	1.12	1.04	0.27	1.60	1.97	3.32	0.19	5.94	3.72	0.24
1V-442	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.26	0.00	0.00	2.61	0.00	0.05
1V-443	1.82	1.79	0.85	3.47	2.59	3.98	0.16	5.86	8.00	4.22	3.04	12.57	5.61	7.10	0.86	8.21
1W-411	0.00	0.00	1.00	0.14	0.38	0.50	1.00	1.86	0.00	0.00	15.59	0.29	1.51	1.72	0.17	3.63
20H-301	1.22	10.13	2.06	0.44	1.38	0.32	3.27	2.21	2.92	6.82	6.63	1.34	2.70	0.59	9.77	1.72
20H-302	0.01	0.00	0.06	1.20	0.04	0.03	3.04	1.00	0.03	0.00	0.30	2.21	0.07	0.09	5.08	0.90
20H-303	1.12	0.02	1.05	0.05	1.23	0.23	3.06	2.09	2.68	0.06	2.75	5.07	0.60	0.88	5.98	3.11
20H-304	0.01	3.52	1.01	1.20	2.05	0.77	2.28	4.03	0.03	3.40	0.29	2.88	5.18	0.15	8.13	4.64
20H-305	1.56	0.03	1.06	1.82	2.73	1.38	2.14	2.93	3.49	0.09	2.01	2.64	1.04	0.41	8.87	7.71
20H-306	0.05	0.13	2.16	0.04	0.00	1.07	2.09	1.06	0.12	0.14	2.82	0.61	0.01	1.76	2.69	1.11
20N-201	0.00	0.99	0.01	0.02	1.08	0.30	0.00	1.00	0.00	3.64	0.02	0.03	1.14	2.61	0.00	0.76
20N-203	0.00	1.04	0.00	0.00	0.00	0.02	0.38	1.06	0.00	3.82	0.00	0.00	0.00	0.03	0.66	0.70
20N-204	0.03	2.21	0.05	0.16	0.02	0.12	0.11	1.25	0.02	4.95	0.09	0.40	0.02	0.09	1.31	0.28
20V-311	1.21	5.17	0.06	1.29	4.95	1.07	3.57	2.85	1.11	3.53	0.33	1.55	5.40	0.21	7.65	7.46
20W-311	2.58	10.35	0.07	0.09	6.00	1.05	2.05	3.98	25.43	0.39	0.16	11.51	0.16	1.01	2.11	1.90
20W-312	0.07	1.05	0.40	1.14	0.04	4.03	1.04	2.05	0.16	8.62	1.76	0.94	0.08	6.93	2.10	1.99
21W-311	3.44	10.53	0.03	2.03	1.04	5.07	3.10	3.02	5.10	11.36	0.12	4.36	1.08	8.51	3.94	8.89
21W-312	0.02	1.11	2.93	3.08	2.19	5.01	1.15	3.14	0.06	4.23	3.12	4.92	13.23	17.19	2.75	10.29
22C-401	0.00	0.00	0.05	0.00	4.00	1.23	1.00	4.03	0.00	0.00	0.10	0.00	6.48	2.02	7.17	9.43
22C-402	0.76	0.48	0.07	0.69	4.15	1.65	2.49	6.71	2.13	1.78	0.11	1.39	18.55	2.76	10.83	21.46
22C-403	7.14	3.54	0.78	0.28	1.48	1.71	1.30	6.78	11.70	9.53	3.80	1.45	8.35	12.69	4.13	16.36
22C-404	5.33	4.92	1.78	2.62	1.17	4.36	1.91	10.82	13.31	11.43	5.65	7.80	3.28	7.64	5.89	33.15
22N-401	7.66	13.76	2.06	5.15	1.12	4.06	5.00	1.36	1.04	15.98	5.28	14.10	1.53	8.91	14.66	2.44
22N-402	0.03	3.03	2.81	3.57	2.10	3.56	1.37	3.96	0.07	5.39	5.57	22.96	6.28	11.42	2.82	9.17
22N-403	2.11	0.51	0.13	1.54	1.58	1.63	0.41	0.05	1.21	2.11	0.22	15.88	3.42	8.29	0.99	0.30
22N-404	1.04	0.02	2.05	1.22	2.04	2.01	2.18	3.06	1.10	0.04	3.36	4.79	2.99	10.77	1.53	4.43
22V-312	0.14	0.17	0.00	0.00	0.00	0.00	0.00	0.23	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.37
22V-313	0.01	2.16	0.01	4.03	0.03	3.18	2.00	0.27	0.03	6.57	0.04	5.73	0.04	3.69	11.30	0.37
22V-314	4.92	0.02	7.98	2.16	0.04	1.01	3.02	0.00	4.12	0.06	5.01	3.12	0.06	1.45	8.76	0.01
22V-321	0.03	2.30	2.32	2.47	0.07	1.05	0.03	0.13	0.12	4.91	5.90	3.32	0.14	1.51	0.17	0.14
22V-322	1.67	0.96	2.20	3.00	0.20	2.06	1.04	1.03	4.64	5.62	3.54	4.00	0.50	3.61	0.32	1.31
22V-323	2.51	0.08	0.00	0.00	0.00	0.00	0.00	3.10	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.37
22W-311	3.29	8.24	1.67	0.05	0.91	4.21	3.18	1.41	8.14	12.54	2.73	0.21	2.31	6.82	1.34	3.24
22W-312	0.82	2.64	0.05	1.58	3.10	3.09	2.84	2.20	1.90	4.56	0.18	3.75	1.36	4.43	2.31	3.25
22W-313	0.18	0.16	0.27	0.12	0.04	4.33	2.16	1.61	0.47	0.41	0.57	0.42	0.13	4.79	0.69	2.42
23H-301	0.01	0.06	1.04	0.51	0.15	0.15	2.11	0.28	0.01	0.14	1.34	1.02	0.14	0.39	0.22	0.82
23H-302	0.04	0.00	0.05	1.00	0.02	1.01	2.09	1.09	0.09	0.00	0.07	0.21	0.05	0.38	0.34	1.12
23H-303	0.00	0.51	0.11	0.06	1.01	0.08	2.02	0.05	0.00	0.19	0.61	0.10	0.27	0.23	0.21	0.11
23H-304	1.02	0.09	1.07	0.09	1.32	4.06	3.15	3.26	0.86	0.26	2.33	0.17	2.82	5.08	3.43	6.69
23W-301	1.75	1.20	1.20	0.02	2.27	1.07	2.02	1.57	6.42	3.26	1.32	0.05	3.02	1.92	0.29	5.48
23W-302	2.60	2.82	0.70	1.08	2.97	0.67	4.09	3.10	7.72	20.45	2.95	5.37	8.03	6.43	12.29	12.72
24C-442	4.42	6.32	5.22	2.79	5.10	1.95	2.14	3.64	8.53	19.38	11.07	6.17	11.82	4.65	2.86	12.49
24C-443	1.15	1.51	1.14	3.15	2.18	1.29	1.13	4.06	3.65	19.60	2.59	7.61	6.87	2.17	0.49	4.84
25W-301	9.54	7.11	3.28	0.44	1.62	1.18	1.91	2.87	13.44	11.67	2.93	0.88	2.36	4.62	1.22	11.24
25W-302	0.20	0.29	2.57	1.64	2.09	0.01	2.81	1.21	0.38	1.02	3.32	1.00	4.66	0.06	6.07	4.60
25W-303	0.22	0.03	2.06	1.17	2.21	1.23	1.21	4.12	0.69	0.04	3.79	1.40	3.85	1.95	0.70	6.03
2C-401	0.75	0.07	1.00	0.22	2.72	0.13	0.39	2.31	0.26	0.26	1.99	0.38	12.85	0.35	1.15	10.91
2C-402	5.67	2.48	1.87	0.93	9.79	3.81	4.59	9.03	9.17	3.26	2.99	0.91	28.07	12.29	8.30	16.27
2H-411	0.00	4.97	1.07	1.30	0.94	2.04	2.02	2.02	0.01	7.85	2.36	1.84	1.12	3.63	1.58	2.87
2H-412	0.06	0.39	2.07	3.10	0.04	0.21	1.16	4.03	0.09	0.56	2.91	2.09	0.07	0.45	3.40	4.43
2H-413	0.78	1.86	2.34	0.02	4.65	2.28	1.90	4.02	0.63	2.21	2.34	0.04	6.63	6.68	3.27	7.60
30N-411	0.03	1.12	1.13	0.76	3.12	0.88	3.19	1.00	0.08	1.75	1.01	7.39	7.74	4.95	26.89	1.81
30N-412	0.01	2.94	5.82	1.03	4.06	1.83	1.20	0.97	0.02	4.08	13.79	11.43	14.38	8.04	3.78	3.12
36V-301	6.13	1.64	0.43	3.64	1.63	1.33	1.06	2.18	4.43	1.68	1.04	31.90	2.69	2.25	5.11	3.04
36V-302	3.21	1.45	1.87	5.73	2.33	4.79	3.72	6.62	1.91	5.22	11.22	2.17	10.89	9.92	9.92	6.71
36V-303	3.61	3.87	1.37	3.03	2.28	1.65	1.05	1.53	6.49	14.10	7.42	7.50	4.35	3.37	7.07	5.19
36W-301	3.43	5.36	3.43	0.73	0.34	1.06	1.91	2.73	6.66	7.30	2.31	2.50	1.31	8.08	11.10	19.80
36W-304	1.05	1.28	0.05	1.20	0.67	0.26	4.60	0.79	2.87	3.91	0.28	2.29	1.54	0.30	12.98	3.60
37N-411	0.70	1.01	1.77	3.70	4.55	2.69	6.33	2.72	1.25	1.52	4.94	13.06	10.34	6.53	36.36	8.71

EXCLUSIONS

MED/EXT
Planned

	2012 CKAIFI	2013 CKAIFI	2014 CKAIFI	2015 CKAIFI	2016 CKAIFI	2017 CKAIFI	2018 CKAIFI	2019 CKAIFI	2012 CKAIDI	2013 CKAIDI	2014 CKAIDI	2015 CKAIDI	2016 CKAIDI	2017 CKAIDI	2018 CKAIDI	2019 CKAIDI
Avg + 2 St. Dev	5.19	5.82	5.42	4.68	4.74	4.66	5.44	6.16	12.78	14.05	14.52	12.20	14.36	24.54	20.47	20.51
St. Dev	1.91	2.14	1.95	1.62	1.63	1.56	1.84	1.97	5.05	5.36	5.41	4.51	5.39	10.41	8.03	7.37
Average	1.37	1.53	1.52	1.45	1.49	1.54	1.76	2.22	2.67	3.33	3.70	3.18	3.57	3.73	4.41	5.77
37N-412	2.32	1.06	3.69	3.32	5.20	4.35	3.89	6.87	6.33	4.75	9.65	17.18	13.48	11.81	13.19	19.11
37N-413	0.76	1.07	1.46	2.20	2.52	1.06	6.95	2.21	1.03	2.04	2.43	14.84	7.95	0.92	25.50	31.77
37N-414	1.58	0.80	0.19	1.54	0.04	2.03	0.07	0.13	1.24	1.10	0.55	5.05	0.09	6.52	0.10	1.27
37W-201	1.09	2.16	4.08	0.04	0.01	0.04	1.29	0.33	4.96	6.86	4.13	0.16	0.02	0.47	2.78	0.56
37W-202	2.31	0.01	2.94	0.05	0.03	3.22	1.01	0.06	5.13	0.03	4.61	0.10	0.23	7.78	1.25	0.33
37W-203	0.88	0.00	2.12	0.00	0.00	0.00	1.00	0.00	4.06	0.00	3.18	0.00	0.00	0.00	1.20	0.00
3N-411	0.09	0.00	0.00	1.10	0.10	3.20	4.20	1.06	0.19	0.00	0.00	2.19	1.28	4.62	1.72	2.87
3S-301	1.08	12.02	6.29	4.93	2.86	1.29	0.04	1.46	1.52	22.30	15.80	13.12	2.91	2.75	0.17	2.80
3S-302	0.76	0.03	3.07	0.31	1.05	1.11	0.03	0.10	2.39	0.07	7.46	0.82	3.22	1.65	0.10	0.26
3S-303	0.03	0.41	3.19	0.27	2.09	3.23	0.03	1.10	0.08	0.13	7.60	1.45	3.77	6.05	0.14	9.68
3S-307	2.92	0.15	2.10	0.22	1.24	3.11	3.26	1.37	2.95	0.33	6.18	0.53	1.34	4.59	4.23	6.42
3S-308	0.10	0.02	5.01	0.15	0.02	3.09	1.04	0.04	0.24	0.03	23.56	0.16	0.11	7.51	3.51	0.14
3S-309	4.18	4.09	3.93	0.31	0.14	3.37	2.02	0.27	3.52	13.07	8.66	0.17	0.50	6.71	6.07	1.10
3S-403	0.70	2.80	1.62	3.76	1.96	5.22	2.81	5.78	1.49	9.99	5.21	2.90	13.29	4.58	7.48	12.92
3S-405	0.04	0.00	1.08	0.04	1.04	1.00	0.04	0.00	0.06	0.00	2.17	0.16	5.09	1.36	0.17	0.00
3W-201	0.13	0.00	0.26	0.13	0.00	0.75	0.89	0.90	0.64	0.00	3.25	0.16	0.00	17.46	0.79	0.04
40H-302	0.01	2.40	0.40	0.05	0.41	1.03	2.06	2.04	0.01	2.79	0.51	0.06	1.05	0.96	2.15	0.41
40H-303	0.03	0.07	0.00	0.21	0.00	2.00	0.02	0.00	0.06	0.16	0.01	0.16	0.00	1.29	0.01	0.00
40H-304	0.09	0.01	0.01	0.01	0.09	1.05	0.08	1.32	0.08	0.04	0.04	0.02	0.29	0.09	0.12	0.53
40H-305	0.10	0.12	0.05	0.03	0.16	1.19	1.04	0.02	0.25	0.36	0.16	0.06	0.28	0.26	0.68	0.04
40H-401	0.00	0.00	0.00	0.18	2.09	1.06	1.03	1.02	0.00	0.00	0.00	0.19	3.17	1.07	0.09	2.52
424S	0.00	1.00	0.00	0.00	0.00				0.00	2.43	0.00	0.00	0.00			
46W-301	6.19	0.13	4.92	1.33	0.90	2.10	2.37	0.86	12.20	0.56	29.97	6.14	3.71	10.10	3.69	4.85
46W-302	1.21	0.17	2.04	0.20	1.38	1.88	1.05	2.36	1.47	0.59	1.81	0.43	1.70	11.71	1.42	5.31
47C-Dist	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	2.69	2.25	0.00	0.00	0.00	0.00	0.00
48H-301	1.95	1.12	1.15	1.08	0.13	0.02	1.06	1.12	2.27	1.81	1.56	1.07	0.18	0.05	1.14	2.31
48H-302	1.00	2.85	1.17	0.16	0.15	0.02	2.14	2.03	1.14	3.12	3.30	0.18	0.27	0.05	2.63	3.00
48H-303	0.46	0.02	0.07	1.04	1.47	0.10	1.59	1.01	0.57	0.10	0.14	2.08	2.48	10.34	1.48	0.07
48H-304	0.02	2.01	0.03	2.07	0.07	2.06	2.22	2.21	0.02	1.09	0.08	5.00	0.09	2.73	1.98	3.99
48W-201	6.62	0.00	0.06	0.02	1.35	0.09	1.05	0.99	4.43	0.01	0.29	0.06	0.69	1.33	1.48	0.96
48W-203	0.00	0.00	0.02	0.02	0.03	0.02	1.00	0.00	0.00	0.00	0.04	0.10	0.07	0.13	1.20	0.00
48W-204	0.08	1.03	0.05	0.01	0.02	0.23	1.00	0.02	0.16	0.51	0.26	0.04	0.12	0.62	1.29	0.07
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	0.00	0.00
4C-424	1.84	1.50	0.70	5.04	5.00	1.10	1.92	5.11	4.10	2.53	5.48	12.01	20.34	1.68	3.38	8.23
4C-430	2.62	0.33	0.67	3.11	5.16	1.30	4.10	4.12	2.72	0.52	1.27	2.45	16.73	2.81	7.08	14.05
4C-432	4.13	7.32	3.64	1.39	0.56	0.45	1.99	1.00	7.90	19.02	4.81	2.09	2.24	0.47	1.97	1.26
4C-441	1.54	2.44	1.33	2.56	5.00	0.59	3.60	4.21	3.96	2.76	2.24	4.30	17.72	1.50	4.13	6.90
4C-442	0.00	0.00	0.00	0.00	0.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.67
4N-311	4.22	1.27	0.60	3.83	0.90	1.64	2.50	4.85	9.39	4.52	1.48	9.54	2.69	1.02	3.98	10.38
4N-312	0.73	0.21	0.36	3.13	2.14	0.23	0.61	0.57	1.72	0.83	0.79	9.16	5.21	0.64	1.82	2.03
4N-313	1.06	1.08	0.30	2.75	2.08	1.76	5.07	2.45	1.73	2.08	0.99	9.21	3.96	4.25	8.49	4.97
4S-321	1.12	0.97	2.49	1.32	1.30	0.03	0.28	1.10	0.96	0.83	4.06	1.35	1.17	0.10	0.29	2.29
4S-322	3.37	2.91	1.46	0.00	1.98	0.00	0.01	0.19	7.85	4.64	2.91	0.00	5.91	0.02	0.01	0.40
4S-323	0.17	0.15	2.12	0.03	2.07	1.04	0.16	0.63	0.38	0.27	3.44	0.07	5.84	1.30	0.02	3.69
4S-324	1.20	0.03	1.10	0.01	0.05	1.19	0.02	1.03	2.47	0.18	2.27	0.04	0.46	0.47	0.04	2.24
4S-331	0.14	1.23	0.21	0.12	0.69	0.60	1.08	2.08	0.35	2.70	0.60	0.51	2.12	1.23	2.07	5.13
4S-332	1.51	0.05	1.11	1.05	0.41	0.93	0.19	0.04	0.85	0.04	2.89	0.92	0.21	0.97	0.31	0.15
4S-333	0.13	2.52	0.95	0.78	0.23	1.11	0.03	1.38	0.22	2.75	4.34	1.05	0.90	3.53	0.05	1.41
4S-334	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00
4W-211	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.18
50N-311	0.09	0.00	1.20	5.74	0.00	2.00	0.00	0.10	0.22	0.00	4.89	12.40	0.00	0.85	3.30	0.19
50N-410	1.09	1.05	4.92	4.33	5.45	0.41	2.83	3.04	2.53	1.62	17.08	7.78	30.36	1.45	6.39	8.43
50N-411	0.75	0.18	0.17	0.22	5.39	0.10	0.03	2.74	1.17	0.22	0.54	0.35	3.76	0.15	0.07	3.53
50N-412	0.09	0.30	0.56	1.08	0.80	0.19	0.66	1.87	0.35	0.21	1.08	0.74	5.15	0.24	1.71	3.65
50N-415	0.45	0.23	0.20	2.43	2.26	1.26	1.36	0.25	0.64	0.55	0.60	3.14	7.82	3.05	0.74	0.69
50V-401	0.09	0.21	1.42	1.83	0.90	0.21	0.22	0.47	0.20	19.25	2.46	2.10	1.54	0.28	0.52	1.20
50V-402	0.08	5.82	0.09	1.51	1.08	1.18	2.14	0.02	0.20	24.65	0.20	4.76	0.82	1.20	8.09	0.04
50W-411	5.14	2.40	1.68	2.97	2.11	4.72	0.04	3.88	7.08	1.86	3.69	2.43	2.96	22.72	0.29	6.54
50W-412	3.63	2.99	1.10	6.96	2.97	7.43	1.47	5.16	8.96	2.87	4.96	15.08	9.33	30.62	4.38	16.38
51V-301	1.16	0.30	0.57	1.27	1.29	1.30	0.13	0.15	2.13	0.65	2.55	2.59	1.01	3.65	0.14	0.17
52V-251	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	0.00	0.00
53N-Dist						0.00	0.00	0.00						0.00	0.00	0.00

EXCLUSIONSMED/EXT
Planned

	2012 CKAIFI	2013 CKAIFI	2014 CKAIFI	2015 CKAIFI	2016 CKAIFI	2017 CKAIFI	2018 CKAIFI	2019 CKAIFI	2012 CKAIDI	2013 CKAIDI	2014 CKAIDI	2015 CKAIDI	2016 CKAIDI	2017 CKAIDI	2018 CKAIDI	2019 CKAIDI
Avg + 2 St. Dev	5.19	5.82	5.42	4.68	4.74	4.66	5.44	6.16	12.78	14.05	14.52	12.20	14.36	24.54	20.47	20.51
St. Dev	1.91	2.14	1.95	1.62	1.63	1.56	1.84	1.97	5.05	5.36	5.41	4.51	5.39	10.41	8.03	7.37
Average	1.37	1.53	1.52	1.45	1.49	1.54	1.76	2.22	2.67	3.33	3.70	3.18	3.57	3.73	4.41	5.77
54H-301	0.01	3.24	6.61	4.08	2.10	0.09	5.01	2.09	0.02	0.13	11.82	8.66	2.45	0.18	8.13	2.32
54H-302	0.05	0.05	1.02	0.01	0.01	0.03	1.08	1.19	0.30	0.34	0.84	0.04	0.04	0.04	1.10	0.60
54H-303	0.94	0.06	0.06	0.48	0.05	0.05	2.05	1.99	3.85	0.42	0.29	0.04	0.15	0.16	4.32	2.13
54H-304	0.08	0.03	0.13	1.20	4.04	1.01	1.02	4.03	0.16	0.05	0.25	1.77	5.21	0.31	1.06	4.34
55N-201	5.25	10.62	0.13	0.00	0.06	0.03	0.00	1.01	55.80	0.84	0.23	0.01	0.25	0.09	0.01	0.94
55N-202	0.15	0.07	0.01	0.01	0.07	0.00	0.01	2.29	0.15	0.05	0.04	0.04	1.44	0.02	0.08	6.49
55N-203	0.09	0.25	0.09	0.01	0.12	0.06	0.17	1.07	0.14	0.44	0.40	0.01	1.20	0.16	0.19	2.17
55N-204	2.06	0.99	0.08	3.10	1.46	0.09	1.28	0.07	2.08	0.53	0.22	2.59	6.55	0.13	1.92	0.21
55V-313	7.08	5.62	0.51	0.58	0.82	1.27	1.74	0.78	6.16	20.48	6.66	2.54	1.96	3.41	5.13	1.89
55V-314	1.67	5.02	0.61	2.40	0.87	3.52	1.68	2.20	2.66	15.22	8.50	7.72	3.64	8.74	5.62	5.02
55V-322	5.58	1.47	0.24	0.94	0.40	1.05	0.42	0.94	2.88	3.21	0.48	3.36	0.56	1.00	1.70	1.94
55V-323	0.10	2.40	0.15	0.64	0.08	0.28	0.89	1.08	0.17	5.54	1.52	0.35	0.20	0.40	4.40	0.42
56N-401	4.93	0.08	1.24	1.28	5.95	3.32	2.83	1.69	45.67	0.16	2.08	2.13	27.70	5.59	3.18	2.81
56N-402	2.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	3.27	0.00	0.00	0.00	0.21	1.60	0.00	0.00
56N-414	2.34	2.43	3.08	3.60	4.55	3.22	4.15	1.87	5.99	3.79	8.95	11.81	17.18	6.22	5.42	7.31
57C-417	0.00	0.00	0.02	0.02	2.00	3.06	0.03	1.03	0.01	0.00	0.03	0.08	1.77	4.78	0.05	1.42
57C-422	3.61	2.73	1.77	3.30	1.80	4.05	3.10	2.14	10.58	8.40	1.87	7.87	19.92	5.93	17.73	4.76
57C-426	2.38	3.82	4.18	2.94	4.10	4.19	4.23	2.63	8.88	9.71	5.14	5.61	11.78	10.92	11.58	7.18
57S-401	2.56	1.96	4.13	1.42	7.82	2.60	2.41	4.36	8.03	8.95	12.41	1.51	24.05	7.12	6.72	8.42
57S-402	2.26	2.31	1.26	0.99	4.28	5.89	3.79	4.85	3.15	10.32	7.43	3.50	7.83	11.01	11.80	10.22
57W-401	6.12	0.22	1.55	0.60	4.26	2.44	3.93	2.86	5.27	0.78	4.58	1.47	5.36	5.13	18.67	11.01
57W-402	0.03	2.44	1.67	0.60	0.50	1.09	0.19	4.05	0.11	2.77	1.87	0.82	1.42	0.26	0.63	18.78
58C-403	2.23	3.19	2.93	3.44	3.17	5.11	6.67	7.21	1.56	5.26	5.96	7.82	6.71	14.53	9.03	28.40
58C-405	1.80	4.41	6.80	2.28	1.54	4.70	2.95	9.16	6.51	11.71	17.72	7.19	2.17	12.92	7.49	32.60
58H-421	0.16	0.02	1.52	2.28	2.08	0.03	0.10	1.02	0.28	0.03	1.94	8.04	5.06	0.05	0.43	2.04
58H-431	0.56	0.04	7.14	0.08	1.21	0.08	1.20	2.02	0.80	0.12	10.22	0.22	0.76	0.23	1.98	3.25
58H-Dist						0.00	0.00	0.00						0.00	0.00	0.00
59C-401	0.40	2.08	0.12	1.06	1.34	0.18	0.10	4.42	1.30	7.07	0.25	0.97	0.86	0.25	0.25	17.91
59C-402	3.23	5.76	2.96	1.66	4.49	2.73	2.10	8.37	8.28	29.86	10.03	6.56	28.92	8.65	6.16	29.81
59C-403	0.04	1.00	0.79	1.36	2.24	1.09	1.00	7.40	0.16	2.92	1.26	2.04	10.80	3.34	5.51	20.16
62H-301	1.29	0.57	0.00	0.57	0.01	0.00	0.00	0.00	5.45	2.63	0.01	3.07	0.02	0.01	0.00	0.00
62H-302	0.04	1.15	1.15	1.22	0.00	0.14	2.05	0.01	0.06	4.38	0.92	6.43	0.01	0.48	2.28	0.00
62H-303	0.00	0.00	0.06	1.18	0.00	0.00	0.00	1.00	0.00	0.00	0.09	5.70	0.00	0.00	0.00	0.25
62H-304	0.05	0.01	0.07	1.08	0.15	0.17	0.08	0.10	0.14	0.01	0.18	5.56	0.62	0.17	0.14	0.64
62N-411	9.88	0.28	0.09	0.23	0.40	0.06	3.13	2.14	13.92	0.49	0.12	0.41	0.62	0.07	3.54	3.88
62N-412	0.08	2.21	0.01	4.93	1.12	1.15	1.17	1.82	0.06	4.63	0.02	19.19	1.60	0.46	0.52	3.24
62N-413	0.80	1.52	2.17	1.47	8.72	0.55	2.51	3.19	1.90	0.96	6.23	1.88	13.05	0.55	3.19	6.52
62N-414	0.17	1.26	1.91	2.55	5.96	2.48	0.22	3.07	0.40	0.74	4.91	5.22	14.05	6.05	0.47	5.21
62N-415	0.67	8.34	2.24	2.31	3.39	3.09	1.57	1.40	1.18	5.64	6.05	4.93	7.43	2.86	4.71	3.87
62N-416	1.34	0.79	1.70	2.60	1.83	1.52	1.83	1.67	1.62	1.88	4.97	2.92	4.19	1.18	1.51	3.88
63V-311	0.12	0.33	0.32	0.35	1.31	0.36	2.24	1.06	0.88	0.67	0.81	0.94	0.57	2.17	2.30	
63V-312	0.33	3.46	2.37	3.32	1.63	0.42	0.12	1.75	0.44	3.96	2.14	6.52	1.06	0.66	0.40	2.33
63V-313	1.77	3.64	2.52	0.47	1.66	0.76	2.32	1.14	1.86	5.68	5.81	1.16	3.29	1.14	6.50	3.80
64V-301	0.49	0.88	3.26	0.55	0.58	0.11	2.93	0.25	0.93	1.58	4.53	0.69	1.99	0.25	5.44	0.61
64V-302	0.03	1.50	0.00	0.02	0.06		1.00	0.00	0.06	1.25	0.00	0.08	0.11	0.00	1.44	0.06
64V-303	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00
65V-301	3.04	2.05	18.96	1.46	3.92	0.44	3.98	4.28	4.68	2.98	7.64	4.11	8.89	0.50	7.56	4.45
65V-302	0.62	2.15	1.98	0.27	3.89	1.08	2.46	5.51	1.44	5.74	22.25	0.33	6.20	1.34	7.49	9.39
65V-303	2.53	2.01	0.28	0.35	1.04	0.27	0.40	5.72	2.52	4.15	2.20	0.43	3.38	0.23	0.60	15.76
67C-411	7.14	2.50	2.67	3.82	5.45	4.69	4.31	8.89	20.06	5.51	7.10	9.67	18.32	11.34	15.02	34.14
67C-412	4.72	2.20	4.45	3.66	2.60	3.60	0.90	7.41	12.61	6.96	21.57	6.40	11.84	11.13	12.65	22.63
6N-301	0.47	0.01	2.14	0.13	0.03	2.05	1.19	1.10	0.77	0.02	2.23	0.22	0.05	3.32	1.39	3.48
6N-302	0.11	0.02	0.23	0.04	0.01	2.14	0.09	1.01	0.20	0.06	0.74	0.13	0.01	3.48	0.21	3.08
6S-221	6.90	0.04	6.72	0.71	0.06	0.00	0.14	1.22	3.96	0.10	15.37	0.94	0.09	0.00	0.27	3.92
6S-223	0.03	0.29	1.85	1.90	0.29	0.10	1.03	0.00	0.04	0.34	0.67	1.51	3.61	0.24	1.66	0.00
6S-224	1.49	0.04	1.57	0.82	2.08	0.04	0.06	0.00	1.91	0.08	1.62	1.07	1.67	0.05	0.08	0.01
6S-225	0.03	0.05	1.02	1.96	0.22	1.04	0.07	2.16	0.06	0.11	8.92	1.48	0.55	0.35	0.17	2.18
6W-201	1.25	0.00	1.00	0.00	0.00	0.00	0.25	4.25	8.91	0.00	8.10	0.00	0.00	0.00	0.18	30.18
70V-311	2.06	5.12	1.24	2.08	1.36	0.89	3.08	2.62	3.84	14.71	6.67	4.31	4.15	1.64	6.35	4.40
70V-312	0.80	0.54	2.69	1.14	1.27	3.54	3.12	3.95	1.71	2.87	8.10	2.18	3.58	5.99	6.56	7.77
70W-203	0.00	0.00	0.04	0.04	0.99	0.05	0.00	1.00	0.00	0.01	0.01	0.01	2.35	0.04	0.01	2.30
70W-204	0.00	0.00	0.00	0.01	0.00	0.03	0.00	1.17	0.00	0.00	0.00	0.02		0.15	0.00	2.49

EXCLUSIONS

MED/EXT
Planned

	2012 CKAIFI	2013 CKAIFI	2014 CKAIFI	2015 CKAIFI	2016 CKAIFI	2017 CKAIFI	2018 CKAIFI	2019 CKAIFI	2012 CKAIDI	2013 CKAIDI	2014 CKAIDI	2015 CKAIDI	2016 CKAIDI	2017 CKAIDI	2018 CKAIDI	2019 CKAIDI
Avg + 2 St. Dev	5.19	5.82	5.42	4.68	4.74	4.66	5.44	6.16	12.78	14.05	14.52	12.20	14.36	24.54	20.47	20.51
St. Dev	1.91	2.14	1.95	1.62	1.63	1.56	1.84	1.97	5.05	5.36	5.41	4.51	5.39	10.41	8.03	7.37
Average	1.37	1.53	1.52	1.45	1.49	1.54	1.76	2.22	2.67	3.33	3.70	3.18	3.57	3.73	4.41	5.77
70W-311	0.24	1.01	1.13	0.15	0.65	2.15	1.15	1.53	0.42	1.33	9.98	0.45	2.39	9.32	3.69	4.79
70W-312	0.09	1.04	1.22	1.32	1.11	0.10	0.14	1.03	0.19	3.26	1.87	1.84	1.20	0.36	0.15	2.35
70W-313	5.27	3.20	0.15	2.00	2.22	3.80	1.23	7.60	4.21	4.25	0.90	5.76	8.21	9.48	1.33	12.46
70W-314	0.01	1.05	0.01	1.08	0.01	1.11	0.15	1.86	0.09	1.67	0.04	1.08	0.02	1.97	0.09	2.56
70W-321	0.15	1.04	0.11	1.79	4.08	0.77	0.10	2.15	0.31	0.50	0.67	1.67	9.74	1.19	0.28	3.73
70W-322	0.02	1.01	0.02	0.07	2.00	1.03	0.03	1.07	0.03	1.68	0.06	1.06	1.14	0.81	0.04	2.45
73W-411	4.36	0.43	2.91	3.85	2.17	2.98	2.14	4.76	9.15	0.98	16.82	8.89	5.68	5.78	3.80	9.74
73W-412	1.21	0.02	1.02	2.25	1.05	0.00	0.06	2.02	2.24	0.04	1.27	5.27	1.27	0.00	0.18	2.67
74N-411	1.60	1.16	0.19	0.12	1.13	2.25	1.12	1.21	3.62	2.03	0.31	0.19	0.43	4.48	2.26	3.58
74N-412	0.85	3.77	1.95	1.86	0.51	3.00	1.86	2.78	1.36	13.85	3.26	7.23	1.61	5.08	6.18	9.81
74V-301	0.07	0.03	1.03	2.11	0.00	1.00	2.00	1.74	0.17	0.11	0.73	2.67	0.00	1.82	3.28	7.85
74V-302	0.00	0.00	0.24	0.12	0.00	1.11	1.11	2.00	0.00	0.00	0.78	0.60	0.00	1.97	1.01	6.55
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	0.00	0.00
75N-251	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76V-301	2.07	0.78	0.88	2.31	3.14	2.59	3.94	3.11	6.02	3.23	7.02	3.90	1.59	8.02	12.64	10.77
76W-201	0.00	0.71	0.00	0.71	0.00	1.00	7.00	0.00	0.00	0.01	0.00	1.07	0.00	1.41	14.45	0.00
77V-301	2.01	0.01	0.01	0.01	0.03	1.00	2.64	2.05	8.79	0.05	0.02	0.02	0.05	2.93	3.47	2.83
77V-302	2.59	3.97	2.90	0.71	3.67	2.72	2.25	4.65	10.44	11.54	5.29	1.02	9.05	5.89	4.65	9.84
77V-303	4.12	3.15	2.95	0.50	0.40	2.33	0.31	2.26	11.68	3.18	9.22	1.11	0.84	4.70	0.40	3.32
77V-401	4.37	5.76	2.89	2.39	3.40	3.65	4.28	4.99	14.07	22.55	14.18	17.78	13.88	12.86	9.88	9.42
78W-301	2.99	1.74	2.55	2.86	2.83	2.55	8.28	1.58	5.17	0.33	5.50	6.98	10.16	7.80	23.85	6.32
78W-302	0.05	0.28	0.05	3.18	2.48	6.33	7.76	1.65	0.11	0.11	0.32	3.23	8.09	9.73	17.90	3.81
79V-401	1.58	1.90	3.52	2.18	1.61	2.64	2.04	4.86	3.22	5.46	3.99	2.82	1.07	4.50	5.72	
79V-402	1.60	0.02	3.48	0.10	2.08	2.18	1.49	1.07	3.48	0.06	4.80	0.32	2.45	0.62	0.61	0.17
79V-403	0.84	5.06	3.26	3.10	1.73	2.28	2.25	5.66	0.45	3.33	2.10	3.47	3.27	1.03	2.39	5.49
7N-211	0.77	0.00	0.00	0.38	0.00	0.00	0.00	0.00	2.12	0.00	0.00	6.54	0.00	0.00	0.00	0.00
7N-301	2.15	1.74	1.53	3.89	3.13	2.74	4.84	3.60	5.70	8.43	3.52	11.24	17.32	3.80	8.11	14.03
7N-302	1.01	5.80	0.13	3.62	4.78	5.14	4.32	1.16	1.74	14.82	0.65	10.65	19.23	11.35	5.89	34.06
80W-301	1.10	1.57	1.13	1.62	1.64	3.38	7.39	0.32	1.87	0.98	1.16	3.47	4.70	6.13	15.54	1.05
80W-302	1.00	0.00	0.00	0.04	0.00	0.03	7.00	0.00	0.04	0.01	0.02	0.28	0.00	0.04	14.50	0.00
80W-303	0.00	0.00	0.00	0.50	0.00	2.00	7.00	0.00	0.00	0.00	0.00	0.50	0.00	3.22	14.50	0.00
81N-411	1.03	0.67	3.02	0.39	1.90	1.59	3.50	1.10	4.18	2.01	8.83	0.31	1.23	1.45	6.76	2.58
81N-412	0.88	0.53	4.31	2.23	4.12	1.62	2.64	3.48	3.36	1.03	5.59	1.81	6.58	3.99	18.42	3.85
81S-301	1.19	0.03	8.47	0.06	1.06	2.21	2.16	1.22	1.54	0.08	23.96	0.28	0.97	2.24	4.73	0.77
81S-302	1.04	0.63	0.03	0.09	0.05	4.94	2.22	1.35	0.30	1.70	0.14	0.19	0.29	11.85	3.95	3.40
81S-303	0.07	1.62	0.09	1.07	1.31	2.25	2.04	3.52	0.22	3.88	0.24	0.50	4.07	3.54	8.71	4.22
81S-304	0.01	2.01	0.06	2.02	1.05	4.06	1.03	2.08	0.03	1.99	0.14	3.73	0.23	3.67	3.10	2.21
81S-305	0.06	3.71	1.76	0.54	2.35	2.55	2.12	1.10	0.14	5.06	2.46	1.16	5.98	2.51	4.02	1.53
81S-306	0.09	0.62	2.23	0.64	1.77	1.22	3.75	0.16	0.37	3.23	1.56	0.66	1.66	3.46	9.29	0.39
81S-307	0.14	0.21	0.03	0.01	3.12	2.18	2.10	0.22	0.15	0.43	0.15	0.03	4.13	2.65	3.32	0.47
81W-Dist	0.00	1.11	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.58
82S-302	0.00	0.00	1.25	0.26	1.00	1.00	0.01	1.00	0.00	0.00	1.59	0.34	0.99	3.35	0.04	1.57
82S-303	0.11	0.38	1.13	2.13	0.35	2.12	0.19	1.08	0.31	1.25	0.51	2.54	2.92	1.59	0.52	1.89
82S-304	0.05	0.19	0.08	2.14	0.71	2.07	1.38	1.80	0.12	0.46	0.15	2.63	2.19	2.14	1.75	3.22
82V-401	1.99	0.10	8.70	3.69	3.94	4.04	1.66	0.47	1.26	0.34	7.13	2.20	7.52	5.86	5.01	4.26
82V-402	4.79	0.48	2.48	2.34	1.07	3.25	1.21	2.34	7.84	0.26	2.97	0.73	1.67	2.37	2.28	8.92
82V-403	3.00	0.04	2.21	10.21	3.06	2.04	0.05	4.27	1.63	0.10	3.44	10.65	9.65	3.01	0.19	4.25
82V-422	0.04	0.09	4.26	2.47	0.10	1.02	0.99	0.13	0.07	0.21	7.55	1.12	0.20	0.53	0.10	1.54
82V-423	0.12	1.38	3.12	5.27	1.33	1.69	2.77	2.46	0.30	2.90	9.00	2.57	2.33	2.08	5.14	2.64
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	0.00	0.00
83V-301	1.60	13.92	1.66	3.54	2.18	1.21	1.85	1.02	3.71	17.63	6.94	12.95	2.64	1.32	5.70	2.86
83V-302	0.06	3.10	1.14	1.17	0.06	1.03	0.44	0.09	0.38	15.52	2.54	6.43	0.21	0.57	0.35	0.09
83V-303	0.36	2.51	3.11	4.71	2.56	3.34	4.79	0.49	1.21	20.68	9.57	13.47	6.09	6.36	16.93	1.57
84S-302	2.10	0.03	0.02	3.04	2.10	1.01	1.09	4.46	3.10	0.07	0.08	7.93	2.78	1.07	0.52	16.35
84S-303	0.67	0.00	3.33	0.00	0.00				6.14	0.00	14.55	0.00	0.00			
84S-304	0.00	0.50	2.25	0.00	2.80	0.40	0.40	1.00	0.00	7.21	36.53	0.00	27.36	0.75	0.65	4.40
84S-305	0.01	0.05	0.04	7.11	0.07	1.07	1.03	2.45	0.05	0.25	0.06	16.37	0.23	1.47	1.74	6.96
84W-301	0.48	0.58	3.92	1.59	1.38	5.81	1.14	4.21	1.40	0.43	13.52	4.08	0.47	12.55	1.63	8.37
84W-302	4.95	2.46	1.33	0.07	1.15	3.97	0.14	1.22	1.89	0.41	3.10	0.17	0.58	6.38	0.47	40.59
85S-401	0.36	1.05	3.51	7.78	3.11	5.76	17.45	7.64	1.17	7.45	20.39	21.90	24.00	20.54	67.68	38.34
85S-402	2.07	4.86	2.79	5.10	3.73	8.60	4.43	2.03	7.53	11.56	12.76	13.47	18.19	28.25	15.66	1.52
85S-405*	0.00	0.00	1.00	3.00	0.00	4.00	9.00		0.00	0.00	4.18	9.00	0.00	11.00	107.03	

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EXCLUSIONS MED/EXT Planned																	
	2012 CKAIFI	2013 CKAIFI	2014 CKAIFI	2015 CKAIFI	2016 CKAIFI	2017 CKAIFI	2018 CKAIFI	2019 CKAIFI	2012 CKAIDI	2013 CKAIDI	2014 CKAIDI	2015 CKAIDI	2016 CKAIDI	2017 CKAIDI	2018 CKAIDI	2019 CKAIDI	
Avg + 2 St. Dev	5.19	5.82	5.42	4.68	4.74	4.66	5.44	6.16	12.78	14.05	14.52	12.20	14.36	24.54	20.47	20.51	
St. Dev	1.91	2.14	1.95	1.62	1.63	1.56	1.84	1.97	5.05	5.36	5.41	4.51	5.39	10.41	8.03	7.37	
Average	1.37	1.53	1.52	1.45	1.49	1.54	1.76	2.22	2.67	3.33	3.70	3.18	3.57	3.73	4.41	5.77	
87H-311	0.06	3.69	1.20	0.04	2.24	0.05	0.38	1.45	0.12	13.67	4.30	0.15	1.16	0.15	0.84	3.45	
87H-312	0.16	0.41	0.60	0.54	0.04	0.27	2.11	0.31	0.52	1.27	1.90	1.22	0.18	0.17	8.16	0.96	
87H-313	0.03	0.16	1.15	0.59	1.22	0.18	1.19	2.73	0.18	0.29	3.21	2.50	5.18	0.93	2.85	8.02	
87W-311	1.04	2.63	2.09	0.29	1.31	1.42	2.43	4.56	1.97	1.48	6.89	0.99	2.02	2.67	6.24	21.08	
87W-312	0.19	0.54	1.58	4.56	0.34	1.75	1.39	5.14	0.46	1.51	8.91	7.14	1.94	14.41	3.43	27.74	
88H-401	1.09	4.44	1.76	2.83	0.65	1.88	2.39	5.76	1.79	20.83	2.29	3.07	1.22	5.66	9.36	21.31	
88H-402	1.53	4.64	1.82	0.92	2.08	1.19	5.74	9.60	2.28	22.02	4.03	3.52	3.92	3.30	22.83	21.82	
88W-311	0.15	1.87	0.01	1.03	0.30	0.12	0.14	2.09	0.67	1.40	0.04	5.51	0.68	0.25	0.18	2.86	
88W-312	0.20	1.10	0.89	1.24	0.02	0.07	0.18	3.83	0.12	8.91	2.33	5.54	0.05	0.18	0.35	6.70	
88W-313	0.00	0.01	0.00	2.91	0.13	0.00	3.22	2.05	0.00	0.04	0.00	8.45	0.36	0.00	3.95	2.76	
88W-314	0.00	0.00	0.02	1.86	0.57	0.63	1.05	3.66	0.00	0.00	0.04	8.86	0.64	0.75	2.85	8.40	
88W-321	0.22	5.45	0.21	0.54	0.00	0.00	0.00	0.00	0.57	10.80	0.43	2.52	0.00	0.00	0.00	0.00	
88W-322	0.02	0.07	0.48	1.41	0.02	1.19	0.07	1.15	0.04	0.33	1.15	2.16	0.06	2.36	0.83	1.79	
88W-323	0.18	0.46	0.03	2.22	1.56	1.23	1.47	2.44	0.74	2.11	0.60	1.32	1.82	2.83	9.23	15.08	
89H-401	0.09	3.69	0.17	1.06	2.40	0.10	1.39	3.31	0.36	19.93	1.95	1.37	2.71	1.58	4.49	14.06	
89W-301	0.40	0.07	0.20	1.62	1.35	0.03	1.09	3.00	0.21	0.96	1.61	1.28	0.43	0.02	1.23	2.78	
89W-302	1.60	0.19	1.15	1.93	2.14	0.35	1.09	4.82	3.92	0.22	0.20	1.71	1.93	1.27	1.29	5.53	
89W-303	0.32	0.11	1.55	1.66	0.97	0.36	2.47	2.77	0.80	0.35	5.37	1.35	2.78	1.31	6.91	6.06	
89W-304	0.00	0.24	0.10	0.03	1.03	0.06	1.02	2.05	0.00	0.65	0.24	0.00	0.12	0.11	1.12	2.83	
91W-411	7.49	3.30	1.41	0.33	3.37	5.48	0.27	6.39	9.34	3.91	11.74	0.75	4.59	9.36	1.24	25.75	
92H-331	1.24	4.54	4.62	1.40	1.38	2.34	1.23	3.32	1.22	3.79	7.92	2.43	10.54	9.74	1.67	7.11	
92H-332	3.30	1.23	3.74	2.29	1.69	2.40	1.05	4.42	3.95	3.31	11.13	3.43	10.07	4.47	2.36	8.46	
92H-333/L-3202	1.48	1.19	4.44	0.00	0.00	0.00	0.00	1.54	4.51	0.03	7.93	0.00	0.00	0.00	0.00	0.00	
92H-334	1.01	0.28	2.20	1.09	3.32	0.08	0.05	2.33	0.24	0.36	2.94	1.37	12.46	0.21	0.09	5.91	
92V-Dist						0.00	0.00							0.00	0.00		
92W-302	8.03	1.13	6.87	0.34	1.39	3.92	0.33	6.50	8.91	1.57	8.71	1.20	1.34	6.99	0.69	7.52	
93V-311	2.06	2.21	1.20	0.23	1.20	1.20	2.12	3.21	1.16	1.23	1.30	0.53	1.22	1.43	12.38	14.76	
93V-312	0.04	0.08	1.08	1.87	1.23	0.02	2.16	2.11	0.10	0.23	0.77	3.22	2.17	0.08	12.29	11.96	
93V-313	2.22	1.02	3.86	1.29	1.63	0.34	3.65	5.54	3.60	2.63	7.60	2.18	2.59	0.47	12.51	19.05	
93V-314						0.00	2.12	1.17						0.00	11.89	10.33	
95H-251	1.07	0.12	0.02	0.02	1.32	0.07	3.43	2.80	2.78	0.47	0.16	0.21	5.22	1.18	11.11	30.52	
96H-411	3.86	1.60	2.53	1.67	2.29	0.35	4.06	6.60	10.23	2.49	5.18	12.43	6.22	1.03	12.67	13.46	
96H-412	2.43	1.85	1.13	2.14	2.41	0.38	3.24	7.58	19.11	4.43	8.73	4.51	10.91	1.62	7.87	46.76	
99H-311	1.00	0.06	1.01	2.07	0.00	2.18	0.01	1.02	0.49	0.15	3.79	2.78	0.01	6.33	0.02	3.98	
99H-312	0.02	2.58	5.57	4.28	0.17	4.13	3.12	1.80	0.05	1.12	14.26	9.50	0.08	8.78	4.01	5.49	
99V-311	0.00	0.01	1.23	0.07	0.33	0.04	0.26	0.01	0.00	0.03	1.96	0.10	1.30	0.06	0.41	0.01	
99V-312						0.00	4.16	0.12						0.00	13.23	0.13	
99V-313	0.00	0.99	0.00	0.98	1.05	0.00	1.27	0.05	0.00	4.33	0.01	1.08	3.79	0.00	2.19	0.06	
99V-314	0.00	2.44	0.23	0.27	0.67	0.30	4.07	2.42	0.00	22.00	1.69	0.58	0.85	1.11	13.83	4.25	
9C-301	0.00	0.04	0.02	0.01	1.00	4.00	2.00	2.75	0.01	0.07	0.04	0.03	2.92	193.20	3.03	13.64	
9C-302	0.00	0.56	0.00	0.19	0.20	2.60	0.00	2.00	0.00	2.90	0.00	0.68	0.24	7.36	0.00	10.17	
9C-303	0.03	3.36	1.98	0.06	2.01	4.60	1.88	9.00	0.14	12.64	3.92	0.23	3.94	10.57	43.90	34.68	
9C-304	0.03	1.98	0.03	0.06	2.88	2.12	0.06	1.97	0.06	12.33	0.04	0.19	6.15	7.39	0.09	9.96	
L-4048						0.00	2.00	0.00						0.00	4.93	0.00	
L-4049	0.12	0.00	1.01	0.00	0.00	0.00	1.07	1.98	0.16	0.01	1.48	0.00	0.00	0.00	2.67	2.67	

EXCLUSIONS

MED/EXT
Planned

	2019 KCAIFI	2020 KCAIFI	2021 KCAIFI	2022 KCAIFI	2023 KCAIFI	2024 KCAIFI	2025 KCAIFI	2019 KCAIDI	2020 KCAIDI	2021 KCAIDI	2022 KCAIDI	2023 KCAIDI	2024 KCAIDI	2025 KCAIDI
Avg + 2 St. Dev	6.16	4.88	5.90	5.47	5.81	5.03	4.22	20.51	13.22	17.81	17.81	16.98	19.00	16.68
St. Dev	1.97	1.52	1.92	1.76	1.91	1.58	1.38	7.37	4.67	6.47	7.32	6.09	6.70	5.98
Average	2.22	1.85	2.06	1.95	1.99	1.87	1.46	5.77	3.88	4.87	5.19	4.80	5.59	4.73

Source Feeder	2019 KCAIFI	2020 KCAIFI	2021 KCAIFI	2022 KCAIFI	2023 KCAIFI	2024 KCAIFI	2025 KCAIFI	2019 KCAIDI	2020 KCAIDI	2021 KCAIDI	2022 KCAIDI	2023 KCAIDI	2024 KCAIDI	2025 KCAIDI
100C-421	8.17	4.13	7.02	1.60	2.23	4.39	4.18	18.91	15.69	35.69	10.16	7.18	15.67	16.76
100C-422	3.40	3.37	3.15	2.40	2.43	5.26	1.88	20.16	7.82	21.38	7.81	3.75	21.27	3.51
100C-423	2.09	2.27	3.00	3.42	1.50	3.17	1.00	0.38	6.27	5.26	34.44	2.15	11.82	1.64
101H-411	2.36	1.14	4.08	1.41	3.61	2.20	3.12	3.51	3.54	6.48	4.59	6.01	1.35	2.38
101H-412	1.32	3.02	4.20	2.00	0.18	1.27	3.03	1.21	2.48	5.31	3.21	0.31	2.83	2.28
101H-413	3.67	0.64	3.11	1.17	0.92	0.11	3.07	4.30	1.17	3.53	7.02	1.94	0.60	2.38
101H-421	6.06	2.04	3.47	4.57	3.51	2.05	3.62	9.01	3.04	6.41	3.31	4.03	4.83	4.70
101H-422	2.36	1.13	3.87	3.91	2.98	1.38	3.64	8.69	2.54	9.67	5.26	1.41	5.98	4.96
101H-423	3.21	1.11	2.14	2.08	1.29	0.22	3.18	7.09	1.35	2.45	1.93	1.13	0.41	4.33
101W-411							0.33							1.30
102W-311	0.25	0.33	3.32	1.06	0.12	6.07	3.12	0.65	1.02	1.94	2.07	0.59	16.95	6.49
102W-312	1.01	1.74	3.06	0.24	0.24	3.66	0.89	2.02	6.74	1.54	0.52	0.40	15.07	1.93
103C-311	4.18	2.05	5.19	1.03	0.04	1.12	2.17	16.51	7.99	22.17	2.49	0.16	6.37	12.79
103C-313	5.02	1.03	2.06	1.06	0.08	1.03	2.03	17.83	3.11	7.77	2.52	0.31	6.27	12.51
103C-314	5.68	2.40	5.92	5.56	1.49	3.71	8.32	17.50	5.96	23.78	12.26	2.70	14.59	31.16
103H-431	2.10	1.05	0.17	1.34	1.07	0.17	0.02	7.40	0.18	0.60	0.91	0.24	0.73	0.05
103H-432	1.15	1.72	0.79	0.16	0.32	1.21	0.15	4.85	2.08	1.95	0.86	0.89	2.41	0.34
103H-433	3.08	2.08	1.93	0.98	0.02	1.00	0.06	10.05	1.62	3.68	1.96	0.06	2.12	0.11
103H-434	3.69	5.35	3.32	0.09	0.37	2.68	1.38	10.00	4.63	5.86	0.47	1.20	5.73	4.36
103W-311	2.41	0.27	2.08	1.87	1.31	0.75	0.10	3.90	0.60	1.97	6.15	4.45	4.40	0.35
103W-312	4.22	2.51	2.39	1.43	1.22	0.34	1.28	6.46	7.42	2.86	3.18	6.37	0.94	3.44
104H-411	3.97	2.14	2.72	1.20	3.59	1.91	0.39	10.05	8.96	4.18	0.45	4.54	4.30	0.92
104H-412	4.05	2.08	2.59	0.11	1.22	2.80		4.50	3.32	2.38	0.30	1.36	8.62	
104H-413	3.28	3.95	1.39	3.06	0.63	0.07	3.29	2.68	7.51	4.51	4.36	1.02	0.61	7.79
104H-421	3.12	1.07	1.06	2.13	0.80	3.11	1.74	1.83	0.69	2.32	1.39	1.21	3.36	1.57
104H-422	1.25	2.06	0.47	1.09	0.00	0.01	1.31	1.51	0.85	0.99	0.11	0.01	0.03	2.31
104H-423	1.13	1.12	1.00	0.12	0.15	1.05	1.18	1.31	1.00	0.95	0.30	0.35	1.13	2.75
104H-431	1.10	2.08	2.35	3.97	0.06	2.85	0.10	1.35	0.23	5.30	3.17	0.17	5.61	0.33
104H-432	2.11	4.06	0.08	2.48	0.00	0.02	0.00	3.34	4.92	0.13	1.29	0.00	0.03	0.05
104H-433	1.88	1.07	0.07	1.39	1.03	0.23	0.49	1.47	0.66	0.15	0.73	1.09	0.97	0.87
104H-441	0.23	1.26	1.07	0.03	2.02	3.03	1.06	0.37	1.88	2.15	0.07	5.26	5.15	4.40
104H-442	2.02	1.03	2.98	1.05	1.02	0.01	0.04	1.99	0.21	4.19	1.13	1.46	0.02	0.11
104S-311	4.61	2.12	1.70	1.18	3.03	1.13	3.68	17.26	5.08	4.50	3.16	4.28	3.20	9.05
104S-312	3.29	0.97	0.03	1.22	0.46	1.94	0.03	12.00	6.66	0.09	3.68	1.17	4.26	9.30
104S-313	2.67	3.59	4.33	2.92	1.12	3.93	2.96	9.68	10.76	18.12	8.42	12.90	9.14	8.78
108H-411	1.06	1.02	0.01	0.01	0.26	2.02	1.61	0.47	3.11	0.01	0.03	0.74	9.60	5.99
108H-412	1.00	0.01	0.25	1.02	2.05	1.01	1.00	0.32	0.02	0.14	1.63	3.89	6.00	4.58
108H-413	2.03	1.02	0.16	1.11	2.04	1.13	0.66	1.83	3.06	0.78	1.61	8.27	6.19	3.48
111S-311		0.05	0.02	0.01	0.96	1.15	1.01		0.05	0.04	0.08	5.83	1.29	1.73
111S-312		0.07	0.02	0.47	0.08	3.13	1.15		0.08	0.05	1.64	0.39	8.79	1.99
111S-313		0.11	0.03	0.03	0.07	2.01	1.03		0.58	0.07	0.04	0.17	1.13	1.87
111S-314		0.00	0.00	0.00	1.07	2.26	1.33		0.00	0.00	0.00	0.48	5.24	2.25
113H-431	1.87	3.50	1.05	1.86	1.20	0.04	0.04	0.33	3.77	0.62	2.54	3.97	0.14	0.13
113H-432	0.03	3.06	2.27	2.21	3.16	0.08	0.06	0.09	2.13	4.48	1.53	4.28	0.22	0.14

EXCLUSIONS

MED/EXT
Planned

	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
Avg + 2 St. Dev	6.16	4.88	5.90	5.47	5.81	5.03	4.22	20.51	13.22	17.81	17.81	16.98	19.00	16.68
St. Dev	1.97	1.52	1.92	1.76	1.91	1.58	1.38	7.37	4.67	6.47	7.32	6.09	6.70	5.98
Average	2.22	1.85	2.06	1.95	1.99	1.87	1.46	5.77	3.88	4.87	5.19	4.80	5.59	4.73

Source Feeder	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
113H-433	0.30	0.33	0.75	2.41	6.21	0.18	1.50	0.32	0.39	2.14	3.72	9.65	0.69	3.08
113H-434	1.15	1.13	2.09	0.40	1.84	0.98	0.09	3.28	2.16	3.97	0.54	1.50	0.56	0.41
113H-441	1.52	1.56	1.98	0.05	0.06	1.54	0.09	3.88	1.66	4.76	0.14	0.19	2.72	0.22
113H-442	1.07	0.98	4.46	0.06	2.69	2.02	1.52	1.80	0.77	9.31	0.10	4.14	1.20	1.69
113H-443	1.07	2.18	1.05	2.13	1.50	1.60	0.04	0.69	3.20	2.40	0.76	1.90	0.26	0.10
113H-444	0.04	1.01	1.01	1.05	2.09	2.04	1.03	0.08	2.28	5.24	1.10	3.16	3.63	0.99
11N-200		1.00	0.00	0.00	0.00	0.00			0.33	0.00	0.00	0.00	0.00	
11S-301	3.13	3.66	2.81	2.06	3.62	1.37	2.09	5.95	11.83	22.54	10.13	15.09	3.13	14.67
11S-302	4.18	2.14	2.57	2.37	2.07	0.07	0.67	12.60	1.05	4.02	3.94	3.08	0.48	1.19
11S-303	0.08	0.03	1.42	0.08	3.02	0.11	1.29	0.17	0.03	1.35	0.86	2.55	0.35	4.02
11S-304	0.11	0.16	0.20	1.10	2.08	1.03	1.04	0.30	0.29	1.11	3.77	3.32	1.69	4.69
11S-305	1.13	0.93	2.45	1.08	3.21	0.10	1.03	1.03	2.07	10.94	10.37	3.26	0.31	4.70
11S-306	1.06	0.04	1.13	0.07	3.05	1.27	1.01	2.77	0.07	2.67	0.99	2.58	1.57	8.67
11S-411	2.34	3.70	7.64	5.91	5.32	1.86	5.05	10.34	13.74	22.70	23.19	16.87	6.53	9.77
11S-412	0.06	0.17	3.10	1.31	2.09	1.14	0.13	0.07	0.48	15.73	1.75	2.24	16.77	0.45
124H-301	2.25	0.03	0.01	2.98	2.01	2.87	1.94	1.21	0.10	0.01	6.91	1.89	5.34	1.72
124H-302	1.05	0.03	0.06	2.00	1.00	1.35	0.05	0.32	0.09	0.18	4.19	0.16	6.92	0.16
126H-311	0.46	2.87	0.06	1.47	1.11	1.46	1.72	0.77	4.86	0.14	5.36	2.00	6.07	4.71
126H-312	2.27	3.01	3.41	2.42	2.69	3.73	1.54	3.46	2.55	3.95	5.21	7.27	12.74	4.40
126H-313	1.10	1.06	0.26	2.09	4.13	4.02	1.12	9.10	0.27	0.72	4.76	2.62	10.10	2.12
127H-411	4.22	3.07	4.61	1.34	4.58	1.04	0.20	6.31	5.91	4.62	0.48	5.01	1.96	0.36
127H-412	0.50	0.00	1.00	0.00	1.00	0.00		0.98	1.00	0.00	0.00	0.95	0.00	
127H-413	1.00	0.06	1.02	3.09	1.02	3.04	0.12	0.63	0.16	0.09	14.61	1.02	6.05	0.64
129H-411	3.76	0.05	0.09	1.02	0.59	1.09	1.59	4.67	0.18	0.15	1.94	0.21	4.43	2.54
129H-412	2.04	1.08	2.01	1.17	0.92	1.19	1.09	6.13	1.33	6.24	0.73	0.57	1.89	2.58
129H-413	1.12	0.29	1.02	3.90	0.03	1.02	1.01	0.86	0.57	0.98	3.12	0.08	2.20	3.16
12V-302	2.33	1.07	0.08	3.24	1.26	2.59	1.30	3.44	9.63	0.25	6.49	2.42	10.68	8.84
12V-303	3.25	0.13	0.06	3.93	0.94	1.95	1.96	5.19	0.36	0.42	3.96	6.63	8.18	12.00
12V-304	1.46	2.52	1.72	4.03	2.16	1.45	1.15	3.56	6.47	1.86	9.33	2.93	4.96	7.95
131H-421	0.06	0.06	1.17	0.14	0.17	0.11	0.02	0.20	0.08	1.36	0.32	0.52	0.18	0.06
131H-422	1.95	1.11	2.28	2.40	1.93	2.25	0.67	2.64	2.82	3.30	2.82	5.13	7.26	2.69
131H-423	1.67	2.80	3.15	0.97	1.76	0.80	0.06	1.84	1.96	8.31	0.95	5.30	3.57	0.14
131H-424	7.40	1.22	1.67	0.66	0.04	0.04	0.01	10.79	0.59	2.97	0.15	0.05	0.11	0.05
137H-411	3.19	1.05	0.67	1.09	1.26	5.31	0.67	8.52	0.77	0.85	0.46	2.49	21.15	0.60
137H-412	1.12	0.04	0.52	8.11	1.95	5.02	0.72	0.77	0.10	1.28	6.57	10.93	8.59	1.71
137H-413	3.30	1.06	0.17	1.20	2.08	3.71	1.15	6.01	1.22	0.28	2.52	6.19	8.92	2.35
137H-414	3.15	0.12	0.91	1.12	1.10	5.32	0.01	8.05	0.16	3.23	0.55	2.96	14.63	0.03
139H-411	5.60	1.06	2.05	3.02	1.17	1.03	0.04	8.94	2.86	5.02	7.50	2.29	2.01	0.15
139H-412			0.06	4.03	2.03	1.01	1.01			0.14	1.89	2.94	1.91	2.49
139H-413	0.00	0.04	0.00	2.01	2.03	1.02		0.00	0.23	0.00	2.03	4.13	2.33	
139H-414	2.12	1.22	0.16	3.27	3.18	2.08	0.07	3.65	2.37	0.15	3.48	4.39	2.77	0.13
13V-303	0.74	0.64	1.55	0.40	0.29	0.52	1.85	17.40	5.42	4.41	1.49	1.05	1.82	3.99
14V-303	2.08	4.00	1.92	2.29	6.08	4.67	3.00	2.91	8.18	2.37	7.64	6.58	32.92	11.27
141H-401					1.92	1.01	3.21					3.63	0.13	7.82

EXCLUSIONS
MED/EXT
Planned

	2019 KCAIFI	2020 KCAIFI	2021 KCAIFI	2022 KCAIFI	2023 KCAIFI	2024 KCAIFI	2025 KCAIFI	2019 KCAIDI	2020 KCAIDI	2021 KCAIDI	2022 KCAIDI	2023 KCAIDI	2024 KCAIDI	2025 KCAIDI
Avg + 2 St. Dev	6.16	4.88	5.90	5.47	5.81	5.03	4.22	20.51	13.22	17.81	17.81	16.98	19.00	16.68
St. Dev	1.97	1.52	1.92	1.76	1.91	1.58	1.38	7.37	4.67	6.47	7.32	6.09	6.70	5.98
Average	2.22	1.85	2.06	1.95	1.99	1.87	1.46	5.77	3.88	4.87	5.19	4.80	5.59	4.73

Source Feeder	2019 KCAIFI	2020 KCAIFI	2021 KCAIFI	2022 KCAIFI	2023 KCAIFI	2024 KCAIFI	2025 KCAIFI	2019 KCAIDI	2020 KCAIDI	2021 KCAIDI	2022 KCAIDI	2023 KCAIDI	2024 KCAIDI	2025 KCAIDI
143H-412							0.00							0.00
143H-413							0.00							0.01
15N-202	0.11	0.00	1.06					0.26	0.00	9.39				
15N-203	0.62	0.47	1.22					0.14	1.53	8.65				
15N-401	0.24	1.22	1.70	3.30	1.29	4.83	3.96	0.83	3.07	1.78	3.51	1.13	5.57	13.73
15N-402	0.00	1.36	0.90	2.79	1.01	3.90	2.01	0.00	0.54	2.02	3.27	2.01	5.04	8.42
15N-403	1.16	1.56	1.17	1.17	1.67	2.09	2.08	1.35	1.27	1.88	2.62	4.16	2.78	1.88
15N-404	0.14	1.10	0.07	4.20	1.39	1.36	0.53	0.21	3.08	0.14	3.11	2.87	1.65	1.84
15S-301	0.22	5.20	0.38	5.21	1.36	4.27	0.11	0.22	15.83	1.52	13.60	1.70	8.84	0.36
15S-302	2.14	2.07	1.04	1.13	2.11	3.13	0.04	3.21	6.57	1.04	5.34	1.83	4.08	0.16
15S-303	1.04	1.40	2.15	1.84	1.07	3.08	0.13	0.21	2.47	3.35	4.41	1.00	4.07	0.30
16N-301	2.17	2.05	0.24	2.14	0.05	2.14	2.46	4.08	2.12	1.09	8.66	0.18	6.13	6.70
16N-302	2.37	2.22	4.23	2.09	0.39	2.68	0.29	12.26	2.78	9.02	9.07	1.20	7.39	0.65
16V-314	1.34	2.45	0.29	1.88	3.07	0.28	0.39	12.35	8.34	2.35	12.11	7.25	1.55	0.59
16V-315	1.94	2.42	0.58	1.35	5.01	0.04	0.04	11.14	9.50	1.00	8.76	8.88	0.07	0.11
16W-301	2.25	2.68	1.50	0.35	0.81	2.04	1.27	3.64	2.22	3.36	1.38	1.36	6.81	3.63
16W-302	4.51	3.52	3.08	1.61	0.47	1.91	0.16	6.11	5.18	6.37	2.64	1.13	6.56	0.74
17N-201	1.01	1.01	2.00	0.07	0.00	0.00	2.01	0.12	0.89	3.31	0.32	0.00	0.02	6.42
17N-202	1.10	0.00	0.00	0.08	0.06	0.00	2.01	0.28	0.00	0.00	0.34	0.07	0.01	6.41
17N-203	2.01	0.02	0.02	0.19	0.24	0.01	4.60	2.12	0.03	0.12	0.42	0.21	0.03	13.10
18V-411	1.04	2.07	1.05	1.47	0.50	2.13	4.51	1.34	10.19	5.61	3.23	0.85	7.18	14.57
18V-412	1.34	3.11	2.42	2.37	0.02	2.03	2.36	4.65	11.42	6.53	2.96	0.13	12.07	12.73
18V-413	1.92	2.34	3.22	1.87	0.09	1.17	3.79	2.77	9.09	8.71	1.88	0.71	6.00	13.70
19C-203	2.00	1.02	4.01	0.03	5.99	1.69	2.92	32.99	4.81	13.34	0.13	5.88	2.83	5.62
19C-204	3.67	2.13	4.94	1.02	5.08	1.02	5.71	6.89	7.54	15.88	0.32	5.93	2.52	14.50
19W-311	5.19	3.02	6.05	0.14	0.22	1.46	1.34	11.09	8.23	13.71	0.48	0.25	1.91	1.37
19W-312	3.15	2.09	6.76	1.16	0.05	1.94	2.08	4.25	3.08	6.89	2.01	0.16	5.45	3.15
1C-411	2.97	1.16	1.78	1.07	1.18	2.67	3.22	6.66	3.80	4.44	5.43	2.11	5.37	8.94
1C-412	0.00	1.00	0.00	1.00	1.00	0.00	0.33	0.00	3.35	0.00	4.45	16.29	0.00	2.35
1C-413		1.00	0.00	0.00	1.00	1.00			32.55	0.00	0.00	8.19	5.87	
1H-403	1.00	2.01	0.09	0.76	2.72	1.01	0.00	1.39	15.24	0.07	5.27	1.27	0.68	0.01
1H-405	1.00	1.00	0.00	0.00	2.00	1.65		1.41	11.33	0.00	0.00	3.72	1.94	
1H-415	1.58	0.00	2.03	1.12	2.01	1.02	1.11	1.91	0.00	3.83	0.52	3.27	0.65	4.50
1H-419	0.96	0.00	2.00	1.50	1.63	1.00	1.01	1.35	0.00	6.08	2.07	2.48	0.59	4.26
1H-424	1.35	0.00	0.00	2.03	2.02	1.00		1.46	0.00	0.00	2.88	2.97	0.64	
1H-427	2.03	0.06	0.00	0.02	2.10	0.02	0.02	4.13	0.11	0.00	0.12	0.85	0.03	0.04
1H-429	0.67	0.00	0.00	0.67	0.00	0.00		0.93	0.00	0.00	0.46	0.00	0.00	
1H-431	2.00	0.00	0.00	0.00	1.00	2.00	0.03	2.80	0.01	0.00	0.00	1.78	1.50	0.04
1H-454	5.05	1.98	0.04	0.03	2.07	0.01	0.07	3.84	2.80	0.12	0.05	0.72	0.07	0.37
1N-402	5.27	0.68	8.61	3.90	4.45	2.41	3.57	8.24	2.39	18.68	8.48	8.07	5.06	14.12
1N-403	0.03	2.04	1.10	5.82	2.12	2.08	0.12	0.07	2.68	0.83	6.65	2.56	3.75	0.24
1N-404	0.03	0.05	2.03	0.11	1.47	0.69	0.11	0.19	0.24	2.90	3.65	1.66	1.13	0.47
1N-405	2.34	3.19	2.84	1.74	4.47	2.76	0.73	4.78	3.60	4.39	5.94	4.64	5.11	1.51
1N-421	1.04	2.30	3.08	2.08	2.02	2.31	1.14	0.24	6.64	6.72	5.05	5.04	3.67	2.23

EXCLUSIONS
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	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
Avg + 2 St. Dev	6.16	4.88	5.90	5.47	5.81	5.03	4.22	20.51	13.22	17.81	17.81	16.98	19.00	16.68
St. Dev	1.97	1.52	1.92	1.76	1.91	1.58	1.38	7.37	4.67	6.47	7.32	6.09	6.70	5.98
Average	2.22	1.85	2.06	1.95	1.99	1.87	1.46	5.77	3.88	4.87	5.19	4.80	5.59	4.73

Source Feeder	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
1V-442	1.00	0.00	0.00	0.00	2.00	0.00		0.05	0.00	0.00	0.00	3.78	0.00	
1V-443	5.86	3.88	1.29	4.48	6.78	2.81	2.64	8.21	9.19	4.53	9.93	16.59	7.44	7.58
1W-411	1.86	2.14	3.86	4.00	4.86	1.00	0.13	3.63	15.61	3.18	41.52	25.95	12.94	0.52
20H-301	2.21	1.55	0.36	4.16	0.05	0.55	2.08	1.72	2.26	0.98	6.15	0.19	1.56	5.95
20H-302	1.00	2.18	0.00	1.16	1.07	0.00	1.00	0.90	17.49	0.00	2.72	4.36	0.01	5.05
20H-303	2.09	1.57	2.19	1.11	1.17	1.51	1.06	3.11	0.74	3.65	0.60	7.69	2.79	5.28
20H-304	4.03	0.03	1.08	1.19	1.02	1.23	1.19	4.64	0.06	0.38	0.39	4.31	1.68	5.41
20H-305	2.93	0.12	0.06	4.19	0.18	0.03	1.05	7.71	0.14	0.16	5.59	1.23	0.08	5.17
20H-306	1.06	4.21	1.02	4.03	1.04	0.19	3.23	1.11	1.39	1.52	2.26	5.14	0.17	9.27
20N-201	1.00	1.36	2.00	0.04	1.00	8.00	2.00	0.76	2.44	5.83	0.03	0.46	29.35	6.38
20N-203	1.06	0.07	0.00	0.01	0.00	1.03	3.06	0.70	0.06	0.00	0.15	0.00	0.39	9.45
20N-204	1.25	1.02	1.00	0.25	0.02	1.03	3.12	0.28	0.81	1.43	0.80	0.04	6.92	6.62
20V-311	2.85	1.35	4.35	5.31	0.04	3.25	0.06	7.46	1.92	14.08	3.85	0.15	5.35	0.35
20W-311	2.05	1.02	2.07	1.02	0.02	1.01	1.05	1.90	1.18	3.68	7.96	0.08	0.65	0.50
20W-312	2.05	2.07	3.02	1.02	1.06	2.01	1.04	1.99	3.89	7.41	3.91	0.61	4.78	0.48
21W-311	3.02	1.12	1.04	1.08	0.26	1.03	2.05	8.89	1.20	5.34	3.61	0.39	0.28	7.72
21W-312	3.14	2.06	1.01	0.01	0.03	2.01	1.03	10.29	2.66	5.28	0.05	0.06	1.41	4.19
22C-401	4.03	3.07	0.74	2.72	1.06	2.27	1.07	9.43	6.60	2.26	2.09	1.67	7.17	1.14
22C-402	6.71	2.73	6.90	6.07	2.97	0.79	0.41	21.46	9.12	34.06	20.18	8.11	3.61	3.37
22C-403	6.78	4.15	5.75	14.24	2.33	7.52	0.30	16.36	11.15	16.38	30.79	4.60	29.38	0.47
22C-404	10.82	4.78	6.05	4.11	4.56	4.78	2.35	33.15	11.86	16.88	9.19	15.71	11.89	3.08
22N-401	1.36	1.09	3.18	3.41	1.21	0.10	0.03	2.44	5.12	5.32	6.01	6.56	0.31	0.05
22N-402	3.96	1.88	2.28	7.22	4.28	1.15	0.47	9.17	5.06	4.60	12.81	18.52	1.82	1.02
22N-403	0.05	2.56	0.68	1.95	3.86	0.39	0.29	0.30	5.48	1.21	5.04	11.99	0.91	0.83
22N-404	3.06	2.05	2.03	1.05	3.02	0.06	3.05	4.43	4.47	3.12	2.33	13.58	0.30	13.51
22V-313	0.27	2.06	0.17	4.08	2.08	2.01	1.12	0.37	1.57	0.32	10.07	3.25	3.21	0.63
22V-314	0.00	1.03	0.04	3.01	2.01	1.05	1.07	0.01	0.14	0.04	8.61	3.22	1.80	0.53
22V-321	0.13	1.04	2.10	4.06	3.09	1.11	2.11	0.14	0.22	2.87	11.07	3.64	1.95	3.09
22V-322	1.03	1.14	0.09	3.95	2.01	1.14	2.09	1.31	0.37	0.17	9.29	3.10	3.27	2.10
22W-311	1.41	2.12	1.64	2.72	0.07	2.72	2.57	3.24	2.79	2.55	5.80	0.12	1.70	5.60
22W-312	2.20	3.05	4.08	1.54	0.80	3.31	1.07	3.25	2.71	6.49	8.03	0.89	4.71	2.59
22W-313	1.61	1.32	2.36	0.21	0.07	1.09	1.39	2.42	1.96	2.92	0.23	0.14	0.88	2.90
23H-301	0.28	0.05	1.18	3.16	2.24	0.11	0.15	0.82	0.08	4.76	3.38	11.34	0.22	0.42
23H-302	1.09	1.08	1.07	3.12	2.03	1.12	0.09	1.12	3.30	7.61	4.04	11.58	2.43	0.27
23H-303	0.05	0.45	3.22	2.03	1.07	0.03	0.11	0.11	1.33	2.02	0.38	11.18	0.10	0.21
23H-304	3.26	3.33	2.59	5.27	1.68	1.05	2.23	6.69	4.17	4.40	3.77	12.08	2.86	3.97
23W-301	1.57	0.31	5.25	1.47	0.81	4.23	0.28	5.48	1.90	6.85	1.47	1.07	18.43	0.74
23W-302	3.10	3.22	9.03	1.98	1.10	3.37	1.32	12.72	7.94	13.66	5.17	2.67	13.56	3.17
24C-442	3.64	7.19	6.34	3.69	6.64	5.35	3.26	12.49	22.24	19.24	7.08	7.45	40.20	8.70
24C-443	4.06	0.58	0.45	1.43	1.66	2.70	2.24	4.84	1.88	3.85	3.82	3.81	10.45	6.22
25W-301	2.87	0.34	8.80	1.38	1.43	2.04	2.24	11.24	5.51	15.92	1.70	48.81	7.70	6.58
25W-302	1.21	4.14	7.02	0.48	1.48	4.40	4.23	4.60	11.17	11.44	1.17	3.31	17.35	13.01
25W-303	4.12	2.14	5.06	0.23	1.02	3.06	0.14	6.03	3.74	7.38	0.31	0.15	9.65	0.45
2C-401	2.31	2.19	0.08	3.79	1.30	0.41	1.20	10.91	5.73	0.29	10.73	2.54	2.90	4.77

EXCLUSIONS
MED/EXT
Planned

	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
Avg + 2 St. Dev	6.16	4.88	5.90	5.47	5.81	5.03	4.22	20.51	13.22	17.81	17.81	16.98	19.00	16.68
St. Dev	1.97	1.52	1.92	1.76	1.91	1.58	1.38	7.37	4.67	6.47	7.32	6.09	6.70	5.98
Average	2.22	1.85	2.06	1.95	1.99	1.87	1.46	5.77	3.88	4.87	5.19	4.80	5.59	4.73

Source Feeder	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
2C-402	9.03	5.04	8.19	4.80	1.34	2.22	3.11	16.27	22.01	44.76	16.79	2.18	6.42	9.68
2H-411	2.02	2.03	2.40	0.83	0.84	4.48	0.14	2.87	2.82	3.38	1.30	4.63	6.42	0.35
2H-412	4.03	0.07	0.00	1.01	0.00	0.03		4.43	0.11	0.00	1.62	0.02	0.05	
2H-413	4.02	3.06	2.06	2.05	0.15	1.06	0.10	7.60	4.42	0.48	2.36	0.39	1.75	0.18
2H-421		0.13	0.15	0.05	0.05	3.16	3.04		0.57	0.43	0.19	0.17	5.86	11.33
2H-422			1.64	0.07	1.15	0.03	2.13			4.78	0.09	1.24	0.04	12.95
2H-423						0.01	0.06						0.02	0.15
2H-424		0.20	2.23	2.21	2.04	0.09	0.65		0.40	1.95	2.98	5.47	0.22	1.30
30N-411	1.00	1.31	1.21	2.12	2.39	1.68	3.30	1.81	2.62	1.12	4.86	10.55	4.84	16.44
30N-412	0.97	3.48	0.08	2.17	8.53	3.64	2.36	3.12	12.01	0.51	16.92	26.66	22.27	11.97
36V-301	2.18	2.74	1.26	2.27	1.46	3.66	2.38	3.04	4.90	1.78	5.58	5.84	10.96	4.49
36V-302	3.82	1.17	0.36	1.16	3.49	2.45	2.92	6.71	2.87	1.36	3.93	13.43	6.70	16.40
36V-303	1.53	1.34	0.98	1.73	2.52	4.17	2.17	5.19	3.33	2.06	3.80	7.44	11.37	2.80
36W-301	2.73	0.84	6.08	0.32	1.52	0.43	1.16	19.80	3.92	13.56	1.76	3.25	1.69	4.19
36W-304	0.79	2.29	8.18	0.23	1.04	0.13	1.02	3.60	11.57	12.14	0.41	0.16	2.19	2.94
37N-411	2.72	2.04	1.60	3.20	2.24	3.03	5.05	8.71	3.61	2.45	10.58	24.90	10.15	14.71
37N-412	6.87	1.14	0.95	5.80	1.22	2.16	4.52	19.11	2.62	2.34	21.90	6.40	14.79	13.32
37N-413	2.21	4.95	0.44	3.92	3.18	1.32	2.54	31.77	11.12	0.15	31.98	15.09	4.90	8.02
37N-414	0.13	3.44	0.83	1.22	1.48	0.27	2.50	1.27	6.31	1.73	7.52	2.26	1.73	8.62
37W-201	0.33	0.09	6.06	0.02	1.22	0.00	0.32	0.56	0.36	13.07	0.09	0.50	0.00	1.27
37W-202	0.06	0.21	5.69	0.24	1.11	0.01	0.01	0.33	0.63	14.32	1.63	0.96	0.01	0.06
37W-203	0.00	0.00	5.00	0.00	1.00	0.00		0.00	0.00	11.13	0.00	0.07	0.00	
3N-411	1.06	2.00	0.10	1.21	2.05	2.05	1.17	2.87	0.89	0.12	4.49	2.72	10.14	0.58
3N-412		1.24	0.36	1.33	1.32	5.19	1.21		1.11	0.46	4.03	0.72	16.93	0.33
3S-301	1.46	1.26	1.13	3.07	0.07	0.12	1.24	2.80	2.79	0.64	1.76	0.36	3.23	1.16
3S-302	0.10	1.83	2.06	2.40	1.32	0.09	1.23	0.26	7.08	2.37	1.44	8.70	0.31	1.44
3S-303	1.10	1.06	7.16	2.13	1.30	1.06	1.03	9.68	0.59	17.16	0.85	3.45	1.00	0.99
3S-307	1.37	1.46	2.13	3.23	1.86	1.23	1.05	6.42	2.33	1.94	4.18	2.99	3.46	1.12
3S-308	0.04	1.10	3.08	5.47	1.04	2.06	1.02	0.14	1.24	2.66	5.81	2.43	33.38	1.20
3S-309	0.27	2.10	2.08	2.08	1.27	0.20	1.06	1.10	3.11	6.44	1.03	2.56	0.79	1.15
3S-403	5.78	1.28	4.84	4.05	5.28	2.22	3.48	12.92	4.27	27.30	7.33	39.36	11.06	8.39
3S-405	0.00	0.08	0.92	2.03	1.03	0.06	1.03	0.00	0.31	4.62	0.31	2.16	0.23	1.32
3W-201	0.90	4.10	2.80	1.30	1.00	1.00	1.00	0.04	9.63	7.09	3.73	0.02	12.34	0.40
40H-302	2.04	2.57	0.11	0.20	1.24	1.12	1.57	0.41	3.72	0.13	0.34	4.20	0.63	2.62
40H-303	0.00	2.28	0.05	0.04	4.11	3.04	1.19	0.00	2.64	0.11	0.03	2.55	3.69	2.28
40H-304	1.32	3.31	1.06	1.05	0.01	1.11	1.01	0.53	6.96	1.76	0.48	0.01	0.20	1.63
40H-305	0.02	0.03	0.04	0.18	0.12	2.32	1.24	0.04	0.05	0.08	0.23	0.52	1.81	2.09
40H-401	1.02	0.03	0.04	0.01	0.07	2.04	1.02	2.52	0.10	0.07	0.02	0.17	2.61	1.56
45V-201							3.00							18.42
45V-202							4.03							19.91
46W-301	0.86	3.32	7.78	1.03	1.31	0.84	2.48	4.85	9.29	14.06	5.04	1.37	3.64	8.52
46W-303	2.36	2.43	5.40	1.83	2.06	0.84	0.07	5.31	5.48	7.25	3.95	4.57	5.16	0.32
48H-301	1.12	3.44	2.08	0.10	0.04	5.11	3.03	2.31	5.69	6.91	1.65	0.17	7.86	4.74
48H-302	2.03	3.01	4.01	1.23	1.02	1.13	1.01	3.00	2.02	8.51	0.69	1.54	0.40	2.33

EXCLUSIONS
MED/EXT
Planned

	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
Avg + 2 St. Dev	6.16	4.88	5.90	5.47	5.81	5.03	4.22	20.51	13.22	17.81	17.81	16.98	19.00	16.68
St. Dev	1.97	1.52	1.92	1.76	1.91	1.58	1.38	7.37	4.67	6.47	7.32	6.09	6.70	5.98
Average	2.22	1.85	2.06	1.95	1.99	1.87	1.46	5.77	3.88	4.87	5.19	4.80	5.59	4.73

Source Feeder	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
48H-303	1.01	3.14	2.01	1.02	1.41	2.28	1.01	0.07	3.49	6.51	0.19	2.56	4.80	2.33
48H-304	2.21	1.03	2.39	2.23	0.04	1.27	1.19	3.99	0.61	7.51	1.58	0.22	0.66	3.21
48W-201	0.99	0.10	0.06	0.11	0.24	2.09	0.10	0.96	0.08	0.20	0.50	2.49	12.18	0.04
48W-203	0.00	0.00	0.00	0.02	0.02	2.00	0.02	0.00	0.00	0.00	0.02	0.08	12.18	0.11
48W-204	0.02	0.01	1.06	0.04	0.03	2.00	0.05	0.07	0.02	0.48	0.20	0.17	12.18	0.10
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	
4C-424	5.11	2.38	1.06	5.74	2.54	2.63	2.69	8.23	9.09	5.10	15.13	6.19	6.34	9.11
4C-430	4.12	1.32	1.71	2.59	0.74	3.98	3.86	14.05	2.33	4.68	12.63	1.78	11.17	14.51
4C-432	1.00	0.54	2.80	1.52	2.61	2.51	1.63	1.26	1.21	6.02	4.70	11.62	6.93	6.64
4C-441	4.21	3.07	4.60	4.45	3.69	0.57	2.88	6.90	7.23	22.24	15.14	14.48	2.74	9.93
4C-442	2.00	0.00	1.00				1.00	0.67	0.00	1.78				5.09
4N-311	4.85	2.26	0.22	4.85	0.48	2.97	2.04	10.38	0.58	0.70	12.31	2.19	11.18	11.77
4N-312	0.57	2.83	0.46	4.31	2.29	3.43	1.30	2.03	1.89	1.19	20.13	6.73	8.11	10.77
4N-313	2.45	2.12	1.51	5.71	6.00	4.70	3.56	4.97	0.50	2.05	21.05	18.27	9.52	15.09
4S-321	1.10	0.53	0.59	0.62	2.51	0.64	1.05	2.29	1.27	1.30	3.23	5.63	1.61	1.17
4S-322	0.19	2.00	0.02	2.14	1.06	0.00	0.12	0.40	0.19	0.09	20.15	1.24	0.01	0.29
4S-323	0.63	1.11	2.93	3.31	0.97	0.07	0.05	3.69	0.30	8.95	5.68	0.59	0.17	0.34
4S-324	1.03	0.06	1.23	0.37	1.19	0.03	2.00	2.24	0.14	2.00	0.73	0.87	0.18	11.41
4S-331	2.08	2.04	2.11	3.47	1.22	0.40	0.34	5.13	4.07	7.34	3.87	2.32	1.51	0.36
4S-332	0.04	2.00	0.43	1.70	1.01	0.44	1.22	0.15	1.38	2.27	4.31	1.02	1.15	1.73
4S-333	1.38	0.12	0.04	0.66	0.13	1.95	0.63	1.41	0.21	0.67	3.24	0.48	3.49	0.43
4S-334	0.00	2.01	0.00	0.00	1.16	0.05	2.09	0.00	3.63	0.00	4.59	1.29	0.42	3.31
4W-211	3.00	4.00	1.40	2.25	1.00	0.00	1.00	9.18	6.69	7.97	1.59	0.02	0.00	8.37
50N-311	0.10	0.00	0.08	0.00	1.00	1.00		0.19	0.00	0.15	0.00	1.09	1.00	
50N-410	3.04	5.69	3.17	2.56	2.95	4.30	1.17	8.43	8.51	9.23	10.08	10.21	7.48	2.59
50N-411	2.74	5.68	1.11	1.10	3.89	2.77	1.11	3.53	4.97	3.39	1.32	7.96	3.51	1.51
50N-412	1.87	2.31	1.57	0.70	1.19	3.27	0.56	3.65	3.98	3.90	2.46	1.55	3.48	0.49
50N-415	0.25	7.07	3.29	3.00	1.41	0.08	0.13	0.69	9.44	7.88	3.56	4.11	0.17	0.33
50V-401	0.47	0.50	1.11	1.06	0.26	0.39	1.53	1.20	1.01	1.62	2.08	0.23	0.63	7.51
50V-402	0.02	1.06	1.24	0.04	1.44	0.31	2.14	0.04	1.61	1.54	0.10	2.19	2.52	9.88
50W-411	3.88	0.08	1.20	1.43	1.07	1.15	0.06	6.54	0.41	2.47	2.82	2.60	2.98	0.27
50W-412	5.16	3.68	2.79	2.60	3.07	1.95	2.89	16.38	17.73	7.17	3.87	6.89	6.82	7.88
51V-301	0.15	1.77	0.38	1.02	2.22	0.30	0.04	0.17	1.61	0.85	3.49	4.45	1.12	0.09
52V-251	0.00							0.00						
54H-301	2.09	1.85	5.05	0.08	2.15	0.04	1.04	2.32	1.03	8.82	0.31	0.48	0.09	2.43
54H-302	1.19	5.63	2.06	0.01	2.24	1.04	2.15	0.60	6.24	4.82	0.08	7.24	0.41	3.50
54H-303	1.99	1.00	4.58	0.03	1.07	2.02	2.02	2.13	0.95	10.74	0.03	0.50	2.69	5.25
54H-304	4.03	5.23	4.06	0.04	3.59	0.62	1.10	4.34	6.33	6.74	0.10	4.58	2.01	2.49
55N-201	1.01	1.00	0.21	0.08	1.01	0.00	1.31	0.94	0.04	0.54	0.89	0.93	0.00	0.49
55N-202	2.29	1.44	0.34	1.00	2.11	0.01	1.01	6.49	1.08	2.18	0.66	2.45	0.02	0.08
55N-203	1.07	1.04	0.15	0.15	1.02	1.02	1.04	2.17	0.08	0.28	0.27	1.07	0.32	0.12
55N-204	0.07	1.16	0.15	0.17	2.06	1.04	1.05	0.21	0.15	0.13	0.83	1.28	6.60	0.14
55V-313	0.78	2.34	1.64	2.24	1.67	2.45	0.82	1.89	14.70	2.88	8.85	1.24	2.52	1.88
55V-314	2.20	1.26	1.90	2.49	2.02	2.83	2.07	5.02	2.97	5.77	5.51	1.05	2.88	3.88

EXCLUSIONS
MED/EXT
Planned

	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
Avg + 2 St. Dev	6.16	4.88	5.90	5.47	5.81	5.03	4.22	20.51	13.22	17.81	17.81	16.98	19.00	16.68
St. Dev	1.97	1.52	1.92	1.76	1.91	1.58	1.38	7.37	4.67	6.47	7.32	6.09	6.70	5.98
Average	2.22	1.85	2.06	1.95	1.99	1.87	1.46	5.77	3.88	4.87	5.19	4.80	5.59	4.73

Source Feeder	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
55V-322	0.94	1.60	1.37	0.35	1.06	3.29	1.42	1.94	3.68	2.02	0.32	0.34	4.71	7.90
55V-323	1.08	1.24	1.74	0.19	1.26	2.14	0.42	0.42	2.66	2.78	0.71	0.72	2.29	0.78
56N-401	1.69	3.49	2.68	2.94	2.67	1.50	2.58	2.81	5.29	4.47	5.50	7.15	3.43	4.38
56N-402	0.00	1.00	0.09	0.18	1.09	0.00	1.09	0.00	0.04	0.79	0.53	1.23	0.00	0.12
56N-414	1.87	3.24	2.10	2.89	4.82	4.01	3.51	7.31	2.44	4.02	17.09	16.86	11.30	4.36
57C-417	1.03	0.04	1.07	1.06	0.07	3.02	1.00	1.42	0.05	4.28	4.63	0.23	26.06	8.43
57C-422	2.14	2.96	2.65	3.56	1.72	2.33	2.90	4.76	4.44	5.99	6.30	3.76	5.66	10.58
57C-426	2.63	4.07	2.69	4.23	1.58	7.12	2.71	7.18	7.90	12.88	29.60	5.19	50.49	11.68
57S-401	4.36	4.19	2.40	6.58	8.37	5.02	2.65	8.42	10.25	9.73	24.72	29.76	14.14	9.50
57S-402	4.85	3.66	2.71	5.54	2.91	4.21	0.56	10.22	8.05	14.45	19.02	13.90	22.71	3.30
57W-401	2.86	5.58	2.62	4.87	10.42	7.26	3.67	11.01	10.40	3.34	19.64	13.41	13.78	13.42
57W-402	4.05	5.84	2.29	2.06	8.23	5.31	4.77	18.78	8.87	3.23	6.03	6.49	4.57	16.90
58C-403	7.21	2.11	5.10	4.17	0.28	2.98	5.02	28.40	6.96	48.89	6.08	1.01	6.94	29.24
58C-405	9.16	3.75	7.18	1.79	2.14	2.46	8.78	32.60	8.53	20.13	4.20	5.57	3.36	39.87
58H-421	1.02	1.04	4.04	3.03	5.03	3.07	2.22	2.04	0.95	6.81	8.56	12.88	2.61	7.96
58H-431	2.02	0.06	4.87	4.47	3.28	2.10	1.10	3.25	0.16	9.07	10.92	2.59	1.74	3.65
59C-401	4.42	4.06	4.02	4.94	1.37	0.48	2.09	17.91	14.69	14.48	12.41	0.66	0.91	5.80
59C-402	8.37	5.04	6.35	2.59	2.03	2.35	0.27	29.81	12.14	29.07	10.72	9.06	8.69	0.98
59C-403	7.40	2.30	1.29	0.07	0.02	1.32	0.04	20.16	2.26	5.24	0.43	0.14	3.61	0.15
62H-301	0.00	0.00	0.00	1.97	2.00	0.00		0.00	0.00	0.00	2.26	8.63	0.00	
62H-302	0.01	0.15	1.06	2.76	2.24	1.92	1.04	0.00	1.06	1.13	2.08	5.82	3.72	5.17
62H-303	1.00	1.02	0.00	0.00	4.04	0.09	1.01	0.25	3.03	0.00	0.00	5.09	0.27	0.18
62H-304	0.10	0.11	1.00	0.21	4.02	0.74	0.02	0.64	0.30	1.26	0.30	5.03	2.25	0.06
62N-411	2.14	2.93	2.07	4.03	1.22	1.05	1.08	3.88	2.23	1.08	2.68	0.64	0.33	1.42
62N-412	1.82	2.02	3.78	4.08	1.01	0.10	0.88	3.24	1.50	3.77	3.87	2.45	0.06	0.64
62N-413	3.19	4.11	6.19	5.44	4.77	4.69	1.33	6.52	5.33	7.88	12.92	5.52	5.81	3.19
62N-414	3.07	2.33	4.88	4.43	2.17	1.08	1.55	5.21	2.21	3.16	6.54	2.53	1.35	7.31
62N-415	1.40	3.30	4.29	5.36	3.79	0.09	2.24	3.87	3.22	2.56	9.52	8.88	0.26	4.56
62N-416	1.67	3.38	3.36	5.13	1.23	1.74	0.14	3.88	3.13	2.61	4.98	1.36	3.14	0.63
63V-311	1.06	1.69	2.21	0.44	1.16	1.08	0.14	2.30	3.14	3.22	1.19	1.06	4.21	0.21
63V-312	1.75	1.09	1.89	0.63	1.45	1.65	2.93	2.33	6.07	3.67	0.86	4.14	5.23	5.06
63V-313	1.14	0.20	2.44	1.20	2.30	4.76	0.61	3.80	1.50	5.78	4.30	2.46	7.65	1.50
64V-301	0.25	1.31	2.19	1.18	1.80	1.80	0.31	0.61	2.95	5.15	4.03	2.63	2.38	0.66
64V-302	0.00	1.52	1.15	0.00	0.00	0.00	1.15	0.06	2.17	1.65	0.01	0.01	0.00	1.24
64V-303	0.00		1.20	1.00	2.00	1.08	0.14	0.00		1.62	3.37	3.82	6.23	0.15
65V-301	4.28	6.44	3.33	5.01	2.30	1.02	1.01	4.45	11.62	6.66	6.61	7.59	4.84	1.64
65V-302	5.51	0.64	0.53	0.76	0.13	0.38	1.79	9.39	3.47	2.11	1.97	0.41	1.27	6.17
65V-303	5.72	1.09	2.07	0.07	1.09	1.51	2.62	15.76	0.92	10.08	0.21	1.35	3.18	3.54
67C-411	8.89	2.72	7.50	2.06	1.70	1.30	3.77	34.14	14.90	39.97	5.41	5.89	2.19	37.57
67C-412	7.41	2.45	1.43	3.95	1.50	1.87	5.80	22.63	5.95	6.51	13.81	5.03	7.25	38.28
6N-301	1.10	1.03	0.23	2.19	3.23	3.01	1.08	3.48	0.35	0.39	1.43	20.97	4.75	1.35
6N-302	1.01	0.17	0.43	1.05	7.29	3.02	1.01	3.08	0.56	0.52	0.20	30.85	5.69	1.27
6S-221	1.22	0.12	0.00	0.15				3.92	0.11	0.01	0.85			
6S-223	0.00							0.00						

EXCLUSIONS

MED/EXT
Planned

	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
Avg + 2 St. Dev	6.16	4.88	5.90	5.47	5.81	5.03	4.22	20.51	13.22	17.81	17.81	16.98	19.00	16.68
St. Dev	1.97	1.52	1.92	1.76	1.91	1.58	1.38	7.37	4.67	6.47	7.32	6.09	6.70	5.98
Average	2.22	1.85	2.06	1.95	1.99	1.87	1.46	5.77	3.88	4.87	5.19	4.80	5.59	4.73

Source Feeder	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
6S-224	0.00	1.00	0.00					0.01	2.94	0.00				
6S-225	2.16	0.01	1.09	0.07				2.18	0.04	3.50	1.66			
6W-201	4.25	2.25	2.00	1.00	2.00	0.00	0.13	30.18	1.06	0.54	0.07	0.96	0.00	0.65
70V-311	2.62	2.90	1.46	2.10	0.34	4.25	1.35	4.40	7.72	2.42	4.32	0.91	9.23	8.45
70V-312	3.95	2.40	2.33	4.65	2.66	3.11	2.82	7.77	5.03	5.87	9.24	7.95	7.67	13.84
70W-203	1.00	2.00	4.11	0.11	1.06	1.17	0.03	2.30	0.55	0.58	0.33	0.20	0.32	0.05
70W-204	1.17	2.00	4.00	0.01	1.00	1.00		2.49	0.57	0.17	0.03	0.04	0.08	
70W-311	1.53	2.81	5.87	2.88	6.68	2.08	1.63	4.79	2.83	7.75	4.88	12.21	1.61	4.97
70W-312	1.03	2.17	5.06	2.14	1.04	2.01	0.03	2.35	1.58	1.31	1.81	0.14	1.57	0.09
70W-313	4.21	3.22	6.76	1.37	4.24	2.95	1.89	12.46	2.26	6.65	3.21	7.76	3.42	4.44
70W-314	1.86	2.73	4.00	1.09	1.00	1.00	1.01	2.56	1.14	0.18	4.69	0.05	0.12	0.82
70W-321	2.15	2.10	5.14	1.05	3.34	1.72	2.13	3.73	0.76	1.17	1.35	4.44	1.64	3.26
70W-322	1.07	2.01	4.03	1.03	1.02	3.07	0.01	2.45	0.57	0.51	1.57	0.10	6.56	0.02
73W-411	4.76	3.02	3.75	2.65	5.91	3.25	2.31	9.74	3.57	14.63	21.34	15.60	7.87	5.18
73W-412	2.02	2.01	2.02	0.02	1.01	2.02	0.03	2.67	0.68	10.34	0.07	4.58	1.73	0.06
74N-411	1.21	0.34	0.39	2.18	2.50	2.39	1.94	3.58	0.79	0.39	1.51	10.03	10.66	5.01
74N-412	2.78	3.70	1.50	2.30	5.10	4.80	1.14	9.81	8.05	2.66	14.91	7.68	29.92	3.54
74V-301	1.74	1.03	0.01	2.64	1.01	1.00	4.10	7.85	0.13	0.02	3.04	3.62	10.29	11.80
74V-302	2.00	1.00	0.13	2.00	1.00	1.00	4.00	6.55	0.05	0.17	1.94	3.59	10.42	11.38
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	
75N-251	0.00							0.00						
76V-301	3.11	7.80	3.94	3.52	11.33	6.29	2.93	10.77	18.86	8.61	14.11	24.82	16.90	28.06
76W-201	0.00	0.00	0.00	2.00	4.00	2.00		0.00	0.00	0.00	5.30	12.75	12.86	
77V-301	2.05	0.00	1.01	1.78	0.11	0.00	0.01	2.83	0.01	0.63	3.00	0.28	0.01	0.04
77V-302	4.65	2.36	1.32	2.98	0.19	3.45	0.55	9.84	13.53	2.74	15.63	0.62	3.91	1.16
77V-303	2.26	1.60	0.37	1.96	0.03	0.58	0.46	3.32	4.63	1.58	2.73	0.05	1.11	0.75
77V-401	4.99	6.06	4.59	3.69	3.44	5.42	2.34	9.42	14.72	23.00	4.71	8.17	15.99	3.67
78W-301	1.58	1.26	1.29	5.04	3.67	2.94	3.24	6.32	4.25	4.41	10.50	17.77	22.16	5.65
78W-302	1.65	0.35	1.06	3.07	3.80	3.58	3.08	3.81	0.88	1.58	5.68	17.64	21.96	7.40
79V-401	4.86	2.47	2.12	1.33	1.35	0.56	4.82	5.72	3.45	6.37	3.49	4.87	2.79	10.64
79V-402	1.07	2.06	2.46	2.68	1.46	0.82	3.05	0.17	1.29	1.90	4.19	4.12	2.62	9.81
79V-403	5.66	1.32	1.07	2.11	1.48	1.31	1.09	5.49	1.37	0.62	4.06	4.57	1.93	2.32
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	
7N-301	3.60	0.34	0.16	1.17	2.65	3.05	2.10	14.03	0.36	0.32	2.13	6.43	9.71	14.51
7N-302	1.16	2.07	1.12	0.56	0.27	3.03	1.08	3.46	3.87	0.32	4.52	0.52	4.97	4.72
7W-202			0.00	0.00	0.00	0.67				0.00	0.00	0.00	2.19	
80W-301	0.32	0.61	1.94	4.38	4.26	2.46	2.13	1.05	1.76	3.44	17.80	17.23	20.70	4.14
80W-302	0.00	0.00	0.00	3.00	4.00	3.50	2.50	0.00	0.00	0.00	5.22	12.33	17.72	3.15
80W-303	0.00						1.00	0.00						2.09
81N-411	1.10	1.05	4.29	2.43	1.92	1.67	3.16	2.58	1.64	4.08	13.15	6.14	10.29	11.60
81N-412	3.48	1.24	2.07	2.77	1.31	3.95	3.89	3.85	2.12	7.02	13.89	3.70	11.71	11.89
81S-301	1.22	0.15	2.16	1.32	6.19	3.33	2.17	0.77	0.43	4.28	4.71	4.57	16.24	0.79
81S-302	1.35	1.42	0.31	2.90	9.52	4.15	2.08	3.40	3.32	0.97	13.34	11.75	11.83	0.52
81S-303	3.52	2.31	1.10	1.04	8.35	3.05	3.49	4.22	6.71	1.92	1.87	21.31	14.92	11.77

EXCLUSIONS
MED/EXT
Planned

	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
Avg + 2 St. Dev	6.16	4.88	5.90	5.47	5.81	5.03	4.22	20.51	13.22	17.81	17.81	16.98	19.00	16.68
St. Dev	1.97	1.52	1.92	1.76	1.91	1.58	1.38	7.37	4.67	6.47	7.32	6.09	6.70	5.98
Average	2.22	1.85	2.06	1.95	1.99	1.87	1.46	5.77	3.88	4.87	5.19	4.80	5.59	4.73

Source Feeder	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
81S-304	2.08	1.05	0.18	1.19	5.22	3.11	2.04	2.21	2.23	0.27	1.37	12.64	10.44	12.59
81S-305	1.10	3.07	0.32	0.63	7.18	4.15	3.25	1.53	2.76	0.79	2.32	22.93	21.59	12.64
81S-306	0.16	4.35	1.29	1.78	6.38	3.21	2.78	0.39	7.14	7.89	4.91	10.66	10.60	19.09
81S-307	0.22	0.25	1.20	1.20	6.11	2.08	2.07	0.47	0.79	3.24	17.58	7.83	9.43	12.84
81W-Dist	0.27	0.68	2.09	2.72	0.17	0.24	0.01	0.58	1.18	8.01	7.70	1.14	0.62	0.03
82S-302	1.00	3.71	1.97	1.05	2.02	0.13	0.16	1.57	6.58	2.33	0.67	6.61	0.19	0.60
82S-303	1.08	2.03	0.44	2.16	5.07	0.06	0.08	1.89	2.35	0.90	7.13	11.93	0.23	0.18
82S-304	1.80	2.40	1.10	0.54	1.47	1.07	0.75	3.22	3.27	0.99	3.46	1.11	8.53	2.45
82V-401	0.47	4.93	1.80	0.73	5.15	2.72	0.93	4.26	6.41	5.38	1.52	13.73	5.27	1.36
82V-402	2.34	3.96	6.11	3.45	7.81	0.96	0.95	8.92	4.54	10.19	8.10	8.47	3.91	0.87
82V-403	4.27	2.04	3.13	0.05	2.60	0.38	0.08	4.25	5.20	6.75	0.11	4.50	0.86	0.53
82V-422	0.13	0.13	3.69	0.94	4.14	0.06	0.08	1.54	0.24	4.54	2.27	2.71	0.27	0.26
82V-423	2.46	1.89	5.45	0.66	5.12	1.43	2.00	2.64	1.93	4.24	1.29	7.23	4.96	6.73
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	
83V-301	1.02	1.25	4.75	0.86	1.32	2.41	1.55	2.86	8.03	7.78	3.34	2.36	9.22	4.68
83V-302	0.09	0.04	2.40	0.06	0.00	0.05	0.06	0.09	0.08	1.78	0.09	0.02	0.19	0.25
83V-303	0.49	1.24	2.83	0.30	2.22	1.86	1.07	1.57	1.45	5.31	0.96	3.91	3.86	3.63
84S-302	4.46	1.03	1.02	6.04	0.04	3.03	1.53	16.35	0.49	2.18	22.35	0.38	5.66	7.41
84S-303		0.00	2.09	3.77	0.08	2.00	0.15		0.00	12.45	87.54	0.75	4.75	0.58
84S-304	1.00	1.44	0.90					4.40	2.61	3.54				
84S-305	2.45	3.36	0.44	2.14	2.03	1.11	0.01	6.96	11.32	1.63	5.33	3.13	3.37	0.04
84W-301	4.21	2.06	1.40	2.36	2.66	0.63	1.77	8.37	2.41	0.79	1.95	13.72	1.91	16.36
84W-302	1.22	0.19	2.20	0.17	1.93	1.08	2.31	40.59	0.78	4.38	0.66	11.99	1.52	16.99
85S-401	7.64	4.85	3.79	7.98	7.50	3.90	6.02	38.34	14.30	16.87	13.83	22.54	18.28	20.91
85S-402	2.03	1.18	1.78	1.04	1.41	1.54	1.72	1.52	3.19	4.92	4.06	2.53	3.15	6.43
85S-405*														
87H-311	1.45	1.84	0.25	1.12	2.40	4.02	0.07	3.45	1.62	1.86	15.57	7.29	16.54	0.18
87H-312	0.31	2.21	0.55	2.67	1.15	1.25	0.32	0.96	1.32	0.84	21.31	1.27	5.39	1.49
87H-313	2.73	4.47	2.30	2.23	2.63	2.26	0.25	8.02	5.66	4.97	21.28	10.19	9.23	0.51
87W-311	4.56	2.58	1.93	2.86	1.51	3.04	0.84	21.08	3.48	2.27	7.90	5.10	5.73	1.41
87W-312	5.14	2.63	4.11	3.09	3.81	1.29	1.24	27.74	7.56	8.70	4.83	8.00	2.75	10.13
88H-401	5.76	2.61	1.66	5.43	3.51	3.46	3.51	21.31	17.24	9.23	16.36	9.93	12.92	15.42
88H-402	9.60	2.69	1.72	4.15	1.71	2.99	0.79	21.82	17.49	9.81	15.33	5.06	10.61	2.37
88W-311	2.09	1.06	1.04	0.72	1.08	0.21	0.07	2.86	1.07	0.30	0.73	0.54	0.80	0.15
88W-312	3.83	3.38	1.22	3.19	3.08	0.14	0.14	6.70	3.65	1.81	3.87	2.97	0.69	0.29
88W-313	2.05	1.00	0.15	1.01	0.03	2.06	0.01	2.76	0.93	0.51	1.32	0.07	4.04	0.03
88W-314	3.66	1.46	2.25	0.44	1.05	1.59	0.54	8.40	1.89	1.99	0.75	5.99	3.15	1.36
88W-321	0.00							0.00						
88W-322	1.15	1.01	4.01	0.13	0.01	2.49	1.52	1.79	0.32	2.25	0.10	0.03	5.06	8.14
88W-323	2.44	1.21	6.19	3.27	0.06	4.12	1.39	15.08	0.70	8.04	5.49	0.17	12.76	6.01
89H-401	3.31	3.10	1.68	2.14				14.06	11.77	7.09	2.64			
89W-301	3.00	2.02	0.82	1.02	0.00	2.99	0.04	2.78	0.58	1.07	4.54	0.00	3.88	0.07
89W-302	4.82	3.55	1.08	1.09	0.22	3.90	3.13	5.53	1.90	1.81	4.62	1.39	10.93	3.73
89W-303	2.77	4.60	0.69	1.15	1.24	2.56	0.56	6.06	9.06	1.05	5.07	3.72	7.82	4.25

EXCLUSIONS														
MED/EXT Planned														
	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
Avg + 2 St. Dev	6.16	4.88	5.90	5.47	5.81	5.03	4.22	20.51	13.22	17.81	17.81	16.98	19.00	16.68
St. Dev	1.97	1.52	1.92	1.76	1.91	1.58	1.38	7.37	4.67	6.47	7.32	6.09	6.70	5.98
Average	2.22	1.85	2.06	1.95	1.99	1.87	1.46	5.77	3.88	4.87	5.19	4.80	5.59	4.73

Source Feeder	2019 CKAIFI	2020 CKAIFI	2021 CKAIFI	2022 CKAIFI	2023 CKAIFI	2024 CKAIFI	2025 CKAIFI	2019 CKAIDI	2020 CKAIDI	2021 CKAIDI	2022 CKAIDI	2023 CKAIDI	2024 CKAIDI	2025 CKAIDI
89W-304	2.05	3.11	1.10	1.63	0.97	1.33	1.13	2.83	2.67	1.22	7.74	2.75	2.63	18.47
91W-411	6.39	4.82	4.70	5.15	8.87	8.63	4.71	25.75	10.67	4.95	20.22	16.54	31.81	14.19
92H-331	3.32	3.37	3.05	2.01	2.14	2.20	2.49	7.11	2.27	2.49	6.38	1.12	6.23	5.57
92H-332	4.42	0.45	1.81	3.07	4.39	1.09	0.03	8.46	0.55	0.83	2.80	14.41	1.34	0.10
92H-333/L-3202	1.54	0.15	2.00	0.00	0.00	0.00		3.31	0.42	5.94	0.00	0.00	0.00	
92H-334	2.33	1.09	1.20	0.21	1.56	0.75	1.74	5.91	1.56	0.48	0.72	9.17	1.99	3.43
92W-302	6.50	2.09	0.76	2.13	1.56	6.76	3.32	7.52	4.67	1.32	3.59	1.57	17.86	5.53
93V-311	3.21	4.24	2.24	4.25	3.26	1.48	0.35	14.76	8.16	2.59	10.58	6.89	3.25	1.26
93V-312	2.11	4.13	1.03	1.11	7.11	2.06	1.02	11.96	7.92	0.98	8.69	13.29	3.91	3.72
93V-313	5.54	7.45	0.16	2.49	4.27	2.14	0.15	19.05	15.87	1.01	9.27	10.36	6.40	0.45
93V-314	1.17	3.00	0.13	2.61	3.04	1.09	0.32	10.33	7.25	0.54	8.75	6.62	0.61	1.43
95H-251	2.80	3.54	2.17	5.68	2.95	1.16	2.80	30.52	12.84	17.68	9.31	14.40	14.71	16.83
96H-411	6.60	4.07	4.25	5.57	3.85	3.84	3.66	13.46	17.36	12.78	14.42	15.76	16.70	15.65
96H-412	7.58	5.47	1.26	4.58	3.71	5.24	2.68	46.76	29.26	3.43	19.47	11.40	16.80	9.65
99H-311	1.02	2.16	2.05	0.07	3.94	2.02	0.14	3.98	5.83	3.41	0.26	4.22	3.65	0.30
99H-312	1.80	2.00	3.01	1.21	1.88	4.36	1.51	5.49	5.45	2.73	4.05	3.81	7.63	5.61
99V-311	0.01	2.12	2.16	1.15	2.01	0.30	0.03	0.01	1.31	5.02	0.33	3.22	0.64	0.05
99V-312	0.12	3.13	5.18	3.24	3.22	1.96	1.13	0.13	1.74	6.06	4.67	3.97	2.67	2.09
99V-313	0.05	1.03	1.05	1.17	1.00	0.00	1.04	0.06	0.12	0.64	0.45	1.91	0.00	0.80
99V-314	2.42	2.32	2.01	2.65	1.57	1.52	3.77	4.25	1.83	8.92	5.75	3.68	4.22	7.24
9C-301	2.75	0.00	1.80	1.97	1.00	0.00	2.17	13.64	0.00	7.35	4.84	1.50	0.00	17.33
9C-302	2.00	1.00	1.00	1.00	0.00	0.00	1.00	10.17	0.15	5.84	2.36	0.00	0.00	6.62
9C-303	9.00	0.12	1.11	2.91	1.05	0.07	1.03	34.68	0.81	6.10	6.51	2.02	0.22	6.71
9C-304	1.97	0.04	1.04	1.03	2.01	3.10	1.05	9.96	0.04	6.92	2.42	10.05	10.75	6.84
L-4048	0.00	0.00	1.00	0.00	0.00	1.00		0.00	0.00	5.03	0.00	0.00	1.02	
L-4049	1.98	1.01	0.01	1.13	1.07	0.37	0.30	2.67	2.86	0.03	0.84	4.01	0.68	0.35

2025 Feeder Outages (Duration and Frequency Index) by Cause and Sub-Cause

Feeder Source	CEA Description	Sub-Cause	CKAIFI	CKAIDI
100C-421	Adverse Weather	Wind	0.389796961	2.22474521
100C-421	Defective Equipment	Electrical Failure	0.692543412	0.281738509
100C-421	Defective Equipment	Mechanical Failure	0.968525776	4.901004227
100C-421	Foreign Interference	Animal/Bird	0.003064351	0.008461015
100C-421	Foreign Interference	Human Felled Tree	0.807967314	4.997681818
100C-421	Tree Contacts	Untrimmed Tree	0.00102145	0.022771195
100C-421	Unknown	Overload	1.003064351	3.986795614
100C-421	Unknown	Unknown	0.318692543	0.336416411
100C-422	Adverse Environment	Building/Forest Fire	0.001956947	0.002076321
100C-422	Defective Equipment	Mechanical Failure	1.837247228	3.315988524
100C-422	Foreign Interference	Animal/Bird	0.033333333	0.110878758
100C-422	Lightning	Lightning	0.001960784	0.045018627
100C-422	Tree Contacts	Untrimmed Tree	0.001960784	0.006756536
100C-422	Unknown	Unknown	0.007835463	0.033732431
100C-423	Defective Equipment	Mechanical Failure	1	1.636333333
101H-411	Defective Equipment	Electrical Failure	0.000444247	0.001196653
101H-411	Defective Equipment	Mechanical Failure	0.000444247	0.000811491
101H-411	Foreign Interference	Animal/Bird	0.006663705	0.025246483
101H-411	Human Element	Improper Construction	0.005330964	0.004617503
101H-411	Loss of Supply	Transmission Line	2	1.572
101H-411	Loss of Supply	Transmission Substation	1.00044484	0.570708778
101H-411	Tree Contacts	Broken Branch	0.000444642	0.000509115
101H-411	Tree Contacts	Falling Trees	0.047100454	0.102248071
101H-411	Tree Contacts	Untrimmed Tree	0.000444247	0.001063972
101H-411	Unknown	Unknown	0.055530875	0.106154376
101H-412	Defective Equipment	Mechanical Failure	0.00830436	0.016593557
101H-412	Foreign Interference	Animal/Bird	0.009272816	0.012101106
101H-412	Loss of Supply	Transmission Line	2	1.568163982
101H-412	Loss of Supply	Transmission Substation	1	0.653580527
101H-412	Tree Contacts	Falling Trees	0.000488043	0.001689442
101H-412	Tree Contacts	Untrimmed Tree	0.003416301	0.010365626
101H-412	Unknown	Unknown	0.012689593	0.019739477
101H-413	Adverse Weather	Wind	0.000272851	0.000776717
101H-413	Defective Equipment	Electrical Failure	0.003820961	0.020052402
101H-413	Defective Equipment	Mechanical Failure	0.015829175	0.038279048
101H-413	Foreign Interference	Animal/Bird	0.036562074	0.053578718
101H-413	Foreign Interference	Dig In	0.000272851	7.69895E-05
101H-413	Loss of Supply	Transmission Line	2	1.572
101H-413	Loss of Supply	Transmission Substation	1	0.6555
101H-413	Tree Contacts	Falling Trees	0.002728513	0.007519327
101H-413	Tree Contacts	Untrimmed Tree	0.001091405	0.005999864
101H-413	Unknown	Unknown	0.004911323	0.029426967

101H-421	Adverse Weather	Wind	0.000341763	0.000817954
101H-421	Defective Equipment	Electrical Failure	0.00102529	0.007429426
101H-421	Defective Equipment	Mechanical Failure	0.047816075	0.052293644
101H-421	Foreign Interference	Animal/Bird	0.063568829	0.125285916
101H-421	Foreign Interference	Vehicle	0.001708817	0.006760652
101H-421	Human Element	Switching Error	0.000341763	0.001995785
101H-421	Loss of Supply	Transmission Line	1.585099111	2.35245614
101H-421	Loss of Supply	Transmission Substation	1	0.6555
101H-421	Tree Contacts	Broken Branch	0.442241969	0.572334814
101H-421	Tree Contacts	Falling Trees	0.444976077	0.812626396
101H-421	Tree Contacts	Untrimmed Tree	0.00102529	0.001541012
101H-421	Unknown	Unknown	0.029725487	0.113912177
101H-422	Adverse Weather	Wind	0.000752445	0.001309004
101H-422	Defective Equipment	Mechanical Failure	0.309255079	0.648800727
101H-422	Foreign Interference	Animal/Bird	0.014296464	0.017577502
101H-422	Loss of Supply	Transmission Line	2	2.837889516
101H-422	Loss of Supply	Transmission Substation	1	0.6555
101H-422	Tree Contacts	Broken Branch	0.000752445	0.003923752
101H-422	Tree Contacts	Falling Trees	0.222723853	0.646283045
101H-422	Tree Contacts	Untrimmed Tree	0.001504891	0.004462127
101H-422	Unknown	Other Cause	0.095560572	0.146096188
101H-423	Defective Equipment	Electrical Failure	0.00241473	0.008122346
101H-423	Defective Equipment	Mechanical Failure	0.015092062	0.052008401
101H-423	Foreign Interference	Animal/Bird	0.095079988	0.637889023
101H-423	Loss of Supply	Transmission Line	2	2.82
101H-423	Loss of Supply	Transmission Substation	1	0.6555
101H-423	Tree Contacts	Falling Trees	0.000301841	0.000143626
101H-423	Tree Contacts	Untrimmed Tree	0.000603682	0.001387313
101H-423	Unknown	Unknown	0.070027166	0.158987121
101W-411	Adverse Environment	Building/Forest Fire	0.002957608	0.008741374
101W-411	Adverse Weather	Wind	0.001643115	0.007457005
101W-411	Tree Contacts	Falling Trees	0.322050608	1.277465056
101W-411	Unknown	Unknown	0.000657246	0.001357378
102W-311	Adverse Environment	Salt Contamination	0.010443107	0.080298429
102W-311	Adverse Weather	Wind	0.079132705	0.196592895
102W-311	Defective Equipment	Electrical Failure	0.009573542	0.029928489
102W-311	Defective Equipment	Mechanical Failure	0.010443864	0.033731506
102W-311	Foreign Interference	Animal/Bird	2.005221932	3.005182913
102W-311	Tree Contacts	Broken Branch	1	3.127166667
102W-311	Tree Contacts	Untrimmed Tree	0.000869565	0.00191913
102W-311	Unknown	Unknown	0.002610966	0.016254569
102W-312	Adverse Weather	Wind	0.001764014	0.020810314
102W-312	Defective Equipment	Electrical Failure	0.003527337	0.010431217
102W-312	Defective Equipment	Mechanical Failure	0.016461597	0.0158288

102W-312	Foreign Interference	Animal/Bird	0.001763668	0.007212424
102W-312	Human Element	Improper Construction	0.000587889	0.001241623
102W-312	Tree Contacts	Falling Trees	0.158218916	0.912411677
102W-312	Tree Contacts	Untrimmed Tree	0.134038801	0.403715168
102W-312	Unknown	Unknown	0.571430301	0.5595716
103C-311	Adverse Weather	Wind	0.014475271	0.037173703
103C-311	Defective Equipment	Corrosion	0.001206273	0.001656614
103C-311	Defective Equipment	Electrical Failure	0.002412545	0.014245476
103C-311	Defective Equipment	Mechanical Failure	0.021712907	0.059337756
103C-311	Foreign Interference	Animal/Bird	0.002412545	0.002010454
103C-311	Foreign Interference	Vehicle	0.001206273	0.002562123
103C-311	Loss of Supply	Transmission Substation	2	12.45
103C-311	Tree Contacts	Falling Trees	0.096501809	0.173785283
103C-311	Unknown	Sagging	0.001206273	0.000675513
103C-311	Unknown	Unknown	0.024125452	0.047737033
103C-313	Foreign Interference	Animal/Bird	0.005524862	0.019900552
103C-313	Lightning	Lightning	0.016574586	0.016294659
103C-313	Loss of Supply	Transmission Substation	2	12.4505
103C-313	Unknown	Unknown	0.005524862	0.027535912
103C-314	Adverse Weather	Wind	2.048087432	4.595244627
103C-314	Defective Equipment	Electrical Failure	1.06557377	3.16523224
103C-314	Defective Equipment	Mechanical Failure	1.827322404	4.170555738
103C-314	Foreign Interference	Animal/Bird	0.009836066	0.010316393
103C-314	Human Element	Improper Construction	0.001092896	0.012061202
103C-314	Lightning	Lightning	0.002185792	0.003669035
103C-314	Loss of Supply	Transmission Substation	2.003278689	12.44805792
103C-314	Tree Contacts	Broken Branch	0.004371585	0.014530419
103C-314	Tree Contacts	Falling Trees	0.997814208	5.766330601
103C-314	Tree Contacts	Untrimmed Tree	0.001092896	0.001435337
103C-314	Unknown	Galloping	0.002185792	0.006478689
103C-314	Unknown	Sagging	0.002185792	0.009486339
103C-314	Unknown	Unknown	0.353005464	0.95873133
103H-431	Defective Equipment	Mechanical Failure	0.003700278	0.00639778
103H-431	Unknown	Unknown	0.015726179	0.039960222
103H-432	Adverse Weather	Wind	0.003367876	0.007754534
103H-432	Defective Equipment	Electrical Failure	0.032124352	0.130418005
103H-432	Defective Equipment	Mechanical Failure	0.04222845	0.033043386
103H-432	Foreign Interference	Animal/Bird	0.019948187	0.047420769
103H-432	Tree Contacts	Falling Trees	0.001813472	0.006049439
103H-432	Tree Contacts	Untrimmed Tree	0.000259067	0.000873921
103H-432	Unknown	Other Cause	0.002849741	0.009156218
103H-432	Unknown	Sagging	0.002073613	0.005573872
103H-432	Unknown	Unknown	0.04119171	0.101889983
103H-433	Adverse Weather	Wind	0.000794913	0.002966614

103H-433	Defective Equipment	Electrical Failure	0.000793651	0.001788095
103H-433	Defective Equipment	Mechanical Failure	0.048412698	0.077944444
103H-433	Foreign Interference	Animal/Bird	0.001587302	0.005456217
103H-433	Unknown	Unknown	0.005559341	0.018052953
103H-434	Adverse Environment	Salt Contamination	0.000264831	0.000453125
103H-434	Adverse Weather	Ice	0.004500927	0.004872253
103H-434	Adverse Weather	Wind	0.032838983	0.180404396
103H-434	Defective Equipment	Electrical Failure	0.002382844	0.012995808
103H-434	Defective Equipment	Mechanical Failure	1.204887682	3.815698338
103H-434	Foreign Interference	Animal/Bird	0.010855176	0.020182376
103H-434	Tree Contacts	Falling Trees	0.072544769	0.153374059
103H-434	Unknown	Other Cause	0.000264831	0.000467426
103H-434	Unknown	Unknown	0.052158218	0.176258896
103W-311	Adverse Environment	Building/Forest Fire	0.008939974	0.019812473
103W-311	Defective Equipment	Mechanical Failure	0.003192848	0.008824074
103W-311	Foreign Interference	Animal/Bird	0.018518519	0.069627182
103W-311	Foreign Interference	Vehicle	0.00063857	0.000949127
103W-311	Tree Contacts	Falling Trees	0.021711367	0.085480098
103W-311	Tree Contacts	Untrimmed Tree	0.035759898	0.069126862
103W-311	Unknown	Unknown	0.014048531	0.091316731
103W-312	Defective Equipment	Electrical Failure	0.440004368	1.036082166
103W-312	Defective Equipment	Mechanical Failure	0.115789474	0.181511868
103W-312	Foreign Interference	Animal/Bird	0.000619195	0.002039216
103W-312	Foreign Interference	Human Felled Tree	0.000619195	0.001930031
103W-312	Foreign Interference	Vehicle	0.023529412	0.024518473
103W-312	Lightning	Lightning	0.000619195	0.00204902
103W-312	Loss of Supply	Transmission Inadvertent	0.048916409	0.73619195
103W-312	Tree Contacts	Broken Branch	0.003095975	0.025013932
103W-312	Tree Contacts	Falling Trees	0.589473684	1.256817131
103W-312	Tree Contacts	Untrimmed Tree	0.005572755	0.021049639
103W-312	Unknown	Unknown	0.047677635	0.154473797
104H-411	Defective Equipment	Electrical Failure	0.052741152	0.217706685
104H-411	Defective Equipment	Mechanical Failure	0.144366243	0.147771932
104H-411	Foreign Interference	Animal/Bird	0.025213972	0.063458362
104H-411	Tree Contacts	Broken Branch	0.077261161	0.264323309
104H-411	Unknown	Unknown	0.087644067	0.227950403
104H-413	Adverse Weather	Wind	0.005654632	0.042667029
104H-413	Defective Equipment	Electrical Failure	0.000217486	0.00084573
104H-413	Defective Equipment	Mechanical Failure	1.036506381	0.968454369
104H-413	Foreign Interference	Animal/Bird	0.021313615	0.042807525
104H-413	Tree Contacts	Broken Branch	1.034362766	3.538727418
104H-413	Tree Contacts	Falling Trees	0.009351892	0.072028273
104H-413	Tree Contacts	Untrimmed Tree	0.000217486	0.001240539
104H-413	Unknown	Unknown	1.178773854	3.118289005

104H-421	Adverse Weather	Wind	0.006058566	0.03540727
104H-421	Defective Equipment	Mechanical Failure	0.002356109	0.004176315
104H-421	Foreign Interference	Animal/Bird	0.079097947	0.358967127
104H-421	Foreign Interference	Crane	0.000336587	0.000736284
104H-421	Foreign Interference	Dig In	0.000336587	0.000279255
104H-421	Tree Contacts	Untrimmed Tree	0.638168967	0.016273309
104H-421	Unknown	Unknown	1.017166618	1.153411811
104H-422	Defective Equipment	Mechanical Failure	1.000911577	1.546159509
104H-422	Foreign Interference	Animal/Bird	0.080145719	0.135713418
104H-422	Unknown	Unknown	0.229508197	0.630152398
104H-423	Defective Equipment	Electrical Failure	0.0303207	0.112964529
104H-423	Defective Equipment	Mechanical Failure	0.990664777	2.157821643
104H-423	Foreign Interference	Animal/Bird	0.017492711	0.037860739
104H-423	Tree Contacts	Falling Trees	0.013411079	0.029318853
104H-423	Tree Contacts	Untrimmed Tree	0.018065268	0.105085664
104H-423	Unknown	Unknown	0.110783434	0.308688144
104H-431	Defective Equipment	Electrical Failure	0.005193306	0.109525101
104H-431	Foreign Interference	Animal/Bird	0.039526832	0.131095066
104H-431	Foreign Interference	Other Foreign	0.001154068	0.001968648
104H-431	Tree Contacts	Broken Branch	0.025100981	0.026155222
104H-431	Unknown	Unknown	0.031713598	0.061462564
104H-432	Unknown	Unknown	0.002421308	0.054058515
104H-433	Adverse Weather	Wind	0.448342143	0.791323883
104H-433	Foreign Interference	Animal/Bird	0.00431241	0.008962945
104H-433	Foreign Interference	Vehicle	0.028270244	0.063999122
104H-433	Tree Contacts	Broken Branch	0.000479157	0.001666028
104H-433	Tree Contacts	Untrimmed Tree	0.00287494	0.006701166
104H-433	Unknown	Unknown	0.000958313	0.001575627
104H-441	Defective Equipment	Electrical Failure	0.000561798	0.000742697
104H-441	Defective Equipment	Mechanical Failure	0.023608769	0.033386828
104H-441	Foreign Interference	Animal/Bird	0.013490725	0.021047499
104H-441	Foreign Interference	Vehicle	1.013490725	4.337057055
104H-441	Tree Contacts	Falling Trees	0.000562114	0.001695522
104H-441	Unknown	Unknown	0.004496908	0.00959228
104H-442	Defective Equipment	Electrical Failure	0.015459933	0.053444988
104H-442	Defective Equipment	Mechanical Failure	0.000257334	0.000359539
104H-442	Foreign Interference	Animal/Bird	0.003088008	0.007391662
104H-442	Unknown	Unknown	0.022902728	0.048039973
104S-311	Adverse Environment	Building/Forest Fire	0.00074184	0.018425074
104S-311	Adverse Weather	Ice	0.007418398	0.009155539
104S-311	Adverse Weather	Wet Snow	0.00074184	0.003323442
104S-311	Adverse Weather	Wind	0.007438268	0.03409993
104S-311	Defective Equipment	Mechanical Failure	0.100439805	0.163577708
104S-311	Foreign Interference	Animal/Bird	0.008902077	0.028124258

104S-311	Loss of Supply	Transmission Substation	2	5.660333333
104S-311	Tree Contacts	Falling Trees	1.005943029	1.499760469
104S-311	Tree Contacts	Untrimmed Tree	0.000747943	0.001373972
104S-311	Unknown	Other Cause	0.00074184	0.000540059
104S-311	Unknown	Sagging	0.00074184	0.002008778
104S-311	Unknown	Unknown	0.550457854	1.62964115
104S-312	Adverse Weather	Wind	0.074074074	0.35800823
104S-312	Defective Equipment	Mechanical Failure	0.074074074	0.37891358
104S-312	Foreign Interference	Animal/Bird	0.074074074	0.193562414
104S-312	Lightning	Lightning	0.012345679	0.061935528
104S-312	Loss of Supply	Transmission Substation	2	5.660333333
104S-312	Tree Contacts	Falling Trees	0.012345679	0.053803155
104S-312	Tree Contacts	Untrimmed Tree	0.069958848	0.151868999
104S-312	Unknown	Unknown	1.004115226	2.437341564
104S-313	Adverse Weather	Wet Snow	0.001302083	0.006367188
104S-313	Adverse Weather	Wind	0.21484375	1.158928385
104S-313	Defective Equipment	Electrical Failure	0.001302083	0.002984592
104S-313	Defective Equipment	Mechanical Failure	0.001302083	0.008228516
104S-313	Foreign Interference	Animal/Bird	0.005208333	0.00718316
104S-313	Lightning	Lightning	0.00390625	0.025886719
104S-313	Loss of Supply	Transmission Substation	2	5.660333333
104S-313	Tree Contacts	Broken Branch	0.001302083	0.003522786
104S-313	Tree Contacts	Falling Trees	0.208333333	0.447801215
104S-313	Tree Contacts	Untrimmed Tree	0.001302083	0.001766493
104S-313	Unknown	Unknown	0.51953125	1.45899566
108H-411	Defective Equipment	Electrical Failure	1.00203666	0.547166667
108H-411	Defective Equipment	Mechanical Failure	0.00203666	0.009033265
108H-411	Foreign Interference	Animal/Bird	0.010183299	0.026358792
108H-411	Foreign Interference	Vehicle	0.598778004	5.404470468
108H-412	Defective Equipment	Mechanical Failure	1	4.573
108H-412	Foreign Interference	Animal/Bird	0.002267574	0.00805102
108H-413	Defective Equipment	Electrical Failure	0.010698553	0.058280994
108H-413	Defective Equipment	Mechanical Failure	0.064820642	0.148344976
108H-413	Foreign Interference	Animal/Bird	0.033668974	0.120794787
108H-413	Foreign Interference	Vehicle	0.542016714	3.106031926
108H-413	Unknown	Unknown	0.008497791	0.04504771
111S-311	Defective Equipment	Mechanical Failure	0.009389671	0.092329812
111S-311	Loss of Supply	Transmission Line	1	1.633333333
111S-311	Tree Contacts	Falling Trees	0.002347418	0.005758216
111S-312	Adverse Weather	Wind	0.001344086	0.002875672
111S-312	Defective Equipment	Mechanical Failure	0.036290323	0.013415323
111S-312	Foreign Interference	Vehicle	0.01344086	0.040304659
111S-312	Human Element	Improper Construction	0.001344086	0.006561828
111S-312	Lightning	Lightning	0.016129032	0.144640905

111S-312	Loss of Supply	Transmission Line	1	1.633333333
111S-312	Tree Contacts	Falling Trees	0.045698925	0.075311828
111S-312	Unknown	Unknown	0.030913978	0.071021729
111S-313	Defective Equipment	Mechanical Failure	0.00591716	0.029050296
111S-313	Foreign Interference	Animal/Bird	0.001972387	0.004303748
111S-313	Loss of Supply	Transmission Line	1	1.633333333
111S-313	Unknown	Unknown	0.021696252	0.199724852
111S-314	Adverse Weather	Wind	0.026734104	0.024760236
111S-314	Defective Equipment	Mechanical Failure	0.030359882	0.100139121
111S-314	Foreign Interference	Animal/Bird	0.020953757	0.038033719
111S-314	Foreign Interference	Other Foreign	0.000722543	0.002220857
111S-314	Lightning	Lightning	0.007225434	0.01874157
111S-314	Loss of Supply	Transmission Line	1	1.633333333
111S-314	Tree Contacts	Falling Trees	0.155347343	0.010940936
111S-314	Unknown	Overload	0.044797688	0.085638247
111S-314	Unknown	Unknown	0.03976235	0.333377719
113H-431	Defective Equipment	Mechanical Failure	0.008461132	0.021970562
113H-431	Foreign Interference	Animal/Bird	0.012162877	0.032528116
113H-431	Tree Contacts	Untrimmed Tree	0.003701745	0.00709933
113H-431	Unknown	Overload	0.005813953	0.010877907
113H-431	Unknown	Unknown	0.01427816	0.05614807
113H-432	Defective Equipment	Electrical Failure	0.005414411	0.016163126
113H-432	Defective Equipment	Mechanical Failure	0.013330211	0.026796302
113H-432	Foreign Interference	Animal/Bird	0.004997918	0.026313064
113H-432	Foreign Interference	Vehicle	0.000416493	0.001134111
113H-432	Human Element	Construction Error	0.000416493	0.00082778
113H-432	Tree Contacts	Broken Branch	0.001249479	0.003719908
113H-432	Tree Contacts	Falling Trees	0.004581424	0.006110857
113H-432	Unknown	Unknown	0.032486811	0.057864744
113H-433	Adverse Weather	Wind	0.000360881	0.000148322
113H-433	Defective Equipment	Electrical Failure	0.00036062	0.0003489
113H-433	Defective Equipment	Mechanical Failure	0.0151523	0.040957713
113H-433	Foreign Interference	Animal/Bird	0.016949153	0.031739512
113H-433	Foreign Interference	Vehicle	1.437432384	2.911680611
113H-433	Tree Contacts	Falling Trees	0.00036062	0.001989302
113H-433	Tree Contacts	Untrimmed Tree	0.009017459	0.034741746
113H-433	Unknown	Unknown	0.019480784	0.056320013
113H-434	Adverse Weather	Wind	0.002087683	0.003931106
113H-434	Defective Equipment	Electrical Failure	0.000347705	0.001775209
113H-434	Defective Equipment	Mechanical Failure	0.019475845	0.030396204
113H-434	Foreign Interference	Animal/Bird	0.026425591	0.07045306
113H-434	Foreign Interference	Vehicle	0.03650904	0.2929836
113H-434	Unknown	Unknown	0.003477415	0.011237121
113H-441	Adverse Weather	Wind	0.000979539	0.001462515

113H-441	Defective Equipment	Electrical Failure	0.0525798	0.12351859
113H-441	Defective Equipment	Mechanical Failure	0.017305324	0.058797998
113H-441	Foreign Interference	Animal/Bird	0.008164598	0.018302907
113H-441	Foreign Interference	Vehicle	0.000653168	0.00226007
113H-441	Tree Contacts	Broken Branch	0.005548303	0.005204308
113H-441	Unknown	Unknown	0.005225343	0.01158513
113H-442	Defective Equipment	Mechanical Failure	1.019648397	1.287400398
113H-442	Foreign Interference	Animal/Bird	0.038262668	0.103657273
113H-442	Foreign Interference	Vehicle	0.000517063	0.000363668
113H-442	Tree Contacts	Falling Trees	0.44467425	0.270806618
113H-442	Unknown	Unknown	0.014477766	0.0249495
113H-443	Defective Equipment	Mechanical Failure	0.007804186	0.035723661
113H-443	Foreign Interference	Animal/Bird	0.020929408	0.049121201
113H-443	Tree Contacts	Untrimmed Tree	0.000354736	0.000666135
113H-443	Unknown	Unknown	0.006739979	0.017698829
113H-444	Adverse Weather	Wind	0.001449275	0.003078261
113H-444	Defective Equipment	Mechanical Failure	0.001447178	0.01053425
113H-444	Foreign Interference	Animal/Bird	0.015918958	0.181029908
113H-444	Tree Contacts	Falling Trees	1	0.783
113H-444	Unknown	Unknown	0.010130246	0.011036903
11S-301	Adverse Weather	Wind	0.071740487	0.038775733
11S-301	Defective Equipment	Mechanical Failure	0.280723643	0.481877937
11S-301	Foreign Interference	Animal/Bird	0.01871491	0.089008214
11S-301	Loss of Supply	Transmission Line	1	12.681
11S-301	Tree Contacts	Falling Trees	0.442295696	0.533999168
11S-301	Tree Contacts	Untrimmed Tree	0.004364479	0.003991052
11S-301	Unknown	Overload	0.2551466	0.74068954
11S-301	Unknown	Unknown	0.016219588	0.103602828
11S-302	Defective Equipment	Mechanical Failure	0.127659574	0.163925532
11S-302	Foreign Interference	Animal/Bird	0.012950971	0.042913043
11S-302	Foreign Interference	Human Felled Tree	0.000925069	0.002748535
11S-302	Lightning	Lightning	0.081406105	0.429240826
11S-302	Tree Contacts	Falling Trees	0.440333025	0.507986895
11S-302	Tree Contacts	Untrimmed Tree	0.004625347	0.039715695
11S-302	Unknown	Unknown	0.001850139	0.003106383
11S-303	Defective Equipment	Mechanical Failure	1.014508929	3.200534598
11S-303	Foreign Interference	Animal/Bird	0.03125	0.062033854
11S-303	Unknown	Unknown	0.241071429	0.755144717
11S-304	Adverse Weather	Wind	0.005932203	0.00739548
11S-304	Defective Equipment	Mechanical Failure	0.01779661	0.030803107
11S-304	Foreign Interference	Animal/Bird	0.013559322	0.021430508
11S-304	Loss of Supply	Transmission Substation	1	4.617
11S-304	Unknown	Unknown	0.001694915	0.010514124
11S-305	Defective Equipment	Mechanical Failure	0.012443439	0.022559955

11S-305	Foreign Interference	Animal/Bird	0.001131222	0.001467195
11S-305	Loss of Supply	Transmission Substation	1	4.617
11S-305	Tree Contacts	Untrimmed Tree	0.002261165	0.010958225
11S-305	Unknown	Unknown	0.010177161	0.046907757
11S-306	Defective Equipment	Mechanical Failure	0.004608295	0.007505376
11S-306	Tree Contacts	Falling Trees	1	8.65
11S-306	Unknown	Unknown	0.004608295	0.012475422
11S-411	Adverse Weather	Wind	0.103986336	0.225437409
11S-411	Defective Equipment	Electrical Failure	0.00029967	0.003087753
11S-411	Defective Equipment	Mechanical Failure	1.921645702	2.763747451
11S-411	Foreign Interference	Animal/Bird	0.004794726	0.021146289
11S-411	Foreign Interference	Vehicle	0.664968535	1.280283488
11S-411	Tree Contacts	Broken Branch	0.005094396	0.042926031
11S-411	Tree Contacts	Falling Trees	1.604419548	4.021868636
11S-411	Tree Contacts	Untrimmed Tree	0.00029967	0.000850165
11S-411	Unknown	Galloping	0.001498352	0.001267356
11S-411	Unknown	Other Cause	0.103386275	0.514888423
11S-411	Unknown	Sagging	0.000300571	0.006250977
11S-411	Unknown	Unknown	0.639500335	0.888647616
11S-412	Adverse Weather	Wind	0.011417058	0.010008955
11S-412	Defective Equipment	Mechanical Failure	0.001343183	0.002111372
11S-412	Foreign Interference	Animal/Bird	0.054398925	0.231252183
11S-412	Loss of Supply	Transmission Line	0.000671592	0.001084621
11S-412	Tree Contacts	Falling Trees	0.04432505	0.136850459
11S-412	Unknown	Unknown	0.014776373	0.066377403
124H-301	Adverse Weather	Wind	0.007067138	0.025222615
124H-301	Defective Equipment	Mechanical Failure	1.007067138	1.502007067
124H-301	Foreign Interference	Vehicle	0.922261484	0.193213781
124H-302	Defective Equipment	Mechanical Failure	0.024271845	0.077617314
124H-302	Foreign Interference	Vehicle	0.004854369	0.017977346
124H-302	Unknown	Unknown	0.024271845	0.066201456
126H-311	Adverse Weather	Wind	0.002493766	0.009416459
126H-311	Defective Equipment	Mechanical Failure	0.084730219	0.41340796
126H-311	Foreign Interference	Animal/Bird	0.338426973	1.03893463
126H-311	Foreign Interference	Vehicle	0.607721046	1.826480697
126H-311	Tree Contacts	Untrimmed Tree	0.229140722	0.708680677
126H-311	Unknown	Overload	0.444582814	0.664714819
126H-311	Unknown	Unknown	0.01121263	0.050943396
126H-312	Adverse Environment	Building/Forest Fire	0.000462107	0.000505853
126H-312	Adverse Environment	Salt Contamination	0.001848429	0.012271411
126H-312	Adverse Weather	Wind	0.000463607	0.000895225
126H-312	Defective Equipment	Electrical Failure	0.000926575	0.004312264
126H-312	Defective Equipment	Mechanical Failure	0.82165731	3.607084547
126H-312	Foreign Interference	Animal/Bird	0.087107209	0.159833988

126H-312	Tree Contacts	Falling Trees	0.005083179	0.019202249
126H-312	Unknown	Overload	0.172828096	0.290293592
126H-312	Unknown	Unknown	0.449668698	0.309710803
126H-313	Adverse Weather	Ice	0.000548847	0.002708562
126H-313	Adverse Weather	Wind	0.000548847	0.000673985
126H-313	Defective Equipment	Electrical Failure	0.000549451	0.001031868
126H-313	Defective Equipment	Mechanical Failure	1.008768026	1.900675941
126H-313	Foreign Interference	Animal/Bird	0.009315068	0.017745662
126H-313	Tree Contacts	Falling Trees	0.006028903	0.029247038
126H-313	Tree Contacts	Untrimmed Tree	0.000547945	0.005360548
126H-313	Unknown	Other Cause	0.083424808	0.122884742
126H-313	Unknown	Overload	0.003287671	0.007201644
126H-313	Unknown	Unknown	0.006575342	0.030343196
127H-411	Adverse Weather	Wind	0.022013713	0.026203657
127H-411	Defective Equipment	Electrical Failure	0.004698495	0.031632702
127H-411	Defective Equipment	Mechanical Failure	0.069449755	0.136547439
127H-411	Foreign Interference	Animal/Bird	0.007217611	0.02796331
127H-411	Foreign Interference	Vehicle	0.000360881	0.000691688
127H-411	Tree Contacts	Falling Trees	0.031757488	0.040651089
127H-411	Unknown	Unknown	0.060853744	0.0989267
127H-413	Defective Equipment	Electrical Failure	0.00862069	0.054428161
127H-413	Defective Equipment	Mechanical Failure	0.00862069	0.033594828
127H-413	Unknown	Unknown	0.103448276	0.550711207
129H-411	Defective Equipment	Mechanical Failure	1.555778391	2.439873402
129H-411	Foreign Interference	Animal/Bird	0.001754826	0.009160441
129H-411	Unknown	Unknown	0.03735272	0.091911131
129H-412	Defective Equipment	Electrical Failure	0.000198985	0.000326153
129H-412	Defective Equipment	Mechanical Failure	0.405156415	0.858815917
129H-412	Foreign Interference	Animal/Bird	0.074420456	0.119907207
129H-412	Foreign Interference	Vehicle	0.605113919	1.601937121
129H-412	Human Element	Maintenance Error	9.94926E-05	1.72122E-05
129H-412	Unknown	Unknown	0.000696448	0.001503001
129H-413	Adverse Weather	Wind	1	3.117166667
129H-413	Defective Equipment	Electrical Failure	0.004123342	0.012069021
129H-413	Defective Equipment	Mechanical Failure	0.00125493	0.012261653
129H-413	Foreign Interference	Animal/Bird	0.003944066	0.011557368
129H-413	Unknown	Unknown	0.002689136	0.005408659
12V-302	Adverse Weather	Ice	0.189432265	1.075028106
12V-302	Adverse Weather	Wind	0.025224215	0.036241312
12V-302	Defective Equipment	Mechanical Failure	0.013455434	0.105389712
12V-302	Foreign Interference	Animal/Bird	0.006165919	0.0150625
12V-302	Foreign Interference	Vehicle	0.031950673	0.003195067
12V-302	Loss of Supply	Transmission Inadvertent	1	7.493
12V-302	Tree Contacts	Broken Branch	0.000560538	0.011687874

12V-302	Tree Contacts	Falling Trees	0.00505492	0.020190957
12V-302	Tree Contacts	Untrimmed Tree	0.001121076	0.005327635
12V-302	Unknown	Unknown	0.024103139	0.078994675
12V-303	Adverse Weather	Wind	0.006006006	0.016288288
12V-303	Defective Equipment	Electrical Failure	0.037481259	0.070914543
12V-303	Defective Equipment	Mechanical Failure	0.016491754	0.028233883
12V-303	Foreign Interference	Animal/Bird	0.008995502	0.013772364
12V-303	Foreign Interference	Vehicle	0.886056972	4.368556222
12V-303	Loss of Supply	Transmission Inadvertent	1	7.493
12V-303	Tree Contacts	Falling Trees	0.00149925	0.008052974
12V-303	Unknown	Unknown	0.007496252	0.005901549
12V-304	Adverse Weather	Ice	0.000949668	0.003229186
12V-304	Adverse Weather	Wind	0.123455889	0.319320961
12V-304	Defective Equipment	Mechanical Failure	0.006647673	0.018087211
12V-304	Foreign Interference	Animal/Bird	0.005698006	0.01451472
12V-304	Lightning	Lightning	0.000949668	0.003049699
12V-304	Loss of Supply	Transmission Inadvertent	1	7.493
12V-304	Tree Contacts	Falling Trees	0.000949668	0.001353276
12V-304	Tree Contacts	Untrimmed Tree	0.000949668	0.001853435
12V-304	Unknown	Unknown	0.012345679	0.097397278
131H-421	Defective Equipment	Electrical Failure	0.003423192	0.008011981
131H-421	Defective Equipment	Mechanical Failure	0.011127573	0.023838262
131H-421	Foreign Interference	Animal/Bird	0.000427899	0.003378263
131H-421	Unknown	Unknown	0.009413778	0.020847953
131H-422	Adverse Weather	Wind	0.00077821	0.001394682
131H-422	Defective Equipment	Electrical Failure	0.03618677	0.222117607
131H-422	Defective Equipment	Mechanical Failure	0.108572697	0.264428108
131H-422	Foreign Interference	Animal/Bird	0.018871595	0.037311576
131H-422	Foreign Interference	Human Felled Tree	0.000194553	0.000315013
131H-422	Foreign Interference	Vandal	0.000194553	0.00145963
131H-422	Foreign Interference	Vehicle	0.472373541	2.044574027
131H-422	Human Element	Improper Construction	0.000194894	0.000251023
131H-422	Human Element	Maintenance Error	0.000194553	0.000191569
131H-422	Tree Contacts	Falling Trees	0.016342412	0.04089251
131H-422	Tree Contacts	Untrimmed Tree	0.00077821	0.002896174
131H-422	Unknown	Unknown	0.01595399	0.069598424
131H-423	Adverse Weather	Wind	0.000249004	0.000604582
131H-423	Defective Equipment	Electrical Failure	0.002244685	0.002678392
131H-423	Foreign Interference	Animal/Bird	0.012201195	0.043646705
131H-423	Foreign Interference	Vehicle	0.032619522	0.054909529
131H-423	Tree Contacts	Broken Branch	0.000249004	0.000601677
131H-423	Tree Contacts	Falling Trees	0.001753592	0.005454691
131H-423	Tree Contacts	Untrimmed Tree	0.000747012	0.002551793
131H-423	Unknown	Unknown	0.009714804	0.026101558

131H-424	Defective Equipment	Electrical Failure	0.001865672	0.006494714
131H-424	Defective Equipment	Mechanical Failure	0.006854391	0.027893285
131H-424	Foreign Interference	Animal/Bird	0.001865672	0.004784515
131H-424	Tree Contacts	Falling Trees	0.000621891	0.001645211
131H-424	Unknown	Unknown	0.002490281	0.004908385
137H-411	Adverse Weather	Wind	0.000276014	0.001401003
137H-411	Defective Equipment	Electrical Failure	0.001104057	0.005658616
137H-411	Defective Equipment	Mechanical Failure	0.007190704	0.018964224
137H-411	Foreign Interference	Animal/Bird	0.005796301	0.010589935
137H-411	Human Element	Construction Error	0.000276014	0.000785169
137H-411	Tree Contacts	Falling Trees	0.420645874	0.529584782
137H-411	Tree Contacts	Untrimmed Tree	0.000276014	0.000251955
137H-411	Unknown	Overload	0.003311715	0.007421583
137H-411	Unknown	Unknown	0.010488545	0.025639939
137H-412	Adverse Weather	Wind	0.000327761	0.000969081
137H-412	Defective Equipment	Electrical Failure	0.006555228	0.018750628
137H-412	Defective Equipment	Mechanical Failure	0.679777122	1.633876543
137H-412	Foreign Interference	Animal/Bird	0.007538512	0.015275429
137H-412	Foreign Interference	Human Felled Tree	0.000655523	0.000770021
137H-412	Tree Contacts	Falling Trees	0.000655523	0.001662897
137H-412	Tree Contacts	Untrimmed Tree	0.007866273	0.025348629
137H-412	Unknown	Overload	0.002622091	0.00462668
137H-412	Unknown	Unknown	0.010160067	0.012833114
137H-413	Defective Equipment	Mechanical Failure	0.538604077	1.060433738
137H-413	Foreign Interference	Animal/Bird	0.026971382	0.111291092
137H-413	Tree Contacts	Falling Trees	0.001852996	0.005419086
137H-413	Tree Contacts	Untrimmed Tree	0.006588429	0.018643436
137H-413	Unknown	Unknown	0.575458102	1.152612827
137H-414	Foreign Interference	Animal/Bird	0.00212766	0.00441383
137H-414	Tree Contacts	Falling Trees	0.00212766	0.006628723
137H-414	Unknown	Unknown	0.008510638	0.016164894
139H-411	Foreign Interference	Animal/Bird	0.038251366	0.147299636
139H-412	Defective Equipment	Mechanical Failure	1	2.432
139H-412	Unknown	Unknown	0.011111111	0.06212037
139H-414	Adverse Weather	Wind	0.000396511	0.001139968
139H-414	Defective Equipment	Mechanical Failure	0.025765667	0.058269852
139H-414	Foreign Interference	Animal/Bird	0.032041139	0.059017207
139H-414	Tree Contacts	Untrimmed Tree	0.00039557	0.000943961
139H-414	Unknown	Other Cause	0.001186709	0.000745649
139H-414	Unknown	Overload	0.00039557	0.001009032
139H-414	Unknown	Unknown	0.009098101	0.012881593
13V-303	Adverse Environment	Building/Forest Fire	0.000619195	0.001578741
13V-303	Defective Equipment	Mechanical Failure	0.233436533	0.332716409
13V-303	Foreign Interference	Animal/Bird	0.017956656	0.047182456

13V-303	Tree Contacts	Broken Branch	0.00371517	0.011469866
13V-303	Tree Contacts	Falling Trees	1.125696594	2.911831682
13V-303	Tree Contacts	Untrimmed Tree	0.228482972	0.527871827
13V-303	Unknown	Unknown	0.241486068	0.156115273
141H-401	Adverse Weather	Wind	1	4.333333333
141H-401	Defective Equipment	Mechanical Failure	1.041025641	0.761042735
141H-401	Foreign Interference	Animal/Bird	0.161771562	0.405400389
141H-401	Loss of Supply	Transmission Line	1	2.287833333
141H-401	Unknown	Unknown	0.005594406	0.032965579
143H-412	Tree Contacts	Falling Trees	0.000507872	0.002893008
143H-413	Defective Equipment	Mechanical Failure	0.004268293	0.006287195
143H-413	Tree Contacts	Falling Trees	0.000609756	0.005080285
14V-303	Loss of Supply	Transmission Line	3	11.266
15N-401	Adverse Environment	Building/Forest Fire	0.000610376	0.000514751
15N-401	Adverse Weather	Wind	0.000203707	0.000285598
15N-401	Defective Equipment	Electrical Failure	0.008345292	0.023040976
15N-401	Defective Equipment	Mechanical Failure	0.089758596	0.287054985
15N-401	Foreign Interference	Animal/Bird	0.042115972	0.100199593
15N-401	Foreign Interference	Vehicle	2.342828077	11.95159343
15N-401	Lightning	Lightning	0.044964395	0.00092177
15N-401	Tree Contacts	Broken Branch	0.001222245	0.000343451
15N-401	Tree Contacts	Falling Trees	1.346286877	1.154793828
15N-401	Tree Contacts	Untrimmed Tree	0.058799593	0.077801187
15N-401	Unknown	Unknown	0.029707472	0.135746963
15N-402	Foreign Interference	Animal/Bird	0.00456621	0.003593607
15N-402	Foreign Interference	Vehicle	2.004587156	8.406874618
15N-402	Unknown	Unknown	0.00456621	0.007484018
15N-403	Adverse Weather	Wind	0.00727802	0.039720605
15N-403	Defective Equipment	Mechanical Failure	0.021349803	0.055747242
15N-403	Foreign Interference	Animal/Bird	0.009218826	0.026157771
15N-403	Tree Contacts	Broken Branch	2.000486145	1.644389969
15N-403	Tree Contacts	Falling Trees	0.024260068	0.029284409
15N-403	Tree Contacts	Untrimmed Tree	0.000485201	0.00047857
15N-403	Unknown	Unknown	0.012615235	0.087060165
15N-404	Adverse Environment	Building/Forest Fire	0.000257599	0.000732312
15N-404	Adverse Weather	Wind	0.03735188	0.177055856
15N-404	Defective Equipment	Electrical Failure	0.000257599	0.000882148
15N-404	Defective Equipment	Mechanical Failure	0.023441525	0.016605744
15N-404	Foreign Interference	Animal/Bird	0.004894384	0.011440838
15N-404	Foreign Interference	Vehicle	0.166151468	0.184649665
15N-404	Lightning	Lightning	0.026790314	0.155124292
15N-404	Tree Contacts	Falling Trees	0.1561051	0.485261334
15N-404	Unknown	Overload	0.049459042	0.629284432
15N-404	Unknown	Unknown	0.065688122	0.180350377

15S-301	Adverse Weather	Wind	0.001578117	0.008660091
15S-301	Defective Equipment	Electrical Failure	0.007364545	0.02291373
15S-301	Defective Equipment	Mechanical Failure	0.050528051	0.228480904
15S-301	Foreign Interference	Animal/Bird	0.02472383	0.008483693
15S-301	Foreign Interference	Other Foreign	0.001052078	0.006313782
15S-301	Foreign Interference	Vehicle	0.005260389	0.019991233
15S-301	Unknown	Sagging	0.000526039	0.000632562
15S-301	Unknown	Unknown	0.015781168	0.067243205
15S-302	Adverse Weather	Wind	0.00147929	0.006424803
15S-302	Defective Equipment	Corrosion	0.00147929	0.009744083
15S-302	Defective Equipment	Electrical Failure	0.00739645	0.060167653
15S-302	Defective Equipment	Mechanical Failure	0.00295858	0.020172337
15S-302	Tree Contacts	Falling Trees	0.000739645	0.00511896
15S-302	Unknown	Unknown	0.023668092	0.056092828
15S-303	Defective Equipment	Mechanical Failure	0.009700889	0.020967125
15S-303	Foreign Interference	Vehicle	0.006477733	0.041554656
15S-303	Tree Contacts	Falling Trees	0.113177041	0.230928321
15S-303	Unknown	Unknown	0.004042037	0.008786176
16N-301	Adverse Weather	Wind	0.000561482	0.001012727
16N-301	Defective Equipment	Electrical Failure	0.000561482	0.001073835
16N-301	Defective Equipment	Mechanical Failure	0.029790756	0.047371995
16N-301	Foreign Interference	Animal/Bird	0.024705222	0.065126989
16N-301	Foreign Interference	Other Foreign	0.387422796	3.025642897
16N-301	Foreign Interference	Vehicle	0.000561798	0.001047191
16N-301	Human Element	Switching Error	0.002245929	0.00338761
16N-301	Tree Contacts	Falling Trees	1.000561482	1.430262043
16N-301	Unknown	Unknown	1.014601695	2.129390126
16N-302	Adverse Weather	Wind	0.000736377	0.006554124
16N-302	Defective Equipment	Electrical Failure	0.001472754	0.007532401
16N-302	Defective Equipment	Mechanical Failure	0.066368423	0.130182833
16N-302	Foreign Interference	Animal/Bird	0.128303379	0.184492794
16N-302	Tree Contacts	Falling Trees	0.067746686	0.219719195
16N-302	Unknown	Unknown	0.028721962	0.105040078
16V-314	Adverse Environment	Building/Forest Fire	0.002010724	0.015387064
16V-314	Adverse Weather	Wind	0.001341382	0.0081167
16V-314	Defective Equipment	Mechanical Failure	0.050268546	0.104528962
16V-314	Foreign Interference	Animal/Bird	0.003351206	0.013849196
16V-314	Human Element	Improper Construction	0.000670241	0.004175603
16V-314	Tree Contacts	Falling Trees	0.321045576	0.410177167
16V-314	Tree Contacts	Untrimmed Tree	0.000670691	0.001735748
16V-314	Unknown	Unknown	0.008713137	0.034655943
16V-315	Adverse Weather	Wind	0.001191895	0.001765594
16V-315	Defective Equipment	Electrical Failure	0.00238379	0.003543107
16V-315	Defective Equipment	Mechanical Failure	0.005959476	0.019839491

16V-315	Foreign Interference	Animal/Bird	0.00476758	0.012324593
16V-315	Foreign Interference	Vehicle	0.001191895	0.006366309
16V-315	Tree Contacts	Falling Trees	0.001191895	0.003636869
16V-315	Unknown	Unknown	0.021455534	0.065168665
16W-301	Adverse Weather	Ice	0.000502513	0.001149749
16W-301	Adverse Weather	Wind	0.01206207	0.048466593
16W-301	Defective Equipment	Electrical Failure	0.001508296	0.006117144
16W-301	Defective Equipment	Mechanical Failure	0.059828049	0.13753529
16W-301	Foreign Interference	Animal/Bird	0.003016591	0.011769734
16W-301	Foreign Interference	Vehicle	0.000502765	0.009272499
16W-301	Lightning	Lightning	0.000502765	0.0009152
16W-301	Tree Contacts	Broken Branch	1.087481146	2.946896011
16W-301	Tree Contacts	Falling Trees	0.00753971	0.019599367
16W-301	Tree Contacts	Untrimmed Tree	0.034188034	0.073891738
16W-301	Unknown	Unknown	0.065358972	0.369829369
16W-302	Adverse Weather	Wind	0.037087912	0.446540522
16W-302	Defective Equipment	Electrical Failure	0.000686813	0.018563645
16W-302	Defective Equipment	Mechanical Failure	0.003434066	0.012731227
16W-302	Foreign Interference	Animal/Bird	0.00206044	0.006584249
16W-302	Tree Contacts	Falling Trees	0.070054945	0.147726763
16W-302	Tree Contacts	Untrimmed Tree	0.000686813	0.003143658
16W-302	Unknown	Unknown	0.050827952	0.108513048
17N-201	Adverse Weather	Wind	0.006849315	0.032452055
17N-201	Loss of Supply	Transmission Line	1	3.1955
17N-201	Loss of Supply	Transmission Substation	1	3.187833333
17N-202	Adverse Weather	Wind	0.00617284	0.025216049
17N-202	Loss of Supply	Transmission Line	1	3.1955
17N-202	Loss of Supply	Transmission Substation	1	3.187833333
17N-202	Tree Contacts	Falling Trees	0.00308642	0.004082819
17N-203	Adverse Weather	Wind	0.668604651	2.746212209
17N-203	Defective Equipment	Electrical Failure	0.002906977	0.008938953
17N-203	Defective Equipment	Mechanical Failure	0.575581395	1.053912791
17N-203	Loss of Supply	Transmission Line	1	3.1955
17N-203	Loss of Supply	Transmission Substation	1	3.187833333
17N-203	Tree Contacts	Falling Trees	0.002906977	0.010554748
17N-203	Unknown	Galloping	0.345930233	1.181351744
17N-203	Unknown	Unknown	1.00872093	1.716800872
18V-411	Defective Equipment	Electrical Failure	0.00137741	0.010242424
18V-411	Defective Equipment	Mechanical Failure	1.483497709	2.22608174
18V-411	Foreign Interference	Animal/Bird	0.004132231	0.012529155
18V-411	Foreign Interference	Human Felled Tree	0.005509642	0.012491276
18V-411	Foreign Interference	Vehicle	1.004143646	1.262197514
18V-411	Lightning	Lightning	0.00137741	0.004717172
18V-411	Loss of Supply	Transmission Substation	2	11.02216667

18V-411	Tree Contacts	Falling Trees	0.002754821	0.009845041
18V-411	Unknown	Unknown	0.002754821	0.008129477
18V-412	Adverse Weather	Wind	0.003592814	0.004764072
18V-412	Defective Equipment	Electrical Failure	0.02754491	0.107054491
18V-412	Defective Equipment	Mechanical Failure	0.216766467	1.359188623
18V-412	Human Element	Veg. Management Error	0.026347305	0.002041916
18V-412	Loss of Supply	Transmission Substation	2	11.02216667
18V-412	Tree Contacts	Falling Trees	0.02754491	0.068048303
18V-412	Tree Contacts	Untrimmed Tree	0.001197605	0.010728144
18V-412	Unknown	Unknown	0.053892216	0.15409501
18V-413	Adverse Weather	Wind	0.002656748	0.005054729
18V-413	Defective Equipment	Mechanical Failure	0.008501594	0.028957315
18V-413	Foreign Interference	Animal/Bird	0.004787813	0.014588569
18V-413	Loss of Supply	Transmission Substation	2	11.02216667
18V-413	Tree Contacts	Broken Branch	1	1.484666667
18V-413	Tree Contacts	Falling Trees	0.760391907	1.085495608
18V-413	Tree Contacts	Untrimmed Tree	0.003719447	0.003722281
18V-413	Unknown	Unknown	0.012227839	0.059020762
19C-203	Foreign Interference	Customer Equipment	1.907103825	2.485230419
19C-203	Loss of Supply	Transmission Line	1	3.091166667
19C-203	Unknown	Sagging	0.005464481	0.00470674
19C-203	Unknown	Unknown	0.005464481	0.035161202
19C-204	Defective Equipment	Electrical Failure	0.869415808	3.691104811
19C-204	Defective Equipment	Mechanical Failure	0.120274914	0.565778923
19C-204	Foreign Interference	Customer Equipment	1.941580756	2.535124284
19C-204	Foreign Interference	Vehicle	0.06185567	0.117762887
19C-204	Loss of Supply	Transmission Line	1	3.080544101
19C-204	Tree Contacts	Falling Trees	0.003436426	0.006393471
19C-204	Unknown	Overload	0.003436426	0.009394616
19C-204	Unknown	Unknown	1.706742505	4.498701114
19W-311	Adverse Environment	Building/Forest Fire	0.023474178	0.028873239
19W-311	Adverse Weather	Wind	0.002347418	0.0797277
19W-311	Defective Equipment	Mechanical Failure	0.159624413	0.163792645
19W-311	Foreign Interference	Animal/Bird	0.018779343	0.092449139
19W-311	Loss of Supply	Transmission Substation	1	0.3
19W-311	Tree Contacts	Falling Trees	0.002347418	0.012659233
19W-311	Unknown	Unknown	0.129107981	0.689946009
19W-312	Adverse Weather	Wind	0.018213356	0.087872507
19W-312	Defective Equipment	Mechanical Failure	1.030355594	2.662817288
19W-312	Foreign Interference	Animal/Bird	0.001734605	0.023934808
19W-312	Human Element	Improper Construction	0.000867303	0.002447239
19W-312	Loss of Supply	Transmission Substation	1	0.3
19W-312	Tree Contacts	Untrimmed Tree	0.001734605	0.004938711
19W-312	Unknown	Unknown	0.025151778	0.06445808

1C-411	Adverse Environment	Salt Contamination	0.001357313	0.002923403
1C-411	Adverse Weather	Ice	0.048173316	0.109852115
1C-411	Adverse Weather	Wind	1.052918614	1.638091663
1C-411	Defective Equipment	Electrical Failure	0.001357313	0.004946567
1C-411	Defective Equipment	Mechanical Failure	2.014925373	6.70175147
1C-411	Foreign Interference	Vehicle	0.00407332	0.226338086
1C-411	Tree Contacts	Falling Trees	0.000678426	0.00256038
1C-411	Unknown	Galloping	0.000678426	0.00232474
1C-411	Unknown	Sagging	0.002713704	0.005815694
1C-411	Unknown	Unknown	0.088873813	0.246302691
1C-412	Defective Equipment	Mechanical Failure	0.333333333	2.354888889
1H-403	Defective Equipment	Electrical Failure	0.001322751	0.007613536
1H-415	Foreign Interference	Animal/Bird	0.106410256	0.294996795
1H-415	Loss of Supply	Transmission Substation	1	4.19430789
1H-415	Unknown	Unknown	0.003205128	0.008319231
1H-419	Foreign Interference	Dig In	0.01369863	0.062438356
1H-419	Loss of Supply	Transmission Substation	1	4.197
1H-427	Defective Equipment	Mechanical Failure	0.01971142	0.030255227
1H-427	Foreign Interference	Animal/Bird	0.000293945	0.00035435
1H-427	Unknown	Unknown	0.001176038	0.004438769
1H-431	Unknown	Unknown	0.031358885	0.042752613
1H-454	Defective Equipment	Electrical Failure	0.007589557	0.050963874
1H-454	Foreign Interference	Animal/Bird	0.007589557	0.039202085
1H-454	Foreign Interference	Vehicle	0.043715847	0.242408015
1H-454	Unknown	Unknown	0.012446873	0.034642785
1N-402	Adverse Environment	Building/Forest Fire	0.000384911	0.001002181
1N-402	Defective Equipment	Electrical Failure	0.000384911	0.000246792
1N-402	Defective Equipment	Mechanical Failure	1.471516848	7.057858654
1N-402	Foreign Interference	Animal/Bird	0.018860959	0.061531061
1N-402	Foreign Interference	Vehicle	0.468053388	2.263848031
1N-402	Lightning	Lightning	0.003079292	0.01883128
1N-402	Tree Contacts	Broken Branch	0.000384911	0.000778291
1N-402	Tree Contacts	Falling Trees	0.117013087	0.413315114
1N-402	Tree Contacts	Untrimmed Tree	0.000769823	0.001437644
1N-402	Unknown	Unknown	1.486640259	4.299381904
1N-403	Adverse Environment	Salt Contamination	0.000972763	0.003889105
1N-403	Defective Equipment	Electrical Failure	0.000486381	0.000879702
1N-403	Defective Equipment	Mechanical Failure	0.0019491	0.004161374
1N-403	Foreign Interference	Animal/Bird	0.012645914	0.018877027
1N-403	Foreign Interference	Vehicle	0.000486381	0.001440661
1N-403	Tree Contacts	Falling Trees	0.026264591	0.016883836
1N-403	Tree Contacts	Untrimmed Tree	0.005350195	0.026174043
1N-403	Unknown	Unknown	0.072472956	0.163405329
1N-404	Adverse Weather	Wind	0.022705973	0.082464131

1N-404	Defective Equipment	Electrical Failure	0.012371134	0.031991753
1N-404	Defective Equipment	Mechanical Failure	0.008264463	0.036672521
1N-404	Foreign Interference	Animal/Bird	0.002066116	0.005232438
1N-404	Tree Contacts	Falling Trees	0.024793388	0.148198003
1N-404	Tree Contacts	Untrimmed Tree	0.016528926	0.054628099
1N-404	Unknown	Unknown	0.024793388	0.108712121
1N-405	Adverse Weather	Wind	0.001669449	0.008503506
1N-405	Defective Equipment	Electrical Failure	0.00033389	0.001511575
1N-405	Defective Equipment	Mechanical Failure	0.002004009	0.008662226
1N-405	Foreign Interference	Animal/Bird	0.015358932	0.047578075
1N-405	Foreign Interference	Vehicle	0.594661784	0.686157553
1N-405	Lightning	Lightning	0.021702838	0.298109738
1N-405	Tree Contacts	Broken Branch	0.00033389	0.000309405
1N-405	Tree Contacts	Falling Trees	0.05476128	0.289176022
1N-405	Unknown	Unknown	0.035393437	0.171562639
1N-421	Adverse Weather	Wind	0.001257071	0.004104756
1N-421	Defective Equipment	Mechanical Failure	0.964173476	2.158270585
1N-421	Foreign Interference	Animal/Bird	0.010056173	0.028481644
1N-421	Tree Contacts	Untrimmed Tree	0.000628536	0.000677771
1N-421	Unknown	Unknown	0.167818982	0.035627593
1V-443	Adverse Environment	Building/Forest Fire	0.000469263	0.003050055
1V-443	Adverse Weather	Wind	0.000938747	0.003846674
1V-443	Defective Equipment	Electrical Failure	0.000938747	0.002718517
1V-443	Defective Equipment	Mechanical Failure	0.007513722	0.015426321
1V-443	Foreign Interference	Animal/Bird	1.010793055	1.796679493
1V-443	Foreign Interference	Human Felled Tree	0.004692633	0.01468794
1V-443	Foreign Interference	Vehicle	0.000469263	0.000624589
1V-443	Lightning	Lightning	0.000469263	0.00221633
1V-443	Loss of Supply	Transmission Line	1	4.102833333
1V-443	Tree Contacts	Broken Branch	0.000469484	0.001646009
1V-443	Tree Contacts	Falling Trees	0.570154857	1.511910136
1V-443	Tree Contacts	Untrimmed Tree	0.028625499	0.081558708
1V-443	Unknown	Unknown	0.015486569	0.041512016
1W-411	Tree Contacts	Falling Trees	0.125	0.520375
20H-301	Defective Equipment	Mechanical Failure	1.019689737	0.69756076
20H-301	Foreign Interference	Animal/Bird	0.017899761	0.092971957
20H-301	Foreign Interference	Vehicle	0.007758346	0.013434598
20H-301	Loss of Supply	Transmission Line	1	5.051333333
20H-301	Unknown	Unknown	0.033412888	0.097068417
20H-302	Loss of Supply	Transmission Line	1	5.0545
20H-303	Defective Equipment	Electrical Failure	0.000664011	0.003878043
20H-303	Defective Equipment	Mechanical Failure	0.035196987	0.144513907
20H-303	Foreign Interference	Animal/Bird	0.006640106	0.029088867
20H-303	Loss of Supply	Transmission Line	1	5.057166667

20H-303	Tree Contacts	Untrimmed Tree	0.000664011	0.014333555
20H-303	Unknown	Unknown	0.016606901	0.030342125
20H-304	Defective Equipment	Mechanical Failure	0.091646457	0.17360454
20H-304	Foreign Interference	Animal/Bird	0.018351384	0.035571901
20H-304	Foreign Interference	Vehicle	0.074608905	0.130714801
20H-304	Human Element	Improper Construction	0.000300842	0.000566586
20H-304	Loss of Supply	Transmission Line	1	5.064166667
20H-304	Unknown	Unknown	0.001203369	0.004930806
20H-305	Defective Equipment	Mechanical Failure	0.018760196	0.031892333
20H-305	Foreign Interference	Animal/Bird	0.010603589	0.043596384
20H-305	Loss of Supply	Transmission Line	1	5.027478793
20H-305	Tree Contacts	Falling Trees	0.013866232	0.056382409
20H-305	Unknown	Unknown	0.006525285	0.013789288
20H-306	Defective Equipment	Electrical Failure	0.006740682	0.012382633
20H-306	Defective Equipment	Mechanical Failure	1.007533703	2.702650542
20H-306	Foreign Interference	Animal/Bird	0.009912768	0.018634615
20H-306	Foreign Interference	Vehicle	1.01112783	0.750782901
20H-306	Human Element	Construction Error	0.000396511	0.000162107
20H-306	Human Element	Maintenance Error	0.000396511	0.000711605
20H-306	Loss of Supply	Transmission Line	1	5.067166667
20H-306	Tree Contacts	Untrimmed Tree	0.000396511	0.000599194
20H-306	Unknown	Unknown	0.192077703	0.712286808
20N-201	Loss of Supply	Transmission Line	1	3.1955
20N-201	Loss of Supply	Transmission Substation	1	3.187833333
20N-203	Defective Equipment	Mechanical Failure	1.058823529	3.039719317
20N-203	Loss of Supply	Transmission Line	1	3.1955
20N-203	Loss of Supply	Transmission Substation	1	3.187833333
20N-203	Unknown	Unknown	0.002178649	0.023984023
20N-204	Adverse Weather	Wind	0.001675042	0.004588219
20N-204	Loss of Supply	Transmission Line	1	3.190147404
20N-204	Loss of Supply	Transmission Substation	1	3.187833333
20N-204	Tree Contacts	Falling Trees	1	0.04
20N-204	Unknown	Unknown	0.122677815	0.196655963
20V-311	Adverse Weather	Wind	0.000707214	0.007508487
20V-311	Defective Equipment	Electrical Failure	0.000707214	0.002520273
20V-311	Defective Equipment	Mechanical Failure	0.004950495	0.02696405
20V-311	Foreign Interference	Animal/Bird	0.010608204	0.032667138
20V-311	Lightning	Lightning	0.002121641	0.01334512
20V-311	Tree Contacts	Falling Trees	0.032531825	0.236194012
20V-311	Tree Contacts	Untrimmed Tree	0.000707214	0.001757072
20V-311	Unknown	Unknown	0.00565871	0.027245209
20W-311	Defective Equipment	Electrical Failure	0.001683502	0.008999158
20W-311	Defective Equipment	Mechanical Failure	0.035350706	0.162911636
20W-311	Loss of Supply	Transmission Substation	1	0.3

20W-311	Tree Contacts	Falling Trees	0.001683502	0.003473064
20W-311	Unknown	Unknown	0.006731177	0.025831506
20W-312	Adverse Weather	Wind	0.006289308	0.025119497
20W-312	Defective Equipment	Electrical Failure	0.00625	0.052725
20W-312	Defective Equipment	Mechanical Failure	0.00625	0.025898958
20W-312	Loss of Supply	Transmission Substation	1	0.3
20W-312	Unknown	Other Cause	0.00625	0.03808125
20W-312	Unknown	Unknown	0.012578616	0.035962264
21W-311	Adverse Weather	Wind	0.002538071	0.025327411
21W-311	Defective Equipment	Electrical Failure	1	3.511088608
21W-311	Defective Equipment	Mechanical Failure	0.012658228	0.023150211
21W-311	Loss of Supply	Transmission Substation	1	4.118380591
21W-311	Tree Contacts	Falling Trees	0.030379747	0.027103797
21W-311	Unknown	Unknown	0.005069717	0.018174857
21W-312	Adverse Weather	Wind	0.003649635	0.013374088
21W-312	Defective Equipment	Mechanical Failure	0.00729927	0.023609489
21W-312	Foreign Interference	Animal/Bird	0.003649635	0.011173966
21W-312	Human Element	Improper Construction	0.003649635	0.005871655
21W-312	Loss of Supply	Transmission Substation	1	4.128833333
21W-312	Tree Contacts	Falling Trees	0.003649635	0.004244526
21W-312	Unknown	Unknown	0.003649635	0.006777981
22C-401	Defective Equipment	Corrosion	0.010309278	0.029204467
22C-401	Defective Equipment	Mechanical Failure	0.005154639	0.015650773
22C-401	Foreign Interference	Animal/Bird	0.023195876	0.038215206
22C-401	Tree Contacts	Falling Trees	1	1.017833333
22C-401	Unknown	Unknown	0.030927835	0.037634021
22C-402	Adverse Weather	Wind	0.200704225	1.841490904
22C-402	Defective Equipment	Electrical Failure	0.003521127	0.029344777
22C-402	Defective Equipment	Mechanical Failure	0.003521127	0.050039906
22C-402	Foreign Interference	Animal/Bird	0.001760563	0.004383803
22C-402	Foreign Interference	Vehicle	0.033450704	0.028399648
22C-402	Lightning	Lightning	0.001760563	0.004789613
22C-402	Tree Contacts	Falling Trees	0.00528169	0.081557218
22C-402	Unknown	Unknown	0.161971831	1.325616491
22C-403	Adverse Weather	Wind	0.001184834	0.004626777
22C-403	Defective Equipment	Mechanical Failure	0.279292745	0.390338732
22C-403	Foreign Interference	Animal/Bird	0.007100592	0.016662525
22C-403	Tree Contacts	Untrimmed Tree	0.001183432	0.02127574
22C-403	Unknown	Unknown	0.015384615	0.032375148
22C-404	Adverse Environment	Building/Forest Fire	0.000401606	0.000178514
22C-404	Adverse Weather	Wind	0.007631007	0.022499623
22C-404	Defective Equipment	Corrosion	0.012851406	0.029172691
22C-404	Defective Equipment	Electrical Failure	0.042972372	0.10571041
22C-404	Defective Equipment	Mechanical Failure	0.177114732	0.638699535

22C-404	Foreign Interference	Animal/Bird	1.006425703	0.514353213
22C-404	Foreign Interference	Vehicle	0.000401606	0.00258581
22C-404	Human Element	Improper Construction	0.000401606	0.000384203
22C-404	Tree Contacts	Broken Branch	0.000401606	0.001587952
22C-404	Tree Contacts	Falling Trees	0.846802893	1.372018328
22C-404	Tree Contacts	Untrimmed Tree	0.037349398	0.066494378
22C-404	Unknown	Unknown	0.220272647	0.33106307
22N-401	Defective Equipment	Mechanical Failure	0.005487537	0.006778578
22N-401	Foreign Interference	Animal/Bird	0.008779284	0.01736646
22N-401	Unknown	Unknown	0.012070227	0.023814557
22N-402	Adverse Weather	Wind	0.000298775	0.003379394
22N-402	Defective Equipment	Electrical Failure	0.0059755	0.026916642
22N-402	Defective Equipment	Mechanical Failure	0.035554496	0.194604563
22N-402	Foreign Interference	Animal/Bird	0.003884075	0.018191863
22N-402	Human Element	Improper Construction	0.000298775	0.000777562
22N-402	Tree Contacts	Falling Trees	0.121307127	0.402857087
22N-402	Tree Contacts	Untrimmed Tree	0.000896325	0.004521313
22N-402	Unknown	Unknown	0.30352165	0.370492365
22N-403	Adverse Environment	Building/Forest Fire	0.001899335	0.005876068
22N-403	Adverse Weather	Wind	0.003801379	0.011868003
22N-403	Defective Equipment	Mechanical Failure	0.020913894	0.120264801
22N-403	Foreign Interference	Animal/Bird	0.029439696	0.114729661
22N-403	Tree Contacts	Falling Trees	0.096866097	0.15582352
22N-403	Tree Contacts	Untrimmed Tree	0.000949668	0.003996834
22N-403	Unknown	Unknown	0.138651472	0.416976733
22N-404	Adverse Weather	Wind	0.002197802	0.001675824
22N-404	Foreign Interference	Animal/Bird	0.002197802	0.007843956
22N-404	Lightning	Lightning	0.997802198	8.388075092
22N-404	Loss of Supply	Transmission Substation	0.024175824	0.213432234
22N-404	Tree Contacts	Falling Trees	0.048351648	0.143330403
22N-404	Tree Contacts	Untrimmed Tree	0.973626374	3.806864835
22N-404	Unknown	Unknown	1	0.944087179
22V-313	Defective Equipment	Mechanical Failure	0.104969587	0.137861905
22V-313	Foreign Interference	Animal/Bird	0.00177305	0.002628546
22V-313	Loss of Supply	Transmission Substation	1	0.429161348
22V-313	Unknown	Other Cause	0.00177305	0.005690012
22V-313	Unknown	Unknown	0.010638298	0.055579787
22V-314	Foreign Interference	Animal/Bird	0.069686411	0.095005807
22V-314	Loss of Supply	Transmission Substation	1	0.433
22V-321	Defective Equipment	Electrical Failure	0.005685856	0.022494196
22V-321	Defective Equipment	Mechanical Failure	0.029849232	0.082534474
22V-321	Foreign Interference	Animal/Bird	0.069651741	0.271114428
22V-321	Loss of Supply	Transmission Substation	1	0.433
22V-321	Tree Contacts	Falling Trees	1.000710732	2.279597489

22V-321	Unknown	Unknown	0.002132196	0.00308126
22V-322	Adverse Weather	Wind	1	1.393528
22V-322	Defective Equipment	Electrical Failure	0.001333333	0.005527778
22V-322	Defective Equipment	Mechanical Failure	0.002666667	0.005729333
22V-322	Foreign Interference	Animal/Bird	0.004	0.012469556
22V-322	Loss of Supply	Transmission Substation	1	0.433
22V-322	Tree Contacts	Falling Trees	0.056	0.121464
22V-322	Unknown	Unknown	0.021333333	0.129132667
22W-311	Adverse Weather	Wind	0.00252738	0.031822241
22W-311	Defective Equipment	Mechanical Failure	0.199499204	0.358521842
22W-311	Foreign Interference	Animal/Bird	0.001683502	0.001934624
22W-311	Foreign Interference	Vehicle	0.665824916	1.732587402
22W-311	Loss of Supply	Transmission Substation	1.000841751	2.180938973
22W-311	Tree Contacts	Falling Trees	0.672558923	1.251842172
22W-311	Tree Contacts	Untrimmed Tree	0.000841751	0.002007997
22W-311	Unknown	Unknown	0.022727982	0.037612456
22W-312	Adverse Weather	Wind	0.022603978	0.311115732
22W-312	Defective Equipment	Mechanical Failure	0.009944934	0.019497268
22W-312	Loss of Supply	Transmission Substation	1	2.17543701
22W-312	Tree Contacts	Falling Trees	0.002712477	0.00844123
22W-312	Tree Contacts	Untrimmed Tree	0.000904159	0.001752562
22W-312	Unknown	Unknown	0.034358047	0.078034961
22W-313	Adverse Weather	Wind	0.000909918	0.003145587
22W-313	Defective Equipment	Mechanical Failure	0.337579618	0.591767364
22W-313	Foreign Interference	Animal/Bird	0.001819836	0.002888687
22W-313	Foreign Interference	Vehicle	0.004549591	0.008653321
22W-313	Loss of Supply	Transmission Substation	1	2.183333333
22W-313	Tree Contacts	Broken Branch	0.042766151	0.104014407
22W-313	Unknown	Unknown	0.000909918	0.001829845
23H-301	Defective Equipment	Electrical Failure	0.000769823	0.001938414
23H-301	Foreign Interference	Animal/Bird	0.006928406	0.023758661
23H-301	Tree Contacts	Broken Branch	0.063125481	0.10043264
23H-301	Tree Contacts	Falling Trees	0.080831409	0.290993072
23H-301	Unknown	Unknown	0.000769823	0.001581216
23H-302	Defective Equipment	Mechanical Failure	0.001767479	0.008035349
23H-302	Foreign Interference	Animal/Bird	0.004124926	0.007954233
23H-302	Tree Contacts	Falling Trees	0.082452771	0.252446085
23H-302	Unknown	Unknown	0.002353981	0.00246884
23H-303	Defective Equipment	Mechanical Failure	0.033647928	0.075578854
23H-303	Foreign Interference	Animal/Bird	0.04924087	0.035839146
23H-303	Tree Contacts	Untrimmed Tree	0.005334428	0.00511216
23H-303	Unknown	Unknown	0.025441116	0.097557243
23H-304	Defective Equipment	Mechanical Failure	0.012524353	0.006237684
23H-304	Foreign Interference	Animal/Bird	0.122738659	0.302326515

23H-304	Foreign Interference	Human Felled Tree	1.000278319	2.332323175
23H-304	Tree Contacts	Falling Trees	1.028666852	1.211366592
23H-304	Unknown	Unknown	0.068200541	0.118867725
23W-301	Defective Equipment	Mechanical Failure	0.016949153	0.021956921
23W-301	Foreign Interference	Animal/Bird	0.004237288	0.007079802
23W-301	Human Element	Switching Error	0.008474576	0.025007062
23W-301	Tree Contacts	Falling Trees	0.237288136	0.631832627
23W-301	Unknown	Unknown	0.016949153	0.052372175
23W-302	Adverse Environment	Salt Contamination	0.001008065	0.001217742
23W-302	Adverse Weather	Wind	0.003021148	0.012561934
23W-302	Foreign Interference	Animal/Bird	0.220543807	0.319509735
23W-302	Tree Contacts	Falling Trees	1.086096628	2.820344099
23W-302	Tree Contacts	Untrimmed Tree	0.001007049	0.002423968
23W-302	Unknown	Unknown	0.009063444	0.016293555
24C-442	Adverse Weather	Wind	0.008474576	0.031745763
24C-442	Defective Equipment	Electrical Failure	0.002120891	0.010934076
24C-442	Defective Equipment	Mechanical Failure	1.083774062	4.306348217
24C-442	Foreign Interference	Animal/Bird	0.390243902	1.065782432
24C-442	Foreign Interference	Customer Equipment	0.881230117	1.15907052
24C-442	Foreign Interference	Human Felled Tree	0.001059322	0.001388771
24C-442	Tree Contacts	Falling Trees	0.872746554	2.035660304
24C-442	Unknown	Unknown	0.023329799	0.093838282
24C-443	Adverse Weather	Wind	0.098207043	0.497100776
24C-443	Defective Equipment	Mechanical Failure	1.030517341	1.183589144
24C-443	Foreign Interference	Animal/Bird	1.017218543	4.176279249
24C-443	Foreign Interference	Other Foreign	0.001324503	0.004271965
24C-443	Foreign Interference	Vehicle	0.008609272	0.022653863
24C-443	Tree Contacts	Broken Branch	0.000662252	0.003038631
24C-443	Tree Contacts	Falling Trees	0.037086093	0.173388631
24C-443	Tree Contacts	Untrimmed Tree	0.000662252	0.002798565
24C-443	Unknown	Unknown	0.05033729	0.160914671
25W-301	Adverse Weather	Wind	0.003853565	0.037952794
25W-301	Defective Equipment	Mechanical Failure	1.012524085	1.401980893
25W-301	Foreign Interference	Animal/Bird	0.016377649	0.036496468
25W-301	Tree Contacts	Falling Trees	0.268786127	0.514187861
25W-301	Tree Contacts	Untrimmed Tree	0.003853565	0.008597945
25W-301	Unknown	Gallop	0.268786127	3.501745665
25W-301	Unknown	Unknown	0.670520231	1.082048972
25W-302	Adverse Weather	Ice	1.001090513	2.748911668
25W-302	Defective Equipment	Corrosion	0.001090513	0.002888949
25W-302	Defective Equipment	Electrical Failure	0.003271538	0.011875682
25W-302	Defective Equipment	Mechanical Failure	1.040348964	5.311799346
25W-302	Foreign Interference	Animal/Bird	0.002181025	0.004759542
25W-302	Foreign Interference	Vehicle	0.001094092	0.000954048

25W-302	Tree Contacts	Falling Trees	2.170119956	4.890919302
25W-302	Tree Contacts	Untrimmed Tree	0.002181025	0.007619956
25W-302	Unknown	Unknown	0.011995638	0.028511269
25W-303	Defective Equipment	Mechanical Failure	0.093065693	0.329273723
25W-303	Foreign Interference	Animal/Bird	0.005474453	0.008136405
25W-303	Tree Contacts	Broken Branch	0.000912409	0.001292579
25W-303	Tree Contacts	Falling Trees	0.02463587	0.072092167
25W-303	Tree Contacts	Untrimmed Tree	0.007305936	0.013647489
25W-303	Unknown	Unknown	0.004562877	0.024680138
2C-401	Defective Equipment	Mechanical Failure	0.089230769	0.27513641
2C-401	Lightning	Lightning	0.003076923	0.008733333
2C-401	Loss of Supply	Transmission Substation	1	3.594166667
2C-401	Unknown	Galloping	0.006153846	0.024448205
2C-401	Unknown	Unknown	0.098461538	0.863204103
2C-402	Adverse Weather	Wind	0.025632088	0.109198845
2C-402	Defective Equipment	Corrosion	0.002440513	0.005686394
2C-402	Defective Equipment	Electrical Failure	0.00183113	0.009277112
2C-402	Defective Equipment	Mechanical Failure	0.719341434	1.419569759
2C-402	Foreign Interference	Animal/Bird	0.000610128	0.000980984
2C-402	Foreign Interference	Human Felled Tree	0.023184869	0.039402685
2C-402	Foreign Interference	Vehicle	0.418789264	0.881871737
2C-402	Loss of Supply	Transmission Substation	1.02928615	4.29342231
2C-402	Tree Contacts	Falling Trees	0.841866932	2.603524003
2C-402	Tree Contacts	Untrimmed Tree	0.001830384	0.008006406
2C-402	Unknown	Galloping	0.015863331	0.155386618
2C-402	Unknown	Unknown	0.024406616	0.149874858
2H-411	Defective Equipment	Electrical Failure	0.000298063	0.001407154
2H-411	Defective Equipment	Mechanical Failure	0.040412652	0.068132528
2H-411	Foreign Interference	Animal/Bird	0.040071238	0.053169536
2H-411	Foreign Interference	Vehicle	0.052241021	0.221427179
2H-411	Tree Contacts	Untrimmed Tree	0.000296824	0.003630009
2H-411	Unknown	Unknown	0.003266302	0.007012411
2H-413	Defective Equipment	Electrical Failure	0.004250152	0.016200162
2H-413	Defective Equipment	Mechanical Failure	0.010321797	0.019684679
2H-413	Foreign Interference	Animal/Bird	0.003642987	0.006868245
2H-413	Tree Contacts	Broken Branch	0.044323012	0.105488767
2H-413	Tree Contacts	Falling Trees	0.000607165	0.000973285
2H-413	Unknown	Unknown	0.039466433	0.026113128
2H-421	Adverse Environment	Building/Forest Fire	0.000639795	0.001755598
2H-421	Adverse Weather	Wet Snow	0.625399872	3.010987684
2H-421	Adverse Weather	Wind	0.002559181	0.006286628
2H-421	Defective Equipment	Electrical Failure	1.018234165	4.158474781
2H-421	Defective Equipment	Mechanical Failure	0.005758157	0.007023033
2H-421	Foreign Interference	Animal/Bird	1.01215611	1.287629612

2H-421	Tree Contacts	Untrimmed Tree	0.37300064	2.85260386
2H-421	Unknown	Unknown	0.001279591	0.00263473
2H-422	Defective Equipment	Electrical Failure	0.003418803	0.010459687
2H-422	Defective Equipment	Mechanical Failure	2.086324786	12.83841627
2H-422	Tree Contacts	Falling Trees	0.011965812	0.051722222
2H-422	Unknown	Unknown	0.030769231	0.046496581
2H-423	Adverse Weather	Wind	0.013569937	0.024507307
2H-423	Defective Equipment	Electrical Failure	0.00026096	0.000865866
2H-423	Defective Equipment	Mechanical Failure	0.003914405	0.020917537
2H-423	Foreign Interference	Animal/Bird	0.013308977	0.041970468
2H-423	Foreign Interference	Vehicle	0.00026096	8.40292E-05
2H-423	Tree Contacts	Untrimmed Tree	0.001826722	0.001892484
2H-423	Unknown	Unknown	0.024530271	0.056330637
2H-424	Defective Equipment	Electrical Failure	0.009647853	0.025370638
2H-424	Defective Equipment	Mechanical Failure	0.031538476	0.053192389
2H-424	Foreign Interference	Animal/Bird	0.027978775	0.051148255
2H-424	Foreign Interference	Vehicle	0.549445248	1.08823983
2H-424	Tree Contacts	Broken Branch	0.010612639	0.06161698
2H-424	Unknown	Unknown	0.016034977	0.01849807
30N-411	Adverse Weather	Wind	0.005607477	0.011482555
30N-411	Defective Equipment	Mechanical Failure	0.145794393	0.951558567
30N-411	Foreign Interference	Animal/Bird	0.013084112	0.039797196
30N-411	Foreign Interference	Vehicle	0.123364486	0.534209346
30N-411	Loss of Supply	Transmission Line	0.003738318	0.098662305
30N-411	Loss of Supply	Transmission Substation	1	8.828333333
30N-411	Tree Contacts	Falling Trees	2	5.928666667
30N-411	Unknown	Unknown	0.011214953	0.042505296
30N-412	Defective Equipment	Electrical Failure	0.001466276	0.004550342
30N-412	Defective Equipment	Mechanical Failure	0.005865103	0.042148338
30N-412	Foreign Interference	Animal/Bird	0.002932551	0.006000733
30N-412	Foreign Interference	Vandal	0.231671554	0.860466764
30N-412	Loss of Supply	Transmission Substation	1	8.828333333
30N-412	Tree Contacts	Falling Trees	1.013196481	2.103538856
30N-412	Tree Contacts	Untrimmed Tree	0.001466276	0.004996823
30N-412	Unknown	Unknown	0.104105572	0.120469208
36V-301	Adverse Environment	Building/Forest Fire	0.001703578	0.001905735
36V-301	Defective Equipment	Electrical Failure	0.001706485	0.002090444
36V-301	Defective Equipment	Mechanical Failure	1.00681431	3.090395798
36V-301	Foreign Interference	Animal/Bird	0.063032368	0.273405451
36V-301	Foreign Interference	Vehicle	0.05451448	0.062537195
36V-301	Loss of Supply	Transmission Substation	1	0.639
36V-301	Tree Contacts	Falling Trees	0.066439523	0.005890971
36V-301	Unknown	Unknown	0.185689949	0.415247019
36V-302	Adverse Weather	Wind	0.47509113	0.337821081

36V-302	Defective Equipment	Mechanical Failure	0.009720535	0.026861989
36V-302	Foreign Interference	Animal/Bird	0.009113001	0.030503139
36V-302	Foreign Interference	Vehicle	0.000607533	0.000935905
36V-302	Lightning	Lightning	0.000607533	0.00241292
36V-302	Loss of Supply	Transmission Substation	1	0.639
36V-302	Tree Contacts	Falling Trees	1.089307412	14.5526692
36V-302	Unknown	Sagging	0.000607533	0.00141373
36V-302	Unknown	Unknown	0.332320778	0.808622317
36V-303	Adverse Weather	Wind	0.003317973	0.030593436
36V-303	Defective Equipment	Electrical Failure	0.000552792	0.002835176
36V-303	Defective Equipment	Mechanical Failure	0.006080708	0.014122628
36V-303	Foreign Interference	Animal/Bird	0.013266998	0.039255666
36V-303	Foreign Interference	Vehicle	1.000552792	1.851342362
36V-303	Human Element	Improper Construction	0.000552792	0.002145292
36V-303	Loss of Supply	Transmission Substation	1	0.638646766
36V-303	Tree Contacts	Falling Trees	0.106135987	0.117731896
36V-303	Tree Contacts	Untrimmed Tree	0.006633499	0.028595172
36V-303	Unknown	Unknown	0.030403844	0.078035295
36W-301	Adverse Environment	Building/Forest Fire	0.00127551	0.001519133
36W-301	Adverse Weather	Wind	1.064968153	3.946721019
36W-301	Defective Equipment	Mechanical Failure	0.002544529	0.008232188
36W-301	Foreign Interference	Animal/Bird	0.015267176	0.029770144
36W-301	Tree Contacts	Falling Trees	0.001272265	0.005560221
36W-301	Tree Contacts	Untrimmed Tree	0.062417141	0.170899451
36W-301	Unknown	Unknown	0.007633588	0.025322943
36W-304	Foreign Interference	Animal/Bird	0.004784689	0.012280303
36W-304	Foreign Interference	Vehicle	1	2.861166667
36W-304	Lightning	Lightning	0.011961722	0.035935008
36W-304	Unknown	Unknown	0.007177033	0.027597289
37N-411	Defective Equipment	Mechanical Failure	0.023310023	0.29863986
37N-411	Foreign Interference	Animal/Bird	0.002331002	0.005265152
37N-411	Foreign Interference	Vehicle	0.001165501	0.002104118
37N-411	Loss of Supply	Transmission Line	1	3.1955
37N-411	Loss of Supply	Transmission Substation	1	3.066666667
37N-411	Tree Contacts	Falling Trees	2.016333336	5.246586317
37N-411	Unknown	Galloping	1	2.877
37N-411	Unknown	Unknown	0.005827506	0.022241647
37N-412	Adverse Weather	Wind	0.051843318	0.158655914
37N-412	Defective Equipment	Electrical Failure	0.004608295	0.030979071
37N-412	Defective Equipment	Mechanical Failure	0.011520737	0.041377688
37N-412	Foreign Interference	Animal/Bird	0.002304147	0.012442972
37N-412	Loss of Supply	Transmission Line	1	3.1955
37N-412	Loss of Supply	Transmission Substation	1	3.066666667
37N-412	Tree Contacts	Falling Trees	2.425115207	6.623029954

37N-412	Tree Contacts	Untrimmed Tree	0.016129032	0.138043779
37N-412	Unknown	Unknown	0.012672811	0.0548101
37N-413	Defective Equipment	Mechanical Failure	0.005784066	0.033661122
37N-413	Foreign Interference	Animal/Bird	0.003853565	0.038937058
37N-413	Foreign Interference	Vehicle	0.352601156	1.144685934
37N-413	Loss of Supply	Transmission Line	1.01734104	3.250913295
37N-413	Loss of Supply	Transmission Substation	1	3.066666667
37N-413	Tree Contacts	Falling Trees	0.125240848	0.289975915
37N-413	Tree Contacts	Untrimmed Tree	0.003853565	0.006265254
37N-413	Unknown	Unknown	0.028901734	0.184640655
37N-414	Adverse Weather	Wind	0.000832639	0.001507077
37N-414	Defective Equipment	Electrical Failure	0.009143807	0.012687032
37N-414	Defective Equipment	Mechanical Failure	0.447216679	2.197233535
37N-414	Foreign Interference	Vehicle	0.021612635	0.079491272
37N-414	Loss of Supply	Transmission Line	1	3.1955
37N-414	Loss of Supply	Transmission Substation	1	3.066666667
37N-414	Tree Contacts	Falling Trees	0.000831255	0.00382696
37N-414	Unknown	Unknown	0.015796617	0.061324705
37W-201	Adverse Weather	Ice	0.004739336	0.099620853
37W-201	Defective Equipment	Mechanical Failure	0.004739336	0.016488152
37W-201	Tree Contacts	Falling Trees	0.308056872	1.152748815
37W-202	Defective Equipment	Electrical Failure	0.004048583	0.022692308
37W-202	Defective Equipment	Mechanical Failure	0.008097166	0.034287449
3N-411	Foreign Interference	Animal/Bird	0.086956522	0.349818841
3N-411	Loss of Supply	Transmission Substation	1	0.033
3N-411	Unknown	Unknown	0.086956522	0.193797101
3N-412	Adverse Weather	Wind	0.013793103	0.040702299
3N-412	Defective Equipment	Electrical Failure	0.001149425	0.004065517
3N-412	Defective Equipment	Mechanical Failure	0.177567865	0.16737056
3N-412	Foreign Interference	Animal/Bird	0.002298851	0.021417625
3N-412	Loss of Supply	Transmission Substation	1	0.033
3N-412	Unknown	Unknown	0.014251651	0.059466589
3S-301	Defective Equipment	Electrical Failure	0.001237624	0.00485396
3S-301	Defective Equipment	Mechanical Failure	0.065594059	0.078789398
3S-301	Foreign Interference	Animal/Bird	0.006188119	0.018577145
3S-301	Loss of Supply	Transmission Line	1	0.907833333
3S-301	Tree Contacts	Falling Trees	0.162128713	0.139619843
3S-301	Unknown	Unknown	0.003712871	0.015277434
3S-302	Adverse Weather	Wind	0.003790751	0.006894743
3S-302	Defective Equipment	Electrical Failure	0.008339651	0.047505433
3S-302	Defective Equipment	Mechanical Failure	0.193328279	0.344955775
3S-302	Foreign Interference	Animal/Bird	0.00075815	0.001728203
3S-302	Loss of Supply	Transmission Line	1	0.907833333
3S-302	Tree Contacts	Falling Trees	0.004548901	0.037235532

3S-302	Unknown	Unknown	0.015163002	0.093655547
3S-303	Adverse Environment	Building/Forest Fire	0.011223345	0.026537598
3S-303	Defective Equipment	Mechanical Failure	0.008978676	0.013309484
3S-303	Loss of Supply	Transmission Line	1	0.907323887
3S-303	Tree Contacts	Untrimmed Tree	0.000561167	0.004779461
3S-303	Unknown	Unknown	0.012351405	0.040524672
3S-307	Adverse Weather	Wind	0.000512033	0.003130056
3S-307	Defective Equipment	Electrical Failure	0.000511771	0.002481662
3S-307	Defective Equipment	Mechanical Failure	0.026100569	0.152236474
3S-307	Foreign Interference	Animal/Bird	0.008188332	0.022010406
3S-307	Loss of Supply	Transmission Line	1	0.907833333
3S-307	Tree Contacts	Broken Branch	0.002047083	0.002532242
3S-307	Tree Contacts	Falling Trees	0.001023541	0.004187137
3S-307	Unknown	Sagging	0.000511771	0.004275162
3S-307	Unknown	Unknown	0.006653281	0.017593688
3S-308	Defective Equipment	Mechanical Failure	0.001336898	0.00418984
3S-308	Foreign Interference	Animal/Bird	0.00802139	0.044498663
3S-308	Foreign Interference	Vehicle	0.001336898	0.158962344
3S-308	Loss of Supply	Transmission Line	1	0.907833333
3S-308	Unknown	Unknown	0.012039244	0.079621203
3S-309	Adverse Weather	Wind	0.045454545	0.193503731
3S-309	Defective Equipment	Mechanical Failure	0.00339121	0.006294612
3S-309	Foreign Interference	Animal/Bird	0.008141113	0.02649299
3S-309	Foreign Interference	Vehicle	0.000678426	0.002266282
3S-309	Loss of Supply	Transmission Line	1	0.907833333
3S-309	Unknown	Unknown	0.002035278	0.008643826
3S-403	Adverse Weather	Wind	0.007462687	0.070248223
3S-403	Defective Equipment	Electrical Failure	0.001066098	0.006671642
3S-403	Defective Equipment	Mechanical Failure	0.32254587	1.415500489
3S-403	Foreign Interference	Animal/Bird	0.01652452	0.064636194
3S-403	Foreign Interference	Vehicle	0.014925373	0.05015565
3S-403	Lightning	Lightning	0.001599147	0.014730188
3S-403	Loss of Supply	Transmission Line	1	0.907833333
3S-403	Tree Contacts	Falling Trees	1.092218053	2.175575797
3S-403	Tree Contacts	Untrimmed Tree	0.001066667	0.004432535
3S-403	Unknown	Unknown	1.019193179	3.683598169
3S-405	Loss of Supply	Transmission Line	1	0.907833333
3S-405	Unknown	Sagging	0.03030303	0.41270202
3W-201	Tree Contacts	Falling Trees	1	0.396
40H-302	Adverse Weather	Wind	0.026519788	0.030126479
40H-302	Defective Equipment	Mechanical Failure	0.495712536	0.439200286
40H-302	Foreign Interference	Animal/Bird	0.008574929	0.008289098
40H-302	Human Element	Improper Construction	0.00040833	0.001198108
40H-302	Loss of Supply	Transmission Line	1	1.59

40H-302	Tree Contacts	Falling Trees	0.00040833	0.000992038
40H-302	Unknown	Unknown	0.038790677	0.550254389
40H-303	Defective Equipment	Mechanical Failure	0.085450346	0.540466513
40H-303	Loss of Supply	Transmission Line	1	1.59
40H-303	Unknown	Unknown	0.101616628	0.148660893
40H-304	Foreign Interference	Animal/Bird	0.008806262	0.033298761
40H-304	Human Element	Construction Error	0.000978474	0.004663405
40H-304	Loss of Supply	Transmission Line	1	1.59
40H-304	Unknown	Unknown	0.000978474	0.001254892
40H-305	Defective Equipment	Mechanical Failure	0.104722793	0.223860027
40H-305	Loss of Supply	Transmission Line	1	1.59
40H-305	Tree Contacts	Untrimmed Tree	0.001026694	0.004288672
40H-305	Unknown	Unknown	0.13449692	0.26768258
40H-401	Defective Equipment	Mechanical Failure	0.000887311	0.002175096
40H-401	Foreign Interference	Animal/Bird	0.015084295	0.018658977
40H-401	Loss of Supply	Transmission Line	1	1.530640639
40H-401	Unknown	Unknown	0.001774623	0.004177758
45V-201	Loss of Supply	Transmission Line	3	18.4155
45V-202	Loss of Supply	Transmission Line	3	18.4155
45V-202	Tree Contacts	Falling Trees	0.032755299	0.055056198
45V-202	Unknown	Overload	1	1.436333333
46W-301	Adverse Weather	Ice	0.393343419	2.718786687
46W-301	Adverse Weather	Wind	0.001508296	0.001977627
46W-301	Defective Equipment	Mechanical Failure	0.441935182	1.018509856
46W-301	Foreign Interference	Animal/Bird	0.2413273	0.883980141
46W-301	Foreign Interference	Vehicle	1.340874811	3.720336853
46W-301	Tree Contacts	Falling Trees	0.049778319	0.146395109
46W-301	Unknown	Unknown	0.009049774	0.033441428
46W-303	Defective Equipment	Mechanical Failure	0.018094815	0.097339258
46W-303	Foreign Interference	Animal/Bird	0.001644737	0.00086568
46W-303	Tree Contacts	Untrimmed Tree	0.037828947	0.130055921
46W-303	Unknown	Unknown	0.016447368	0.090717105
48H-301	Adverse Weather	Wind	1.000408163	1.163143501
48H-301	Defective Equipment	Electrical Failure	0.004489796	0.019221565
48H-301	Defective Equipment	Mechanical Failure	0.006530779	0.006178913
48H-301	Foreign Interference	Animal/Bird	0.004489796	0.008702721
48H-301	Foreign Interference	Other Foreign	0.000408163	0.001680068
48H-301	Loss of Supply	Transmission Line	1	2.290333333
48H-301	Tree Contacts	Falling Trees	1.000408163	1.227546054
48H-301	Unknown	Galloping	0.000408163	0.000789456
48H-301	Unknown	Sagging	0.000408163	0.003248776
48H-301	Unknown	Unknown	0.007755102	0.019799796
48H-302	Defective Equipment	Electrical Failure	0.000658762	0.000897343
48H-302	Defective Equipment	Mechanical Failure	0.000658762	0.000885156

48H-302	Foreign Interference	Animal/Bird	0.0085639	0.021459706
48H-302	Foreign Interference	Vehicle	0.000658762	0.006124286
48H-302	Loss of Supply	Transmission Line	1	2.287833333
48H-302	Tree Contacts	Untrimmed Tree	0.000658762	0.000818182
48H-302	Unknown	Unknown	0.003293808	0.012807642
48H-303	Adverse Weather	Wind	0.001615509	0.00247496
48H-303	Defective Equipment	Electrical Failure	0.001618123	0.004545307
48H-303	Defective Equipment	Mechanical Failure	0.001564945	0.004575378
48H-303	Loss of Supply	Transmission Line	1	2.287833333
48H-303	Unknown	Unknown	0.006312959	0.031395802
48H-304	Defective Equipment	Mechanical Failure	0.04519774	0.081220339
48H-304	Foreign Interference	Vehicle	0.057627119	0.402880791
48H-304	Loss of Supply	Transmission Line	1	2.287833333
48H-304	Tree Contacts	Untrimmed Tree	0.068926554	0.408079661
48H-304	Unknown	Unknown	0.021445971	0.032922385
48W-201	Tree Contacts	Falling Trees	0.090032154	0.034767417
48W-201	Unknown	Unknown	0.006430868	0.009845659
48W-203	Tree Contacts	Untrimmed Tree	0.02	0.105593333
48W-204	Defective Equipment	Mechanical Failure	0.034666667	0.058988444
48W-204	Human Element	Improper Construction	0.002666667	0.003285333
48W-204	Unknown	Unknown	0.013333333	0.033685333
4C-424	Adverse Weather	Wind	0.004428698	0.026795985
4C-424	Defective Equipment	Electrical Failure	0.00088574	0.002774579
4C-424	Defective Equipment	Mechanical Failure	0.588131089	0.539302628
4C-424	Foreign Interference	Animal/Bird	0.002658791	0.020253663
4C-424	Foreign Interference	Human Felled Tree	0.406388642	1.150892635
4C-424	Lightning	Lightning	0.011514615	0.049364777
4C-424	Loss of Supply	Transmission Substation	1	5.288259079
4C-424	Tree Contacts	Falling Trees	0.177147919	0.563094774
4C-424	Unknown	Unknown	0.497785651	1.4661677
4C-430	Adverse Environment	Salt Contamination	0.000398248	0.009303199
4C-430	Adverse Weather	Wet Snow	0.000398565	0.000800319
4C-430	Adverse Weather	Wind	0.029093035	0.086661293
4C-430	Defective Equipment	Electrical Failure	0.00079713	0.003081706
4C-430	Defective Equipment	Mechanical Failure	0.208837988	0.21175017
4C-430	Foreign Interference	Animal/Bird	0.00876145	0.019594053
4C-430	Foreign Interference	Other Foreign	0.000398248	0.000804925
4C-430	Foreign Interference	Vehicle	0.000796495	0.006307845
4C-430	Lightning	Lightning	0.091995221	0.232062193
4C-430	Loss of Supply	Transmission Substation	1	5.311087814
4C-430	Tree Contacts	Broken Branch	0.000398248	0.000571618
4C-430	Tree Contacts	Falling Trees	1.871786301	6.95843373
4C-430	Tree Contacts	Untrimmed Tree	0.007965272	0.030639883
4C-430	Unknown	Unknown	0.635242081	1.636191769

4C-432	Defective Equipment	Mechanical Failure	0.023659306	0.078318218
4C-432	Foreign Interference	Animal/Bird	0.083596215	0.110179548
4C-432	Foreign Interference	Vehicle	0.000788644	0.002022871
4C-432	Lightning	Lightning	0.000788644	0.00411041
4C-432	Loss of Supply	Transmission Substation	1	5.0905
4C-432	Tree Contacts	Falling Trees	0.0670347	0.283325578
4C-432	Tree Contacts	Untrimmed Tree	0.006309148	0.011843191
4C-432	Unknown	Galloping	0.007097792	0.102492114
4C-432	Unknown	Unknown	0.440063091	0.957969769
4C-441	Adverse Environment	Salt Contamination	0.000441306	0.000638129
4C-441	Adverse Weather	Wind	0.007488987	0.018331204
4C-441	Defective Equipment	Electrical Failure	0.003964758	0.01302812
4C-441	Defective Equipment	Mechanical Failure	0.46123348	1.087365712
4C-441	Foreign Interference	Animal/Bird	0.007488987	0.012421292
4C-441	Foreign Interference	Vehicle	0.002643172	0.004677533
4C-441	Loss of Supply	Transmission Substation	1	5.0905
4C-441	Tree Contacts	Broken Branch	0.000440529	0.001162555
4C-441	Tree Contacts	Falling Trees	1.264757709	3.340248091
4C-441	Tree Contacts	Untrimmed Tree	0.001762115	0.005567768
4C-441	Unknown	Unknown	0.13392226	0.360876423
4C-442	Loss of Supply	Transmission Substation	1	5.0905
4N-311	Adverse Weather	Wind	0.000786164	0.002431473
4N-311	Defective Equipment	Electrical Failure	0.002358491	0.009791798
4N-311	Defective Equipment	Mechanical Failure	0.387281566	1.152221101
4N-311	Foreign Interference	Animal/Bird	0.007075472	0.042537605
4N-311	Loss of Supply	Transmission Line	1	9.033333333
4N-311	Tree Contacts	Falling Trees	0.006289308	0.042887317
4N-311	Tree Contacts	Untrimmed Tree	0.001572327	0.008357835
4N-311	Unknown	Overload	0.462753264	1.087566594
4N-311	Unknown	Unknown	0.176100629	0.391791274
4N-312	Adverse Environment	Building/Forest Fire	0.000425532	0.000103404
4N-312	Adverse Weather	Wind	0.016170575	0.099796556
4N-312	Defective Equipment	Electrical Failure	0.001276596	0.00480922
4N-312	Defective Equipment	Mechanical Failure	0.082978723	0.094705106
4N-312	Foreign Interference	Animal/Bird	0.017446809	0.087377163
4N-312	Foreign Interference	Human Felled Tree	0.005531915	0.009053901
4N-312	Foreign Interference	Vehicle	0.000425532	0.001785248
4N-312	Lightning	Lightning	0.071489362	1.066399574
4N-312	Loss of Supply	Transmission Line	1	9.033333333
4N-312	Tree Contacts	Broken Branch	0.000425532	0.000548085
4N-312	Tree Contacts	Falling Trees	0.014469534	0.095548592
4N-312	Tree Contacts	Untrimmed Tree	0.001276596	0.004592908
4N-312	Unknown	Sagging	0.000425713	0.000888037
4N-312	Unknown	Unknown	0.091489362	0.268140426

4N-313	Adverse Environment	Building/Forest Fire	0.000886525	0.003739657
4N-313	Adverse Weather	Wind	0.390070922	0.023274232
4N-313	Defective Equipment	Electrical Failure	0.005316008	0.044300314
4N-313	Defective Equipment	Mechanical Failure	0.000886525	0.0028026
4N-313	Foreign Interference	Animal/Bird	0.008865248	0.023604314
4N-313	Lightning	Lightning	0.008865248	0.126982861
4N-313	Loss of Supply	Transmission Line	1	9.033333333
4N-313	Tree Contacts	Falling Trees	2.046985816	5.571659279
4N-313	Unknown	Galloping	0.028343667	0.098097431
4N-313	Unknown	Unknown	0.069983636	0.16232254
4S-321	Defective Equipment	Mechanical Failure	0.027161863	0.040353566
4S-321	Human Element	Improper Construction	0.007760532	0.01011068
4S-321	Tree Contacts	Broken Branch	0.000554631	0.000413755
4S-321	Tree Contacts	Falling Trees	1	1.077
4S-321	Unknown	Unknown	0.014967048	0.040016749
4S-322	Adverse Environment	Building/Forest Fire	0.007861635	0.080581761
4S-322	Adverse Weather	Wind	0.001567398	0.001642633
4S-322	Defective Equipment	Corrosion	0.037617555	0.09584953
4S-322	Defective Equipment	Mechanical Failure	0.070532915	0.104393417
4S-322	Unknown	Unknown	0.001567398	0.002719436
4S-323	Adverse Weather	Wind	0.013513514	0.022121622
4S-323	Defective Equipment	Electrical Failure	0.013513514	0.20897973
4S-323	Lightning	Lightning	0.027027027	0.105626126
4S-324	Defective Equipment	Mechanical Failure	1.000582411	4.303410988
4S-324	Foreign Interference	Animal/Bird	0.000582411	0.002761891
4S-324	Foreign Interference	Vehicle	1	7.104166667
4S-331	Defective Equipment	Mechanical Failure	0.017699115	0.016887906
4S-331	Lightning	Lightning	0.007374631	0.064335054
4S-331	Unknown	Sagging	0.000737463	0.002074484
4S-331	Unknown	Unknown	0.31120944	0.275312561
4S-332	Defective Equipment	Mechanical Failure	0.002512563	0.01875
4S-332	Foreign Interference	Animal/Bird	0.002512563	0.014899497
4S-332	Unknown	Unknown	1.216080402	1.697781826
4S-333	Foreign Interference	Animal/Bird	0.000637349	0.000674527
4S-333	Unknown	Unknown	0.627151458	0.432425733
4S-334	Defective Equipment	Mechanical Failure	0.142614601	0.32544652
4S-334	Foreign Interference	Animal/Bird	0.913559322	2.201221186
4S-334	Unknown	Unknown	1.037334177	0.785776636
4W-211	Tree Contacts	Falling Trees	1	8.374166667
50N-410	Adverse Environment	Building/Forest Fire	0.028158845	0.013749458
50N-410	Adverse Weather	Wind	0.003252628	0.00845891
50N-410	Defective Equipment	Electrical Failure	0.002527076	0.003845909
50N-410	Defective Equipment	Mechanical Failure	0.402753098	0.735742691
50N-410	Foreign Interference	Animal/Bird	0.002527076	0.007546029

50N-410	Foreign Interference	Vehicle	0.000724375	0.002454183
50N-410	Lightning	Lightning	0.005054152	0.012771721
50N-410	Tree Contacts	Broken Branch	0.000361011	0.000642178
50N-410	Tree Contacts	Falling Trees	0.617047138	1.621142214
50N-410	Tree Contacts	Untrimmed Tree	0.001806231	0.007842885
50N-410	Unknown	Other Cause	0.000361011	0.000395187
50N-410	Unknown	Sagging	0.000361011	0.001392479
50N-410	Unknown	Unknown	0.107588682	0.171653005
50N-411	Adverse Weather	Ice	0.004766949	0.016121822
50N-411	Defective Equipment	Mechanical Failure	0.039174166	0.028218105
50N-411	Foreign Interference	Animal/Bird	0.008999471	0.014872155
50N-411	Foreign Interference	Vehicle	0.006352567	0.019938592
50N-411	Tree Contacts	Falling Trees	0.003705664	0.021154403
50N-411	Tree Contacts	Untrimmed Tree	0.02541027	0.066222869
50N-411	Unknown	Unknown	1.02541027	1.341150785
50N-412	Adverse Environment	Building/Forest Fire	0.000677277	0.000163901
50N-412	Adverse Weather	Wind	0.000338524	0.000678459
50N-412	Defective Equipment	Mechanical Failure	0.41198398	0.370164862
50N-412	Foreign Interference	Animal/Bird	0.000677048	0.001191887
50N-412	Human Element	Switching Error	0.000338524	0.00031274
50N-412	Tree Contacts	Broken Branch	0.138841741	0.090567781
50N-412	Unknown	Other Cause	0.000338524	0.00069183
50N-412	Unknown	Unknown	0.009142557	0.031123372
50N-415	Adverse Environment	Building/Forest Fire	0.001194743	0.000932497
50N-415	Defective Equipment	Mechanical Failure	0.040625554	0.077199464
50N-415	Foreign Interference	Animal/Bird	0.002389486	0.001996217
50N-415	Tree Contacts	Falling Trees	0.025089606	0.098649741
50N-415	Tree Contacts	Untrimmed Tree	0.001196172	0.000895933
50N-415	Unknown	Other Cause	0.001196172	0.002078947
50N-415	Unknown	Unknown	0.058542413	0.14342055
50V-401	Adverse Weather	Wind	0.087346553	0.241853872
50V-401	Defective Equipment	Electrical Failure	0.000944287	0.002224189
50V-401	Defective Equipment	Mechanical Failure	0.161000944	0.506374489
50V-401	Foreign Interference	Animal/Bird	0.003777148	0.011731744
50V-401	Loss of Supply	Transmission Line	1	5.801770538
50V-401	Tree Contacts	Falling Trees	0.015108593	0.102101275
50V-401	Tree Contacts	Untrimmed Tree	0.04815864	0.104417375
50V-401	Unknown	Overload	0.000472144	0.000898961
50V-401	Unknown	Unknown	0.208687441	0.742065313
50V-402	Defective Equipment	Electrical Failure	0.000822707	0.006779103
50V-402	Defective Equipment	Mechanical Failure	0.018922254	0.1244505
50V-402	Foreign Interference	Animal/Bird	0.039078568	0.062386055
50V-402	Loss of Supply	Transmission Line	1	5.81
50V-402	Tree Contacts	Falling Trees	1.009876374	3.507542277

50V-402	Tree Contacts	Untrimmed Tree	0.000822707	0.003808172
50V-402	Unknown	Unknown	0.066659557	0.364855661
50W-411	Defective Equipment	Electrical Failure	0.001166181	0.083174344
50W-411	Defective Equipment	Mechanical Failure	0.002332362	0.004806608
50W-411	Foreign Interference	Animal/Bird	0.011078717	0.018974247
50W-411	Tree Contacts	Falling Trees	0.033997655	0.12208558
50W-411	Tree Contacts	Untrimmed Tree	0.00058309	0.001493878
50W-411	Unknown	Unknown	0.014577259	0.041641108
50W-412	Adverse Weather	Wind	0.000288018	0.000728207
50W-412	Defective Equipment	Electrical Failure	0.013536866	0.024596486
50W-412	Defective Equipment	Mechanical Failure	0.997478386	4.013911423
50W-412	Foreign Interference	Animal/Bird	0.003168203	0.007792387
50W-412	Foreign Interference	Vehicle	0.000288018	0.000281922
50W-412	Lightning	Lightning	0.000576037	0.002354215
50W-412	Tree Contacts	Broken Branch	0.004896313	0.030679483
50W-412	Tree Contacts	Falling Trees	1.852149459	3.733153181
50W-412	Tree Contacts	Untrimmed Tree	0.003168203	0.015510369
50W-412	Unknown	Unknown	0.016705401	0.048583955
51V-301	Adverse Weather	Wind	0.00084246	0.002724516
51V-301	Defective Equipment	Electrical Failure	0.005050505	0.014917508
51V-301	Foreign Interference	Animal/Bird	0.029461279	0.054439534
51V-301	Lightning	Lightning	0.001683502	0.00669697
51V-301	Tree Contacts	Falling Trees	0.000841751	0.003526655
51V-301	Tree Contacts	Untrimmed Tree	0.001683502	0.005829125
51V-301	Unknown	Unknown	0.002525253	0.00413482
54H-301	Defective Equipment	Mechanical Failure	0.037671233	0.17539726
54H-301	Loss of Supply	Transmission Line	1	2.257833333
54H-302	Defective Equipment	Electrical Failure	0.007650273	0.029828415
54H-302	Defective Equipment	Mechanical Failure	0.005464481	0.012764117
54H-302	Loss of Supply	Transmission Line	1	2.256599545
54H-302	Tree Contacts	Falling Trees	1.098360656	1.084785883
54H-302	Unknown	Unknown	0.042622951	0.11628388
54H-303	Defective Equipment	Mechanical Failure	1.01994302	2.986574391
54H-303	Loss of Supply	Transmission Line	1	2.23424723
54H-303	Unknown	Unknown	0.001899335	0.02747056
54H-304	Adverse Weather	Wind	0.015238095	0.056891429
54H-304	Defective Equipment	Mechanical Failure	0.053299492	0.117011633
54H-304	Foreign Interference	Animal/Bird	0.008883249	0.010667301
54H-304	Loss of Supply	Transmission Line	1	2.257833333
54H-304	Unknown	Unknown	0.020304569	0.051325719
55N-201	Adverse Weather	Wind	0.004405286	0.002894273
55N-201	Defective Equipment	Mechanical Failure	0.303964758	0.416279736
55N-201	Loss of Supply	Transmission Line	1	0.0545
55N-201	Tree Contacts	Falling Trees	0.004405286	0.014969163

55N-202	Loss of Supply	Transmission Line	1	0.0545
55N-202	Unknown	Unknown	0.0125	0.027711458
55N-203	Defective Equipment	Mechanical Failure	0.01897019	0.029193767
55N-203	Loss of Supply	Transmission Line	1	0.0545
55N-203	Unknown	Unknown	0.024390244	0.040424119
55N-204	Adverse Weather	Wind	0.00257732	0.002621134
55N-204	Defective Equipment	Mechanical Failure	0.007731959	0.01257732
55N-204	Loss of Supply	Transmission Line	1	0.0545
55N-204	Unknown	Unknown	0.043814433	0.068492268
55V-313	Adverse Environment	Building/Forest Fire	0.000566251	0.001680351
55V-313	Adverse Weather	Wind	0.025481314	0.432856172
55V-313	Defective Equipment	Electrical Failure	0.000566251	0.001307852
55V-313	Defective Equipment	Mechanical Failure	0.040770102	0.076015194
55V-313	Foreign Interference	Animal/Bird	0.00792752	0.033031333
55V-313	Tree Contacts	Falling Trees	0.557191393	0.724708852
55V-313	Tree Contacts	Untrimmed Tree	0.104756512	0.396283031
55V-313	Unknown	Unknown	0.079275198	0.212634485
55V-314	Adverse Weather	Wind	0.003351206	0.018275581
55V-314	Defective Equipment	Electrical Failure	0.004691689	0.005337131
55V-314	Defective Equipment	Mechanical Failure	0.449079194	0.841180811
55V-314	Foreign Interference	Animal/Bird	0.00536193	0.031229558
55V-314	Tree Contacts	Falling Trees	1.226586971	2.551432676
55V-314	Tree Contacts	Untrimmed Tree	0.336461126	0.355508155
55V-314	Unknown	Sagging	0.001341382	0.004902213
55V-314	Unknown	Unknown	0.038877141	0.069382542
55V-322	Adverse Environment	Building/Forest Fire	0.00073692	0.000301891
55V-322	Adverse Weather	Wind	0.169616519	0.274669617
55V-322	Defective Equipment	Mechanical Failure	0.140055497	0.255094214
55V-322	Foreign Interference	Animal/Bird	0.002210759	0.00317858
55V-322	Tree Contacts	Broken Branch	0.00073692	0.001622697
55V-322	Tree Contacts	Falling Trees	1.005898075	6.91591243
55V-322	Tree Contacts	Untrimmed Tree	0.006632277	0.017567797
55V-322	Unknown	Overload	0.08700978	0.394830249
55V-322	Unknown	Unknown	0.007369197	0.033321297
55V-323	Defective Equipment	Electrical Failure	0.01188455	0.064428551
55V-323	Defective Equipment	Mechanical Failure	0.001697793	0.010898981
55V-323	Foreign Interference	Animal/Bird	0.005942275	0.03165747
55V-323	Foreign Interference	Vehicle	0.181663837	0.361722977
55V-323	Lightning	Lightning	0.018675722	0.081354556
55V-323	Tree Contacts	Falling Trees	0.201188455	0.221078947
55V-323	Unknown	Unknown	0.002546689	0.010851019
56N-401	Adverse Environment	Building/Forest Fire	0.000863558	0.001114709
56N-401	Defective Equipment	Electrical Failure	0.526774038	1.07867082
56N-401	Defective Equipment	Mechanical Failure	0.015547786	0.033718141

56N-401	Foreign Interference	Animal/Bird	0.003454231	0.007773892
56N-401	Foreign Interference	Vehicle	0.000863558	0.000991652
56N-401	Human Element	Improper Construction	0.012953368	0.057163212
56N-401	Lightning	Lightning	0.001727116	0.009956822
56N-401	Loss of Supply	Transmission Line	1	0.0545
56N-401	Tree Contacts	Falling Trees	1.001727116	3.078326857
56N-401	Unknown	Unknown	0.015544041	0.061348733
56N-402	Loss of Supply	Transmission Line	1	0.0545
56N-402	Unknown	Unknown	0.090909091	0.065787879
56N-414	Adverse Weather	Wind	0.185807827	0.333988806
56N-414	Defective Equipment	Corrosion	0.000313972	0.000388383
56N-414	Defective Equipment	Electrical Failure	0.000313775	0.000878726
56N-414	Defective Equipment	Mechanical Failure	0.646396006	0.552440639
56N-414	Foreign Interference	Animal/Bird	0.003765297	0.008112384
56N-414	Foreign Interference	Vehicle	0.156887355	0.137508263
56N-414	Lightning	Lightning	0.005961719	0.058766865
56N-414	Loss of Supply	Transmission Line	1	0.0545
56N-414	Tree Contacts	Broken Branch	0.005961719	0.013662274
56N-414	Tree Contacts	Falling Trees	1.007868216	1.912961671
56N-414	Tree Contacts	Untrimmed Tree	0.000313775	0.000984311
56N-414	Unknown	Other Cause	0.001568874	0.004318847
56N-414	Unknown	Overload	0.148475453	0.679278681
56N-414	Unknown	Unknown	0.345154151	0.606697832
57C-417	Loss of Supply	Transmission Substation	1	8.429666667
57C-422	Adverse Weather	Wind	0.011235955	0.042610086
57C-422	Defective Equipment	Electrical Failure	0.002407705	0.011143258
57C-422	Defective Equipment	Mechanical Failure	0.146067416	0.151799492
57C-422	Foreign Interference	Animal/Bird	0.003210273	0.006923221
57C-422	Foreign Interference	Human Felled Tree	0.000802568	0.006253344
57C-422	Loss of Supply	Transmission Substation	1	8.429666667
57C-422	Tree Contacts	Falling Trees	1.46388443	1.320754342
57C-422	Unknown	Unknown	0.271268058	0.609842697
57C-426	Defective Equipment	Electrical Failure	0.831848088	1.154519305
57C-426	Defective Equipment	Mechanical Failure	0.330146232	1.238528215
57C-426	Foreign Interference	Animal/Bird	0.002250352	0.005524863
57C-426	Foreign Interference	Crane	0.00056243	0.001734346
57C-426	Foreign Interference	Human Felled Tree	0.00056243	0.000354331
57C-426	Loss of Supply	Transmission Substation	1	8.429666667
57C-426	Tree Contacts	Falling Trees	0.53768279	0.820979378
57C-426	Tree Contacts	Untrimmed Tree	0.001125493	0.002038609
57C-426	Unknown	Unknown	0.00674979	0.029317077
57S-401	Adverse Environment	Building/Forest Fire	0.000462107	0.000795441
57S-401	Adverse Weather	Wind	1.106238127	3.987219268
57S-401	Defective Equipment	Electrical Failure	0.004158751	0.012917949

57S-401	Defective Equipment	Mechanical Failure	0.013401109	0.102343423
57S-401	Foreign Interference	Animal/Bird	0.021719039	0.058651725
57S-401	Foreign Interference	Vehicle	0.232902033	0.700818546
57S-401	Tree Contacts	Falling Trees	0.248613678	0.548114217
57S-401	Tree Contacts	Untrimmed Tree	0.000462107	0.001231978
57S-401	Unknown	Unknown	1.020794824	4.087857286
57S-402	Adverse Weather	Wind	0.051898126	0.093382188
57S-402	Defective Equipment	Electrical Failure	0.000961076	0.006970207
57S-402	Defective Equipment	Mechanical Failure	0.117733708	0.190769734
57S-402	Foreign Interference	Animal/Bird	0.009610764	0.034181643
57S-402	Lightning	Lightning	0.000961076	0.002862086
57S-402	Tree Contacts	Broken Branch	0.002402922	0.009989067
57S-402	Tree Contacts	Falling Trees	0.185007208	1.822573763
57S-402	Tree Contacts	Untrimmed Tree	0.000480538	0.003095066
57S-402	Unknown	Sagging	0.000480538	0.012782877
57S-402	Unknown	Unknown	0.19365782	1.12468379
57W-401	Adverse Weather	Wind	0.115971516	0.247364869
57W-401	Defective Equipment	Electrical Failure	0.001017294	0.004242455
57W-401	Defective Equipment	Mechanical Failure	0.347914547	1.76133452
57W-401	Foreign Interference	Animal/Bird	0.004069176	0.020176501
57W-401	Loss of Supply	Transmission Line	3	8.743
57W-401	Tree Contacts	Falling Trees	0.182095626	2.574546965
57W-401	Tree Contacts	Untrimmed Tree	0.013224822	0.045008308
57W-401	Unknown	Unknown	0.009155646	0.027848762
57W-402	Defective Equipment	Mechanical Failure	0.523952096	1.332148204
57W-402	Foreign Interference	Vehicle	1	4.7875
57W-402	Loss of Supply	Transmission Line	3	8.743
57W-402	Tree Contacts	Falling Trees	0.245508982	2.032577844
57W-402	Unknown	Unknown	0.002994012	0.008224551
58C-403	Adverse Environment	Salt Contamination	0.001996008	0.030450987
58C-403	Adverse Weather	Wind	0.011982712	0.011485261
58C-403	Defective Equipment	Electrical Failure	0.689291641	4.943522572
58C-403	Defective Equipment	Mechanical Failure	1.159798716	10.0340325
58C-403	Foreign Interference	Animal/Bird	0.001996008	0.005327124
58C-403	Lightning	Lightning	0.001330672	0.010687736
58C-403	Loss of Supply	Transmission Substation	1	6.547833333
58C-403	Tree Contacts	Broken Branch	0.000668449	0.020236631
58C-403	Tree Contacts	Falling Trees	2.086685698	7.275073962
58C-403	Unknown	Gallop	0.019385027	0.141538102
58C-403	Unknown	Other Cause	0.000665336	0.001654136
58C-403	Unknown	Sagging	0.002663119	0.009934578
58C-403	Unknown	Unknown	0.044593078	0.212768529
58C-405	Adverse Weather	Wet Snow	0.000620732	0.026723257
58C-405	Adverse Weather	Wind	0.071560372	0.235526416

58C-405	Defective Equipment	Electrical Failure	0.047184938	0.135943273
58C-405	Defective Equipment	Mechanical Failure	1.063590507	2.593984272
58C-405	Foreign Interference	Animal/Bird	0.011173184	0.037094351
58C-405	Loss of Supply	Transmission Substation	1	6.547833333
58C-405	Tree Contacts	Broken Branch	0.000620732	0.00067215
58C-405	Tree Contacts	Falling Trees	6.446563896	28.70550834
58C-405	Tree Contacts	Untrimmed Tree	0.010578718	0.313238955
58C-405	Unknown	Other Cause	0.000622278	0.002764779
58C-405	Unknown	Unknown	0.129994202	1.274224706
58H-421	Adverse Weather	Wind	0.141324454	0.612405969
58H-421	Defective Equipment	Electrical Failure	0.005562838	0.041093095
58H-421	Defective Equipment	Mechanical Failure	1.019998935	4.912894522
58H-421	Foreign Interference	Animal/Bird	0.000369959	0.000992231
58H-421	Loss of Supply	Transmission Line	1	2.287833333
58H-421	Tree Contacts	Falling Trees	0.000739919	0.001866753
58H-421	Unknown	Overload	0.000369959	0.008773893
58H-421	Unknown	Unknown	0.054147579	0.096326595
58H-431	Adverse Environment	Building/Forest Fire	0.000489476	0.001264072
58H-431	Adverse Weather	Wind	0.032310709	0.059701569
58H-431	Defective Equipment	Electrical Failure	0.017637464	0.044808944
58H-431	Defective Equipment	Mechanical Failure	0.020085325	0.071479591
58H-431	Foreign Interference	Animal/Bird	0.012726383	0.04647936
58H-431	Foreign Interference	Vehicle	0.000489476	0.001155409
58H-431	Loss of Supply	Transmission Line	1	3.390348997
58H-431	Tree Contacts	Falling Trees	0.000489476	0.001603198
58H-431	Tree Contacts	Untrimmed Tree	0.000489476	0.001593245
58H-431	Unknown	Unknown	0.013233143	0.027269395
59C-401	Adverse Environment	Building/Forest Fire	0.00173913	0.001758261
59C-401	Adverse Weather	Wind	0.005217391	0.010594783
59C-401	Defective Equipment	Mechanical Failure	1.008686594	4.292351154
59C-401	Tree Contacts	Falling Trees	1.024305556	1.287401042
59C-401	Unknown	Unknown	0.053858696	0.203384946
59C-402	Adverse Weather	Wind	0.00508751	0.009209455
59C-402	Defective Equipment	Electrical Failure	0.006605691	0.082766684
59C-402	Defective Equipment	Mechanical Failure	0.116068915	0.331204679
59C-402	Foreign Interference	Animal/Bird	0.00101626	0.001555894
59C-402	Lightning	Lightning	0.116361789	0.419019478
59C-402	Tree Contacts	Falling Trees	0.012704287	0.058906061
59C-402	Unknown	Other Cause	0.00050813	0.011147527
59C-402	Unknown	Sagging	0.00050813	0.001300813
59C-402	Unknown	Unknown	0.015755137	0.065452129
59C-403	Defective Equipment	Electrical Failure	0.001265823	0.006012025
59C-403	Foreign Interference	Animal/Bird	0.037974684	0.131455485
59C-403	Tree Contacts	Falling Trees	0.001267427	0.002736375

59C-403	Unknown	Unknown	0.001265823	0.009261181
62H-302	Defective Equipment	Electrical Failure	0.003418803	0.020120869
62H-302	Defective Equipment	Mechanical Failure	0.002136752	0.009446724
62H-302	Foreign Interference	Animal/Bird	0.053418803	0.14315735
62H-302	Unknown	Other Cause	0.977340744	4.994211201
62H-302	Unknown	Unknown	0.004702864	0.004214622
62H-303	Unknown	Other Cause	1	0.166669184
62H-303	Unknown	Unknown	0.009923664	0.012027354
62H-304	Foreign Interference	Animal/Bird	0.013476021	0.022499009
62H-304	Foreign Interference	Vehicle	0.000396354	0.00043764
62H-304	Unknown	Unknown	0.007530717	0.037013872
62N-411	Defective Equipment	Mechanical Failure	0.003378378	0.01163232
62N-411	Foreign Interference	Animal/Bird	1.013512801	1.214031604
62N-411	Tree Contacts	Untrimmed Tree	0.016891892	0.01598536
62N-411	Unknown	Gallop	0.043074324	0.168923142
62N-411	Unknown	Unknown	0.003376953	0.006657788
62N-412	Adverse Weather	Wind	0.000951475	0.015276245
62N-412	Defective Equipment	Electrical Failure	0.002854424	0.017228195
62N-412	Defective Equipment	Mechanical Failure	0.459562322	0.406688868
62N-412	Tree Contacts	Falling Trees	0.000951475	0.007886616
62N-412	Tree Contacts	Untrimmed Tree	0.000951475	0.005596258
62N-412	Unknown	Unknown	0.414843007	0.187219791
62N-413	Adverse Weather	Wind	0.002356638	0.002747447
62N-413	Defective Equipment	Corrosion	0.002356638	0.005272977
62N-413	Defective Equipment	Mechanical Failure	0.023993145	0.034336066
62N-413	Foreign Interference	Animal/Bird	0.001178319	0.001577114
62N-413	Lightning	Lightning	0.000392773	0.001343415
62N-413	Tree Contacts	Broken Branch	0.000392773	0.000467596
62N-413	Tree Contacts	Falling Trees	1.286724273	3.119922427
62N-413	Tree Contacts	Untrimmed Tree	0.000392773	0.000619076
62N-413	Unknown	Other Cause	0.000392773	0.003068408
62N-413	Unknown	Unknown	0.009035169	0.025254789
62N-414	Adverse Environment	Building/Forest Fire	0.000430478	4.00344E-05
62N-414	Adverse Weather	Wind	0.024537236	0.513045415
62N-414	Defective Equipment	Electrical Failure	0.99009901	5.419318984
62N-414	Defective Equipment	Mechanical Failure	0.003445124	0.00883876
62N-414	Foreign Interference	Animal/Bird	0.002152389	0.002882767
62N-414	Foreign Interference	Vehicle	0.385277658	0.680207706
62N-414	Lightning	Lightning	0.095566078	0.207139475
62N-414	Tree Contacts	Broken Branch	0.007748601	0.119305209
62N-414	Tree Contacts	Falling Trees	0.000431779	0.005998273
62N-414	Tree Contacts	Untrimmed Tree	0.000430478	0.001592194
62N-414	Unknown	Sagging	0.015066724	0.311228297
62N-414	Unknown	Unknown	0.024106759	0.0356742

62N-415	Adverse Weather	Wind	0.296410891	0.819730095
62N-415	Defective Equipment	Electrical Failure	0.004331683	0.039297752
62N-415	Defective Equipment	Mechanical Failure	1.255481453	2.429108896
62N-415	Foreign Interference	Animal/Bird	0.01299505	0.078543936
62N-415	Foreign Interference	Other Foreign	0.000618812	0.002399134
62N-415	Human Element	Switching Error	0.002475248	0.004633663
62N-415	Lightning	Lightning	0.01299505	0.030541254
62N-415	Tree Contacts	Falling Trees	0.628094059	1.095695338
62N-415	Tree Contacts	Untrimmed Tree	0.002475248	0.00833684
62N-415	Unknown	Unknown	0.025990099	0.056699876
62N-416	Adverse Environment	Building/Forest Fire	0.000719424	0.000304556
62N-416	Adverse Weather	Wind	0.00323741	0.030880036
62N-416	Defective Equipment	Electrical Failure	0.000719424	0.003893525
62N-416	Defective Equipment	Mechanical Failure	0.009715856	0.044238903
62N-416	Foreign Interference	Animal/Bird	0.010791367	0.010985492
62N-416	Foreign Interference	Vehicle	0.000719424	0.00178807
62N-416	Lightning	Lightning	0.010071942	0.057761391
62N-416	Tree Contacts	Falling Trees	0.094244604	0.446189568
62N-416	Tree Contacts	Untrimmed Tree	0.000719424	0.000760791
62N-416	Unknown	Other Cause	0.000359712	0.000817146
62N-416	Unknown	Unknown	0.012955856	0.028718147
63V-311	Defective Equipment	Electrical Failure	0.004796163	0.003273648
63V-311	Foreign Interference	Animal/Bird	0.019184652	0.058294031
63V-311	Tree Contacts	Falling Trees	0.079136691	0.0521247
63V-311	Unknown	Unknown	0.037569944	0.094464029
63V-312	Adverse Weather	Wind	2.281316524	4.021438034
63V-312	Defective Equipment	Mechanical Failure	0.109936708	0.320549266
63V-312	Foreign Interference	Animal/Bird	0.058697972	0.029320349
63V-312	Tree Contacts	Broken Branch	0.001067236	0.020936499
63V-312	Tree Contacts	Falling Trees	0.468516542	0.643737104
63V-312	Tree Contacts	Untrimmed Tree	0.001067236	0.004732657
63V-312	Unknown	Unknown	0.005336179	0.016737104
63V-313	Adverse Weather	Wind	0.025662783	0.372758082
63V-313	Defective Equipment	Electrical Failure	0.003734827	0.006845938
63V-313	Defective Equipment	Mechanical Failure	0.053538175	0.120633535
63V-313	Foreign Interference	Animal/Bird	0.036778399	0.057714929
63V-313	Foreign Interference	Human Felled Tree	0.000465549	0.001582325
63V-313	Foreign Interference	Vehicle	0.000465549	0.0021295
63V-313	Tree Contacts	Falling Trees	0.487026986	0.917596194
63V-313	Tree Contacts	Untrimmed Tree	0.003733523	0.016775281
63V-313	Unknown	Unknown	0.002329051	0.006798872
64V-301	Adverse Weather	Wind	0.001915709	0.033703065
64V-301	Defective Equipment	Mechanical Failure	0.024904215	0.063085888
64V-301	Foreign Interference	Animal/Bird	0.001915709	0.021458972

64V-301	Tree Contacts	Broken Branch	0.137931034	0.139770115
64V-301	Tree Contacts	Falling Trees	0.003831418	0.010022989
64V-301	Unknown	Unknown	0.139846743	0.394747765
64V-302	Defective Equipment	Electrical Failure	0.048951049	0.105024476
64V-302	Defective Equipment	Mechanical Failure	1.003496503	1.11059324
64V-302	Foreign Interference	Animal/Bird	0.003496503	0.001924242
64V-302	Unknown	Unknown	0.01048951	0.021629953
64V-303	Unknown	Overload	0.133971292	0.138124402
64V-303	Unknown	Unknown	0.004784689	0.01392504
65V-301	Adverse Weather	Wind	0.003333333	0.005423333
65V-301	Defective Equipment	Electrical Failure	0.006644518	0.035146179
65V-301	Tree Contacts	Broken Branch	1	1.593687708
65V-301	Unknown	Unknown	0.003322259	0.008212625
65V-302	Adverse Weather	Wind	1.025760014	1.934501849
65V-302	Defective Equipment	Mechanical Failure	0.055825243	0.264649757
65V-302	Foreign Interference	Animal/Bird	0.002914037	0.011260446
65V-302	Foreign Interference	Vehicle	0.000485437	0.001403074
65V-302	Tree Contacts	Broken Branch	0.068446602	0.332137136
65V-302	Tree Contacts	Falling Trees	0.253399474	1.7399436
65V-302	Tree Contacts	Untrimmed Tree	0.001943164	0.008260865
65V-302	Unknown	Overload	0.01993194	0.065017987
65V-302	Unknown	Unknown	0.361650957	1.810624043
65V-303	Adverse Weather	Wind	0.000559597	0.004454206
65V-303	Defective Equipment	Electrical Failure	0.001678791	0.002182988
65V-303	Defective Equipment	Mechanical Failure	0.21544488	0.318575359
65V-303	Foreign Interference	Animal/Bird	0.015668719	0.041451595
65V-303	Foreign Interference	Human Felled Tree	0.000559597	0.002088883
65V-303	Human Element	Construction Error	0.000559597	0.002143443
65V-303	Tree Contacts	Broken Branch	1.000559597	0.08742063
65V-303	Tree Contacts	Falling Trees	0.374929425	0.62386264
65V-303	Unknown	Other Cause	0.000559597	0.000664801
65V-303	Unknown	Unknown	1.007274762	2.453831095
67C-411	Adverse Weather	Wet Snow	0.000581734	0.040674811
67C-411	Adverse Weather	Wind	0.000581058	0.004311447
67C-411	Defective Equipment	Electrical Failure	0.002324906	0.014807634
67C-411	Defective Equipment	Mechanical Failure	0.28878559	0.487172187
67C-411	Foreign Interference	Animal/Bird	0.006391633	0.019091323
67C-411	Foreign Interference	Human Felled Tree	0.71353864	1.212658919
67C-411	Foreign Interference	Vehicle	0.714119698	7.50740674
67C-411	Human Element	Switching Error	0.001743173	0.007216734
67C-411	Lightning	Lightning	0.017431726	0.212917974
67C-411	Loss of Supply	Transmission Substation	1	23.87666667
67C-411	Tree Contacts	Broken Branch	0.000582411	0.002020967
67C-411	Tree Contacts	Falling Trees	0.580015547	2.641293821

67C-411	Tree Contacts	Untrimmed Tree	0.002905288	0.017747821
67C-411	Unknown	Galloping	0.001163469	0.00944407
67C-411	Unknown	Unknown	0.440770543	1.511967903
67C-412	Adverse Environment	Building/Forest Fire	0.000561167	0.001310513
67C-412	Adverse Environment	Salt Contamination	0.000561167	0.002850542
67C-412	Adverse Weather	Wind	0.029741863	0.121391882
67C-412	Defective Equipment	Electrical Failure	0.000561167	0.001778339
67C-412	Defective Equipment	Mechanical Failure	1.053872054	2.977632061
67C-412	Foreign Interference	Animal/Bird	0.181257015	0.322601945
67C-412	Foreign Interference	Vandal	1.016835017	4.728932473
67C-412	Foreign Interference	Vehicle	0.358024691	1.118525627
67C-412	Lightning	Lightning	0.007295174	0.06705116
67C-412	Loss of Supply	Transmission Substation	1	23.87666667
67C-412	Tree Contacts	Broken Branch	0.000561167	0.00305911
67C-412	Tree Contacts	Falling Trees	0.221661055	0.909843434
67C-412	Unknown	Overload	0.611672278	2.1053367
67C-412	Unknown	Sagging	0.000561167	0.000767864
67C-412	Unknown	Unknown	1.318742985	2.044303685
6N-301	Adverse Weather	Wind	0.007675439	0.014039656
6N-301	Defective Equipment	Mechanical Failure	0.001096491	0.000380665
6N-301	Loss of Supply	Transmission Line	1	1.233333333
6N-301	Tree Contacts	Falling Trees	0.001096491	0.00591557
6N-301	Unknown	Unknown	0.074561404	0.099087902
6N-302	Foreign Interference	Animal/Bird	0.004545455	0.020531818
6N-302	Loss of Supply	Transmission Line	1	1.233333333
6N-302	Unknown	Unknown	0.004545455	0.014611364
6W-201	Defective Equipment	Mechanical Failure	0.125	0.648645833
70V-311	Adverse Environment	Building/Forest Fire	0.000549451	0.000610989
70V-311	Adverse Weather	Wind	0.000549149	0.00466685
70V-311	Defective Equipment	Electrical Failure	0.000549149	0.004772835
70V-311	Defective Equipment	Mechanical Failure	0.003295496	0.013312427
70V-311	Foreign Interference	Animal/Bird	0.004942339	0.013675453
70V-311	Loss of Supply	Transmission Inadvertent	1	7.415333333
70V-311	Tree Contacts	Broken Branch	0.010982976	0.117616694
70V-311	Tree Contacts	Falling Trees	0.152663372	0.244037983
70V-311	Tree Contacts	Untrimmed Tree	0.000549149	0.00098801
70V-311	Unknown	Overload	0.004395604	0.003340659
70V-311	Unknown	Unknown	0.167490692	0.635620154
70V-312	Adverse Environment	Building/Forest Fire	0.000953289	0.002062282
70V-312	Adverse Weather	Wind	0.23069681	0.823338864
70V-312	Defective Equipment	Mechanical Failure	0.018112488	0.050706069
70V-312	Foreign Interference	Animal/Bird	0.006673022	0.01281395
70V-312	Foreign Interference	Vehicle	1.166825548	4.926169368
70V-312	Loss of Supply	Transmission Inadvertent	1	7.415333333

70V-312	Tree Contacts	Falling Trees	0.342230696	0.492106609
70V-312	Tree Contacts	Untrimmed Tree	0.000953289	0.007930569
70V-312	Unknown	Galloping	0.000953289	0.002655227
70V-312	Unknown	Overload	0.019065777	0.036552272
70V-312	Unknown	Unknown	0.031458532	0.073879568
70W-203	Defective Equipment	Mechanical Failure	0.028985507	0.036391304
70W-203	Unknown	Unknown	0.003623188	0.015771135
70W-311	Adverse Environment	Building/Forest Fire	0.050127443	0.03607505
70W-311	Adverse Weather	Wind	0.001699958	0.004688293
70W-311	Defective Equipment	Mechanical Failure	0.51826678	0.268978476
70W-311	Foreign Interference	Animal/Bird	0.064570943	0.169044888
70W-311	Tree Contacts	Falling Trees	0.96516712	4.396472744
70W-311	Tree Contacts	Untrimmed Tree	0.000849618	0.001516568
70W-311	Unknown	Unknown	0.032285472	0.08852648
70W-312	Adverse Environment	Building/Forest Fire	0.016225448	0.057897808
70W-312	Foreign Interference	Animal/Bird	0.004269855	0.011357956
70W-312	Human Element	Veg. Management Error	0.002561913	0.001206661
70W-312	Unknown	Unknown	0.003415884	0.016167521
70W-313	Adverse Environment	Building/Forest Fire	0.002850356	0.007781473
70W-313	Adverse Weather	Wind	0.380997399	3.042285586
70W-313	Defective Equipment	Electrical Failure	0.000475059	0.004087648
70W-313	Defective Equipment	Mechanical Failure	0.003800701	0.017292837
70W-313	Foreign Interference	Animal/Bird	0.003325416	0.017308393
70W-313	Foreign Interference	Vehicle	0.000475059	0.002225653
70W-313	Tree Contacts	Broken Branch	0.001900012	0.01137007
70W-313	Tree Contacts	Falling Trees	1.38432304	1.033557245
70W-313	Tree Contacts	Untrimmed Tree	0.002850356	0.013319557
70W-313	Unknown	Unknown	0.104513064	0.290288599
70W-314	Defective Equipment	Mechanical Failure	1.007656968	0.787795203
70W-314	Human Element	Maintenance Error	0.003062787	0.012037774
70W-314	Unknown	Unknown	0.003065136	0.019290839
70W-321	Adverse Weather	Wind	0.000588235	0.000488235
70W-321	Defective Equipment	Electrical Failure	0.002941176	0.015636765
70W-321	Defective Equipment	Mechanical Failure	1.075882353	0.602723824
70W-321	Foreign Interference	Animal/Bird	0.007058824	0.025266863
70W-321	Tree Contacts	Broken Branch	0.004705882	0.011920588
70W-321	Tree Contacts	Falling Trees	1.001764706	2.486805588
70W-321	Tree Contacts	Untrimmed Tree	0.014117993	0.036421644
70W-321	Unknown	Unknown	0.024117647	0.08260598
70W-322	Defective Equipment	Mechanical Failure	0.001941748	0.016296117
70W-322	Unknown	Unknown	0.003883495	0.006315858
73W-411	Adverse Environment	Building/Forest Fire	0.000630815	0.00337728
73W-411	Adverse Weather	Wind	0.529483933	1.152403214
73W-411	Defective Equipment	Electrical Failure	0.000315408	0.002788283

73W-411	Defective Equipment	Mechanical Failure	0.148868617	0.572600358
73W-411	Foreign Interference	Animal/Bird	0.018293645	0.042217552
73W-411	Foreign Interference	Human Felled Tree	0.000315408	0.001366031
73W-411	Foreign Interference	Vehicle	0.000788519	0.001367713
73W-411	Lightning	Lightning	0.000630815	0.002861037
73W-411	Tree Contacts	Broken Branch	0.105661568	1.150014404
73W-411	Tree Contacts	Falling Trees	1.474430882	2.103262961
73W-411	Tree Contacts	Untrimmed Tree	0.006150449	0.043654865
73W-411	Unknown	Galloping	0.000157853	0.000330071
73W-411	Unknown	Overload	0.007576953	0.030492028
73W-411	Unknown	Unknown	0.012616805	0.072011992
73W-412	Unknown	Unknown	0.028735632	0.057659962
74N-411	Adverse Weather	Wind	0.570938215	1.149095538
74N-411	Defective Equipment	Mechanical Failure	0.004576659	0.008127193
74N-411	Foreign Interference	Animal/Bird	0.006864989	0.065544241
74N-411	Foreign Interference	Vehicle	0.180778032	1.529321892
74N-411	Tree Contacts	Falling Trees	1.001144165	1.670758581
74N-411	Unknown	Unknown	0.179633867	0.586111556
74N-412	Defective Equipment	Mechanical Failure	1.124641834	3.442840497
74N-412	Foreign Interference	Animal/Bird	0.005730659	0.03660936
74N-412	Lightning	Lightning	0.001432665	0.002707736
74N-412	Tree Contacts	Broken Branch	0.001432665	0.002060649
74N-412	Unknown	Unknown	0.011463374	0.053744352
74V-301	Defective Equipment	Mechanical Failure	0.060387893	0.107560388
74V-301	Foreign Interference	Animal/Bird	2.012048193	2.701204819
74V-301	Loss of Supply	Transmission Inadvertent	1	7.525333333
74V-301	Tree Contacts	Falling Trees	0.686746988	0.733540161
74V-301	Unknown	Unknown	0.337349398	0.733359438
74V-302	Foreign Interference	Animal/Bird	2	2.660166667
74V-302	Loss of Supply	Transmission Inadvertent	1	7.525333333
74V-302	Tree Contacts	Falling Trees	0.875	0.917
74V-302	Unknown	Unknown	0.125	0.275729167
76V-301	Adverse Weather	Wind	0.032258065	0.238177419
76V-301	Defective Equipment	Electrical Failure	0.003225806	0.012679032
76V-301	Defective Equipment	Mechanical Failure	0.016129032	0.083854839
76V-301	Foreign Interference	Animal/Bird	0.003225806	0.01502043
76V-301	Loss of Supply	Transmission Line	1	1.513
76V-301	Loss of Supply	Transmission Substation	1.096774194	22.6563871
76V-301	Tree Contacts	Falling Trees	0.187096774	2.217179032
76V-301	Tree Contacts	Untrimmed Tree	0.003225806	0.01163871
76V-301	Unknown	Unknown	0.590322581	1.308039247
77V-301	Foreign Interference	Animal/Bird	0.001119821	0.00091732
77V-301	Human Element	Switching Error	0.001119821	0.000480963
77V-301	Tree Contacts	Untrimmed Tree	0.003359462	0.005890258

77V-301	Unknown	Unknown	0.003359462	0.028367861
77V-302	Adverse Weather	Wind	0.002631579	0.005379386
77V-302	Defective Equipment	Mechanical Failure	0.057235978	0.170013013
77V-302	Foreign Interference	Animal/Bird	0.011184211	0.049123465
77V-302	Foreign Interference	Human Felled Tree	0.051315789	0.078615789
77V-302	Foreign Interference	Vehicle	0.032894737	0.191129386
77V-302	Lightning	Lightning	0.002631579	0.009514035
77V-302	Tree Contacts	Broken Branch	0.001973684	0.006566447
77V-302	Tree Contacts	Falling Trees	0.385526316	0.602625219
77V-302	Unknown	Unknown	0.009210526	0.043050658
77V-303	Adverse Weather	Wind	0.162206002	0.256772101
77V-303	Defective Equipment	Mechanical Failure	0.177069395	0.113367295
77V-303	Foreign Interference	Animal/Bird	0.073923639	0.120297861
77V-303	Tree Contacts	Broken Branch	0.041429732	0.25118156
77V-303	Unknown	Unknown	0.008123477	0.008187923
77V-401	Adverse Weather	Wind	0.001494768	0.005760214
77V-401	Defective Equipment	Electrical Failure	0.000747384	0.005899103
77V-401	Defective Equipment	Mechanical Failure	0.01793722	0.058790359
77V-401	Foreign Interference	Animal/Bird	0.002242152	0.006038117
77V-401	Tree Contacts	Falling Trees	1.536621824	3.427434978
77V-401	Unknown	Unknown	0.783258595	0.167543224
78W-301	Adverse Weather	Wind	0.003783102	0.041883985
78W-301	Defective Equipment	Electrical Failure	0.001261034	0.005278478
78W-301	Defective Equipment	Mechanical Failure	0.015132409	0.030142707
78W-301	Foreign Interference	Animal/Bird	0.01261034	0.030382934
78W-301	Foreign Interference	Vehicle	0.001261034	0.01382871
78W-301	Loss of Supply	Transmission Line	2	2.859166667
78W-301	Tree Contacts	Falling Trees	0.389659521	1.908944935
78W-301	Unknown	Unknown	0.813366961	0.763289617
78W-302	Adverse Weather	Wind	0.008474576	0.013507062
78W-302	Defective Equipment	Mechanical Failure	0.040267732	0.117812403
78W-302	Foreign Interference	Animal/Bird	0.002118644	0.001112994
78W-302	Loss of Supply	Transmission Line	2	2.859166667
78W-302	Tree Contacts	Falling Trees	1.021186441	4.351617585
78W-302	Unknown	Unknown	0.008474576	0.054490819
79V-401	Adverse Weather	Wind	0.000381388	0.000866069
79V-401	Defective Equipment	Electrical Failure	0.007630094	0.026348916
79V-401	Defective Equipment	Mechanical Failure	0.066750955	0.121539516
79V-401	Foreign Interference	Animal/Bird	0.001144165	0.00240122
79V-401	Foreign Interference	Vandal	0.000381388	0.002441266
79V-401	Foreign Interference	Vehicle	1.000381388	1.592849479
79V-401	Loss of Supply	Transmission Line	1	1.966333333
79V-401	Tree Contacts	Falling Trees	1.733028223	4.502324053
79V-401	Tree Contacts	Untrimmed Tree	0.001144165	0.006150331

79V-401	Unknown	Unknown	1.006869361	2.41644361
79V-402	Adverse Environment	Building/Forest Fire	0.004584527	0.005423496
79V-402	Adverse Weather	Wind	0.012153393	0.025977861
79V-402	Defective Equipment	Electrical Failure	0.013467049	0.038933238
79V-402	Defective Equipment	Mechanical Failure	1.002598729	5.150770427
79V-402	Foreign Interference	Animal/Bird	0.003151862	0.010051958
79V-402	Foreign Interference	Telephone/Cable Plant	0.000573066	0.001942025
79V-402	Foreign Interference	Vehicle	0.000286533	0.000627841
79V-402	Loss of Supply	Transmission Line	1	1.966333333
79V-402	Tree Contacts	Broken Branch	1	2.556333333
79V-402	Unknown	Galloping	0.001146132	0.002680038
79V-402	Unknown	Unknown	0.012893983	0.055723878
79V-403	Adverse Environment	Building/Forest Fire	0.001885607	0.008467002
79V-403	Defective Equipment	Electrical Failure	0.005028284	0.023766813
79V-403	Defective Equipment	Mechanical Failure	0.065368879	0.261328598
79V-403	Foreign Interference	Animal/Bird	0.008170962	0.035418186
79V-403	Loss of Supply	Transmission Line	1	1.966333333
79V-403	Tree Contacts	Falling Trees	0.002514142	0.00459889
79V-403	Tree Contacts	Untrimmed Tree	0.000628536	0.000961659
79V-403	Unknown	Unknown	0.010058942	0.019293461
7N-301	Adverse Weather	Wind	0.000647668	0.001918502
7N-301	Defective Equipment	Electrical Failure	0.034974093	0.016367876
7N-301	Defective Equipment	Mechanical Failure	0.036951577	0.126039994
7N-301	Foreign Interference	Animal/Bird	0.007773703	0.020674506
7N-301	Loss of Supply	Transmission Substation	2	14.263
7N-301	Tree Contacts	Falling Trees	0.000647668	0.002397668
7N-301	Tree Contacts	Untrimmed Tree	0.001295337	0.002615285
7N-301	Unknown	Unknown	0.022032501	0.07750691
7N-302	Adverse Weather	Wind	0.002079002	0.008827443
7N-302	Defective Equipment	Electrical Failure	0.002066116	0.005819559
7N-302	Defective Equipment	Mechanical Failure	0.006211233	0.023736611
7N-302	Foreign Interference	Animal/Bird	0.04338843	0.251934229
7N-302	Loss of Supply	Transmission Substation	1	4.312072314
7N-302	Unknown	Other Cause	0.002079002	0.004116424
7N-302	Unknown	Unknown	0.020674043	0.110169777
80W-301	Defective Equipment	Mechanical Failure	0.021080369	0.056559069
80W-301	Foreign Interference	Animal/Bird	0.001317523	0.011747475
80W-301	Loss of Supply	Transmission Line	2	2.829333333
80W-301	Tree Contacts	Falling Trees	0.002635046	0.05010628
80W-301	Unknown	Other Cause	0.001317523	0.004713439
80W-301	Unknown	Unknown	0.101449275	1.190814449
80W-302	Loss of Supply	Transmission Line	2	2.829333333
80W-302	Unknown	Unknown	0.5	0.318083333
80W-303	Loss of Supply	Transmission Line	1	2.087166667

81N-411	Adverse Weather	Wind	0.022802709	0.072665893
81N-411	Defective Equipment	Electrical Failure	0.000817661	0.004047152
81N-411	Defective Equipment	Mechanical Failure	0.057044734	0.040928998
81N-411	Foreign Interference	Animal/Bird	0.011447261	0.03293704
81N-411	Foreign Interference	Vehicle	1.000817661	0.216347234
81N-411	Lightning	Lightning	0.475061325	1.722205097
81N-411	Loss of Supply	Transmission Substation	1	5.666666667
81N-411	Tree Contacts	Broken Branch	0.006541292	0.004864541
81N-411	Tree Contacts	Falling Trees	0.068591753	0.163548076
81N-411	Tree Contacts	Untrimmed Tree	0.017170891	0.028695421
81N-411	Unknown	Unknown	0.503679477	3.644461161
81N-412	Defective Equipment	Electrical Failure	0.004991087	0.080295484
81N-412	Defective Equipment	Mechanical Failure	0.00499185	0.031497485
81N-412	Foreign Interference	Animal/Bird	0.006417112	0.022719667
81N-412	Foreign Interference	Other Foreign	0.000356506	0.000950564
81N-412	Foreign Interference	Vehicle	1.091983951	3.078910656
81N-412	Loss of Supply	Transmission Substation	1	5.664646465
81N-412	Tree Contacts	Broken Branch	0.000356506	0.002578253
81N-412	Tree Contacts	Falling Trees	1.76571817	2.924547632
81N-412	Tree Contacts	Untrimmed Tree	0.000713012	0.006596078
81N-412	Unknown	Galloping	0.002495544	0.009591563
81N-412	Unknown	Unknown	0.010340207	0.071901726
81S-301	Defective Equipment	Mechanical Failure	0.150741351	0.39978693
81S-301	Foreign Interference	Animal/Bird	0.014827018	0.069392641
81S-301	Loss of Supply	Transmission Substation	2	0.298506601
81S-301	Unknown	Unknown	0.004942339	0.018659665
81S-302	Defective Equipment	Mechanical Failure	0.004191617	0.014210379
81S-302	Foreign Interference	Animal/Bird	0.048502994	0.137425948
81S-302	Loss of Supply	Transmission Substation	2	0.298820851
81S-302	Unknown	Sagging	0.013173653	0.015676647
81S-302	Unknown	Unknown	0.013772455	0.054609381
81S-303	Adverse Weather	Wind	0.008494573	0.024897751
81S-303	Defective Equipment	Electrical Failure	0.010382256	0.062348907
81S-303	Defective Equipment	Mechanical Failure	0.330344502	0.47563843
81S-303	Foreign Interference	Animal/Bird	0.002831524	0.009130171
81S-303	Foreign Interference	Vehicle	1.004247286	10.58253634
81S-303	Lightning	Lightning	0.001415762	0.005511955
81S-303	Loss of Supply	Transmission Substation	2	0.298745163
81S-303	Tree Contacts	Falling Trees	0.000471921	0.001014236
81S-303	Tree Contacts	Untrimmed Tree	0.000471921	0.003192937
81S-303	Unknown	Unknown	0.130722039	0.303960752
81S-304	Adverse Weather	Wind	0.001042753	0.002758081
81S-304	Defective Equipment	Mechanical Failure	0.030266038	0.082227483
81S-304	Foreign Interference	Vehicle	0.008342023	0.063904067

81S-304	Loss of Supply	Transmission Substation	2	12.433
81S-304	Unknown	Unknown	0.00104712	0.008865969
81S-305	Adverse Environment	Building/Forest Fire	0.009632751	0.024704395
81S-305	Defective Equipment	Electrical Failure	0.043347381	0.110709211
81S-305	Defective Equipment	Mechanical Failure	1.139674895	0.960370861
81S-305	Foreign Interference	Animal/Bird	0.012040939	0.053230985
81S-305	Foreign Interference	Vehicle	0.012040939	0.022341963
81S-305	Loss of Supply	Transmission Substation	2	11.335
81S-305	Unknown	Other Cause	0.000602047	0.003117801
81S-305	Unknown	Unknown	0.031908489	0.12916757
81S-306	Adverse Environment	Salt Contamination	0.00059988	0.006243051
81S-306	Adverse Weather	Wind	0.553420288	1.063655397
81S-306	Defective Equipment	Electrical Failure	0.015603002	0.045366582
81S-306	Defective Equipment	Mechanical Failure	0.143371326	0.464272246
81S-306	Foreign Interference	Animal/Bird	0.00119976	0.002293941
81S-306	Loss of Supply	Transmission Inadvertent	0.531212485	4.652358944
81S-306	Loss of Supply	Transmission Substation	1.447178872	12.71895258
81S-306	Tree Contacts	Untrimmed Tree	0.00059988	0.002130574
81S-306	Unknown	Sagging	0.00060024	0.002058824
81S-306	Unknown	Unknown	0.086383084	0.130115069
81S-307	Adverse Weather	Wind	0.009562842	0.023811475
81S-307	Defective Equipment	Electrical Failure	0.010914052	0.053809914
81S-307	Defective Equipment	Mechanical Failure	0.001364256	0.00937176
81S-307	Loss of Supply	Transmission Substation	2.010928962	12.51825137
81S-307	Unknown	Sagging	0.001364256	0.02083447
81S-307	Unknown	Unknown	0.0313984	0.218190621
81W-Dist	Defective Equipment	Mechanical Failure	0.000427533	0.000775118
81W-Dist	Unknown	Unknown	0.00684053	0.032807183
82S-302	Defective Equipment	Mechanical Failure	0.112	0.306119333
82S-302	Unknown	Unknown	0.044	0.289464667
82S-303	Defective Equipment	Electrical Failure	0.003521127	0.008975352
82S-303	Defective Equipment	Mechanical Failure	0.004929577	0.008675469
82S-303	Foreign Interference	Animal/Bird	0.011267606	0.024389202
82S-303	Foreign Interference	Vehicle	0.000704225	0.005124765
82S-303	Tree Contacts	Broken Branch	0.000704225	0.001780282
82S-303	Unknown	Unknown	0.06056338	0.135221948
82S-304	Defective Equipment	Mechanical Failure	0.73068926	2.40572347
82S-304	Foreign Interference	Animal/Bird	0.001628664	0.006383415
82S-304	Unknown	Unknown	0.013843648	0.040640608
82V-401	Defective Equipment	Electrical Failure	0.002208415	0.008820379
82V-401	Defective Equipment	Mechanical Failure	0.058678052	0.11716955
82V-401	Foreign Interference	Animal/Bird	0.009099467	0.024871352
82V-401	Foreign Interference	Human Felled Tree	0.001882648	0.00869407
82V-401	Lightning	Lightning	0.000313775	0.001243228

82V-401	Tree Contacts	Falling Trees	0.400062755	0.786990116
82V-401	Tree Contacts	Untrimmed Tree	0.001882648	0.005062441
82V-401	Unknown	Galloping	0.000313775	0.001278214
82V-401	Unknown	Unknown	0.459999158	0.410715496
82V-402	Adverse Environment	Building/Forest Fire	0.00035137	0.00027319
82V-402	Adverse Weather	Wind	0.001405481	0.00287134
82V-402	Defective Equipment	Mechanical Failure	0.003866557	0.018671493
82V-402	Foreign Interference	Animal/Bird	0.039704849	0.135066643
82V-402	Foreign Interference	Human Felled Tree	0.768095573	0.262048606
82V-402	Foreign Interference	Vehicle	0.000351741	0.000479423
82V-402	Tree Contacts	Falling Trees	0.059030218	0.124462286
82V-402	Tree Contacts	Untrimmed Tree	0.029163739	0.043389201
82V-402	Unknown	Unknown	0.048137737	0.282808269
82V-403	Defective Equipment	Mechanical Failure	0.017589671	0.093521662
82V-403	Foreign Interference	Animal/Bird	0.010989011	0.039762088
82V-403	Unknown	Unknown	0.052747253	0.393569231
82V-422	Adverse Weather	Wet Snow	0.002086957	0.014629565
82V-422	Defective Equipment	Electrical Failure	0.000347826	0.001855536
82V-422	Defective Equipment	Mechanical Failure	0.019130435	0.04702887
82V-422	Foreign Interference	Animal/Bird	0.001043478	0.003856348
82V-422	Foreign Interference	Vehicle	0.002434783	0.003485797
82V-422	Tree Contacts	Falling Trees	0.00173913	0.006611594
82V-422	Tree Contacts	Untrimmed Tree	0.026786524	0.046479793
82V-422	Unknown	Unknown	0.022956522	0.132512
82V-423	Adverse Weather	Wind	0.255317439	0.553386716
82V-423	Defective Equipment	Electrical Failure	0.008164498	0.018919264
82V-423	Defective Equipment	Mechanical Failure	0.653028573	2.478912317
82V-423	Foreign Interference	Animal/Bird	0.002285341	0.007644956
82V-423	Foreign Interference	Vehicle	0.113963664	0.522768731
82V-423	Lightning	Lightning	0.035259549	0.126109261
82V-423	Tree Contacts	Broken Branch	0.001305909	0.004930243
82V-423	Tree Contacts	Falling Trees	0.908259876	2.928331592
82V-423	Tree Contacts	Untrimmed Tree	0.00065381	0.001167333
82V-423	Unknown	Other Cause	0.000326477	0.001193982
82V-423	Unknown	Unknown	0.022218431	0.083707163
83V-301	Adverse Environment	Building/Forest Fire	0.00093633	0.000984707
83V-301	Adverse Weather	Wind	0.00752587	0.028465663
83V-301	Defective Equipment	Electrical Failure	0.001872659	0.010925406
83V-301	Defective Equipment	Mechanical Failure	0.100636493	0.373294709
83V-301	Foreign Interference	Animal/Bird	0.025280899	0.049865637
83V-301	Lightning	Lightning	0.004681648	0.044549782
83V-301	Tree Contacts	Broken Branch	0.00093633	0.001848471
83V-301	Tree Contacts	Falling Trees	1.388576779	4.114611579
83V-301	Unknown	Unknown	0.024344569	0.056131554

83V-302	Adverse Weather	Wind	0.000513875	0.000514388
83V-302	Defective Equipment	Mechanical Failure	0.000513875	0.000902963
83V-302	Foreign Interference	Animal/Bird	0.024665982	0.039785029
83V-302	Tree Contacts	Untrimmed Tree	0.004624872	0.036457091
83V-302	Unknown	Unknown	0.031860226	0.167967283
83V-303	Adverse Weather	Wind	0.105218189	0.353787781
83V-303	Defective Equipment	Mechanical Failure	0.083996463	0.336864279
83V-303	Foreign Interference	Animal/Bird	0.00265252	0.005328323
83V-303	Human Element	Maintenance Error	0.000884173	0.011793103
83V-303	Lightning	Lightning	0.000884173	0.005187445
83V-303	Loss of Supply	Transmission Line	0.143236074	0.508101827
83V-303	Tree Contacts	Falling Trees	0.721485411	2.35641674
83V-303	Tree Contacts	Untrimmed Tree	0.007073386	0.024868848
83V-303	Unknown	Unknown	0.007076519	0.032472679
84S-302	Adverse Weather	Wind	0.039370079	0.049094488
84S-302	Defective Equipment	Electrical Failure	0.322834646	0.738645669
84S-302	Defective Equipment	Mechanical Failure	0.007874016	0.012488189
84S-302	Foreign Interference	Animal/Bird	0.035433071	0.084886483
84S-302	Tree Contacts	Falling Trees	1	5.825433071
84S-302	Unknown	Unknown	0.125984252	0.702005249
84S-303	Defective Equipment	Mechanical Failure	0.076923077	0.324782051
84S-303	Unknown	Unknown	0.076923077	0.258166667
84S-305	Adverse Weather	Wind	0.003921569	0.018058824
84S-305	Tree Contacts	Falling Trees	0.003921569	0.006565359
84S-305	Unknown	Sagging	0.003921569	0.013407843
84W-301	Defective Equipment	Electrical Failure	0.000722543	0.001967967
84W-301	Defective Equipment	Mechanical Failure	0.013728324	0.043867293
84W-301	Foreign Interference	Animal/Bird	0.010115607	0.018151012
84W-301	Foreign Interference	Human Felled Tree	0.358384123	0.541477654
84W-301	Foreign Interference	Vehicle	0.00216763	0.003539379
84W-301	Loss of Supply	Transmission Inadvertent	1	15.05
84W-301	Tree Contacts	Broken Branch	0.000722543	0.003044075
84W-301	Tree Contacts	Falling Trees	0.365606936	0.648294798
84W-301	Tree Contacts	Untrimmed Tree	0.00216763	0.005151975
84W-301	Unknown	Unknown	0.019508671	0.042727722
84W-302	Defective Equipment	Electrical Failure	0.001108647	0.004338507
84W-302	Defective Equipment	Mechanical Failure	0.005543237	0.006482816
84W-302	Foreign Interference	Animal/Bird	0.069844789	0.200300259
84W-302	Loss of Supply	Transmission Inadvertent	1	15.05
84W-302	Tree Contacts	Falling Trees	1.216426193	1.655149834
84W-302	Tree Contacts	Untrimmed Tree	0.001108647	0.020274945
84W-302	Unknown	Unknown	0.013303769	0.053131559
85S-401	Adverse Environment	Salt Contamination	0.002649007	0.010135099
85S-401	Adverse Weather	Ice	0.000441501	0.003192053

85S-401	Adverse Weather	Wet Snow	0.000883002	0.072823841
85S-401	Adverse Weather	Wind	1.548253644	6.380304987
85S-401	Defective Equipment	Electrical Failure	0.089585172	0.373050971
85S-401	Defective Equipment	Mechanical Failure	0.726395962	1.202442718
85S-401	Foreign Interference	Animal/Bird	0.009267432	0.089926155
85S-401	Foreign Interference	Vehicle	0.000441306	0.002826052
85S-401	Lightning	Lightning	0.02250662	0.022853192
85S-401	Loss of Supply	Generation	1	2.851130847
85S-401	Tree Contacts	Broken Branch	0.001765225	0.006552515
85S-401	Tree Contacts	Falling Trees	2.162020411	8.517265844
85S-401	Tree Contacts	Untrimmed Tree	0.000883002	0.003507066
85S-401	Unknown	Galloping	0.000441306	0.000971977
85S-401	Unknown	Overload	0.238957597	0.300498675
85S-401	Unknown	Unknown	0.212348978	1.075476319
85S-402	Adverse Environment	Building/Forest Fire	0.001838235	0.004722426
85S-402	Adverse Weather	Ice	0.001838235	0.0055
85S-402	Adverse Weather	Wind	0.022113089	0.125527075
85S-402	Defective Equipment	Mechanical Failure	0.12727914	0.170280047
85S-402	Foreign Interference	Animal/Bird	0.014705882	0.041576287
85S-402	Lightning	Lightning	0.016544118	0.049338542
85S-402	Loss of Supply	Generation	1	2.8625
85S-402	Loss of Supply	Transmission Line	0.375	0.0359375
85S-402	Tree Contacts	Falling Trees	0.154893369	3.115645499
85S-402	Unknown	Unknown	0.005514706	0.020254289
87H-311	Defective Equipment	Electrical Failure	0.002377179	0.006317618
87H-311	Defective Equipment	Mechanical Failure	0.019810454	0.053933523
87H-311	Foreign Interference	Animal/Bird	0.004754358	0.018751849
87H-311	Tree Contacts	Untrimmed Tree	0.015847861	0.027558637
87H-311	Unknown	Unknown	0.022979398	0.076386424
87H-312	Defective Equipment	Electrical Failure	0.006124988	0.031518424
87H-312	Defective Equipment	Mechanical Failure	0.015315699	0.050886494
87H-312	Foreign Interference	Animal/Bird	0.000765697	0.002969245
87H-312	Foreign Interference	Vehicle	0.148771832	1.02389449
87H-312	Tree Contacts	Falling Trees	0.00229709	0.009534839
87H-312	Tree Contacts	Untrimmed Tree	0.007656968	0.012457887
87H-312	Unknown	Unknown	0.139271282	0.357764198
87H-313	Adverse Weather	Wind	0.000986923	0.004473698
87H-313	Defective Equipment	Electrical Failure	0.00049334	0.0065259
87H-313	Defective Equipment	Mechanical Failure	0.008889878	0.041616779
87H-313	Foreign Interference	Animal/Bird	0.004933399	0.014391547
87H-313	Foreign Interference	Vehicle	0.00049334	0.006754317
87H-313	Tree Contacts	Falling Trees	0.230883078	0.407788439
87H-313	Tree Contacts	Untrimmed Tree	0.00148002	0.006146851
87H-313	Unknown	Overload	0.00049334	0.000776188

87H-313	Unknown	Unknown	0.004938279	0.023947151
87W-311	Defective Equipment	Electrical Failure	0.000512295	0.001911544
87W-311	Defective Equipment	Mechanical Failure	0.109726253	0.130086815
87W-311	Foreign Interference	Animal/Bird	0.002561475	0.004313952
87W-311	Foreign Interference	Human Felled Tree	0.003080082	0.008393224
87W-311	Foreign Interference	Vehicle	0.000512295	0.000114242
87W-311	Tree Contacts	Broken Branch	0.455942623	0.82005251
87W-311	Tree Contacts	Falling Trees	0.227459016	0.372851349
87W-311	Tree Contacts	Untrimmed Tree	0.024077869	0.010909068
87W-311	Unknown	Unknown	0.013833019	0.056582256
87W-312	Adverse Weather	Wind	0.000595238	0.001606647
87W-312	Defective Equipment	Electrical Failure	0.003572849	0.015529021
87W-312	Defective Equipment	Mechanical Failure	0.05	0.42551756
87W-312	Foreign Interference	Animal/Bird	0.019642857	0.017903274
87W-312	Foreign Interference	Vehicle	0.946676676	8.722550993
87W-312	Tree Contacts	Falling Trees	0.008336175	0.168661053
87W-312	Tree Contacts	Untrimmed Tree	0.001192606	0.060592725
87W-312	Unknown	Other Cause	0.000596303	0.02815325
87W-312	Unknown	Overload	0.000596659	0.001862172
87W-312	Unknown	Unknown	0.211329756	0.684541447
88H-401	Adverse Environment	Building/Forest Fire	0.00123839	0.010081837
88H-401	Adverse Weather	Wet Snow	0.165325077	0.983684211
88H-401	Adverse Weather	Wind	0.000619195	0.001147265
88H-401	Defective Equipment	Electrical Failure	0.175232198	0.955624561
88H-401	Defective Equipment	Mechanical Failure	1.026625387	9.554305779
88H-401	Foreign Interference	Animal/Bird	0.00990943	0.059007563
88H-401	Foreign Interference	Vehicle	1.315170279	0.932848813
88H-401	Lightning	Lightning	0.358513932	1.361475335
88H-401	Tree Contacts	Falling Trees	0.449568312	1.511030777
88H-401	Unknown	Unknown	0.009289078	0.054508994
88H-402	Adverse Weather	Wind	0.004244997	0.015385992
88H-402	Defective Equipment	Electrical Failure	0.001819284	0.02723964
88H-402	Defective Equipment	Mechanical Failure	0.120072771	0.319284415
88H-402	Foreign Interference	Animal/Bird	0.012128563	0.03700283
88H-402	Foreign Interference	Vehicle	0.405093996	0.547159794
88H-402	Lightning	Lightning	0.032747119	0.032486558
88H-402	Tree Contacts	Broken Branch	0.000606428	0.00034344
88H-402	Tree Contacts	Falling Trees	0.191631292	1.220407823
88H-402	Tree Contacts	Untrimmed Tree	0.000606428	0.002858601
88H-402	Unknown	Unknown	0.024863554	0.166007985
88W-311	Adverse Weather	Wind	0.004523609	0.006110992
88W-311	Defective Equipment	Mechanical Failure	0.026012987	0.053906282
88W-311	Tree Contacts	Falling Trees	0.031638418	0.071045763
88W-311	Unknown	Unknown	0.003391109	0.01604317

88W-312	Adverse Environment	Building/Forest Fire	0.00056338	0.000207324
88W-312	Adverse Weather	Wind	0.00056338	0.000978028
88W-312	Defective Equipment	Corrosion	0.00056338	0.002051831
88W-312	Defective Equipment	Mechanical Failure	0.120622767	0.25944828
88W-312	Tree Contacts	Falling Trees	0.002253521	0.00488939
88W-312	Tree Contacts	Untrimmed Tree	0.001690458	0.005548269
88W-312	Unknown	Unknown	0.010704543	0.021609903
88W-313	Adverse Weather	Wind	0.000953289	0.004146806
88W-313	Tree Contacts	Falling Trees	0.000953289	0.000859867
88W-313	Tree Contacts	Untrimmed Tree	0.00095511	0.002019739
88W-313	Unknown	Unknown	0.004775549	0.022244349
88W-314	Adverse Weather	Ice	0.38976378	0.625181102
88W-314	Adverse Weather	Wind	0.019685039	0.309901575
88W-314	Defective Equipment	Mechanical Failure	0.006547938	0.031095237
88W-314	Foreign Interference	Animal/Bird	0.003926702	0.014221204
88W-314	Unknown	Sagging	0.001312336	5.51181E-05
88W-314	Unknown	Unknown	0.116499017	0.382584436
88W-322	Defective Equipment	Electrical Failure	0.023980815	0.05922462
88W-322	Defective Equipment	Mechanical Failure	0.023980815	0.161730616
88W-322	Foreign Interference	Vehicle	0.455635492	2.483438849
88W-322	Loss of Supply	Transmission Inadvertent	1	5.329166667
88W-322	Unknown	Other Cause	0.002398082	0.007306954
88W-322	Unknown	Unknown	0.016786571	0.102434852
88W-323	Adverse Weather	Wind	0.082745991	0.02755131
88W-323	Defective Equipment	Electrical Failure	0.098315701	0.18736317
88W-323	Defective Equipment	Mechanical Failure	0.023351562	0.057380365
88W-323	Foreign Interference	Animal/Bird	0.000707214	0.001402287
88W-323	Human Element	Improper Construction	0.005657709	0.066352664
88W-323	Lightning	Lightning	0.002828854	0.00255917
88W-323	Loss of Supply	Transmission Inadvertent	1	5.327
88W-323	Tree Contacts	Falling Trees	0.002828854	0.030868458
88W-323	Tree Contacts	Untrimmed Tree	0.000707214	0.004118105
88W-323	Unknown	Unknown	0.168316832	0.307642739
89W-301	Foreign Interference	Animal/Bird	0.02173913	0.049963768
89W-301	Unknown	Unknown	0.019021739	0.024805254
89W-302	Defective Equipment	Mechanical Failure	0.025679758	0.042903323
89W-302	Foreign Interference	Animal/Bird	0.049019608	0.087029412
89W-302	Tree Contacts	Broken Branch	1.023378582	0.182566114
89W-302	Tree Contacts	Falling Trees	2.018100687	3.356212681
89W-302	Tree Contacts	Untrimmed Tree	0.009803922	0.030386249
89W-302	Unknown	Unknown	0.005279035	0.033295123
89W-303	Adverse Weather	Wind	0.316687875	3.221103087
89W-303	Defective Equipment	Mechanical Failure	0.049090329	0.191705126
89W-303	Foreign Interference	Animal/Bird	0.01542777	0.026370266

89W-303	Tree Contacts	Broken Branch	0.004207574	0.006988897
89W-303	Tree Contacts	Falling Trees	0.11782782	0.639563923
89W-303	Tree Contacts	Untrimmed Tree	0.001402525	0.004870734
89W-303	Unknown	Unknown	0.056106891	0.154454629
89W-304	Foreign Interference	Animal/Bird	0.01025641	0.022042735
89W-304	Tree Contacts	Falling Trees	1.033333333	18.3491
89W-304	Unknown	Unknown	0.082051282	0.098584615
91W-411	Adverse Weather	Wind	0.024409449	0.641843438
91W-411	Defective Equipment	Electrical Failure	0.001576045	0.020241207
91W-411	Defective Equipment	Mechanical Failure	0.010237462	0.194817772
91W-411	Foreign Interference	Animal/Bird	0.001574803	0.005589895
91W-411	Foreign Interference	Human Felled Tree	0.000787402	0.001029921
91W-411	Loss of Supply	Transmission Line	2.961417323	8.063888189
91W-411	Tree Contacts	Broken Branch	0.003150848	0.013689461
91W-411	Tree Contacts	Falling Trees	0.688188976	2.841750656
91W-411	Unknown	Sagging	0.008661417	0.076501969
91W-411	Unknown	Unknown	1.011024864	2.331054862
92H-331	Adverse Weather	Ice	0.002391391	0.002599442
92H-331	Adverse Weather	Wind	0.534978527	1.887815032
92H-331	Defective Equipment	Electrical Failure	0.005962636	0.020296602
92H-331	Defective Equipment	Mechanical Failure	0.852169703	1.746892308
92H-331	Foreign Interference	Animal/Bird	0.017488076	0.028002252
92H-331	Foreign Interference	Human Felled Tree	0.002787734	0.008282358
92H-331	Foreign Interference	Vehicle	0.000397456	0.000353206
92H-331	Tree Contacts	Falling Trees	1.019908428	1.713123004
92H-331	Tree Contacts	Untrimmed Tree	0.00278536	0.009814844
92H-331	Unknown	Unknown	0.049682035	0.149232777
92H-332	Defective Equipment	Electrical Failure	0.000851064	0.003041702
92H-332	Defective Equipment	Mechanical Failure	0.011914894	0.062654752
92H-332	Foreign Interference	Animal/Bird	0.006808511	0.008451348
92H-332	Tree Contacts	Untrimmed Tree	0.006808511	0.020181986
92H-332	Unknown	Unknown	0.000851064	0.001640142
92H-334	Defective Equipment	Electrical Failure	0.000831255	0.001511222
92H-334	Defective Equipment	Mechanical Failure	0.000834028	0.001477064
92H-334	Foreign Interference	Animal/Bird	0.011637573	0.021868108
92H-334	Foreign Interference	Vehicle	0.000831255	0.001463425
92H-334	Tree Contacts	Broken Branch	0.054031588	0.245636603
92H-334	Tree Contacts	Falling Trees	0.00166251	0.009017595
92H-334	Tree Contacts	Untrimmed Tree	0.014962594	0.041525353
92H-334	Unknown	Galloping	0.000832639	0.002292256
92H-334	Unknown	Other Cause	1	2.089
92H-334	Unknown	Overload	0.539663748	0.859150761
92H-334	Unknown	Unknown	0.118230661	0.15889115
92W-302	Defective Equipment	Electrical Failure	0.02247191	0.205699694

92W-302	Defective Equipment	Mechanical Failure	0.201225741	0.046047327
92W-302	Foreign Interference	Animal/Bird	0.005107252	0.067148962
92W-302	Foreign Interference	Vehicle	0.002042901	0.012927307
92W-302	Loss of Supply	Transmission Line	1	3.22
92W-302	Tree Contacts	Broken Branch	0.00102145	0.002411645
92W-302	Tree Contacts	Falling Trees	1.018386108	1.591907899
92W-302	Tree Contacts	Untrimmed Tree	0.00102145	0.002623425
92W-302	Unknown	Unknown	1.069458631	0.380787709
93V-311	Adverse Weather	Wind	0.032232864	0.195522256
93V-311	Defective Equipment	Electrical Failure	0.010186757	0.032500566
93V-311	Defective Equipment	Mechanical Failure	0.037344243	0.144551068
93V-311	Foreign Interference	Animal/Bird	0.001697793	0.005821307
93V-311	Tree Contacts	Falling Trees	0.240097288	0.824929352
93V-311	Tree Contacts	Untrimmed Tree	0.000848176	0.009105174
93V-311	Unknown	Unknown	0.022920204	0.046147001
93V-312	Adverse Weather	Wind	0.001236094	0.008635352
93V-312	Defective Equipment	Electrical Failure	0.003708282	0.01810445
93V-312	Defective Equipment	Mechanical Failure	0.003708282	0.011959415
93V-312	Foreign Interference	Vehicle	1.012360939	3.670393284
93V-312	Unknown	Unknown	0.002472188	0.006346106
93V-313	Adverse Weather	Wind	0.0425	0.181558083
93V-313	Defective Equipment	Corrosion	0.0005	0.0046505
93V-313	Defective Equipment	Electrical Failure	0.0015005	0.005890801
93V-313	Defective Equipment	Mechanical Failure	0.045509012	0.116767818
93V-313	Foreign Interference	Animal/Bird	0.002	0.008823167
93V-313	Tree Contacts	Falling Trees	0.0005	0.001169
93V-313	Unknown	Sagging	0.0005	0.001460583
93V-313	Unknown	Unknown	0.0550005	0.128681558
93V-314	Adverse Environment	Salt Contamination	0.045454545	0.073227273
93V-314	Defective Equipment	Mechanical Failure	0.090909091	0.259712121
93V-314	Unknown	Unknown	0.181818182	1.097757576
95H-251	Defective Equipment	Electrical Failure	0.012195122	0.134873984
95H-251	Foreign Interference	Animal/Bird	0.06097561	0.416697154
95H-251	Lightning	Lightning	0.073170732	0.229119919
95H-251	Loss of Supply	Transmission Line	1	0.416333333
95H-251	Tree Contacts	Falling Trees	0.012195122	0.07970935
95H-251	Tree Contacts	Untrimmed Tree	0.036585366	0.368097561
95H-251	Unknown	Unknown	1.609756098	15.18624797
96H-411	Adverse Weather	Wind	0.154306337	0.972813408
96H-411	Defective Equipment	Electrical Failure	0.01416122	0.066451344
96H-411	Defective Equipment	Mechanical Failure	0.230393345	1.509494278
96H-411	Foreign Interference	Animal/Bird	0.001633987	0.010563725
96H-411	Foreign Interference	Human Felled Tree	0.005991285	0.023827342
96H-411	Foreign Interference	Vehicle	0.068082789	0.204400871

96H-411	Lightning	Lightning	0.000544662	0.001499365
96H-411	Loss of Supply	Transmission Line	1	4.637166667
96H-411	Loss of Supply	Transmission Substation	1	3.287418301
96H-411	Tree Contacts	Broken Branch	0.001633987	0.00703976
96H-411	Tree Contacts	Falling Trees	1.131404979	4.699168959
96H-411	Tree Contacts	Untrimmed Tree	0.000544662	0.003356754
96H-411	Unknown	Galloping	0.021264995	0.061498364
96H-411	Unknown	Unknown	0.027777778	0.169865741
96H-412	Adverse Weather	Wind	0.003213139	0.010103523
96H-412	Defective Equipment	Mechanical Failure	0.014995031	0.050200573
96H-412	Foreign Interference	Animal/Bird	0.004282655	0.020158637
96H-412	Loss of Supply	Transmission Line	1	4.637166667
96H-412	Loss of Supply	Transmission Substation	1	3.3
96H-412	Tree Contacts	Falling Trees	0.002141328	0.009570485
96H-412	Unknown	Unknown	0.658064635	1.625219736
99H-311	Defective Equipment	Mechanical Failure	0.035035035	0.071906573
99H-311	Foreign Interference	Other Foreign	0.024024024	0.112286286
99H-311	Human Element	Improper Construction	0.001503006	0.001808116
99H-311	Human Element	Maintenance Error	0.001001001	0.0049336
99H-311	Unknown	Unknown	0.081581582	0.107107691
99H-312	Defective Equipment	Electrical Failure	0.001197605	0.013121357
99H-312	Defective Equipment	Mechanical Failure	1.00239521	5.074544511
99H-312	Tree Contacts	Untrimmed Tree	0.005988024	0.023061876
99H-312	Unknown	Unknown	0.499401198	0.499934531
99V-311	Defective Equipment	Mechanical Failure	0.014532243	0.023379958
99V-311	Foreign Interference	Animal/Bird	0.014532243	0.023075386
99V-311	Tree Contacts	Falling Trees	0.003633061	0.000535271
99V-311	Unknown	Unknown	0.000908265	0.001598244
99V-312	Defective Equipment	Mechanical Failure	0.010629849	0.011504767
99V-312	Foreign Interference	Animal/Bird	0.009810792	0.014842677
99V-312	Foreign Interference	Vehicle	1.001410437	1.769304654
99V-312	Unknown	Unknown	0.107954293	0.295278958
99V-313	Defective Equipment	Corrosion	0.034482759	0.064137931
99V-313	Foreign Interference	Other Foreign	0.002873563	0.003367816
99V-313	Tree Contacts	Broken Branch	1	0.723
99V-313	Unknown	Unknown	0.002873563	0.012284483
99V-314	Adverse Weather	Wind	0.041785375	0.471144191
99V-314	Defective Equipment	Mechanical Failure	0.150997151	0.259397911
99V-314	Foreign Interference	Animal/Bird	0.00379867	0.01151749
99V-314	Foreign Interference	Vandal	0.000474834	0.001427509
99V-314	Human Element	Switching Error	0.000474834	0.000944128
99V-314	Lightning	Lightning	0.000474834	0.001002691
99V-314	Tree Contacts	Falling Trees	2.433523267	3.811945711
99V-314	Tree Contacts	Untrimmed Tree	0.007597341	0.046540203

99V-314	Unknown	Other Cause	0.083095916	0.162687955
99V-314	Unknown	Unknown	1.044634378	2.477454495
9C-301	Loss of Supply	Transmission Substation	1	6.6155
9C-301	Tree Contacts	Falling Trees	1	8.1655
9C-301	Unknown	Unknown	0.166666667	2.545972222
9C-302	Loss of Supply	Transmission Substation	1	6.6155
9C-303	Adverse Weather	Wind	0.00862069	0.037375
9C-303	Foreign Interference	Animal/Bird	0.00862069	0.024913793
9C-303	Loss of Supply	Transmission Substation	1	6.6155
9C-303	Tree Contacts	Untrimmed Tree	0.004310345	0.011515805
9C-303	Unknown	Unknown	0.00862069	0.021043103
9C-304	Defective Equipment	Mechanical Failure	0.01369863	0.023394977
9C-304	Loss of Supply	Transmission Substation	1	6.6155
9C-304	Tree Contacts	Falling Trees	0.02739726	0.106020548
9C-304	Unknown	Unknown	0.01369863	0.093522831
L-4049	Defective Equipment	Mechanical Failure	0.302681992	0.349900383

Feeder Source Composite Risk Scores

Row Labels	Condition	Criticality	Risk	
100C-421		5	4	20
100C-422		4	4	16
100C-423		3	4	12
101H-411		4	5	20
101H-412		3	4	12
101H-413		3	6	18
101H-421		4	4	16
101H-422		4	4	16
101H-423		4	4	16
102W-311		3	4	12
102W-312		3	5	15
103C-311		4	4	16
103C-313		4	2	8
103C-314		4	4	16
103H-431		3	3	9
103H-432		3	4	12
103H-433		2	4	8
103H-434		3	5	15
103W-311		4	4	16
103W-312		4	4	16
104H-411		5	4	20
104H-412		4	3	12
104H-413		4	4	16
104H-421		3	5	15
104H-422		3	4	12
104H-423		4	4	16
104H-431		3	4	12
104H-432		4	3	12
104H-433		3	4	12
104H-441		4	4	16
104H-442		3	4	12
104S-311		3	4	12
104S-312		5	3	15
104S-313		4	4	16
108H-411		2	4	8
108H-412		2	4	8
108H-413		3	4	12
111S-311		2	4	8
111S-312		4	4	16
111S-313		2	4	8
111S-314		3	4	12
113H-431		3	4	12

113H-432	3	4	12
113H-433	4	5	20
113H-434	3	5	15
113H-441	3	5	15
113H-442	3	4	12
113H-443	3	4	12
113H-444	4	3	12
11S-301	4	5	20
11S-302	3	3	9
11S-303	2	3	6
11S-304	3	3	9
11S-305	3	3	9
11S-306	3	3	9
11S-411	4	5	20
11S-412	3	3	9
124H-301	3	4	12
124H-302	3	4	12
126H-311	4	3	12
126H-312	5	4	20
126H-313	4	4	16
127H-411	4	4	16
127H-412	1	3	3
127H-413	3	3	9
129H-411	3	4	12
129H-412	4	4	16
129H-413	3	4	12
12V-302	4	3	12
12V-303	4	3	12
12V-304	3	3	9
131H-421	2	4	8
131H-422	4	5	20
131H-423	4	5	20
131H-424	3	3	9
137H-411	4	4	16
137H-412	5	5	25
137H-413	3	5	15
137H-414	3	5	15
139H-411	2	4	8
139H-412	2	4	8
139H-413	2	5	10
139H-414	4	5	20
13V-303	3	3	9
141H-401	2	5	10
14V-303	4	4	16

15N-401	4	4	16
15N-402	2	4	8
15N-403	4	4	16
15N-404	3	4	12
15S-301	4	4	16
15S-302	3	3	9
15S-303	3	3	9
16N-301	4	4	16
16N-302	3	3	9
16V-314	3	5	15
16V-315	3	3	9
16W-301	4	5	20
16W-302	4	5	20
17N-201	3	3	9
17N-202	3	3	9
17N-203	3	3	9
18V-411	4	3	12
18V-412	3	3	9
18V-413	4	5	20
19C-203	3	3	9
19C-204	3	3	9
19W-311	3	3	9
19W-312	3	4	12
1C-411	3	4	12
1C-412	2	2	4
1C-413	3	1	3
1H-403	2	4	8
1H-405	1	4	4
1H-415	3	4	12
1H-419	2	3	6
1H-424	2	4	8
1H-427	3	4	12
1H-429	2	3	6
1H-431	1	4	4
1H-454	3	4	12
1H-456	1	1	1
1N-402	3	4	12
1N-403	3	4	12
1N-404	3	2	6
1N-405	4	5	20
1N-421	3	3	9
1V-442	1	1	1
1V-443	4	5	20
1W-411	3	3	9

20H-301	4	3	12
20H-302	3	4	12
20H-303	4	4	16
20H-304	4	4	16
20H-305	4	3	12
20H-306	4	4	16
20N-201	4	4	16
20N-203	2	3	6
20N-204	2	3	6
20V-311	4	3	12
20W-311	3	3	9
20W-312	3	4	12
21W-311	3	3	9
21W-312	2	3	6
22C-401	4	4	16
22C-402	5	3	15
22C-403	5	4	20
22C-404	4	5	20
22N-401	3	3	9
22N-402	4	4	16
22N-403	3	3	9
22N-404	2	5	10
22V-313	3	3	9
22V-314	2	3	6
22V-321	4	3	12
22V-322	3	4	12
22W-311	3	4	12
22W-312	3	4	12
22W-313	2	3	6
23H-301	5	3	15
23H-302	4	4	16
23H-303	3	5	15
23H-304	5	5	25
23W-301	5	4	20
23W-302	5	4	20
24C-442	5	5	25
24C-443	4	3	12
25W-301	5	4	20
25W-302	4	4	16
25W-303	3	4	12
2C-401	5	2	10
2C-402	4	5	20
2H-411	4	4	16
2H-412	2	2	4

2H-413	4	3	12
2H-421	4	4	16
2H-422	3	3	9
2H-423	2	4	8
2H-424	5	4	20
30N-411	4	2	8
30N-412	4	5	20
36V-301	4	4	16
36V-302	3	4	12
36V-303	4	5	20
36W-301	5	5	25
36W-304	3	3	9
37N-411	3	4	12
37N-412	4	4	16
37N-413	3	5	15
37N-414	4	3	12
37W-201	3	2	6
37W-202	3	3	9
37W-203	3	1	3
3N-411	3	2	6
3N-412	3	4	12
3S-301	3	3	9
3S-302	3	4	12
3S-303	3	4	12
3S-307	3	4	12
3S-308	4	3	12
3S-309	3	3	9
3S-403	4	4	16
3S-405	2	3	6
3W-201	2	1	2
40H-302	3	4	12
40H-303	3	2	6
40H-304	3	3	9
40H-305	3	3	9
40H-401	2	3	6
45V-201	2	4	8
45V-202	3	3	9
46W-301	5	4	20
46W-303	4	3	12
48H-301	3	4	12
48H-302	3	3	9
48H-303	2	3	6
48H-304	3	3	9
48W-201	3	3	9

48W-203	3	2	6
48W-204	3	3	9
4C-424	5	3	15
4C-430	5	5	25
4C-432	5	4	20
4C-441	5	4	20
4C-442	1	1	1
4N-311	3	4	12
4N-312	3	5	15
4N-313	4	4	16
4S-321	3	4	12
4S-322	4	3	12
4S-323	3	3	9
4S-324	3	3	9
4S-331	4	3	12
4S-332	4	2	8
4S-333	4	3	12
4S-334	2	4	8
4W-211	2	2	4
50N-311	2	1	2
50N-410	4	4	16
50N-411	3	4	12
50N-412	5	3	15
50N-415	4	3	12
50V-401	3	3	9
50V-402	3	4	12
50W-411	3	3	9
50W-412	4	5	20
51V-301	3	3	9
54H-301	3	2	6
54H-302	3	4	12
54H-303	3	3	9
54H-304	3	3	9
55N-201	3	3	9
55N-202	5	3	15
55N-203	3	3	9
55N-204	3	3	9
55V-313	4	4	16
55V-314	4	4	16
55V-322	3	3	9
55V-323	2	3	6
56N-401	4	4	16
56N-402	2	2	4
56N-414	4	5	20

57C-417	4	3	12
57C-422	5	3	15
57C-426	5	4	20
57S-401	5	5	25
57S-402	5	5	25
57W-401	5	5	25
57W-402	4	5	20
58C-403	4	4	16
58C-405	4	4	16
58H-421	3	5	15
58H-431	3	4	12
59C-401	5	3	15
59C-402	4	6	24
59C-403	3	4	12
62H-301	3	3	9
62H-302	4	4	16
62H-303	3	3	9
62H-304	4	4	16
62N-411	3	4	12
62N-412	4	3	12
62N-413	5	4	20
62N-414	3	5	15
62N-415	4	5	20
62N-416	3	4	12
63V-311	3	4	12
63V-312	3	4	12
63V-313	4	5	20
64V-301	3	4	12
64V-302	2	3	6
64V-303	3	4	12
65V-301	4	2	8
65V-302	3	5	15
65V-303	3	5	15
67C-411	4	4	16
67C-412	4	4	16
6N-301	3	4	12
6N-302	4	3	12
6W-201	2	2	4
70V-311	3	4	12
70V-312	4	4	16
70W-203	2	2	4
70W-204	2	2	4
70W-311	5	3	15
70W-312	3	3	9

70W-313	4	5	20
70W-314	2	3	6
70W-321	4	5	20
70W-322	3	3	9
731N-301	2	2	4
732N-301	2	2	4
73W-411	6	5	30
73W-412	2	2	4
74N-411	3	3	9
74N-412	4	4	16
74V-301	3	3	9
74V-302	3	3	9
76V-301	6	6	36
77V-301	3	3	9
77V-302	4	4	16
77V-303	3	3	9
77V-401	5	4	20
78W-301	3	5	15
78W-302	4	5	20
79V-401	4	3	12
79V-402	4	4	16
79V-403	3	3	9
7N-301	3	4	12
7N-302	3	3	9
7W-202	2	2	4
80W-301	4	5	20
80W-302	3	4	12
80W-303	2	1	2
81N-411	3	4	12
81N-412	3	5	15
81S-301	4	3	12
81S-302	3	3	9
81S-303	3	4	12
81S-304	4	3	12
81S-305	5	5	25
81S-306	5	4	20
81S-307	4	3	12
82S-302	3	3	9
82S-303	4	4	16
82S-304	3	4	12
82V-401	3	4	12
82V-402	5	4	20
82V-403	2	3	6
82V-422	3	4	12

82V-423	4	5	20
83V-301	3	4	12
83V-302	2	5	10
83V-303	3	4	12
84S-302	3	4	12
84S-303	4	3	12
84S-305	3	4	12
84W-301	3	4	12
84W-302	4	4	16
85S-401	5	5	25
85S-402	4	4	16
87H-311	4	4	16
87H-312	5	3	15
87H-313	5	4	20
87W-311	4	4	16
87W-312	4	3	12
88H-401	4	5	20
88H-402	5	4	20
88W-311	4	3	12
88W-312	3	4	12
88W-313	4	3	12
88W-314	3	3	9
88W-322	3	3	9
88W-323	3	3	9
89W-301	2	4	8
89W-302	4	4	16
89W-303	5	4	20
89W-304	4	4	16
91W-411	5	5	25
92H-331	4	4	16
92H-332	4	3	12
92H-334	3	3	9
92W-302	4	4	16
93V-311	3	4	12
93V-312	3	4	12
93V-313	5	4	20
93V-314	3	3	9
95H-251	5	2	10
96H-411	4	5	20
96H-412	5	4	20
99H-311	4	4	16
99H-312	3	3	9
99V-311	2	3	6
99V-312	3	3	9

99V-313	2	2	4
99V-314	4	4	16
9C-301	3	2	6
9C-302	2	1	2
9C-303	3	3	9
9C-304	3	2	6
9H-223	3	2	6
L-3202	2	1	2
L-4049	1	1	1

2025 Feeder Customer and Load (kWh)

Feeder	Customer Count	kWh
100C-421	3170824	975
100C-422	4565806	506
100C-423	3572264	12
101H-411	9732908	2245
101H-412	10852790	2044
101H-413	12280346	3659
101H-421	17277008	2923
101H-422	15440424	1328
101H-423	15208236	3311
102W-311	4647643	1147
102W-312	4968075	1623
103C-311	4346694	828
103C-313	652776	179
103C-314	2989577	907
103H-431	7121138	1070
103H-432	16080095	3844
103H-433	19451104	1256
103H-434	16015254	3760
103W-311	4430612	1564
103W-312	5272939	1613
104H-411	16583054	4317
104H-412	2588699	820
104H-413	14809067	4586
104H-421	20311957	2968
104H-422	22715066	1096
104H-423	5634993	1715
104H-431	18415489	3468
104H-432	3401303	413
104H-433	12080188	2045
104H-441	6496711	1780
104H-442	10875547	3880
104S-311	6392378	1333
104S-312	669312	243
104S-313	1805211	768
108H-411	8630475	484
108H-412	14903140	440
108H-413	12250324	3175
111S-311	7019492	426
111S-312	2749997	739
111S-313	5073753	493
111S-314	4383418	1383
113H-431	7485413	1890

113H-432	9295618	2395
113H-433	10108841	2765
113H-434	12097979	2863
113H-441	11720919	3056
113H-442	8430309	1932
113H-443	9854389	2813
113H-444	4734868	686
11S-301	4592504	1603
11S-302	4516078	1081
11S-303	5971119	893
11S-304	4214634	1170
11S-305	4747551	885
11S-306	6397115	217
11S-411	13793157	3325
11S-412	7746431	1480
124H-301	3304857	282
124H-302	5691901	204
126H-311	5770306	1597
126H-312	8092160	2149
126H-313	6579520	1816
127H-411	14651915	2751
127H-412	4589298	1
127H-413	6180895	116
129H-411	9195055	3987
129H-412	28118146	9996
129H-413	18207401	5575
12V-302	5395720	1768
12V-303	1790038	664
12V-304	3276515	1051
131H-421	9169243	2329
131H-422	21035525	5121
131H-423	16157570	3949
131H-424	7024054	1588
137H-411	18205206	3596
137H-412	15515640	3038
137H-413	19572781	4851
137H-414	4921425	465
139H-411	6872120	183
139H-412	3642358	90
139H-413	18838319	303
139H-414	10945449	2511
13V-303	3941860	1609
141H-401	9641720	2144
14V-303	8376	11

15N-401	17568286	4856
15N-402	13985432	216
15N-403	13503011	2047
15N-404	19495472	3873
15S-301	6123349	1894
15S-302	6245718	1353
15S-303	4085357	1215
16N-301	7489095	1774
16N-302	4386352	1354
16V-314	4941592	1487
16V-315	3001988	835
16W-301	7318641	1985
16W-302	3842420	1453
17N-201	796987	292
17N-202	1010354	324
17N-203	1495657	342
18V-411	5792578	724
18V-412	1962580	835
18V-413	6865525	1872
19C-203	926360	182
19C-204	988947	290
19W-311	1539193	426
19W-312	6420634	1151
1C-411	10392082	1466
1C-412	2042626	3
1C-413	33	1
1H-403	13398035	755
1H-405	8104690	184
1H-415	17145038	1558
1H-419	5735405	73
1H-424	8427916	603
1H-427	18000006	3399
1H-429	14272248	4
1H-431	9978428	850
1H-454	9533649	3293
1H-456	0	0
1N-402	13352335	2590
1N-403	10781051	2038
1N-404	1550175	484
1N-405	10426840	2975
1N-421	9352250	1586
1V-442	2076	1
1V-443	5067894	2121
1W-411	29615	7

20H-301	7469854	1670
20H-302	6677955	1837
20H-303	8646515	1498
20H-304	8005623	3292
20H-305	5734957	1219
20H-306	9232430	2514
20N-201	153819	47
20N-203	1435986	459
20N-204	1595815	594
20V-311	5641888	1407
20W-311	3031131	592
20W-312	3424204	158
21W-311	2652643	392
21W-312	2160911	274
22C-401	3506768	381
22C-402	1346553	567
22C-403	2467151	843
22C-404	9146695	2484
22N-401	10877730	2725
22N-402	7643275	3337
22N-403	4523495	1027
22N-404	14875446	454
22V-313	5126176	562
22V-314	4773104	283
22V-321	5847073	1406
22V-322	3026035	749
22W-311	6719076	1186
22W-312	8629208	1107
22W-313	5261900	1098
23H-301	3951392	1298
23H-302	5593171	1698
23H-303	4982192	2435
23H-304	8947268	3590
23W-301	786995	235
23W-302	4686147	991
24C-442	2190117	938
24C-443	4339356	1498
25W-301	2535297	1033
25W-302	4222945	912
25W-303	5081540	1093
2C-401	1482149	323
2C-402	5418834	1635
2H-411	14597695	3351
2H-412	1511264	224

2H-413	9701798	1640
2H-421	9955779	3120
2H-422	4001943	1170
2H-423	10706635	3829
2H-424	16601581	2052
30N-411	1777178	535
30N-412	2026972	681
36V-301	3880274	586
36V-302	6335946	1642
36V-303	6651523	1801
36W-301	2116047	782
36W-304	942215	417
37N-411	1730244	857
37N-412	2249946	867
37N-413	1992763	518
37N-414	3573844	1192
37W-201	532714	211
37W-202	2435706	246
37W-203	32524	16
3N-411	172338	23
3N-412	3500565	869
3S-301	2568852	805
3S-302	5286025	1319
3S-303	8073001	1764
3S-307	6392971	1952
3S-308	5154103	747
3S-309	4507178	1473
3S-403	5141973	1855
3S-405	2603700	33
3W-201	42723	7
40H-302	7868694	2450
40H-303	2928985	432
40H-304	5319577	1022
40H-305	2985402	973
40H-401	4562797	1124
45V-201	4170011	2
45V-202	1193845	520
46W-301	2082756	661
46W-303	1877552	605
48H-301	6397730	2366
48H-302	6722895	1516
48H-303	6354012	618
48H-304	6467949	889
48W-201	1120736	311

48W-203	526785	57
48W-204	1265553	375
4C-424	4291903	1118
4C-430	7591315	2504
4C-432	4554034	1264
4C-441	7664714	2257
4C-442	0	0
4N-311	3525523	1270
4N-312	6016791	2343
4N-313	3497712	1128
4S-321	5698719	1803
4S-322	5145810	636
4S-323	3720210	74
4S-324	7606424	1707
4S-331	6790767	1352
4S-332	2174033	396
4S-333	5826091	1567
4S-334	10961300	581
4W-211	3479	4
50N-311	225960	1
50N-410	8306872	2749
50N-411	6637645	1879
50N-412	11082517	2947
50N-415	2926951	834
50V-401	11647708	2117
50V-402	18489936	2423
50W-411	6888075	1699
50W-412	11939048	3467
51V-301	5143291	1185
54H-301	1529270	584
54H-302	5676086	1826
54H-303	6467734	1048
54H-304	4178555	1574
55N-201	666392	227
55N-202	1293258	320
55N-203	1360895	368
55N-204	1393426	387
55V-313	5469097	1766
55V-314	4955535	1490
55V-322	6727451	1353
55V-323	5489795	1169
56N-401	6183666	1152
56N-402	862729	11
56N-414	11803857	3175

57C-417	107595	57
57C-422	2490141	1240
57C-426	4526282	1772
57S-401	7463401	2162
57S-402	5647380	2075
57W-401	2238366	983
57W-402	1175987	332
58C-403	6530335	1494
58C-405	3922468	1607
58H-421	9681193	2696
58H-431	15189310	2038
59C-401	1468158	573
59C-402	5281697	1962
59C-403	3327938	788
62H-301	4384451	277
62H-302	5889522	2333
62H-303	3418677	1310
62H-304	4336912	2523
62N-411	11868010	1182
62N-412	7685143	1051
62N-413	10304755	2535
62N-414	10606136	2306
62N-415	5408152	1604
62N-416	11183795	2778
63V-311	5613393	1242
63V-312	2997713	935
63V-313	7838560	2141
64V-301	3885829	1040
64V-302	2053168	286
64V-303	5327202	209
65V-301	2937951	299
65V-302	5418879	2056
65V-303	8457444	1784
67C-411	5090893	1709
67C-412	5962650	1782
6N-301	7243945	908
6N-302	2151643	217
6W-201	4608	2
70V-311	6004962	1817
70V-312	3150938	1041
70W-203	1781731	276
70W-204	923538	278
70W-311	4637380	1172
70W-312	3806671	1169

70W-313	5442968	2102
70W-314	3142675	652
70W-321	6282256	1690
70W-322	4913025	1030
731N-301	251483	87
732N-301	488885	171
73W-411	14720894	6324
73W-412	2309368	174
74N-411	5031003	872
74N-412	2014232	697
74V-301	976574	80
74V-302	1516085	8
76V-301	660362	310
77V-301	5401168	885
77V-302	4149205	1518
77V-303	6211939	1231
77V-401	3780487	1337
78W-301	2157686	790
78W-302	1626375	470
79V-401	13285328	2614
79V-402	15482123	3447
79V-403	7075967	1587
7N-301	5986683	1537
7N-302	1574018	481
7W-202	7438	3
80W-301	1835261	756
80W-302	4261	1
80W-303	0	0
81N-411	13281063	1460
81N-412	10888979	2800
81S-301	3787341	1212
81S-302	5926435	1664
81S-303	11226436	2117
81S-304	5290243	954
81S-305	7941812	1661
81S-306	6996997	1664
81S-307	2639258	732
82S-302	1461306	250
82S-303	4555021	1421
82S-304	3593134	1227
82V-401	18108172	3162
82V-402	16267766	2838
82V-403	4072357	909
82V-422	11115211	2837

82V-423	13767144	3048
83V-301	4371606	1059
83V-302	6901703	1940
83V-303	4384133	1108
84S-302	4697206	246
84S-303	187307	13
84S-305	4686226	255
84W-301	6493915	1374
84W-302	3542380	901
85S-401	7392724	2257
85S-402	1042040	528
87H-311	4158022	1257
87H-312	4967892	1299
87H-313	5884906	2022
87W-311	5794030	1937
87W-312	4768035	1673
88H-401	8873356	1608
88H-402	5318664	1646
88W-311	5283520	881
88W-312	6946067	1771
88W-313	5268118	1049
88W-314	6026617	756
88W-322	5004000	417
88W-323	5218094	1411
89W-301	3422668	367
89W-302	7024373	1316
89W-303	4507000	1423
89W-304	3425289	358
91W-411	7399238	1267
92H-331	8829693	2498
92H-332	5993823	1163
92H-334	4312042	1186
92W-302	2288778	978
93V-311	5715180	1176
93V-312	5430576	807
93V-313	6017496	1993
93V-314	1198099	22
95H-251	159692	78
96H-411	5450640	1831
96H-412	2035498	927
99H-311	6648792	1994
99H-312	7092541	842
99V-311	5829783	1101
99V-312	4700950	1409

99V-313	2299580	347
99V-314	6174777	2102
9C-301	447101	6
9C-302	12118	5
9C-303	420159	232
9C-304	198309	72
9H-223	526828	268
L-3202	748	1
L-4049	0	0

2025 Feeder Source Access Score

Feeder	Access Score

100C-421	1
100C-422	1
100C-423	1
101H-411	5
101H-412	1
101H-413	5
101H-421	1
101H-422	1
101H-423	1
102W-311	1
102W-312	1
103C-311	1
103C-313	1
103C-314	1
103H-431	1
103H-432	1
103H-433	1
103H-434	1
103W-311	1
103W-312	1
104H-411	1
104H-412	1
104H-413	1
104H-421	1
104H-422	1
104H-423	1
104H-431	1
104H-432	1
104H-433	1
104H-441	1
104H-442	1
104S-311	5
104S-312	1
104S-313	1
108H-411	1
108H-412	1
108H-413	1
111S-311	1
111S-312	1
111S-313	1
111S-314	1
113H-431	1

113H-432	1
113H-433	1
113H-434	1
113H-441	1
113H-442	5
113H-443	1
113H-444	1
11S-301	1
11S-302	1
11S-303	1
11S-304	1
11S-305	1
11S-306	1
11S-411	1
11S-412	1
124H-301	1
124H-302	1
126H-311	1
126H-312	1
126H-313	1
127H-411	1
127H-412	1
127H-413	1
129H-411	1
129H-412	1
129H-413	1
12V-302	1
12V-303	1
12V-304	1
131H-421	1
131H-422	1
131H-423	1
131H-424	1
137H-411	1
137H-412	1
137H-413	1
137H-414	5
139H-411	1
139H-412	1
139H-413	1
139H-414	1
13V-303	1
141H-401	1
14V-303	1

15N-401	1
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15N-403	1
15N-404	1
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15S-302	1
15S-303	1
16N-301	1
16N-302	1
16V-314	1
16V-315	1
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16W-302	1
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17N-202	1
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18V-411	1
18V-412	1
18V-413	1
19C-203	1
19C-204	1
19W-311	1
19W-312	1
1C-411	1
1C-412	1
1C-413	1
1H-403	1
1H-405	1
1H-415	1
1H-419	1
1H-424	1
1H-427	1
1H-429	1
1H-431	1
1H-454	1
1H-456	1
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1N-403	1
1N-404	1
1N-405	1
1N-421	1
1V-442	1
1V-443	1
1W-411	1

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20H-303	1
20H-304	1
20H-305	1
20H-306	1
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20N-203	1
20N-204	1
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20W-312	1
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21W-312	1
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22C-403	1
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22V-313	1
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23H-304	5
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2C-402	5
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3N-411	1
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3S-302	1
3S-303	1
3S-307	1
3S-308	1
3S-309	1
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3S-405	5
3W-201	1
40H-302	1
40H-303	1
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40H-305	1
40H-401	1
45V-201	1
45V-202	1
46W-301	1
46W-303	1
48H-301	1
48H-302	1
48H-303	1
48H-304	1
48W-201	1

48W-203	1
48W-204	1
4C-424	1
4C-430	5
4C-432	5
4C-441	1
4C-442	5
4N-311	1
4N-312	1
4N-313	1
4S-321	1
4S-322	1
4S-323	1
4S-324	1
4S-331	1
4S-332	1
4S-333	1
4S-334	1
4W-211	5
50N-311	1
50N-410	1
50N-411	1
50N-412	1
50N-415	1
50V-401	1
50V-402	1
50W-411	1
50W-412	1
51V-301	1
54H-301	1
54H-302	1
54H-303	1
54H-304	1
55N-201	1
55N-202	1
55N-203	1
55N-204	1
55V-313	1
55V-314	1
55V-322	1
55V-323	1
56N-401	5
56N-402	1
56N-414	1

57C-417	1
57C-422	1
57C-426	5
57S-401	1
57S-402	1
57W-401	1
57W-402	1
58C-403	5
58C-405	5
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59C-403	1
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67C-412	5
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70V-312	1
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70W-322	1
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732N-301	1
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73W-412	1
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74V-301	1
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79V-401	1
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82S-304	1
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82V-403	1

82V-422	1
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83V-301	1
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84S-303	5
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88W-314	1
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93V-311	1
93V-312	1
93V-313	1
93V-314	1
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9C-301	1
9C-302	1
9C-303	1
9C-304	1
9H-223	1
L-3202	1
L-4049	1

NS Power
Five-Year (2025-2029)
Reliability Plan – Update

NS Power Five-Year Reliability Plan - Update
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1.0 INTRODUCTION

The reliable and safe operation of the power system is NS Power's top priority. The Company is committed to improving the reliability and resiliency of the power grid and, in 2024, outlined its plan to achieve this in the Five-Year Reliability Plan (the Plan), which detailed \$1.3 billion of investments in reliability programs, including \$206 million in 2025, which builds on prior reliability investments and planning. In 2025, NS Power is on track to complete the commitments detailed in year one of the Plan. The Plan has a goal of reducing the overall duration and frequency of outages while balancing the affordability of these investments for customers.

1.1 Five-Year Reliability Plan Commitment

The Plan continues to be informed by an in-depth analysis of leading and lagging condition indicators including outage causes and inspection results. It focuses on investments in the transmission and distribution systems through three core programs outlined below:

1. **Vegetation Management & Tree Trimming** - Expanding tree-trimming programs along power lines to reduce outages. Clearing transmission and distribution corridors to enhance reliability.
2. **Storm Hardening** – Targeted Equipment Replacements and Upgrades. Replacing aging equipment, modernizing substations, and strengthening the transmission system. Installing advanced protective devices (e.g., reclosers, trip savers) to reduce outage impact. Rebuilding targeted lines, upgrading water crossings, and installing higher class poles for extreme weather.
3. **Advanced Grid Modernization** - Deploying advanced monitoring and control systems for faster outage detection and restoration. Implementing automated service restoration to improve response time. Expanding telecommunications for better grid management.

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As shown in **Figure 1** below, NS Power's Plan includes approximately \$1.3 billion of investment in the 2025-2029 period with a commitment to \$206 million of investment in 2025 and \$234 million in 2026.

Figure 1: Forecast Investment by Reliability Program 2025-2029 (\$ millions)

Reliability Program	2025	2026	2027	2028	2029	Total
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

NS Power's overall investment included in this Plan, including elements executed this past year, strive to meet the following two overarching goals by 2029:

- 1) Improve the customer reliability experience by reducing SAIDI by 20 percent from the five-year average (2019-2023) of 5.10 and achieving the Performance Standards SAIFI target of 2.05.
- 2) Continue to strengthen grid resilience to address climate change and achieve the Performance Standards for restoring service to 91.98 percent of customers within 48 hours after a Major Event Day.

This work will result in a more reliable and resilient grid that is better able to withstand and recover when the power system experiences stresses from major adverse weather events, and to a certain extent also from extreme weather events like hurricanes. The system is already responding positively to this work with an observed improvement to performance standards metrics. As of

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1 October 31, there is a 53 percent reduction in customer interruptions and a 29 percent reduction in
2 customer hours of interruption due to device failure in 2025 over 2023 levels.

3
4 The benefits of the program and the impact on the reliability of the system will be felt cumulatively
5 as the combined impacts of reliability investments made over the five years are completed,
6 resulting in a reduction of approximately one hour of SAIDI overall by 2029.

7
8 NS Power recognizes that stakeholders are seeking reassurance that the investments outlined in
9 the Plan are effective in improving reliability. NS Power agrees with the NSEB and stakeholders
10 that effective investments lead to the best possible balance between reliability improvements and
11 affordability for customers.

12
13 NS Power looks forward to working with the Board appointed third party as they complete their
14 evaluation of the Plan. In the meantime, NS Power continues to align its targeted investments with
15 risk-based decision-making, including consideration for mitigation of the leading causes of high
16 impact outages. Complementing this ongoing targeted asset investment approach, the Plan also
17 includes new grid-modifying upgrades to facilitate quicker response and self-healing functionality
18 when outages do occur. NS Power's data and risk-based approach ensures that the Company is
19 targeting investments that are consistent with industry approaches in areas critical to reliability
20 performance when considering reliability investment decisions.

21
22 In the Board's decision on the 2025 Annual Capital Expenditure (ACE) Plan (M12012), the Board
23 directed the following:

24
25 ...The Board directs NS Power to provide annual updates in its ACE Plan
26 applications on the progress of its Five-Year Reliability Plan.

27
28 The Board directs NS Power to update the equivalent of Figure 3 in the 2025 ACE
29 Plan application about priority distribution feeders in the 2026 ACE Plan....
30

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1 In response to the Board's directive, NS Power has prepared this update on the progress of the Plan
2 to provide the Board and Stakeholders with:

- 3
- 4 • An update on the completed progress on the Plan to date in 2025,
 - 5 • A forecast of work anticipated to be complete before year end, and
 - 6 • Notable updates to the Plan for future years, including an overview of projects expected to
7 be executed in 2026.

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2.0 RELIABILITY PERFORMANCE ANALYSIS

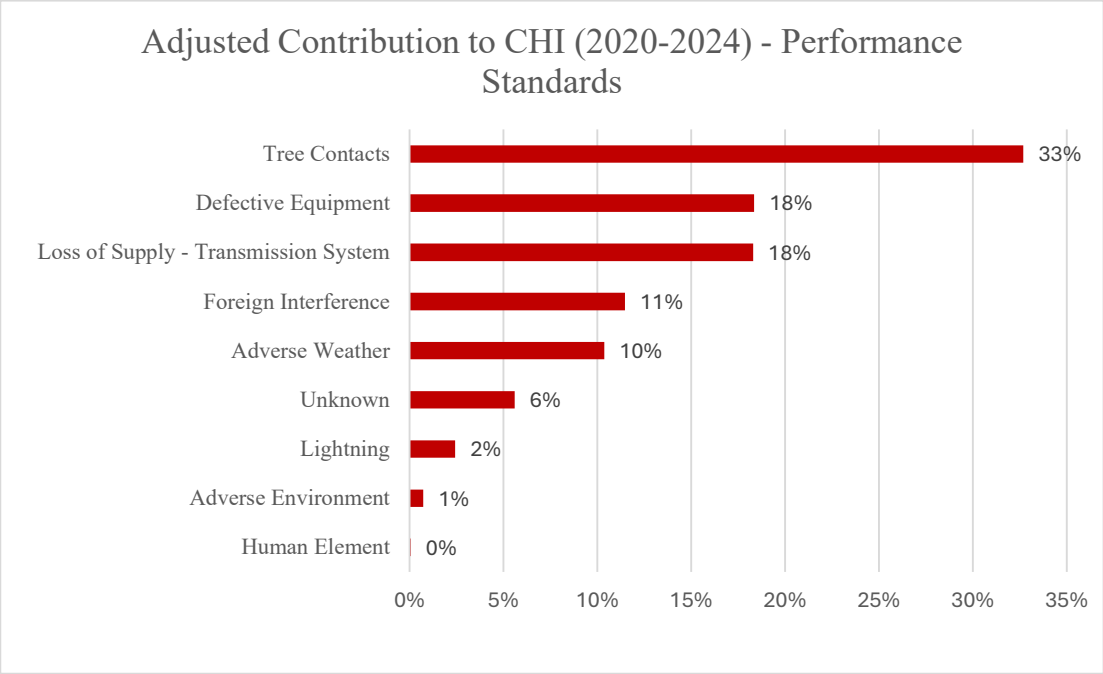
NS Power has developed the Plan to deliver a 20 percent improvement in the performance standards overall average duration of outages (SAIDI) and to achieve the Performance Standards SAIFI target of 2.05 by 2029. As part of data and risk-based decision-making, analysis of system performance is an important indicator used to help ensure that the programs within the Plan are well targeted, deliver measurable benefits, and align with improving customer experience.

Tree contacts continue to be the single largest contributor to outages in Nova Scotia. In addition to events coded directly as Tree Contacts, NS Power's operations and vegetation management subject matter experts estimate that up to 40 percent of CHI coded as "Adverse Weather" can be further attributed to tree contacts based on the noted impact to trees throughout the province during severe weather. **Figure 2** shows the relative contribution to Customer Hours of Interruption (CHI) by cause code, with Tree Contacts adjusted to reflect attribution from Adverse Weather. While the Plan will positively impact each of these categories, it is particularly focused on reducing the impact of tree contacts and equipment failures on the power system and thereby improving the overall reliability of the system, including resilience to severe weather.

Grid modernization innovations such as increased integration of Remote Terminal Units (RTUs), remote connectivity to downline protective devices, and improved fault location capabilities will further mitigate the impact of these outages when they occur by reducing the customers affected by an event and allowing faults to be isolated and located faster.

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Figure 2: Contribution to CHI by Outage Cause (2020 – 2024) Performance Standards

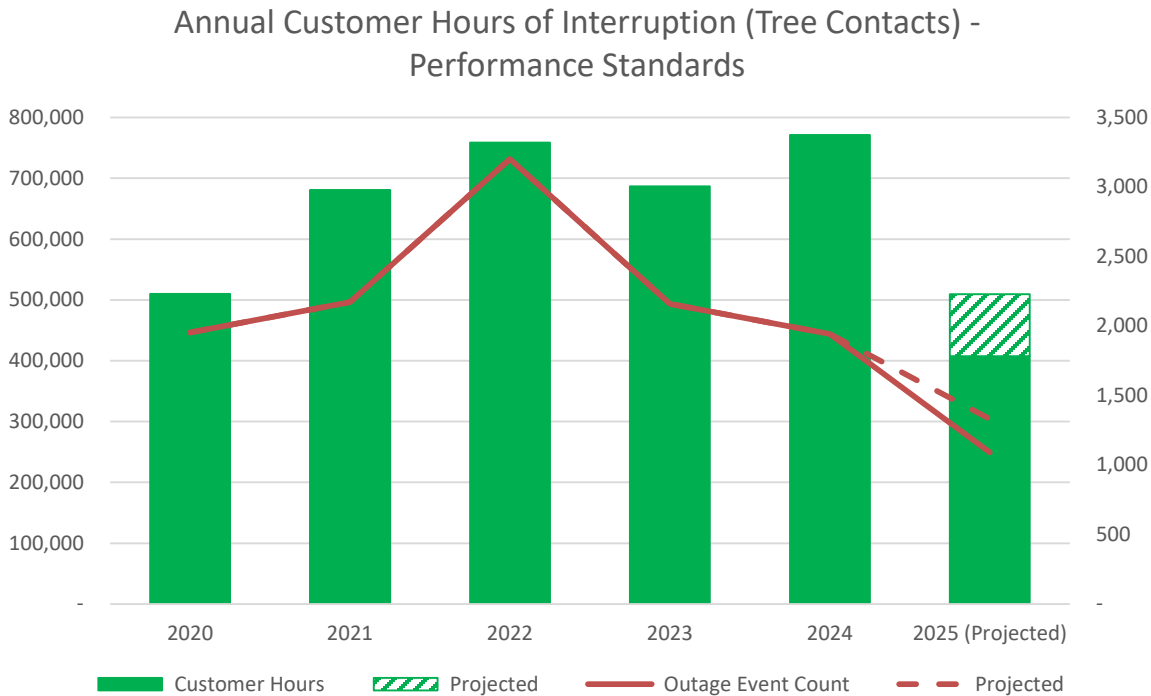


2.1 Demonstrated Vegetation Program Impacts

Figure 3 below shows the Performance Standards annual customer hours of interruption due to tree contacts for 2020-2025 Projected Year-End and shows positive signs that vegetation management activities are contributing to reducing the overall frequency and duration of outages on the system. 2025 Projected Year-End includes actuals for October and estimates for November and December 2025 based on the prior five years' performance. The benefits of the vegetation management program will increase over time as more rights-of-way (ROWs) corridors are widened, improving clearances between trees and power lines, and enhancing overall system reliability.

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Figure 3: Annual Customer Hours of Interruption (CHI) due to Tree Contacts – Performance Standards

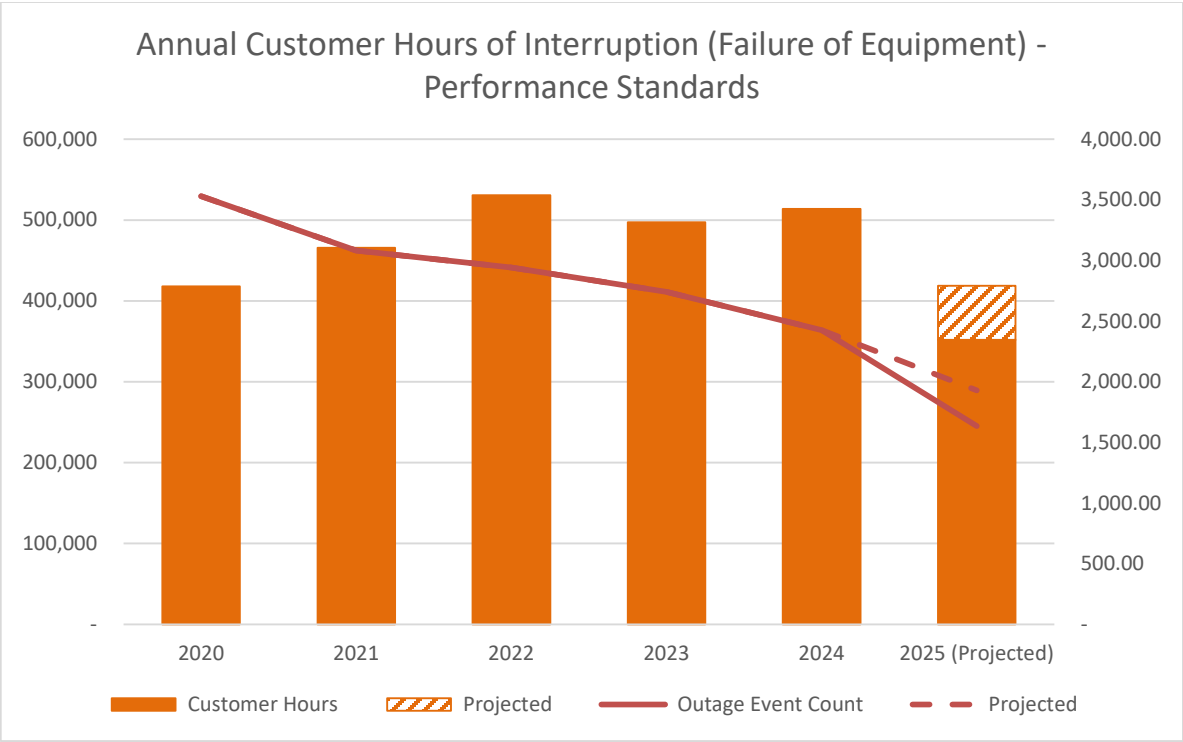


2.2 Distribution Targeted Devices

Figure 4 shows the contribution of device failure to Performance Standards customer hours of interruption for 2020-2025 Projected Year-End and shows positive trends in reduced overall duration and outage frequency resulting from replacements and upgrades to distribution equipment. 2025 Projected Year-End includes actuals for October and estimates for November and December 2025 based on the prior five years' performance. Storm hardening initiatives and equipment upgrades are core elements of the plan, which will continue to build on these positive trends.

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Figure 4: Annual Customer Hours of Interruption (CHI) due to Failure of Equipment –
Performance Standards



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3.0 2025 Overview – Year One of Five Year Reliability Plan

In 2025, NS Power's Reliability team has been focused on executing the projects identified in year one of the Plan, with \$206.6 million committed to strengthen the grid and enhance its resilience, enabling both improved blue-sky performance and to better withstand and recover from adverse weather events. NS Power remains on track and is forecasting to complete its \$206.6 million plan by year end.

Figure 5 includes the latest forecasts of investment activity expected to be completed by year-end.

In 2025, NS Power completed targeted reliability upgrades on its Distribution system with a focus on the priority feeders identified in the initial Plan. This work includes but is not limited to:

- Application of robust coastal framing standards in areas of concern to better withstand extreme winds and severe ice loading conditions.
- Over 2500 legacy porcelain insulators have been upgraded to new, polymer devices.
- 73.7 kilometers of primary distribution conductor has been replaced, reducing the likelihood of conductor failure and enabling the system to deliver on growing load.
- 64 padmount transformers have been replaced to address identified deterioration and improve the reliability of the underground distribution system.
- 8.8 kilometers of distribution circuit has been built to roadside, further reducing the percentage of the system with offroad construction.
- Trees have been cleared from approximately 617 kilometers of distribution line ROW and approximately 105 kilometers of transmission line ROW.
- 118 hazard tree locations in addition to the 617 kilometers of corridor widening have been proactively identified and addressed from beyond cleared rights-of-way. This work involves coordination with customers and landowners to remove each individual tree. Some of these locations include the removal of multiple trees.

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- Addition of six RTUs improving substation communication and control, supporting quicker response and restoration of service in the event of an outage.
- Completed replacement of two substation transformers in 2025 with three additional substation transformer replacements in progress. These replacements are improving substation condition and contributing to increased reliability and reduced outage frequency.
- Construction and energization of a new substation in Mount Uniacke by year-end, enhancing winter peak capacity and supporting continued growth in the community.
- Worked on approximately 500 transmission structures from January – October through replacement and upgrade projects.
- Upgraded 33.7 kilometers of transmission line through reconductoring to enhance system reliability and improve grid resilience.

Figure 5: Reliability Program Detailed 2025 Investment Breakdown

Reliability Program	Targeted Strategy	2025 Planned Investment	2025 Completed to Date	2025 Planned to Complete in Remainder of Year	Anticipated YE Result	Program Status
Distribution Vegetation Management	Distribution Corridor Widening with Managed ROWs	297 kms	183 kms	59 kms	242 kms (Revised due to Wildfire Mitigations) ¹	
	Establish New ROWs	330 kms	229 kms	89 kms	318 kms (Revised due to Wildfire Mitigations)	
	Trimming and Removal of Trees	177 kms	205 kms	55 kms	260 kms*	
Transmission Vegetation Management	Transmission Corridor Widening	120 kms	105 kms	15 kms	120 kms	
Targeted Equipment Replacements and Upgrades	Distribution System Equipment Additions	23 devices	18 devices	5 devices	23	

¹ Additional controls implemented by the Department of Natural Resources for fire mitigation purposes led to a reduction in work efficiency due to the downtime at site. Details of the controls are outlined in the Storm Hardening – Vegetation Management section below.

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Reliability Program	Targeted Strategy	2025 Planned Investment	2025 Completed to Date	2025 Planned to Complete in Remainder of Year	Anticipated YE Result	Program Status
	Distribution System Build-To-Roadside	8 kms	8.8 kms	2.0 kms	10.8 kms	
	Distribution System Conductor Upgrades	39 kms	73.7 kms	4.5 kms	78.2 kms	
	Distribution System Underground Upgrades	50 padmounts	64 padmounts	Program Complete	64 padmounts	
	Transmission System Upgrades	37 lines	30 lines	7 lines	37 lines	
	Substation Upgrades and Replacements	4 Transformers	2 Transformers	3 Transformers	5 Transformers	
Advanced Grid Modernization	Remote Terminal Units (RTUs)	11 devices	6 devices	5 devices	11 devices	
	Downline Connectivity	35 devices	-	Multi-Year execution ongoing in 2026	On-going**	
	Fault Location Isolation and Service Restoration (FLISR)	24 devices	-	Multi-Year execution ongoing in 2026	On-going**	

* Due to careful management of resources, vegetation management team was able to exceed the planned kms while remaining within the \$45 million overall budget.

** This project is on track for completion in 2026 as per its intended multi-year execution approach.

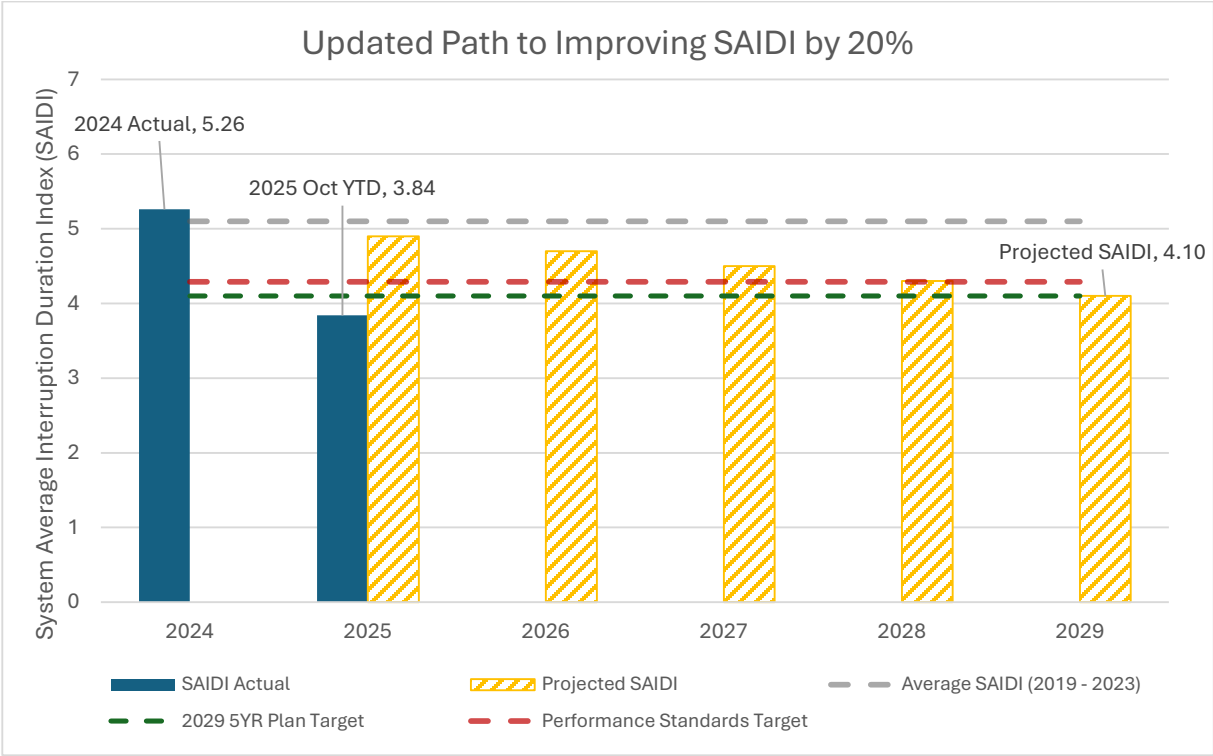
3.1 Demonstrated Reliability Impact/Benefit

As detailed in the Reliability Performance Analysis section above, the trends in 2025 YTD SAIDI performance reflect early outcomes from the overall reliability tracks as outlined in the Five-Year Reliability Plan and the specific investments detailed previously. NS Power recognizes that this Plan is still in the initial phase of its five-year implementation and while these preliminary figures

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provide a snapshot of reliability performance to date, including positive trends for vegetation and defective equipment, it is important to recognize that the full impact of the program will take time to materialize. Meaningful trends and improvements in SAIDI will be more accurately assessed over the full duration of the program at a network level, as upgrades are completed and benefits accumulate across the system. **Figure 6** below demonstrates the projected path these reliability improvements will have in achieving the goal to meet SAIDI target of 4.10 by 2029.

Figure 6: Updated Path to Improving SAIDI by 20%



3.2 2025 Priority Feeders Update

Please refer to **APPENDIX A: 2025 Highest Priority Distribution Feeders**, which shows the list of priority feeders for 2025. A data-driven and targeted program of reliability improvement work was developed in consideration of the priority feeders, their condition, and previous performance.

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1 All feeder plans for 2025 are underway or complete; work will continue on all in progress work
2 until completed.

3
4 **APPENDIX B: Work Completed (C) and In Progress (P) on 2025 Priority Feeders** presents
5 a summary of the work completed or currently underway on each feeder as of filing, along with a
6 preliminary indication of whether the feeder remains on the priority list for 2026. These initiatives
7 are intended to mitigate feeder risks and reduce future outage impacts. While the work completed
8 to date helps to address the primary outage drivers for each feeder, in several cases, additional
9 multi-year projects are necessary and planned for select feeders to further enhance reliability
10 performance.

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4.0 STORM HARDENING – VEGETATION MANAGEMENT

2025-2029 Forecast Investment: \$265.0 million

Estimated Performance Standards SAIDI Reduction: 0.70 to 1.25 hours

2025 Anticipated Year End Investment: \$45 million

Proactive storm hardening vegetation management work is a critical component of NS Power's reliability strategy, aimed at reducing tree contacts with the electrical system. Across Nova Scotia, approximately 75 vegetation management crews are actively deployed each day on average to clear trees and branches from distribution and transmission ROWs.

Tree contacts are the largest single cause of outages and can contribute significantly to extended restoration times when outages occur. The vegetation management program employs several targeted strategies to mitigate these risks, including:

- Distribution Corridor Widening with managed Rights-of-Way (ROW)
- Transmission Corridor Widening with managed Rights-of-Way (ROW)
- Establishment of New Rights-of-Way
- Trimming and removal of trees around existing lines

An overview of the year-to-date progress and the year-end forecast for each of these programs is detailed in **Figure 7** with additional detail on each program found in the sections below.

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Figure 7: Vegetation Management Year One Reliability Plan Results

	\$ Planned (M)	Kms Completed	Additional Kms Forecast to be Completed by YE	Program Status
Distribution Corridor Widening	12.5	183	59	
Transmission Corridor Widening	3.0	105	15	
Establishment of New Rights-of-Way	16.4	229	89	
Trimming and removal of trees	6.9	205	55	

As of October 31, 2025 NS Power has completed approximately 617 kilometers (approximately 11,100 spans) of distribution vegetation management across the province and approximately 105 kilometers of transmission vegetation management. This work includes a combination of activities aimed at improving system reliability and reducing vegetation-related outages. Key components of the program include:

- Establishing and widening of distribution rights-of-way
- Hazard tree identification and removal
- Aerial pruning to maintain safe clearances
- Ongoing right-of-way maintenance

These efforts are part of a strategic approach to vegetation management that enhances system resilience and reduces the risk of tree-related outages. NS Power's assessment of overall vegetation condition is informed by its ongoing use of satellite-image based assessment of distribution ROWs.

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This enhanced detail of vegetation condition is used to improve the Company’s risk-based decision-making on where to target its interventions. **Figure 8** below provides a regional breakdown of the spans cleared and kilometers of ROW treated representing all distribution vegetation management work programs.

Figure 8: 2025 (YTD End of October) Distribution Vegetation Management Completed by Region

Region	Distribution Vegetation Management	
	Spans	Kms
Metro	1,114	61
NE	3,913	217
CB	1,874	104
West	4,230	235
Total	11,131	617

Due to provincial restrictions imposed by the Department of Natural Resources, stemming from drought conditions and heightened wildfire activity across the province in Summer and Fall 2025, NS Power was obligated to revise the planned scope of vegetation management originally anticipated for this year.

Under these restrictions, if the Actual Daily Fire Weather Index reached "Extreme," all heavy equipment operations must cease, and no work was permitted after 1:00 p.m. Additionally, NS Power was required to conduct a two-hour fire watch at each work site to ensure no ignition occurred as a result of any vegetation management activities. These constraints resulted in adjustments to work prioritization and scheduling to maintain reliability while ensuring compliance with fire safety protocols.

Operating under the DNR restrictions resulted in a safe, managed approach to working in forested areas during the period of heightened wildfire risk but did result in a reduction in the number of

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1 kms of vegetation managed under the program in 2025 as detailed in **Figure 9** and **Figure 12**. This
2 work will be reprioritized for completion in 2026.

3
4 **4.1 Wildfire Mitigation**

5
6 NS Power actively engages with wildfire risk stakeholders across Nova Scotia to inform and
7 prioritize reliability and vegetation management initiatives. As part of NS Power's Wildfire
8 Mitigation Plan, which is integrated within the broader Climate Adaptation Plan, NS Power
9 collaborates with municipal leaders, emergency management officials, and community
10 representatives through regional forums such as the Halifax Wildfire Advisory Committee and the
11 Nova Scotia Fire Smart and Prevention Committee to share data, review risk mapping, and align
12 on mitigation strategies.

13
14 These engagements have led to the development of community-specific wildfire risk assessments,
15 such as the Glen Haven Wildfire Risk Assessment, providing actionable insights into local hazards,
16 infrastructure vulnerabilities, and vegetation conditions. NS Power incorporates this input into its
17 reliability planning process to understand the potential needs for vegetation management efforts in
18 high-risk areas and support community resilience against wildfire threats.

19
20 In 2025, approximately 11 kilometers of rights-of-way management was accelerated in the
21 communities of Glen Haven (circuit 92H-331) and Grand Lake (circuit 82V-402) through this
22 reliability and wildfire assessment and prevention collaboration.

23
24 Additionally, in August 2025, NS Power's vegetation management team temporarily redirected
25 resources to support emergency response efforts in response to the Long Lake wildfire. Crews
26 were deployed along West Dalhousie Road, Morris Road, and Thorne Road to conduct targeted
27 vegetation management activities. This originally unplanned work focused on removing fire-
28 compromised trees at risk of falling into conductors and widening over 6.5 kilometers of

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distribution rights-of-way to enhance fire breaks. These actions supported the protection of infrastructure and reduced the potential for further wildfire-related outages.

4.2 Distribution Corridor Widening with Managed Rights-of-Way (ROW)

2025-2029 Forecast Investment: \$66 million

2025 Anticipated Year End Investment: \$12.5 million

Corridor widening activities improve reliability by increasing the physical separation between overhead conductors and the forest edge, thereby reducing the likelihood of tree contacts and consequently, vegetation-related outages.

To date, 183 kilometers of distribution corridor widening has been completed. NS Power expects to complete approximately 59 additional kilometers of distribution corridor widening by year-end. Details provided in **Figure 9**. This work is projected to positively impact reliability in 35 communities across the province.

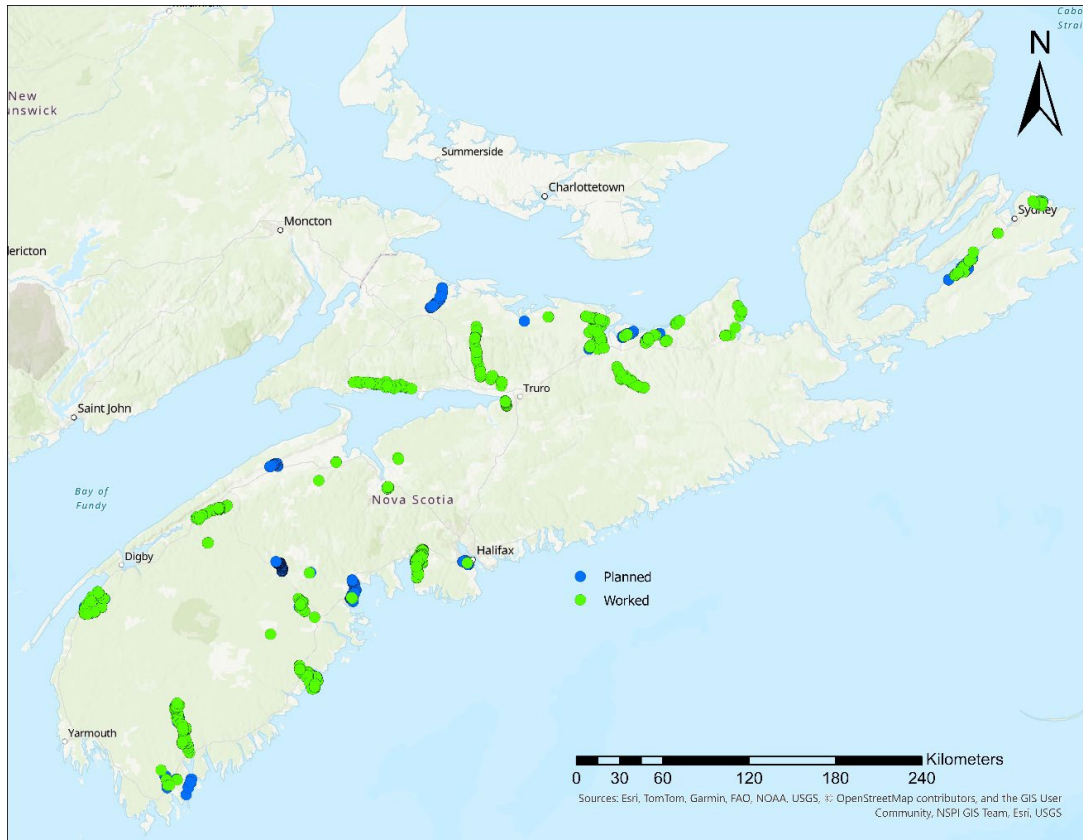
Figure 9: Distribution Program Corridor Widening with Managed ROW

Distribution Program	2025 Planned Kms	Kms Completed YTD	2025 Revised Plan (Due to Wildfire Mitigation) Kms	Project on Track (Y/N)
Distribution Corridor Widening with Managed Rights-of-Way	297	183	242	

Figure 10 below illustrates the locations where distribution rights-of-way have been widened year to date and areas scheduled for completion later this year.

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Figure 10: Completed Distribution Corridor Widening with Managed Rights-of-Way



4.3 Transmission Corridor Widening with Managed Rights-of-Way (ROW) > 69KV

2025-2029 Forecast Investment: \$15 million

2025 Anticipated Year End Investment: \$3.0 million

Similarly to distribution corridor widening activities, expanding transmission ROWs impact reliability by increasing separation distance between transmission conductors and the forest edge, thereby reducing the likelihood of tree contacts and consequently, vegetation-related outages.

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As of October 31, approximately 87 percent of the 2025 program has been completed and is on track to have the full project work completed by year-end. **Figure 11** below outlines the 2025 vegetation transmission widening projects, including the kilometers completed year to date.

Figure 11: Transmission Corridors Targeted for Widening (2025)*

Transmission Line	Geographic Location of the Line	2025 Planned Kms	YTD Completed Kms	On Track Y/N
L-6503-added	Onslow to Trenton	0	17	
L-6002-added	Sackville to Bridgewater	0	12	
L-7005	Onslow to Hopewell	16	9	
L-7003	Onslow to Port Hastings	29	22	
L-7004	Dalhousie Mountain to Port Hastings	23	18	
L-7009	Brushy Hill to Bridgewater	18	15	
L-7008	Brushy Hill to Bridgewater	15	12	
L-6511	New Glasgow to Glen Dhu	19	0	Reprioritized

Note: As per NS Power's asset management practices, specific targeted lines were updated throughout the year to reflect ongoing shifts in priorities (identified above as lines that were added and reprioritized).

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4.4 Establish New Rights-of-Way (ROW)

2025-2029 Forecast Investment: \$86 million

2025 Anticipated Year End Investment: \$16.4 million

This program focuses on establishing new distribution rights-of-way, creating clearance on either side of the existing conductor for feeders where no managed corridor previously existed. To date, 229 kilometers of new rights-of-way have been created, with approximately 89 additional kilometers in new distribution rights-of-way created by year end. Details provided in **Figure 12**.

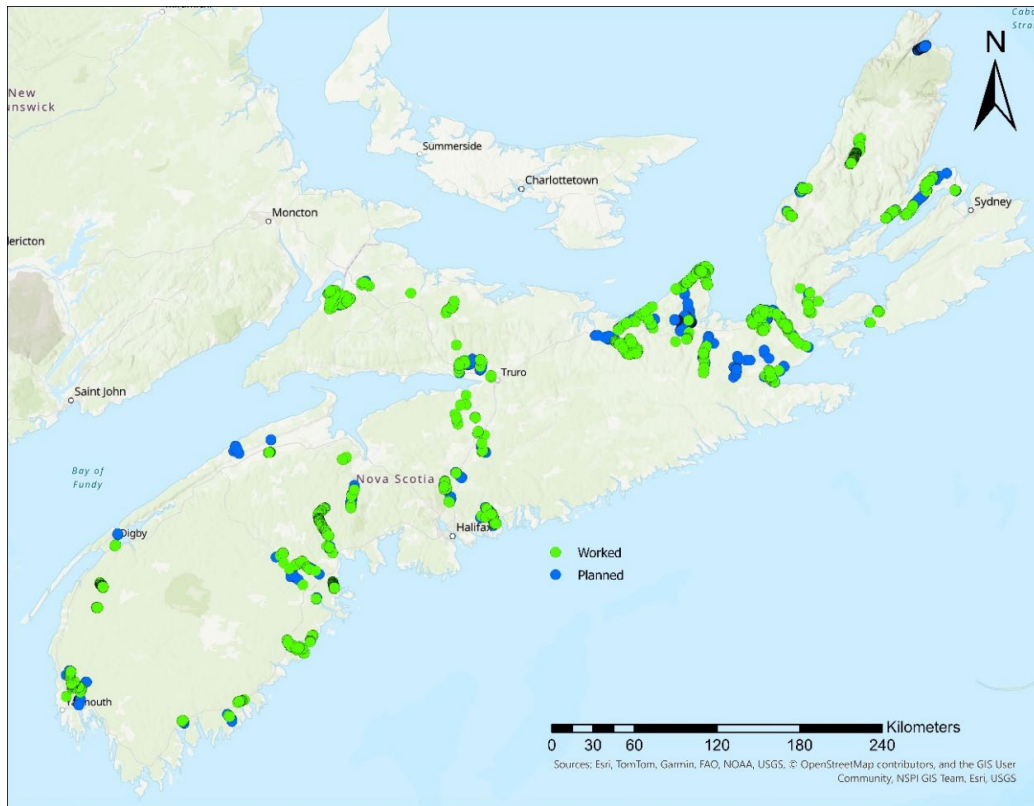
Figure 12: Establish New Rights-Of-Way - 2025

Distribution Program	2025 Planned Kms	Kms Completed Year to Date	2025 Revised Plan (Due to Wildfire Mitigation) Kms	Project on Track (Y/N)
Establish New Rights-of-Way	330	229	318	

Figure 13 illustrates the locations across the province where this new clearance has been implemented.

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Figure 13: Map of 2025 Completed and Planned Establishment of New Rights-of-Way



4.5 Trimming and Removal of Trees Around Existing Power Lines

2025-2029 Forecast Investment: \$98 million

2025 Anticipated Year End Investment: \$6.9 million

Beyond the three ROW programs detailed previously, the remainder of NS Power's vegetation management efforts in 2025 focused on aerial pruning and trimming in urban areas where right-of-way expansion is not feasible, customer-requested tree trimming (CRTT), and the maintenance of existing corridors through mechanical mowing and manual ground cutting. To date, NS Power has completed approximately 205 kilometers of tree trimming and removal around existing distribution circuits under these three categories.

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By year-end, NS Power anticipates completing an additional 55 kilometers under this program, exceeding the original target and further mitigating vegetation-related reliability risks. Details provided in **Figure 14**.

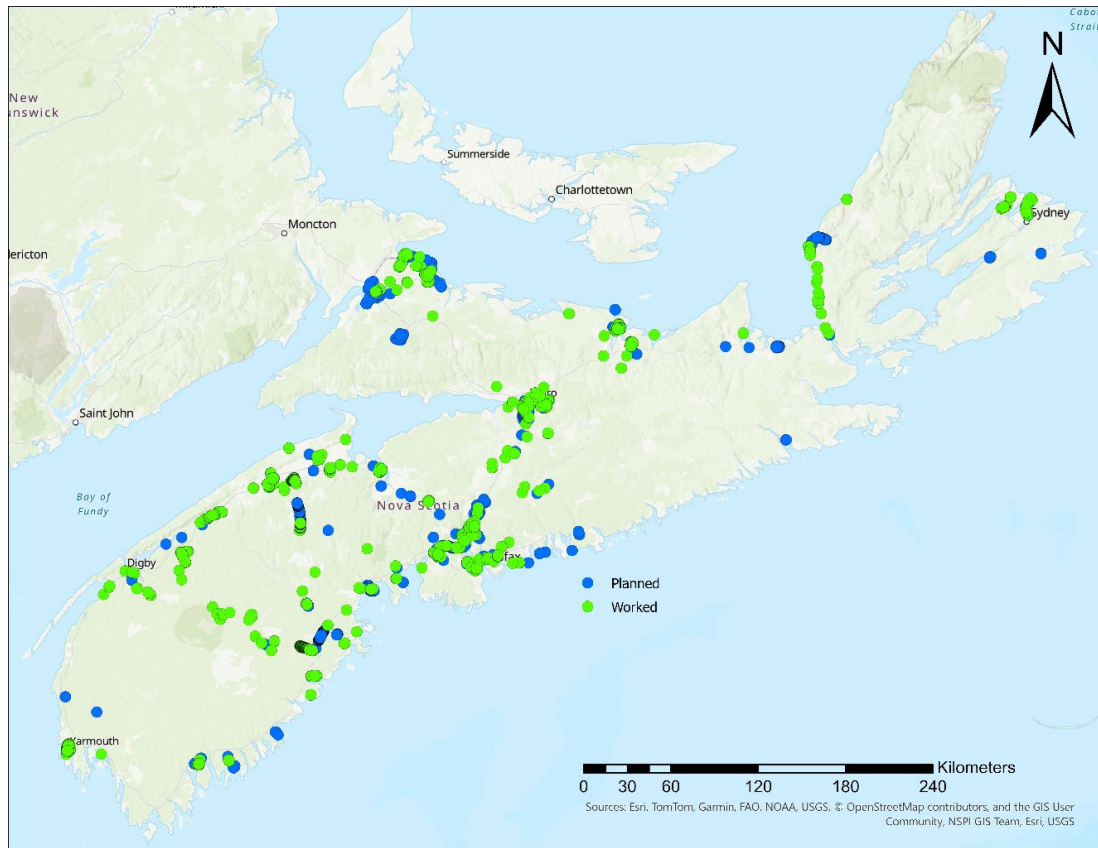
Figure 14: Trimming and Removal of Trees Around Existing Powerlines - 2025

Distribution Program	2025 Planned Kms	Kms Completed Year to Date	2025 Revised Plan Kms	Project on Track (Y/N)
Trimming and Removal of Trees Around Existing Powerlines	177	205	260	

Figure 15 illustrates the geographic distribution of completed vegetation work in this category, with a significant concentration in urban areas where ROW widening is largely constrained. These efforts are critical to maintaining safe and reliable service in these urban regions.

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Figure 15: Completed Trimming and Removal of Trees Around Existing Power Lines



As described in the previous sections, NS Power expects to see improvement in tree-related outages on feeder segments that have received targeted vegetation management investment. **Figure 16** and **Figure 17** illustrate the impact of establishing or expanding distribution ROWs using examples recently completed in Shelburne, Trenton, and Little Harbour where the distances to tree edges have been increased. These improved ROWs not only reduces the likelihood of tree contacts with lines but also enhances the visibility to overhead equipment during feeder inspections and outage restoration efforts, supporting both reliability and safety objectives.

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1 **Figure 16: Rockland Rd, Shelburne (left: Before, right: After)**



2 **Figure 17: Egypt Rd, Between Trenton and Little Harbour- InProgress and Completed**



3

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5.0 STORM HARDENING – TARGETED EQUIPMENT REPLACEMENTS AND UPGRADES

2024-2029 Forecast Investment: \$916 million

Forecasted Performance Standards SAIDI Reduction: 0.13 to 0.24 hours

2025 Anticipated Year End Investment: \$152.4 million

To support continued reliability and resilience across the electrical grid, targeted investments are planned and have been made to address equipment risks. **Figure 18** outlines recently completed and planned upgrades and replacements across three critical system components:

- **Distribution System Equipment Upgrades and Replacements** – Improvements aimed at enhancing reliability by reducing outage frequency through the replacement of aging conductors, transformers, and other overhead distribution assets.
- **Transmission System Equipment Upgrades and Replacements** – Upgrades focused on strengthening the backbone of the grid, increasing capacity, and mitigating risks associated with equipment failure.
- **Substation Upgrades and Replacements** – Upgrading efforts including the replacement of aging components and integration of advanced monitoring technologies to improve operational efficiency and fault response.

These initiatives are aligned with broader asset management strategies and regulatory compliance objectives, ensuring the system remains robust and adaptable to evolving demands.

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Figure 18: 2025 Targeted Equipment Upgrades Progress Overview

Program	Planned \$	On Track (Y/N)
Distribution System Equipment Upgrades and Replacement	81.0	
Transmission System Equipment Upgrades and Replacement	32.6	
Substation Upgrades and Replacements	38.8	
Total	152.4	

5.1 Distribution System Equipment Upgrades and Replacements

2024-2029 Forecast Investment: \$487 million

2025 Anticipated Year End Investment: \$81 million

NS Power continues to replace and upgrade aging distribution infrastructure across Nova Scotia. This work can be grouped within several key initiatives, including:

- Replacing and upgrading deteriorated assets identified through inspection and maintenance programs;
- Expanding the deployment of protective devices to isolate faults more effectively and reduce the number of customers impacted by outages; and
- Ensuring continued compliance with environmental regulations and standards.

These efforts are part of NS Power's ongoing commitment to improving system reliability, enhancing customer experience, and supporting a more resilient energy future for the province.

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5.1.1 Upgrade and Replace Aging Equipment

The program includes plans to further upgrade the system by replacing aging assets with new, modern equipment that aligns with current utility standards. Consistent with the asset management strategy for Energy Delivery, targeted assets are prioritized should condition and criticality factors indicate they pose reliability, environmental, and/or safety risks if left in service. Replacing these assets including poles, transformers, regulators, and other critical distribution components ahead of failure will contribute to reduced outages, limit oil spills due to failures, as well as improve worker and public safety. The PCB program exemplifies this approach and continues to progress on schedule, remaining compliant with federal regulations and timelines.

5.1.2 Power Line Protective Devices

Recloser Installations

Reclosers are automated protection devices that detect and respond to faults on the distribution system, isolating affected segments and reducing the number of customers impacted by outages. By interrupting fault currents and restoring service when possible (such as in the case of transient faults), reclosers help reduce outage frequency and durations.

In 2025, NS Power planned to install seven new reclosers across the province, with three units installed to-date and a further four scheduled for installation before end of year. **Figure 19** provides a summary of the planned recloser locations and the current status of each installation.

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Figure 19: 2025 Recloser Installation Plan and Progress

Region	Feeder	Communities Impacted	Installation Status
Northeast	24C-442	Canso and surrounding area	On Track
Northeast	50N-410	Merigomish and surrounding area	Completed
Cape Breton	22C-404	Isle Madam	On Track
Cape Breton	81S-303	Glace Bay, Port Morien	On Track
Metro	127H-411	Waverley and Fall River	Completed
West	55V-314	Berwick, Aylesford and Burlington	On Track
West	55V-314	Berwick, Aylesford and Burlington	Completed

Trip Saver Installations

Trip Savers are protective devices installed on smaller segments of the distribution system where traditional fuses have historically been used. Like reclosers, Trip Savers rapidly detect and isolate faults, enabling quicker restoration of service to unaffected areas and reducing overall outage duration.

To date, NS Power has completed the installation of 15 of the 16 trip savers planned for deployment in 2025. The remaining unit is scheduled for installation in December 2025 and remains on track to be completed before year-end. **Figure 20** provides a specific update by region (detailed below).

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Figure 20: 2025 Planned Trip Saver Installations

Region	# Additional Trip Savers Planned in 2025	# Trip Savers Installed 2025	Trip Saver Installation Target Status
East	3	3	Completed
Northeast	3	2	On Track
Metro	1	1	Completed
West	9	9	Completed

New Distribution Feeders

NS Power planned for the addition of two new distribution feeders in 2025 to address future capacity constraints and to support reliable service for two growing communities. Earlier this year, NS Power commissioned a new distribution feeder to help serve the Shannon Park, Wyse Road, and downtown Dartmouth areas. This infrastructure enhancement is part of the Company's ongoing efforts to maintain system reliability in regions experiencing increased customer demand.

In addition, the construction of a fourth feeder to service West Bedford and surrounding areas, initiating at the Kearney Lake substation is underway. This feeder is anticipated to be complete and commissioned by year end.

NS Power continues to progress the addition of a second distribution feeder to help serve customers along Prospect Road in the Halifax area and anticipates construction to begin in 2026.

Updated Overhead Standards

NS Power has updated its overhead distribution design standards to align with the current CSA C22.3 overhead line standards. In the Board's decision on the 2025 Annual Capital Expenditure (ACE) Plan (M12012), the Board directed the following:

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1
2 ...NS Power to monitor the installation of 40 to 50 upgraded class poles across the
3 Utility's four operating regions, and to provide a post storm evaluation to determine
4 pole status, survival rate, impact on customer outages, and whether the upgraded
5 class improved the resilience of the wooden poles...
6

7 In alignment with the Board's directive, NS Power has developed a table, provided in **APPENDIX**
8 **C– Pole Monitoring Projects – New Pole Class Standard**, that identifies the region, feeder,
9 location, and the number of poles scheduled for upgrade to the new class standard. These assets
10 will be monitored on an ongoing basis following storm events.
11

12 **5.1.3 Distribution System Build to Roadside**
13

14 This program is designed to improve reliability and accessibility by relocating distribution lines
15 from off-road areas to roadside locations. Re-routing infrastructure to roadside helps reduce the
16 likelihood of tree-related contacts, as roadways are kept clear of vegetation, leaving only one forest
17 edge of the ROW to manage. Improved roadside access also facilitates more efficient inspection
18 and maintenance of associated equipment and enables more work to be completed using energized
19 work methods, reducing the number of planned outages.
20

21 In 2025, NS Power planned to relocate approximately 8 kilometers of distribution line to roadside
22 locations. To date, with careful allocation of resources, NS Power has advanced the execution of
23 several sections originally planned for future years and exceeded the original target, with 8.8
24 kilometers of distribution line already relocated, and an additional 2.0 kilometers scheduled for
25 completion or currently in progress before year-end. **Figure 21** outlines the specific locations
26 where work has been completed and where it is ongoing.
27

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Figure 21: 2025 Build to Roadside Projects by Region

Region	2025 Planned BTR kms	YTD Completed BTR kms	BTR Project Comments	BTR Project Status
East	3.2	0.7	On Track – Ongoing Projects In Progress	
Northeast	2.9	2.6	On Track – Projects Re-Prioritized	
Metro	2.0	0.7	On Track – Projects Re-Prioritized	
West	1.0	4.8	Exceeded – Ongoing Projects In Progress	

5.1.4 Distribution System Conductor Upgrades

The Distribution Conductor Upgrades program is a proactive initiative aimed at replacing aging infrastructure to reduce the risk of outages and enhance the reliability and resilience of the distribution system.

In 2025, NS Power set a target to reconnector approximately 39 kilometers of distribution line. Following a detailed review of reliability projects, the reporting of kilometers reconnected includes projects addressing both deteriorated conductors as well as upgrades required to support load growth. As of this reporting period, 73.7 kilometers have been successfully reconnected, exceeding the original target. An additional 4.5 kilometers is scheduled for completion by year-end. **Figure 22** provides a breakdown of the regions, number of feeders, and kilometers reconnected.

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Figure 22: 2025 Distribution System Conductor Upgrades

Region	Feeders Planned to be Reconducted	Km Planned to be Reconducted	# Feeders Reconducted	Kms Reconducted	Feeder Reconductor Target Status
East	2	5.4	4	17.1	
West	5	9.7	13	28.4	
Metro	18	10.6	12	15.0	
Northeast	7	12.8	10	13.2	

5.1.5 Distribution System Underground Upgrades

The Distribution Underground Program focuses on the targeted replacement and upgrade of aging underground infrastructure, including padmount transformers, switches, vaults, and manholes. These upgrades are essential to maintaining system reliability, improving safety, and reducing the risk of equipment failure in areas served by underground distribution.

In 2025, NS Power set a target to replace 50 padmount transformers. As of November, 64 padmount transformer replacements have been completed, already exceeding the 2025 target. NS Power analyzed the results of the padmount inspections and chose to prioritize completing padmount replacements this year. In addition, NS Power has completed three vault upgrades, and plans to complete one manhole upgrade before the end of the year.

Figure 23 below illustrates the general locations where padmount transformer replacements and upgrades have been completed or are currently underway. The larger the indicator on the map, the greater the number of padmount transformer replacements that have been completed in that area.

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Figure 23: 2025 Completed Padmount Transformer Replacements and Upgrades



5.2 Transmission System Upgrades and Replacements

2025-2029 Forecast Investment: \$196 million

2025 Anticipated Year End Investment: \$32.6 million

In 2025, NS Power continues to focus on enhancing the resiliency and reliability of its transmission system. This investment and work plan is informed by the Company's transmission risk profiles, including inputs from transmission inspection programs and past reliability performance, with projects focused on replacing and upgrading transmission structures, reinforcing conductor systems, and executing targeted realignments and rebuild. **Figure 24** below outlines the number of transmission lines upgraded by transmission program.

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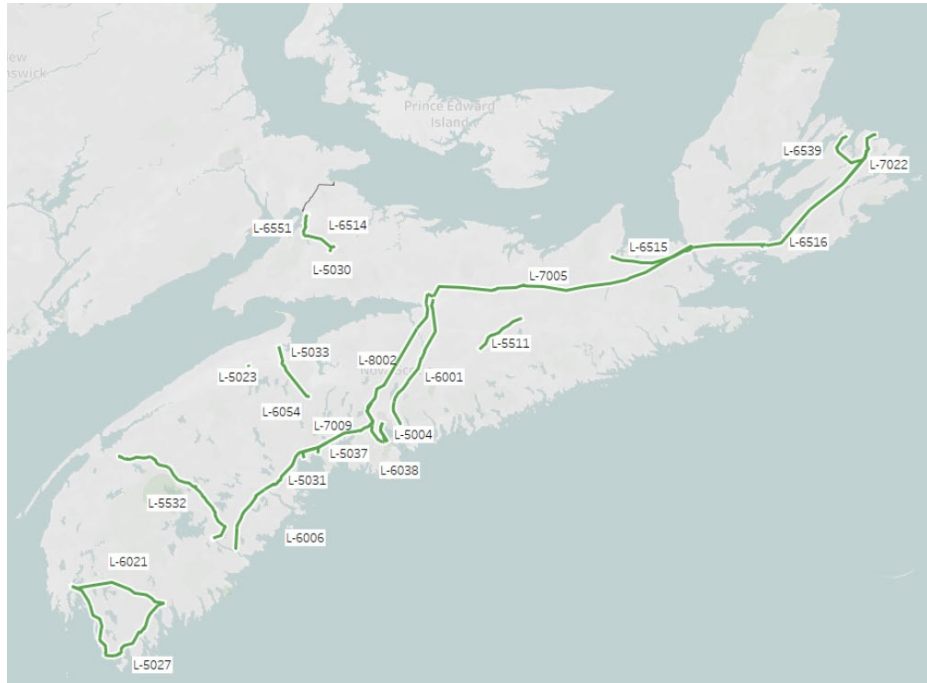
Figure 24: Transmission System Program - 2025 Overview

Category	# Transmission Line Upgraded
Replacements and Upgrades	29
Line Rebuilds	3
Asset Life Extension	Province Wide
Water Crossing Upgrades	3
Line Realignment	2

These investments are part of NS Power’s continued commitment to maintaining and strengthening the transmission system across the province. Through asset replacement and upgrade projects, steel tower refurbishment program, including anode installation and life-extension work, and wood pole retreatment initiatives, NS Power is proactively managing infrastructure to support long-term system reliability. **Figure 25** illustrates the locations across the province where targeted project work, as outlined in the 2025 ACE Plan, in addition to work prioritized through inspections, has been completed or is currently underway.

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Figure 25: Transmission Work Completed or In Progress (2025)



5.3 Substation Upgrades and Replacements

2025-2029 Forecast Investment: \$233 million

2025 Anticipated Year End Investment: 38.8 million

In 2025, NS Power continues to implement a range of initiatives targeting substations, supporting both system reliability and long-term asset sustainability. These investments included upgrades and replacements of existing substation assets, advancement in the design and construction of new substations, and the addition of a new transformer to strengthen NS Power's fleet of spares. Notably in 2025, NS Power has replaced two substation transformers, with three additional transformer replacements in progress, to be completed before year end. The transformer replacements that have been completed are at the Whycocomagh (67C-T64) and Cobequid (101H-T62) locations. The transformer replacements at Maitland Bridge (76V-T1), Nictaux (10V-T1), and Pugwash (7N-T3) are currently in progress.

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NS Power has purchased and received a spare substation transformer. Replenishing this spare unit supports the overall NS Power Transformer spare strategy improving NS Power's ability to respond in the event of an unforeseen failure across the Company's transformer fleet while keeping inventory levels cost-effective.

NS Power continues to advance its multi-year substation development projects as part of its broader reliability strategy. The Bayers Lake substation project remains in the engineering and design phase, while construction is actively underway at the Stellarton site. The new Mount Uniacke substation (see **Figure 26**) has been completed and energized, marking a key milestone in strengthening system capacity and reliability in the Mount Uniacke community.

Figure 26: In Progress Construction of New Mount Uniacke Substation



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6.0 ADVANCED GRID MODERNIZATION PROGRAMS

2025-2029 Forecast Investment: \$78 million

Forecasted Performance Standards SAIDI Reduction: 0.06 to 0.11 hours

2025 Anticipated Year End Investment: \$9.2 million

NS Power's Advanced Grid Modernization program is a strategic initiative designed to enhance system reliability, resiliency, and operational efficiency through the targeted installation and integration of intelligent technologies and data-driven infrastructure. The program is structured around three core elements:

- **Connected Assets**, which focuses on enabling real-time visibility and control of field devices through secure communications and SCADA integration;
- **Fault Location, Isolation, and Service Restoration (FLISR)**, which aims to reduce outage durations and improve restoration times by automating fault response; and
- **Distributed Energy Resources (DERs)**, which support grid flexibility and reliability by integrating customer-owned generation and storage assets into system operations.

Together, these elements contribute to a more responsive, efficient, and resilient Nova Scotia grid.

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Figure 27: 2025/2026 Advanced Grid Modernization Progress Overview

Program	Devices Complete	Remaining Devices Forecast 2025/2026	On Track (Y/N)
RTUs	6	5	
Downline Connectivity	-	35 downline devices to be connectivity enabled	
FLISR	-	24 devices	
Total	6	64	

Note: Downline connectivity refers to the integration of field devices with NS Power's Energy Control Center, facilitated by telecommunications infrastructure.

6.1 Connected Assets

2025-2029 Forecast Investment: \$65 million

6.1.1 Remote Terminal Units (RTUs)

2025-2029 Forecast Investment: \$ 21 million

2025 Anticipated Year End Investment: \$2.2 million

Remote Terminal Units (RTUs) enhance substation reliability by enabling real-time monitoring, remote control, and faster fault detection, supporting quicker isolation and restoration of service during outages. As of this reporting period, NS Power has completed the installation of six of the 11 RTUs planned for deployment in 2025. The remaining units are in progress and remain a priority to have two completed before year-end, and the final three installations to be completed early in

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2026. The 2025 RTU Phase 6 project is presently undergoing regulatory review.² NS Power will participate fully with the project review and respects the Board's role in ensuring each project represents value for customers. The RTU plan will be updated to reflect the outcome of the review. **Figure 28** provides a specific update by substation.

Figure 28: 2025 Planned Remote Terminal Unit Installations

Region	Area/Community	Substation	Installation Status
Cape Breton	Southwest Margaree	58C	Complete
Cape Breton	Cleveland	22C	On Track
Northeast	Tatamagouche	4N	Complete
West	Hebron	16W	On Track
West	Bridgewater East	89W	On Track
West	Bridgewater Rural	70V	Complete
West	Kingston	63V	Complete
West	Ohio Road	25W	Complete
West	Central Argyle	19W	On Track
West	Wolfville Ridge	83V	Complete
West	Indian Path	80W	On Track

6.1.2 Downline Connectivity

2025-2029 Forecast Investment: \$44 million

2025 Anticipated Year End Investment: \$5.2 million

² M12588, To obtain a cost reasonableness review of NS Power CI C0051815 - RTU Replacements Program – Phase 6, as outlined in Section 2.1 of the 2025 Annual Capital Expenditure Plan decision (M12012).

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As outlined in NS Power's Five-Year Reliability Plan, establishing a communications path between downline reclosers and the Advanced Distribution Management System (ADMS) offers significant reliability and safety benefits. These include accelerated fault location during outages, reduced restoration delays by enabling remote SCADA operation, particularly in areas with long driving distances between devices, and enhanced asset management through improved data visibility. Additionally, remote operation reduces line-of-fire exposure for field crews, supporting safer work practices. In 2025 and continuing into 2026, NS Power set a target to integrate up to 35 downline devices with the ADMS environment. **Figure 29** provides a detailed update on the implementation status of these communication paths and identifies the specific devices and feeders involved.

Figure 29:2025/2026 Planned Communications Path with Downline Reclosers Installation

Region	Area/Community	Feeder/Substation	Installation Status
West	Three Mile Plains	79V-401	In Progress/On Track
Metro	Musquodoboit Harbour	87H-313	In Progress/On Track
Metro	Musquodoboit Harbour	87H-313	In Progress/On Track
Northeast	Dickie Brook	24C-442	In Progress/On Track
Northeast	Ruth Falls	96H-412	In Progress/On Track
Northeast	Ruth Falls	96H-412	In Progress/On Track
Northeast	Ruth Falls	96H-412	In Progress/On Track
West	Waterville	55V-313	In Progress/On Track
Metro	Lucasville	131H-422	In Progress/On Track
Metro	Lakeside	103H-434	In Progress/On Track
East	Ingonish & Cape North	85S-401(multiple devices)	In Design. Planned for 2026 Execution
East	Coxheath & Eskasoni	11S-411 (multiple devices)	In Design. Planned for 2026 Execution
Metro	Lakeside	103H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Kearney Lake	129H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Hammonds Plains	137H	In Design.

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Region	Area/Community	Feeder/Substation	Installation Status
		(multiple devices)	Planned for 2026 Execution
Metro	Armdale	2H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Kempt Rd	104H (multiple devices)	In Design. Planned for 2026 Execution

6.2 Fault Location Isolation and Service Restoration

2025-2029 Forecast Investment: \$13 million

2025 Anticipated Year End Investment: \$1.6 million

Fault Location, Isolation and Service Restoration (FLISR) is a system of distribution protection devices sited to allow automatic and remote re-configuration of the distribution grid to improve feeder reliability by reducing interruption impacts to the minimum number of customers possible.

In 2025, NS Power advanced its FLISR initiatives through key preparatory and planning activities. Progress included the submission of the Capital Work Order (CI C0071528 FLISR Implementation, which is currently being considered by the NSEB under matter M12417) including responding to information requests, supporting project momentum. Engineering teams also focused on standardization, producing material specifications and installation standards, while also advancing foundational work to support connected assets and the broader FLISR initiative.

6.3 Distributed Energy Resources (DERs)

As the country moves towards a net-zero future, the increasing penetration of Distributed Energy Resources (DERs) is changing the dynamics of electricity generation and consumption. Energy can now be produced and utilized based on customer behavior and variable conditions, rather than traditional centralized dispatch as evidenced by growing numbers of net-metered connections. This shift introduces new complexities for power utilities, particularly with respect to maintaining

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1 reliability and operational flexibility. To address these challenges, enhanced visibility, automation,
2 and control of DERs is important. Coordinated integration of DERs will be critical to mitigating
3 adverse grid impacts and ensuring continued reliability as the system evolves.

4
5 Building on the Intelligent Feeder and Smart Grid Nova Scotia (SGNS) projects, NS Power has
6 demonstrated the technical feasibility of DER coordination and the value of a Distributed Energy
7 Resource Management System (DERMS) in orchestrating diverse assets within system
8 constraints. As outlined in “The Path to 2030 – 2025 Update,” (included as Appendix F in the 2026
9 ACE Plan) and following the Board’s 2024 decision on the SGNS Final Report (M11621), NS
10 Power initiated the Distributed Energy Resource Integration Roadmap (DERIR) (M12177).

11
12 This initiative, supported by Dunskey Energy + Climate Advisors, is guiding the development of a
13 jurisdictionally informed framework for DER integration. Through 2025, NS Power has advanced
14 stakeholder engagement and is actively evaluating a DERMS project to support the integration and
15 orchestration of DERs (C0068718 - IT - DERMS Solution Project is listed as a project for
16 subsequent submission in the 2026 ACE Plan). This work is aligned with the province’s 2030
17 Clean Power Plan, and is intended to ensure DERs are deployed in a manner that enhances system
18 reliability, supports decarbonization, and delivers customer value.

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7.0 2026 – YEAR TWO – FIVE-YEAR RELIABILITY PLAN

2026 is year two of the Five-year Reliability Plan. NS Power has committed to an overall reliability investment of \$234 million in 2026 (please refer to **Figure 30** and **Figure 31**), building upon the \$206 million invested in reliability improvements in 2025 and the over \$185 million on average annually in the previous five year period.

The following sections will outline the reliability projects planned for year two of the Five-Year Reliability Plan and the specific feeders prioritized in 2026.

Figure 30: 2026 Reliability Program Investment Overview

Reliability Program	2026 Anticipated Spend
Storm Hardening – Targeted Equipment Replacement and Upgrades	\$178.9
Storm Hardening – Vegetation Management	\$45.0
Advanced Grid Modernization	\$10.7
Total	\$234.6

Figure 31: Reliability Program Detailed 2026 Investment Breakdown

Reliability Program	Targeted Strategy	Commitment
Distribution Vegetation Management	Distribution Corridor Widening with Managed ROWs	293 kms
	Establish New ROWs	377 kms
	Trimming and Removal of Trees	192 kms
Transmission Vegetation Management	Transmission Corridor Widening	121 kms
Targeted Equipment	Distribution System Equipment Upgrades and Replacements	15 Trip Saver Additions 10 Downline Recloser Additions 50 Padmount Replacements

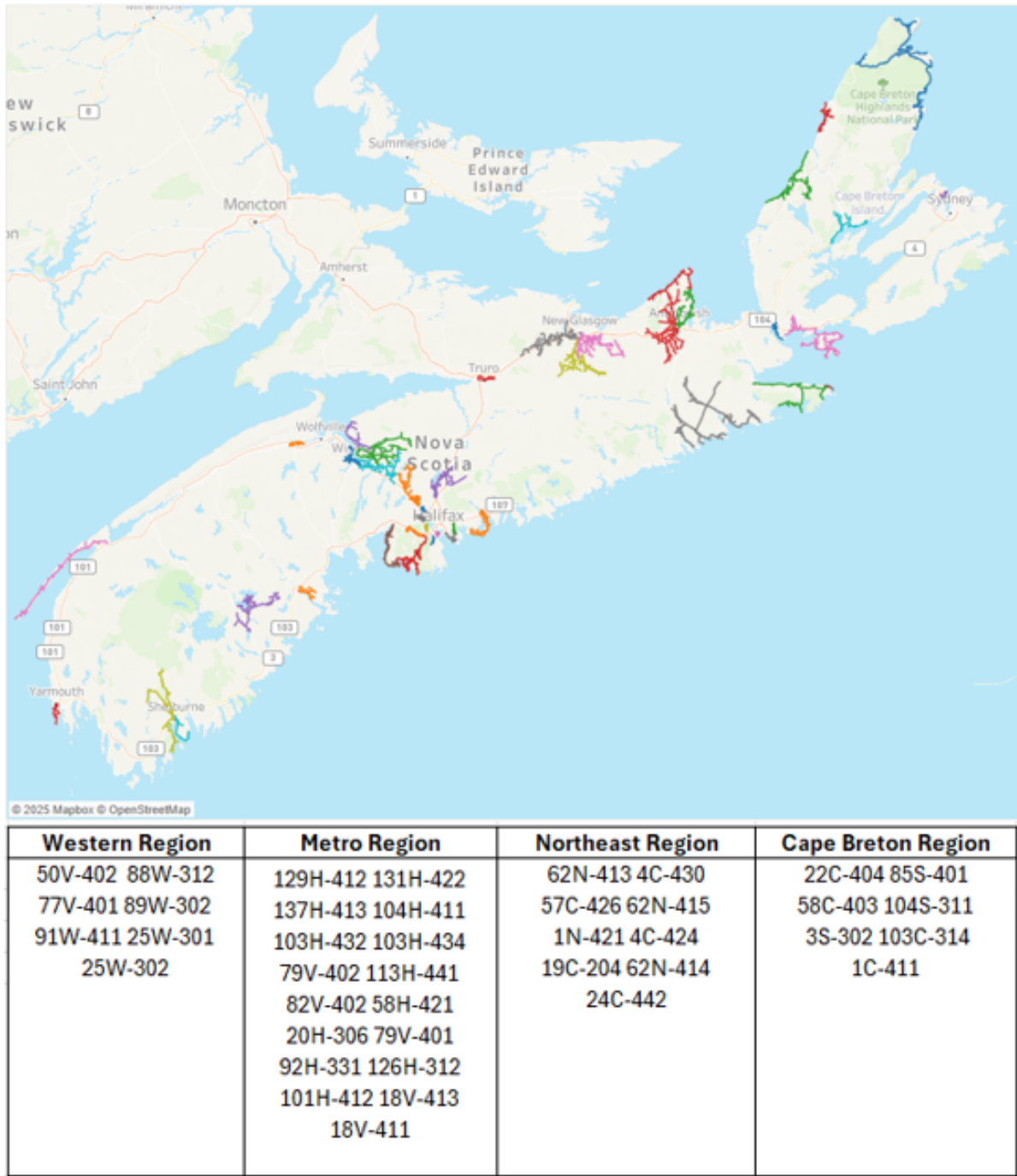
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Reliability Program	Targeted Strategy	Commitment
Replacements and Upgrades	Distribution System Build-To-Roadside	7.1 kms
	Distribution System Conductor Upgrades	80.9 kms
	Distribution Line and Phase Extensions	30.9 kms
	Transmission System Upgrades	28 lines
	Substation Upgrades and Replacements	8 Transformers
Advanced Grid Modernization	Remote Terminal Units (RTUs)	8 RTUs
	Downline Connectivity	35 Devices
	Fault Location Isolation and Service Restoration (FLISR)	24 Devices

The priority investment areas for 2026 include the feeders listed in **Figure 32**. These feeders have been identified based on outage events observed both in the current year and in previous years, and through engineering analysis of current feeder condition and projected load growth. This 2026 priority feeder list comprises 40 feeders, 31 newly identified and 9 carried over from the 2025 list. It is important to note that this list is subject to revision following a comprehensive analysis of the full-year 2025 outage data. The continued inclusion of some feeders from the 2025 list is expected, as several reliability and resiliency improvements require a multi-year implementation approach.

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Figure 32: Highest Priority Distribution Feeders in 2026



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7.1 STORM HARDENING – VEGETATION MANGEMENT

2026 Forecast Investment: \$45 million

In 2026, NS Power has committed \$45 million to remove trees from near power lines. This investment will improve the reliability performance of over 860 kilometers of the power system by reducing the opportunity for trees to contact power lines. In 2026 NS Power will continue to execute on the established vegetation management reliability program as previously outlined.

Figure 33 outlines the estimated summary of spans and kilometers for all distribution vegetation programs by region, providing transparency into regional planning and resource allocation.

Figure 33: 2026 Distribution Vegetation Work Plan by Region

Region	Distribution	
	Spans	Kms
Metro	1,770	97
Northeast	2,576	145
East	4,020	224
West	7,125	396
Total	15,491	862

The 2026 vegetation management plan will be reviewed and updated following analysis of 2025 year-end system performance, with potential refinements to address emerging priorities.

7.1.1 Distribution Corridor Widening with Managed Rights-of-Way (ROW)

2026 Forecast Investment: \$13.2 million

In 2026, NS Power plans to complete approximately 293 kilometers of distribution corridor widening within areas that have a defined, existing right-of-way, as detailed in the regional breakdown and forecasted kilometers shown in Figure 34.

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Figure 34: 2026 Distribution Corridor Widening with Managed Rights-of-Way (ROW)

Region	Spans	Kms
Central/Metro	560	30
East	1,465	82
Northeast	847	48
West	2,389	133
Total	5,261	293

7.1.2 Transmission Corridor Widening with Managed Rights-of-Way (ROW) > 69KV

2026 Forecast Investment: \$3.3 million

NS Power’s transmission vegetation management plan is strategically prioritized using a suite of advanced tools and modeling techniques designed to optimize the focus of forestry crews. This includes:

- **Growth modeling**, which evaluates transmission corridors as sectionalized polygons based on site index data, allowing for predictive planning.
- **Integrated Vegetation Management (IVM)**, which incorporates historical treatment records and applies growth analytics to forecast future control methods. These may include mechanical, manual, biological, or chemical treatments, depending on site-specific conditions.
- **LiDAR analysis**, used on select lines, provides more precise vegetation measurements to identify potential hazards within transmission corridors.
- **Inspection data**, gathered through foot patrols, informs current vegetation conditions.

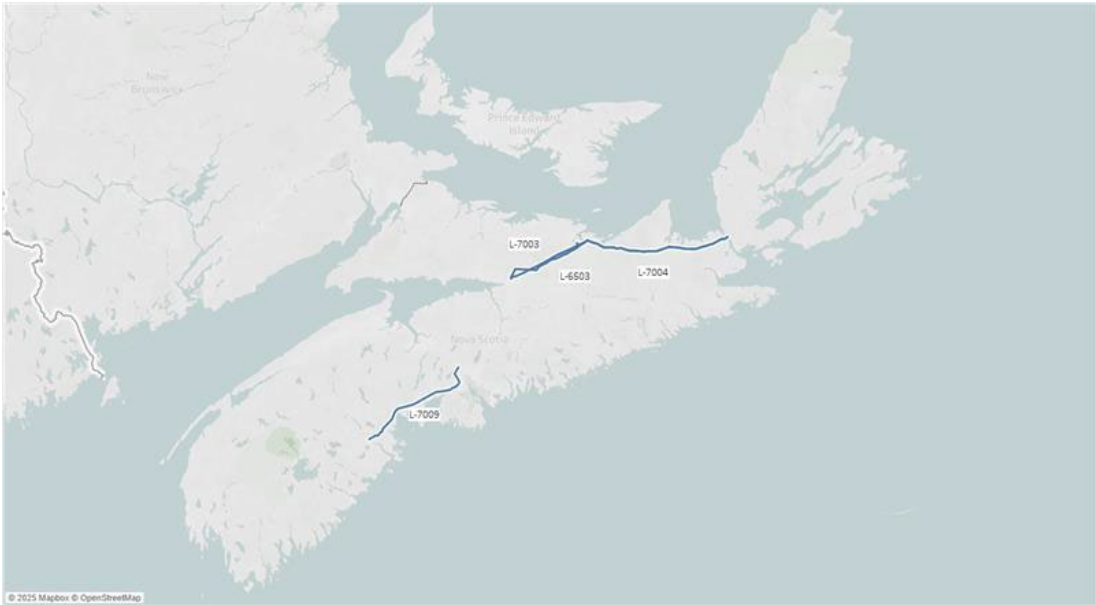
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In 2026, NS Power is forecasting an investment of \$3.3 million to widen approximately 121 kilometers of transmission rights-of-way by five meters. This initiative is part of a broader effort to enhance storm hardening and reliability by increasing clearance between vegetation and transmission infrastructure. **Figure 35** outlines the approximate spans, kilometers, and associated investment by provincial work region. **Figure 36** illustrates the locations across the province where targeted project work, as outlined in the 2026 ACE Plan, is planned to occur.

Figure 35: Transmission Right-of-Way Widening

Year	Line	Total Widen (KM)
2026	L-7003	27
	L-7004	36
	L-6503	31
	L-7009	27
	Total	121

Figure 36: 2026 Transmission Capital Widening Plan



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7.1.3 Establish New Rights-of-Way (ROW)

2026 Forecast Investment: \$18.5 million

The 2026 Vegetation Management Reliability program will continue to leverage satellite imagery technology to spatially identify areas where vegetation is in closest proximity to conductors. This data-driven approach enables a more precise and targeted vegetation management strategy for the 2026 work plan, improving efficiency and risk mitigation.

In 2026, NS Power plans to establish approximately 377 kilometers of new rights-of-way in areas where no defined corridor currently exists, with specific regions and forecasted kilometers outlined in **Figure 37**.

Figure 37: 2026 Planned KMs to Establish New Rights-of-Way (ROW)

Region	Spans	Kms
Central/Metro	817	45
East	1,436	80
Northeast	1,271	71
West	3,258	181
Total	6,782	377

7.1.4 Trimming and Removal of Trees Around Existing Power Lines

2026 Forecast Investment: \$6.9 million

NS Power plans to complete hazard tree identification and removals, rights-of-way maintenance, and customer-requested tree trimming along approximately 192 kilometers of distribution line in 2026. **Figure 38** provides a detailed breakdown of the communities and circuits where this work is scheduled to take place

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Figure 38: Ongoing Maintenance Around Existing Power Lines

Region	Spans	Kms
Central/Metro	393	22
East	1,119	62
Northeast	458	26
West	1,478	82
Total	3,448	192

7.2 STORM HARDENING – TARGETED EQUIPMENT REPLACEMENTS AND UPGRADES

2026 Forecast Investment: \$178.9 million

7.2.1 Distribution System Equipment Upgrades and Replacements

2026 Forecast Investment: \$83.9 million

7.2.1.1 Modernize and Replace Aging Equipment

NS Power anticipates that by the end of 2025, approximately 99 percent of assets will be confirmed to contain less than 50 ppm of PCBs. NS Power will continue its sampling and targeted replacement of downline devices into 2026, aligned with updated federal environmental regulations and guided by ongoing test results and environmental risk assessments.

Going forward, NS Power will continue to renew system infrastructure with modern equipment through existing programs fueled with prioritized data from the feeder inspection program.

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7.2.1.2 Distribution System Build to Roadside

To improve accessibility and reduce outage duration, NS Power is planning to relocate 7.1 kilometers of distribution lines to roadside in 2026. This investment aligns with NS Power's broader reliability strategy by targeting areas, listed in **Figure 39**, where access limitations have historically contributed to extended outages.

Figure 39: 2026 Build-to-Roadside Projects

Region	Feeder	Project Name	Build to Roadside kms
Cape Breton	85S-401	Wreck Cove Rebuild	0.4
Cape Breton	103C-314	Grand Étang Water Crossing	0.9
Northeast	57C-426	Country Harbour Cell Tower Build to Roadside	2.6
Northeast	33N-201	Canaan Road Conversion	1.3
Northeast	4C-432	Loch Katrine Build To Roadside	1.9

7.2.1.3 Distribution System Conductor Upgrades

In 2026 NS Power plans to advance a series of reconductoring projects aimed at improving system reliability and performance. **Figure 40** below details the number of feeders and kilometers to be reconductored by region.

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Figure 40: 2026 Conductor Upgrades by Region

Region	Total Km of Line (Conductor Upgrade Program)
Cape Breton	20.1
West	34.0
Metro	9.6
Northeast	17.2

In 2026, NS Power plans to complete approximately 30.9 kilometers of line and phase extensions to enhance system reliability and operational flexibility. These projects are designed to improve load balancing, reduce voltage drops, and provide alternate pathways for power flow during outages or maintenance. By extending lines and adding phases, NS Power can better support growing customer demand, reduce the risk of overloading existing infrastructure, and improve service continuity in rural and developing areas. These targeted investments contribute to a more resilient and adaptable distribution network. Details of these projects are outlined in **Figure 41** below.

Figure 41: 2026 Distribution Line and Phase Extension Projects by Region

Region	Total Km of Line/Phase Extension
Northeast	5.5
Metro	10
West	15.4

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7.2.1.4 Distribution System Underground Upgrades

In 2026, a planned investment of \$10.2 million will support the Distribution Underground program, aimed at strengthening and modernizing NS Power's underground electrical system. This funding will enable the continued replacement and upgrade of aging infrastructure, while also advancing strategic initiatives designed to enhance the resiliency of the underground network. Details of these initiatives are outlined in the project descriptions further below.

As part of NS Power's ongoing efforts to strengthen system reliability, this investment includes the replacement of approximately 1 kilometer of direct-buried primary cable in the Town of Kentville, along feeder 50V-202 between Duncan Avenue and Carmen Drive. This work will convert the area to 25 kV and establish a looped configuration with adjacent subdivisions. The upgrade will significantly enhance service reliability by eliminating a frequent source of outages and removing the existing single-point-of-failure configuration.

Additionally, NS Power will be replacing a critical underground switch in downtown Halifax that currently interconnects three feeders. The new switch will be SCADA-enabled, allowing for remote monitoring and operation, and will be installed during a planned vault shutdown to minimize customer impact. This upgrade will improve operational flexibility and reduce outage duration in a high-density urban area.

As approved by the NSEB, NS Power is partnering with the QEII Health Sciences Centre to construct a high-capacity underground ductbank between Jubilee Road and Bell Road. This infrastructure enhancement is designed to support system growth in high-density areas by enabling the extension of existing three-phase circuits. Additionally, the project will establish new feeder ties, contributing to improved reliability and operational flexibility in the distribution network. For further details, refer to CI C0074130 (matter M12456).

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7.2.2 Transmission System Upgrades and Replacements

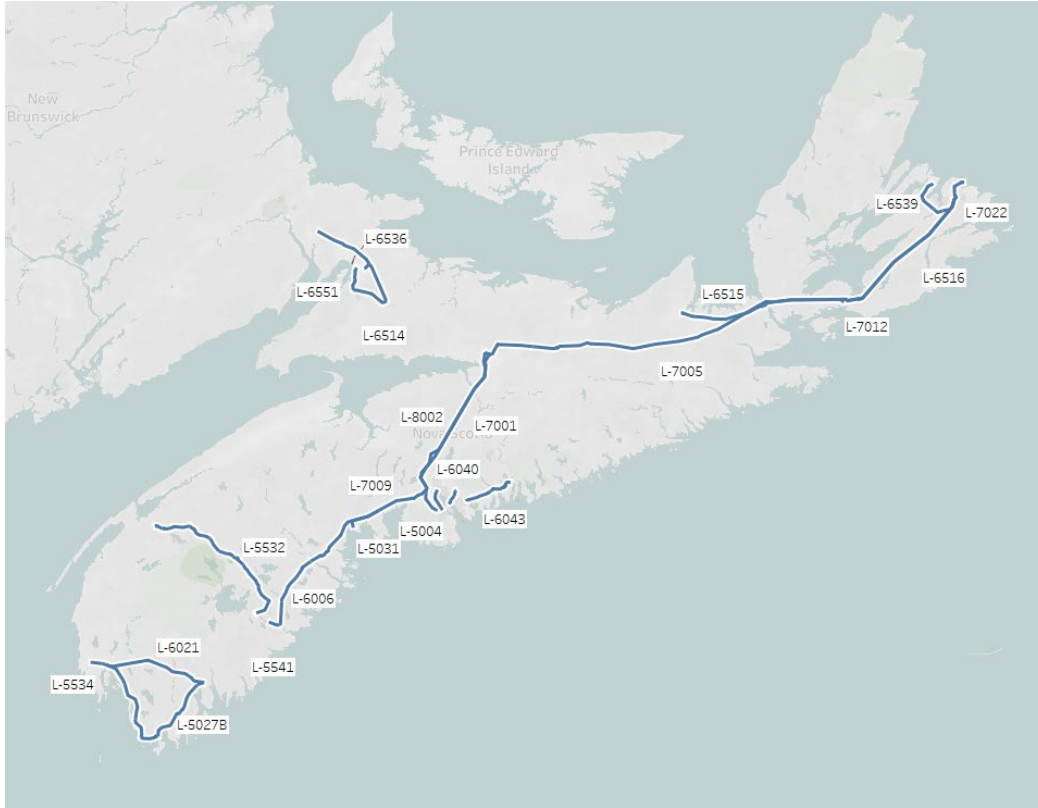
2026 Forecast Investment: \$43.0 million

In 2026, NS Power plans to invest approximately \$43.0 million in targeted initiatives to enhance the reliability and resiliency of the transmission system, representing a substantial increase over the 2025 investment levels. Of this, \$29.3 million is allocated to traditional infrastructure replacements and upgrades, reinforcing the core components of the transmission network. An additional \$8.3 million will support unique, site-specific projects such as water crossing upgrades and targeted line rebuilds. Furthermore, \$5.1 million is dedicated to ongoing upgrade programs and asset life extension efforts. These investments are designed to address aging infrastructure, mitigate reliability risks, and support long-term system performance.

Figure 42 below highlights the planned locations for targeted transmission project work. The Company continues to execute defined programs focused on sustaining system performance through ongoing upgrades and asset life extension. Key activities include province-wide wood pole retreatment and steel tower refurbishment, both of which are prioritized based on condition assessments and risk-based planning to ensure long-term reliability of the transmission network

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Figure 42: Illustration of Targeted NS Power Transmission Projects Planned for 2026



7.2.3 Substation Upgrades and Replacements

2026 Forecast Investment: \$52.0 million

In 2026, NS Power plans to invest approximately \$52.0 million in substation programs aimed at strengthening system reliability and supporting regional growth. This investment will focus on the upgrade and replacement of aging substation assets, as well as advancing the engineering design and construction of new substations across the province. These projects are strategically aligned with NS Power's asset management framework and are intended to meet evolving community needs and anticipated load growth in key regions.

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NS Power plans to invest approximately \$19 million in the replacement and addition of substation transformers. **Figure 43** lists the transformers NS Power plans to replace or add into the electrical grid, and the areas serviced by these substations.

Figure 43: 2026 Substation Transformers Planned Replacement/Additions

Transformer	Location	Region	Activity
91H-T11	Dartmouth	Metro	Replacement
10H-T1	Halifax	Metro	Replacement
10H-T2	Halifax	Metro	Replacement
96H-T1	Sheet Harbour	Northeast	Replacement
1N-T66	Onslow	Northeast	Addition
77V-T1	Conway	West	Replacement
76W-T1	Mahone Bay	West	Replacement
70W-T52	Bridgewater	West	Addition

The investment in substation initiatives also includes the progression of the engineering design and construction work of new substations across the province. NS Power's expectation is that the new Stellarton substation will be energized in 2026, and there will be further progress with a new substation in Bayers Lake. In addition, NS Power plans to enhance the system capacity and reliability with additional substations in the Wellington, Stillwater, Bridgewater and Dartmouth communities. Engineering and procurement activities for these new substations will continue in 2026.

7.3 ADVANCED GRID MODERNIZATION PROGRAMS

2026 Forecast Investment: \$10.7 million

7.3.1 Connected Assets

In the second year of the Five-Year Reliability Plan, NS Power will continue to expand and implement telecommunications connectivity across the grid. This includes the integration of telemetry and control capabilities for intelligent field devices, as well as the addition and

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replacement of RTUs and enhanced communications with distributed protection equipment, strengthening real-time visibility, operational responsiveness, and overall system reliability.

7.3.1.1 Remote Terminal Units (RTUs)

In 2026, NS Power will prioritize the replacement and upgrade of end-of-life RTUs to maintain and enhance grid reliability. The details of the devices planned for replacement are listed in **Figure 44** below. Planning is underway to continue RTU additions and replacements through 2027 to 2029, supporting improved system visibility, control, and operational resilience.

Figure 44: 2025/2026 Planned Remote Terminal Unit replacements

RTU Replacement Project Sites	Estimated Year of Completion	Installation Status
91V-RTU1 Fourth Lake	2025	Completed
74N-RTU1 Springhill	2025	Installation in Progress
2V-RTU1 Avon 2	2026	
15V-RTU1 Sissiboo	2026	
85S-RTU2 Wreck Cove Sub	2026	
50N-RTU1 Trenton GS	2026	
87W-RTU1 Hubbards	2026	
14H-RTU1 Burnside Gas Turbine	2026	

7.3.1.2 Downline Connectivity

NS Power remains committed to enhancing grid reliability by expanding connectivity to downline devices. In 2026, the focus will continue to be on integrating advanced telemetry and remote control capabilities into intelligent field equipment, as outlined in **Figure 45** below.

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Figure 45: 2025/2026 Planned Communications Path with Downline Reclosers Installation

Region	Area/Community	Feeder/Substation	Installation Status
West	Three Mile Plains	79V-401	In Progress/On Track
Metro	Musquodoboit Harbour	87H-313	In Progress/On Track
Metro	Musquodoboit Harbour	87H-313	In Progress/On Track
Northeast	Dickie Brook	24C-442	In Progress/On Track
Northeast	Ruth Falls	96H-412	In Progress/On Track
Northeast	Ruth Falls	96H-412	In Progress/On Track
Northeast	Ruth Falls	96H-412	In Progress/On Track
West	Waterville	55V-313	In Progress/On Track
Metro	Lucasville	131H-422	In Progress/On Track
Metro	Lakeside	103H-434	In Progress/On Track
Cape Breton	Ingonish & Cape North	85S-401(multiple devices)	In Design. Planned for 2026 Execution
Cape Breton	Coxheath & Eskasoni	11S-411 (multiple devices)	In Design. Planned for 2026 Execution
Metro	Lakeside	103H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Kearney Lake	129H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Hammonds Plains	137H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Armdale	2H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Kempt Rd	104H (multiple devices)	In Design. Planned for 2026 Execution

7.3.2 Fault Location Isolation and Service Restoration

NS Power continues to advance its grid modernization efforts through the deployment of FLISR technology, which enhances system reliability by automating fault detection and service restoration. The FLISR implementation follows a structured, multi-step approach including the following:

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- 1 • **Device Deployment:** The first phase involves ensuring the necessary field devices are in
2 place. While most of the required devices already exist on the system, some will be newly
3 installed, and others will replace older, less capable equipment to support FLISR
4 functionality.
5
- 6 • **Connectivity Enablement:** The second phase focuses on installing telecommunications
7 and communications infrastructure to enable real-time connectivity with the field devices.
8 This step is critical for enabling remote monitoring and control.
9
- 10 • **FLISR Configuration:** In the final phase, devices designated to participate in the FLISR
11 scheme will be configured with the necessary intelligence and automation logic. This
12 enables them to detect faults, isolate affected segments, and restore service to unaffected
13 areas with minimal human intervention.
14

15 All FLISR projects detailed in **Figure 46** below, are targeted to be in service by the end of 2026,
16 contributing to improved reliability performance and faster outage response across the distribution
17 network Please refer to CI C0071528 FLISR Implementation, which is currently being considered
18 by the NSEB under matter M12417.
19
20

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Figure 46: 2026 Planned FLISR Implementation Projects

Region	Area/Community	Feeder/Substation	Installation Status
Cape Breton	Ingonish & Cape North	85S-401(multiple devices)	In Design. Planned for 2026 Execution
Cape Breton	Coxheath & Eskasoni	11S-411 (multiple devices)	In Design. Planned for 2026 Execution
Metro	Lakeside	103H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Kearney Lake	129H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Hammonds Plains	137H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Armdale	2H (multiple devices)	In Design. Planned for 2026 Execution
Metro	Kempt Rd	104H (multiple devices)	In Design. Planned for 2026 Execution

7.3.3 Distributed Energy Resources (DERs)

As the presence of Distributed Energy Resources (DERs) such as solar, wind, and battery storage continues to grow, effectively managing these assets becomes critical to maintaining grid reliability, stability, and efficiency. A DERMS provides the necessary software platform to monitor, coordinate, and optimize the performance of DERs across the network. By enabling real-time visibility and control, DERMS supports load balancing, voltage regulation, and improved outage response, while also facilitating the integration of renewable energy. NS Power plans to advance this capability by initiating a capital work order (CI C0068718) in 2026 to implement a DERMS platform, marking a significant step toward a more resilient and intelligent grid.

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8.0 CONCLUSION

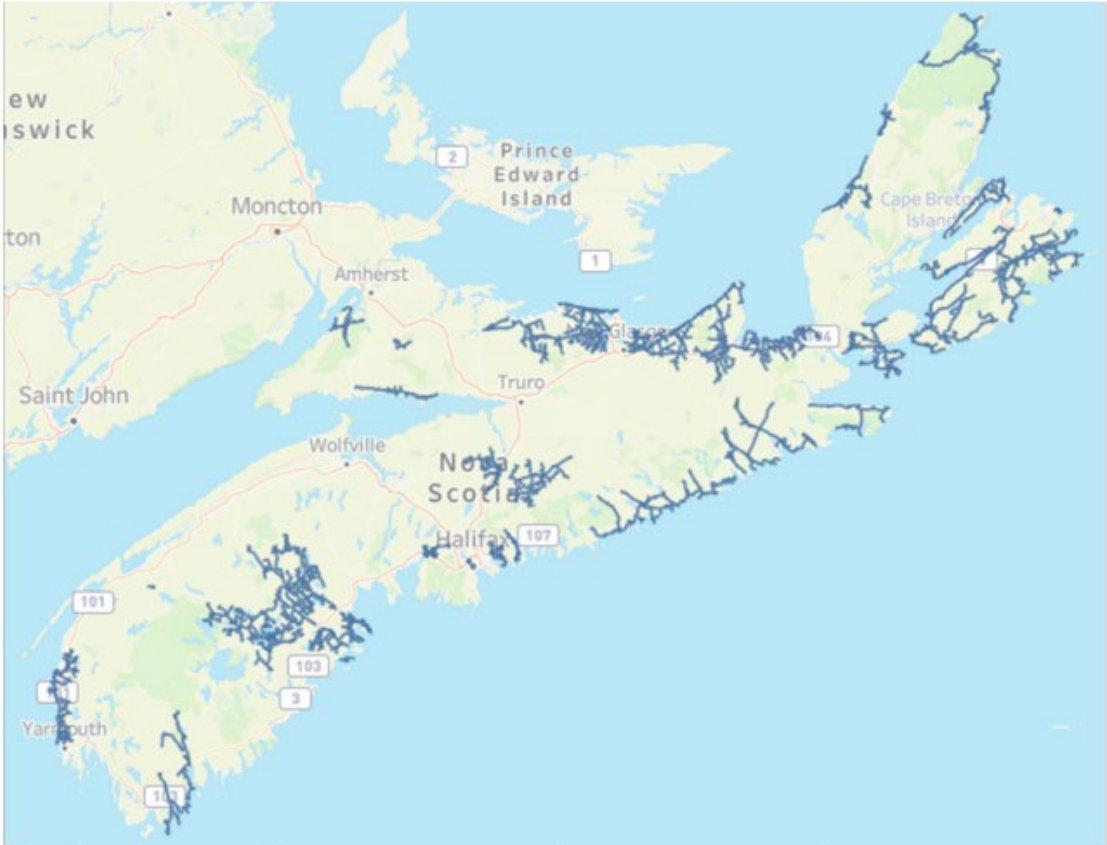
NS Power's Five-Year Reliability Plan represents a significant, sustained commitment to improving system reliability and resilience for customers across Nova Scotia. Year one of the Plan is delivering meaningful progress, and remains on track to invest \$206 million in 2025 in targeted initiatives including vegetation management, storm hardening, and advanced grid modernization. These efforts have already produced measurable benefits, such as reductions in outage frequency and duration, and enhanced system performance.

Looking ahead, the full impact of the program will continue to build as investments accumulate over the five-year horizon. By 2029, NS Power expects to achieve a 20 percent improvement in Performance Standards SAIDI, equivalent to approximately one hour of reduced outage duration, and continue to meet Performance Standards SAIFI, while continuing to prioritize affordability for customers. Continued focus on risk-based decision-making, data-driven prioritization, and innovative technologies will ensure that reliability improvements are aligned with customer needs and industry best practices.

NS Power remains committed to transparency and collaboration with stakeholders and the Board throughout the implementation of this plan, aided by the third-party review starting in early 2026. Annual updates will provide visibility into progress, performance trends, and refinements to future-year work plans. Through these efforts, NS Power will deliver a stronger, more resilient grid capable of meeting the challenges of climate change, supporting electrification, and improving the customer experience.

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APPENDIX A: 2025 Highest Priority Distribution Feeders



Western Region	Metro Region	Northeast Region	Cape Breton Region
14V-303 70W-311 80W-301	137H-412 104H-421 82V-402	100C-421 30N-412 4C-441	57S-401 57S-402 11S-411
16W-301 70W-313 91W-411	113H-433 126H-311	4N-313 57C-426 82V-401	3S-403 59C-402 103C-314
23W-302 73W-411 93V-313		88H-401 50N-410 56N-414	22C-403 22C-404 81S-305
25W-301 76V-301		6N-302 96H-411 96H-412	85S-401 58C-403
57W-401 78W-301		24C-442 4C-430 37N-411	
57W-402 78W-302			

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1 APPENDIX B: Work Completed (C) and In Progress (P) on 2025 Priority Feeders

	Region	Depot	Targeted Equipment Replacements	Protection Upgrade	Upgrades for Load Growth	Build to Roadside	Vegetation Work	2026 Priority Feeder? (Y/N)
100C-421	Cape Breton	PHA				P	C	N
103C-314	Cape Breton	CHC	C					Y
115-411	Cape Breton	SYD					P	N
22C-403	Cape Breton	PHA		P				N
22C-404	Cape Breton	PHA	P	P				Y
3S-403	Cape Breton	SYD					P	N
57S-401	Cape Breton	SYD	C	C			P	N
57S-402	Cape Breton	SYD	C				P	N
58C-403	Cape Breton	CHC	P	C	C		P	Y
59C-402	Cape Breton	RIB					P	N
81S-305	Cape Breton	SYD	C					N
81S-307	Cape Breton	SYD	C					N
85S-401	Cape Breton	ING		P		P	P	Y
104H-421	Metro	HFX	C					N
113H-433	Metro	DAR	P	C	P		P	N
126H-311	Metro	DAR	C		C		P	N
137H-412	Metro	BAY	C				P	N
82V-402	Metro	SAC	P				P	Y
24C-442	Northeast	GUY	P				P	N
30N-412	Northeast	AMH	P				P	N
37N-411	Northeast	PAR	P				C	N
4C-430	Northeast	ANT	P				P	Y
4C-441	Northeast	ANT	C		C		P	N
4N-313	Northeast	AMH	C	C			P	N
50N-410	Northeast	STE	C				P	N
56N-414	Northeast	STE	C	P			C	N
57C-426	Northeast	GUY	P			P		Y

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	Region	Depot	Targeted Equipment Replacements	Protection Upgrade	Upgrades for Load Growth	Build to Roadside	Vegetation Work	2026 Priority Feeder? (Y/N)
6N-302	Northeast	AMH	P					N
82V-401	Northeast	SAC	C					N
88H-401	Northeast	TRU	P				P	N
96H-411	Northeast	TRU			C			N
96H-412	Northeast	TRU	P		C			N
16W-301	West	YAR	C	P				N
23W-302	West	SHE	C					N
25W-301	West	SHE	P	C			P	Y
57W-401	West	LIV	C	C	C			N
57W-402	West	LIV	C				P	N
70W-311	West	DIG	C	C				N
70W-313	West	DIG	P					N
73W-411	West	BRW	P				P	N
76V-301	West	LIV				C		N
78W-301	West	BRW		C	C		P	N
78W-302	West	BRW	C		C		P	N
80W-301	West	BRW	P	C			C	N
91W-411	West	LIV		C			P	Y
93V-313	West	CLA	C					N

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APPENDIX C– Pole Monitoring Projects – New Pole Class Standard

Summary of Pole Monitoring Project Locations

Region	Feeder	Location	Pole Removals	Pole Installs
West	12V-302G	Karsdale (3471 Granville Rd)	40 ft CL4 Quantity: 10	45 ft CL3 Quantity: 2 45 ft CL1 Quantity: 8 40 ft CL3 Quantity: 1
Metro	2H-411	Ragged Lake Blvd to Exhibition Park Exhibition Park to Irving at Evergreen PL	50 ft CL2 Quantity: 1 40 ft CL4 Quantity: 9 45 ft CL3 Quantity: 4	60 ft CL2 Quantity: 6 55 ft CL2 Quantity: 45 50 ft CL2 Quantity: 3 45 ft CL3 Quantity: 3 40 ft CL4 Quantity: 1 35 ft CL4 Quantity: 10
Northeast	26N-211	Joggins, Cumberland County	40 ft CL4 Quantity: 15 35 ft CL4 Quantity: 2	55 ft CL H1 Quantity: 2 50 ft CL H1 Quantity: 2 45 ft CL3 Quantity: 5 45 ft CL1 Quantity: 8 35 ft CL4 Quantity: 2
Cape Breton	85S-401	Wreck Cove (41817 Cabot Trail)	40 ft CL4 Quantity: 5 35 ft CL4 Quantity: 1	50 ft CL2 Quantity: 1 45 ft CL1 Quantity: 2 45 ft CL3 Quantity: 3 40 ft CL1 Quantity: 1 35 ft CL4 Quantity: 3

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Request IR-29:

Please describe whether and how each of the following is weighted in the criticality score:

(a) the number of customers;

(b) the load of customers;

(c) the performance standard.

Response IR-29:

The ultimate criticality score for each feeder is based on the maximum score of any of the three factors, as described below. Please refer to Synapse IR-030 for a more detailed explanation.

(a) Yes, the number of customers is included in the calculation of feeder criticality. NS Power groups feeders based on the quintiles of overall customer count, with the top 20 percent of feeders by customer count given a score of 5 for criticality, and the lowest 20 percent of feeders by customer count given a score of 1 for criticality. Feeders in the other three quintiles are assigned a corresponding score of 2, 3, or 4.

(b) While the peak loading and balance of feeders are considered as part of the condition scoring for feeder, the energy usage is included in the calculation of feeder criticality. NS Power groups feeders based on the quintiles of overall usage (kWh), with the top 20 percent of feeders by usage given a score of 5 for criticality, and the lowest 20 percent of feeders by usage given a score of 1 for criticality. Feeders in the other three quintiles are assigned a corresponding score of 2, 3, or 4.

(c) The performance standards are included in the calculation of feeder criticality, specifically with respect to CKAIFI and CKAIDI measures. Feeders that are potential problem feeders

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- 1 for the given year are scored as a 4 for criticality, with problem feeders for the year scored
- 2 with a 5. All other feeders are scored as a 1 for this category of criticality.

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Request IR-30:

Please demonstrate the mathematical calculation showing how the various components of the criticality score are used to derive the criticality score for a single feeder. For the same feeder, please demonstrate the mathematical calculation showing how the asset condition is combined with the criticality score to arrive at the risk rating.

Response IR-30:

Once the scoring for each factor of the criticality is determined for the feeder (Usage, Customers, Problem Feeder, Communications, Maintenance Access), the scores are combined with the following equation:

$$\text{Criticality} = \text{Max} (\text{Usage}, \text{Customer}, \text{Perf. Stand.}) + \text{Maint. Access} - \text{Communication}$$

In the case of Communications and Maintenance Access, these factors are considered modifiers and are only scored as follows:

- Communications: If feeder telemetered for indication and/or control = 1, otherwise 0.
- Maintenance Access: If feeder has >30 percent of structures off-road = 1, otherwise 0.

Finally, the maximum possible criticality for a feeder is 5 and the minimum is 1, so if the combination of factors would otherwise result in a score outside this band, it is rounded to the closest valid score.

The ultimate feeder risk score is obtained via the following equation:

$$\text{Feeder Risk (1 - 25)} = \text{Feeder Condition (1 - 5)} * \text{Feeder Criticality (1 - 5)}$$

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Request IR-31:

Please describe how the condition of each asset is scored, the range of scores applied to the risk rating, what each score means, and how asset condition is weighted in the risk rating.

Response IR-31:

The condition score for a feeder is based on five main factors that can each be scored from 1 to 5:

- Loading and Balance:
 - Greater of the loading or imbalance score
 - Imbalance = Maximum of percentage imbalance and average amp imbalance
 - 5 if greater than 33% or 60 amps
 - 4 if greater than 25% or 50 amps
 - 3 if greater than 20% or 40 amps
 - 2 if greater than 15% or 30 amps
 - 1 for all others
 - Loading = Maximum phase amps compared with rating
 - 5 if greater than rating
 - 4 if greater than 90 percent of rating
 - 1 for all others
- Outage Frequency (CKAIFI)
 - Quintile distribution of outage frequency for distribution outages
- Outage Duration (CKAIDI)
 - Quintile distribution of outage duration for distribution outages
- Feeder Inspections
 - Quintile distribution of risk-weighted feeder inspection findings divided by feeder length (inspection findings per km)
- Forestry Condition

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- 1 ○ Based on satellite imagery condition assessment by feeder

2
3 There is also a Condition Modifier factor based on known adverse conditions that are not covered
4 by the other five factors that can be scored by NS Power subject matter experts as either a 1 or 2,
5 depending on severity.

6
7 The overall condition score for a feeder is calculated by the following equation:

8
9
$$\text{Feeder Condition} = \text{Average (Insp., Loading, CKAIPI, CKAIPI, Forestry)} + \text{Cond. Mod.}$$

10
11 If the condition score for a feeder exceeds 5 according to this equation, it is rounded down to 5 for
12 the final result.

13
14 Please refer to Synapse IR-30 for how the condition is combined with criticality to obtain feeder
15 risk.

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1 **Request IR-32:**

2
3 **Please describe how the ability to access each asset is scored, the range of scores applied to**
4 **the risk rating, what each score means, and how asset condition is weighted in the criticality**
5 **score.**

6
7 Response IR-32:

8
9 Maintenance access is a modifying factor used in determining feeder criticality scoring. As
10 described in Synapse IR-30, it is based on the percentage of feeder structures that are considered
11 off-road. For percentages above 30 percent, this modifying factor increases a feeder's criticality
12 by one (to a maximum of 5 overall). Asset condition is not directly included in the criticality score,
13 but is assessed separately and combined with criticality to determine overall feeder risk, as
14 described in Synapse IR-30 and Synapse IR-31.

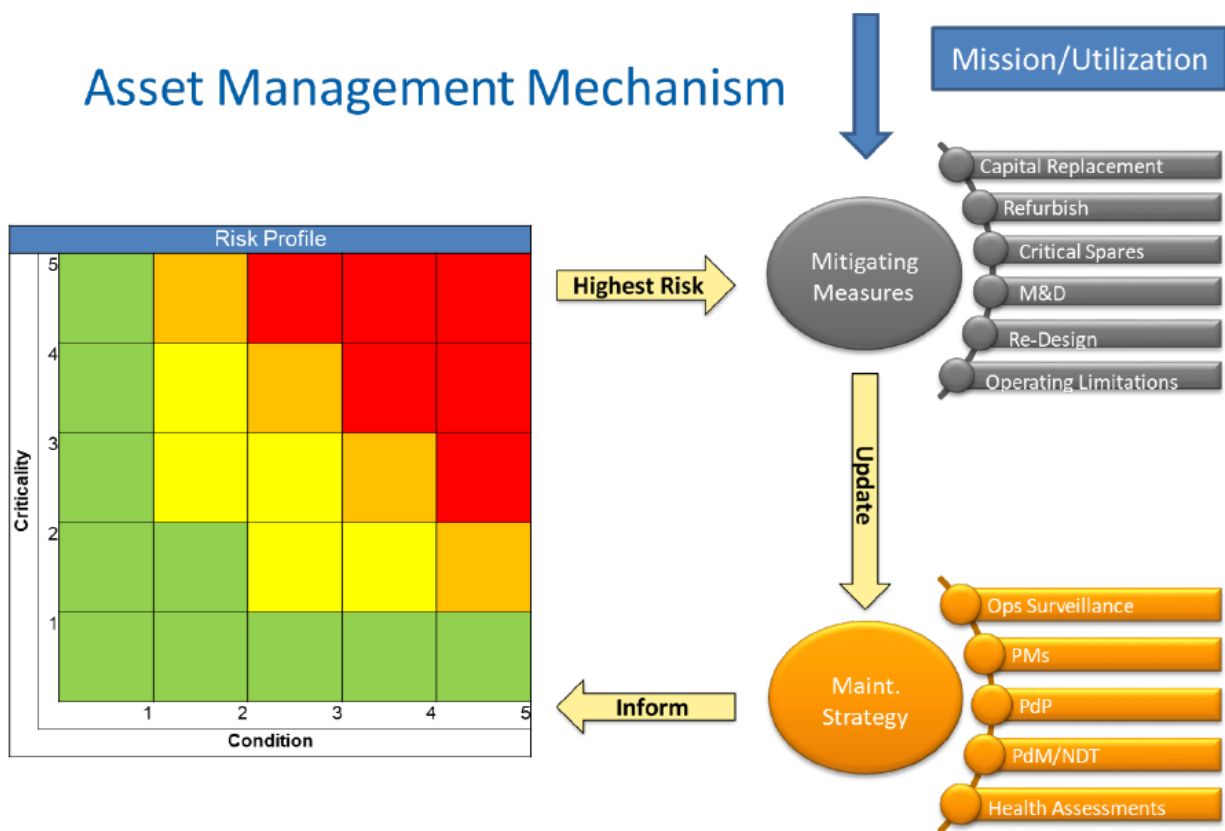
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Request IR-33:

Please describe how the ability to mitigate each asset is scored, the range of scores applied to the risk rating, what each score means, and how asset condition is weighted in the criticality score.

Response IR-33:

NS Power does not understand what the “ability to mitigate each asset” in this IR is referring to. No such factor exists in the Company’s condition or criticality scoring for feeder risks. In NS Power’s asset management mechanism shown below, risk mitigation measures follow from risk identification; it is not a factor of the risk itself.



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1 **Request IR-34:**

2
3 **Please provide all documentation and data related to the derivation of the feeder reliability**
4 **risk score and how it was used to identify and prioritize investments. Please identify the**
5 **proceedings where this documentation and data was filed.**
6

7 Response IR-34:

8
9 As described in Synapse IR-30, feeder performance (CKAIFI and CKAIDI) is included in the
10 determination of feeder condition and ultimately included in determining overall feeder risk. NS
11 Power's risk-based decision-making approach is well documented in the Company's ACE Plans
12 (most recently in the 2026 ACE Plan, M12619) as well as the Property and Assets proceeding
13 (M11067). As previously evidenced, feeder performance is not the sole factor used to identify
14 and/or prioritize feeders for investment; rather, consideration for other condition factors,
15 criticality, and subject matter expertise is also included.
16

17 Please refer to Synapse IR-28 for the detailed CKAIFI and CKAIDI performance results by feeder.

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Request IR-35:

Please confirm if the risk rating methodology prioritizes any of the following customer types above any other:

(a) end users in different rate classes;

(b) the Mi'kmaq of Nova Scotia;

(c) customers who are medically-dependent on electricity;

(d) communities that are served by equipment that is overloaded or feeders that are constrained;

(e) critical facilities;

(f) customers with or required to have backup power

(g) other customer types not listed (please identify the customer types).

Response IR-35:

(a) No. Customer rate class is not considered when determining risk ratings.

(b) No. NS Power does not have available data on whether a given customer is Mi'kmaq that could be used for risk rating purposes.

(c) No. NS Power does not use a customer's medical information in its risk rating methodology. Customers that are medically-dependant on electricity can self-identify as part of a Critical Customer Communication Program to provide enhanced contact with

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1 respect to outages. The accuracy of this list is dependant on self-reporting by customers
2 and should not necessarily be considered comprehensive.

3
4 (d) Yes. The loading and balance of feeders is included in the condition scoring for each feeder
5 (please refer to Synapse IR-31). This scoring is performed at the circuit level rather than
6 by community.

7
8 (e) No. Critical facilities are not included in the determination of feeder risk rating. Consistent
9 criteria and a comprehensive list of critical facilities in the province are not available to NS
10 Power. During storm response, NS Power coordinates with the provincial Department of
11 Emergency Management to identify impacted critical infrastructure, as well as prioritize
12 and coordinate response.

13
14 (f) No. Backup power is not used as a factor in determining risk ratings. NS Power does not
15 routinely collect information on customer backup power, nor does Electricity Canada's
16 methodology for determining performance metrics account for behind-the-meter
17 equipment that may mitigate the impacts of an outage. Please refer to Synapse IR-21.

18
19 (g) N/A.

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1 **Request IR-36:**

2
3 **Did NS Power design its plan to address disparities in reliability for certain populations,**
4 **including but not limited to the Mi'kmaq of Nova Scotia and vulnerable customers? If so,**
5 **how?**
6

7 Response IR-36:

8
9 Please refer to Synapse IR-7 and Synapse IR-8. NS Power's asset management mechanism
10 assesses the condition and criticality of feeders and/or equipment and prioritizes appropriate
11 mitigating strategies using risk-based decision making, regardless of the types of customers who
12 may be located on the feeders.

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Request IR-37:

Please discuss how NS Power considered cost-effectiveness in its Reliability Plan.

(a) What metric(s) did NS Power use to evaluate cost-effectiveness?

(b) How did NS Power evaluate cost-effectiveness? What costs did NS Power include? What benefits did NS Power include?

(c) Did NS Power evaluate cost-effectiveness at the feeder level? If so, please provide all data and analysis related to this evaluation.

(d) Did NS Power evaluate the cost-effectiveness of each potential solution? If so, please provide all data and analysis related to this evaluation.

(e) Did NS Power evaluate the cost-effectiveness of improving reliability for certain types of customers? If so, please provide all data and analysis related to this evaluation.

Response IR-37:

(a) NS Power did not apply a single cost-effectiveness metric to evaluate the Reliability Plan as a whole. Instead, cost-effectiveness was considered using a combination of qualitative and quantitative indicators, depending on the type and scale of investment, including expected reliability performance improvement (e.g., SAIDI, SAIFI, and CAIDI), relative economic efficiency, and customer impact.

At the program level, NS Power considers indicators such as dollars per avoided customer hours of interruption and estimated reliability improvement per unit of investment, alongside other economic and practical considerations, rather than relying on a single consolidated metric.

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1 (b) Cost-effectiveness was evaluated primarily at the program and asset-class level through
2 NS Power's capital governance and asset management processes, supported by
3 program-level reliability forecasting and comparative assessment of alternative investment
4 approaches. Costs considered include the capital expenditures associated with reliability
5 investments and the overall financial impact of those investments on customers. Benefits
6 considered include expected reductions in outage duration and frequency (SAIDI, SAIFI,
7 and CAIDI), avoided customer hours of interruption, reductions in system risk, and
8 achievement of applicable reliability performance standards.

9
10 In evaluating alternative reliability investments, NS Power considers the relationship
11 between investment scale and expected reliability benefit, informed by historical
12 performance, estimated reliability improvement per unit of investment, engineering and
13 subject matter expert judgment, and practical considerations such as execution capacity,
14 scalability, and diminishing incremental returns.

15
16 (c) NS Power did not evaluate cost-effectiveness at the feeder level using standalone,
17 feeder-specific cost-benefit analyses to determine where reliability investments should be
18 made. Feeder-level information, including reliability performance, outage history,
19 customer counts, and risk characteristics was used to identify and prioritize feeders where
20 reliability risk warranted investment. Once reliability investments were prioritized at a
21 feeder, NS Power considered cost-effective approaches to address the identified reliability
22 needs by comparing alternative investment options and selecting those expected to deliver
23 the required reliability improvement efficiently.

24
25 (d) NS Power did not evaluate the cost-effectiveness of each potential solution using
26 standalone, solution-specific cost-benefit analyses. Where reliability investment was
27 warranted, alternative approaches were considered and compared based on expected
28 reliability effectiveness, relative cost efficiency, practicality, scalability, and execution
29 feasibility. This comparative assessment informed the selection of appropriate investment

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1 approaches capable of delivering the required reliability improvement, rather than relying
2 on detailed modeling of every potential solution.

- 3
- 4 (e) NS Power did not evaluate cost-effectiveness using separate models for specific customer
5 classes. Customer considerations were incorporated through feeder risk profiling and
6 prioritization, which accounts for factors such as customer count, load, and broader system
7 impacts. Reliability investments were prioritized to achieve system-wide performance
8 targets and reduce overall risk, rather than to optimize cost-effectiveness for individual
9 customer categories.

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Request IR-38:

Regarding Figure 4: The Path to Improving SAIDI by 20 Percent on page 13 of the Reliability Plan:

- (a) Please provide this figure and all supporting data and calculations in Excel.**
- (b) Please provide all quantitative calculations and data in Excel for how reliability improvements were calculated. Please provide at the most granular level available (e.g. program or feeder level).**
- (c) Please also provide a narrative explanation of how SAIDI improvements were estimated.**

Response IR-38:

- (a) Please refer to Attachment 1.**
- (b) For the development of the Five-Year Reliability Plan, reliability improvements were forecast at the program level, and these calculations are provided in Attachment 2.**
- (c) The forecast SAIDI improvements resulting from the Five-Year Reliability Plan were developed through the contributions from each of the targeted programs included within the plan. Based on historical experience with various types of projects and programs, NS Power has developed an estimated reliability improvement factor per unit of investment for the potential interventions. These factors and the overall programs are reviewed by NS Power's Subject Matter Experts (SMEs) to identify potential constraints associated with resourcing, execution, and scalability, as well as the possible influence from diminishing returns of these investments on effectiveness. For example, in the case of investments for Remote Terminal Units (RTUs), NS Power would target its investments in the first years**

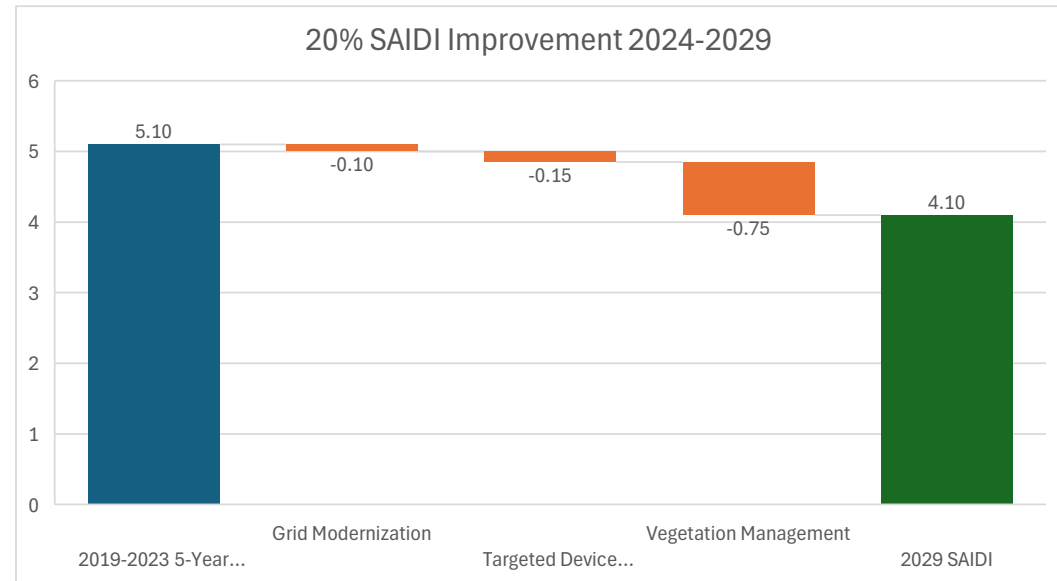
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1 of the plan based on the highest risks, which would typically focus on substations with
2 large customer counts and consequently large potential for reliability improvements.
3 However, in later years of the plan, these high impact locations will have been addressed,
4 and subsequent installations would take place on lower customer count locations with a
5 corresponding lower potential reliability impact. Additionally, there is a finite limit of
6 locations where RTUs can be installed, and consequently a finite maximum of reliability
7 benefit that could potentially be achieved by such a program. This combination of
8 reliability improvement effectiveness, constraints, and other factors was considered by NS
9 Power SMEs to build up the suite of measures and their scale to achieve the desired level
10 of reliability improvement.

11
12 The overall SAIDI improvement is a high-level, system-wide projection and not a bottom-
13 up or project specific approach. The estimates are not based on detailed quantitative
14 modeling of each specific project and feeder. NS Power acknowledges that predicting the
15 precise impact of each investment category on SAIDI is complex, as the ultimate effect on
16 outage frequency and duration is influenced by numerous variables including:

- 17
18 • Specific equipment or rights-of-way involved
19 • Location of intervention
20 • Variability of weather events
21 • Site conditions and accessibility

2019-2023 5-Year Average SAIDI	5.10
Grid Modernization	-0.10
Targeted Device Replacement	-0.15
Vegetation Management	-0.75
2029 SAIDI	4.10



Investment Track	Sub-Program	Scalability	Notes	Section	SAIDI Hour Per \$1M (Low)	SAIDI Hour Per \$1M (High)	Proposed Incremental Investment	SAIDI Reduction (Low)	SAIDI Reduction (High)	% SAIDI Reduction
Storm Hardening - Vegetation Management	Distribution Corridor Widening with Managed Rights-of-Way (ROW)	High	External Resource Capacity Available	4.1	0.0038	0.0068	\$ 182,500,000.00	0.700	1.250	78.1%
Storm Hardening - Vegetation Management	Establish New Rights-of-Way (ROW)		High Volume of Locations Identified	4.3						
Storm Hardening - Vegetation Management	Trimming and Removal of Trees Around Existing Power Lines		Minimal Access and Permits Required	4.4						
Storm Hardening - Targeted Equipment Replacement and Upgrades	Distribution System Equipment Upgrades and Replacements	Low	Limited Resource Capacity Moderate Volume of Risks Identified Minimal Access and Permits Required	5.1	0.0374	0.0691	\$ 4,390,000.00	0.071	0.132	9.1%
Storm Hardening - Targeted Equipment Replacement and Upgrades	Build-to-Roadside Program	Low	Limited Resource Capacity Moderate Volume of Risks Identified High Volume of Access and Permits Required	5.1.1	0.0033	0.0062	\$ 12,500,000.00	0.042	0.077	4.2%
Storm Hardening - Targeted Equipment Replacement and Upgrades	Distribution System Conductor Upgrades	Medium	Limited Resource Capacity Moderate Volume of Risks Identified No Access or Permits Required	5.1.2	0.0182	0.0336	\$ 407,000.00	0.007	0.014	0.7%
Storm Hardening - Targeted Equipment Replacement and Upgrades	Distribution System Underground Upgrades	Low	Limited Resource Capacity Low Volume of Risks Identified No Access or Permits Required	5.1.3	0.0109	0.0202	\$ 874,000.00	0.010	0.018	1.0%
Advanced Grid Modernization Programs	Remote Terminal Units (RTUs)	Low	Limited Resource Capacity Moderate Volume of Risks Identified No Access or Permits Required	6.1.1	0.0011	0.0020	\$ 35,000,000.00	0.039	0.071	5.8%
Advanced Grid Modernization Programs	Downline Connectivity	Medium	Limited Resource Capacity Moderate Volume of Risks Identified	6.1.2	0.0083	0.0152	\$ 2,550,000.00	0.021	0.039	1.0%
Advanced Grid Modernization Programs	Fault Location Isolation and Service Restoration (FLISR)		Minimal Access and Permits Required	6.2						
							\$ 238,221,000.00	0.890	1.600	

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Request IR-39:

Regarding the Storm Hardening-Vegetation Management program discussed starting on page 15 of the Reliability Plan:

(a) Please provide the derivation of the total cost, including all supporting data and calculations in Excel.

(b) Please provide the derivation of the SAIDI reduction, including all supporting data and calculations in Excel.

(c) Please provide the mitigation effectiveness (i.e. percent reliability improvement) for each of the listed strategies, separately (distribution corridor widening with managed right of way; transmission corridor widening with managed right of way, establishing new rights of way, and trimming and removal of power lines). Please provide the derivation of these estimates including all supporting data and calculations and a narrative explanation.

(d) Please provide the existing vegetation management standards for NS Power's system:

(i) Is there a standard clearance requirement or utility standard (i.e. inches of clearance from conductor to a tree branch) for the distribution system? If yes, what is it? If no, why not? Please explain and provide supporting documents.

(ii) Is there a standard clearance requirement or utility standard (i.e. inches of clearance from conductor to a tree branch) for the transmission system? If yes, what is it? If no, why not? Please explain and provide supporting documents.

(iii) What is the standard requirement or utility standard for tree trimming and tree removal? Please explain and provide supporting documents.

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1
2 **(e) Please explain whether, to what extent, and how the Reliability Plan goes beyond these**
3 **existing standards/requirements.**

4
5 **(f) Please provide and explain the criteria under which “tree removal” is recommended**
6 **versus “tree trimming.”**

7
8 Response IR-39:

9
10 (a-b) The forecast five-year \$265 million investment for the Storm Hardening - Vegetation
11 Management program was developed using a risk-based planning approach aligned with
12 NS Power’s Risk Management and Asset Management Framework; see IR 30 and IR 31
13 for additional information as to how projects are prioritized. The objective is an overall
14 SAIDI reduction of approximately 20 percent to meet and sustain Performance Standards
15 SAIDI through 2029 and beyond. Each investment stream, including vegetation
16 management, is evaluated using a baseline cost-per-SAIDI assessment, with considerations
17 for operational resources, execution, and scalability constraints by NS Power SMEs. As
18 detailed in Synapse IR-38, cost and SAIDI reduction projections are informed by historical
19 outage performance and historical cost data and therefore represent planning-level
20 projections rather than project-specific commitments. The estimated SAIDI reduction
21 range of 0.70 to 1.25 hours by 2029 was derived using the total proposed investment level
22 rather than deterministic project-level attribution. Please refer to Synapse IR-38
23 Attachment 2.

24
25 Ultimately, the specific projects for a given year are reviewed and assessed annually
26 through NS Power’s Annual Capital Expenditure proceedings based on updated risk
27 assessments, asset condition, and system performance. The cost forecast and projected
28 SAIDI reduction over the five-year planning horizon inform annual investment levels,
29 which are subject to an iterative optimization process that balances achievable reliability
30 improvements with operational constraints considerations such as the ability to ramp up

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1 necessary resources. As per NS Power's Asset Management framework, proposed projects
2 are expected to prioritize the highest-risk assets and greatest potential customer impacts,
3 resulting in the most effective reductions in SAIDI.

4
5 (c) NS Power does not assess mitigation effectiveness at the level of each individual vegetation
6 management intervention. Instead, locations identified by NS Power's asset management
7 mechanism and found to be driven by vegetation-related risks would be addressed by the
8 appropriate mitigating measure for that location.

9
10 (d) (i-ii) The NS Power standard for distribution rights-of-way is a total width of 6 meters,
11 or 3 meters on either side of the conductor, where feasible. In some situations,
12 achieving a 6-meter clearance is not possible due to various constraints, including
13 limited easements, municipal restrictions, and landowner approval. In these cases,
14 best efforts are made to minimize risk by ensuring that tree contact with conductors
15 is avoided.

16
17 For transmission lines, standard right-of-way widths vary based on voltage levels,
18 as outlined below. Intervention activities are conducted within these established
19 widths to prevent vegetation encroachment:

- 20
21 • 20 m – 69 kV
22 • 30 m – 138 kV
23 • 40 m – 230 kV
24 • 50 m – 345 kV

25
26 For both Distribution and Transmission, the normal limits of approach tables in NS
27 Power's safe work practice (SWP) 35 provide guidance for the distance vegetation
28 should be from conductors (please refer to Attachment 1).

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1 (iii) Individual tree removal is recommended when visible defects indicate a risk of
2 whole or partial failure that could result in an outage. In some cases, healthy trees
3 may also be designated for removal based on species characteristics, wind exposure,
4 and overall risk to system reliability. Where excessive pruning would be required,
5 potentially leading to tree decline and future hazards, removal may represent the
6 most effective long-term solution.

7
8 Where the objective is to maximize separation between conductors and vegetation,
9 incompatible tree species may be removed to reduce the likelihood of vegetation
10 conflicts. Tree trimming is more commonly implemented in municipal settings,
11 where publicly and privately owned trees provide community value beyond
12 electrical reliability. In many cases, strategic trimming can achieve acceptable
13 clearances while balancing system reliability with the social and environmental
14 benefits that trees provide. The specific approach taken in each case would be
15 assessed based on the expertise of NS Power SMEs in consideration of the
16 applicable constraints detailed above.

17
18 (e) The Reliability Plan uses existing tree removal and tree trimming standards.

19
20 (f) Please refer to part (d) (iii).

SWP 35 – Limits of Approach to Energized Conductors or Equipment
Revised: 2024 01 01

NOTE: Definitions previously listed at the beginning of this practice can be found in the Definitions section with the exception of Qualified Personnel, which has been included in the online version and future print versions.

Qualified Personnel – employees who have received formal training to perform specific tasks in close proximity to energized lines and apparatus and are restricted to the specific task. All others are considered “unqualified”.

1. Personnel shall observe the limits of approach to live conductors as specified in the tables shown.
 - 1.1. Unqualified personnel shall not be allowed to approach closer to live exposed electrical lines or apparatus than the distances specified in Table 1 or 1A unless under the close supervision of a qualified person.

Table 1 – Normal Limits of Approach AC Systems Note 2.1 - Unqualified Personnel			
NSPI Nominal Circuit Voltage (Phase to Phase)	C.S.A. Voltage Range (Phase to Ground)	Limit of Approach Metres/Feet	
200 – 300V Note 2.5	<220V	1.0	3.28 Note 2.3
300- 750V	220 – 400V	1.0	3.28 Note 2.3
0.75 – 25 kV	0.4 – 18 kV	3.0	10 Note 2.4
– 40 kV	18 – 22 kV	3.0	10
– 69 kV	22 – 50 kV	3.0	10
– 138 kV	50 – 90 kV	5.0	16.5
– 230 kV	120 – 150 kV	6.1	20
– 345 kV	190 – 220 kV	6.1	20

Table 1A – Normal Limits of Approach DC Systems Note 2.2 - Unqualified Personnel			
ENL Nominal Circuit Voltage	CSA DC Voltage Range	Limit of Approach Metres/Feet	
0 – 5 kV	750 – 22 kV	3.0	10
-200 kV	>150 kV	6.1	20

- 1.2. Under normal working conditions qualified personnel, or unqualified personnel under the close supervision of qualified personnel, shall not approach closer to exposed energized electrical lines or apparatus than the distance specified in Table 2.

Table 2 – Normal Limits of Approach AC Systems ^{Note 2.1} – Qualified Personnel			
NSPI Nominal Circuit Voltage (Phase to Phase)	C.S.A. Voltage Range (Phase to Ground)	Limit of Approach Metres/Feet	
30 – 300V ^{Note 2.5}	<220V	0.61	2 Note 2.3
300 – 750V	220 – 400V	0.61	2 Note 2.3
0.75 – 25 kV	0.4 – 18 kV	1.2	4 Note 2.4
– 40 kV	18 – 22 kV	1.2	4
– 69 kV	22 – 50 kV	1.5	5
– 138 kV	50 – 90 kV	1.8	6
– 230 kV	120 – 150 kV	2.3	7.5
– 345 kV	190 – 220 kV	2.9	9.5

Table 2 – Normal Limits of Approach AC Systems ^{Note 2.1} – Qualified Personnel		
NSPI Nominal Circuit Voltage (Phase to Phase)	C.S.A. Voltage Range (Phase to Ground)	Limit of Approach Metres/Feet

Table 2A – Normal Limits of Approach DC Systems ^{Note 2.2} – Qualified Personnel			
ENL Nominal Circuit Voltage	CSA DC Voltage Range	Limit of Approach Metres/Feet	
0 – 5 kV	750 – 22 kV	1.2	4
-200 kV	>150 kV	2.3	7.5

- 1.3. When the type of job requires qualified personnel to encroach on the normal limits of approach, careful consideration shall be given to the following factors in establishing safe working distance:
 - 1.3.1. Selection of employees competent to perform the work.
 - 1.3.2. The training and knowledge of the employees with regard to the hazards of the work situations.
 - 1.3.3. The work location, the job to be done and the method and materials to be used.
 - 1.3.4. The use of protective equipment, barriers and/or devices.
- 1.4. An employee, or any conductive material the employee may be handling, will not come closer than the distance specified in Table 3 Absolute Limits of Approach AC Systems or Table 3A Absolute Limits of Approach DC Systems to exposed energized electrical lines or apparatus unless the apparatus and/or worker is adequately insulated from the second point of contact. If rubber cover up has been applied this would require the additional step of wearing rubber gloves.

Table 3 – Absolute Limits of Approach AC Systems ^{Note 2.1} – Qualified Personnel			
NSPI Nominal Circuit Voltage (Phase to Phase)	C.S.A. Voltage Range (Phase to Ground)	Limit of Approach Metres/Feet	
30 – 300V ^{Note 2.5}	<220V	Maintain air gap	Maintain air gap ^{Note 2.3}
300 – 750V	220 – 400V	Maintain air gap	Maintain air gap ^{Note 2.3}
0.75 – 25 kV	0.4 – 18 kV	0.3	1 ^{Note 2.4}
– 40 kV	18 – 22 kV	0.3	1
– 69 kV	22 – 50 kV	0.6	2
– 138 kV	50 – 90 kV	0.9	3
– 230 kV	120 – 150 kV	1.4	4.5
– 345 kV	190 – 220 kV	2.0	6.5

Table 3A – Absolute Limits of Approach DC Systems ^{Note 2.2} – Qualified Personnel			
0 – 5 kV	750 – 22 kV	0.3	1
>200 kV	>150 kV	2.0	6.5

2. NOTES

- 2.1. See also Figures 1, 2, 3 and 4
- 2.2. See Figure 5 These limits only apply to the Earth Return Line. The ENL voltage of 0 – 5kV reflects how the Return Line operates and is not applicable to DC control voltages within substations (e.g. 125 V DC).
- 2.3. Below 750V is a contactable (Personal Contact) voltage range with rubber gloves when following applicable SWP and SWMs.
- 2.4. The 750V- 25kV voltage range is a contactable voltage (Personal contact) with high voltage rubber gloves when following the applicable SWPs and the Rubber Glove Code of Practice.
- 2.5. For 120/240V single phase, treat the same as 30 – 300V phase to phase.
- 2.6. CSA Voltage Range: CSA provides standards, some of which contain notable voltage references. (e.g., see “CSA C235:19 Preferred Voltage Levels for AC Systems up to 50,000 V”)
- 2.7. The Limit of Approach does not apply to the grounded portion of a piece of equipment, dead-front connections and/or fully shielded cables.

LIMIT OF APPROACH TO ENERGIZED CONDUCTORS

Figure 1

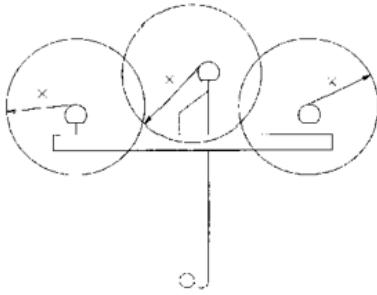


Figure 2

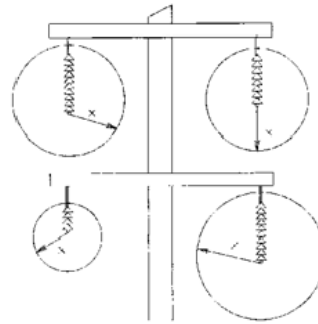


Figure 3

"X" represents the limit of approach as specified in Tables 1, 2 and 3.

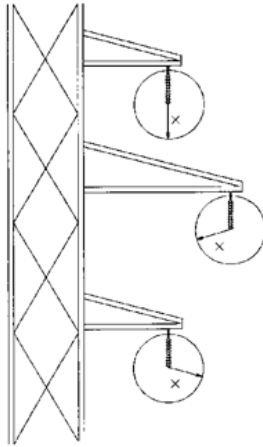


Figure 4

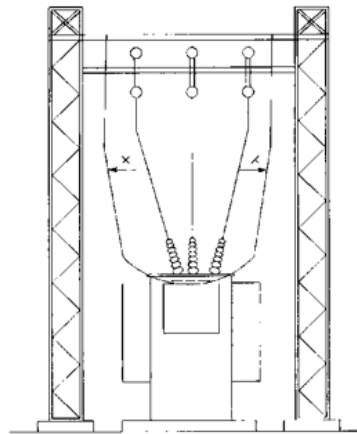
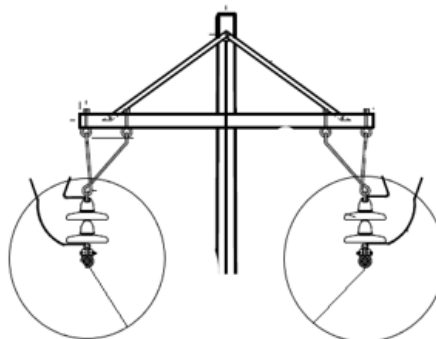


Figure 5



3. NOTIFICATION OF CHANGE

It is a requirement of the approval of Standard Work Method 9.00 Rules for Rubber Gloving Distribution Class Voltages that the Director of Labour, Skills and Immigration be notified of any updated version of this Safe Work Practice.

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Request IR-40:

Please refer to the list of strategies on page 15, lines 23-26 of the Reliability Plan. Please provide the following (in Excel with all calculations, where applicable):

- (a) Assumed or estimated unit cost (e.g. \$/circuit mile or other unit where applicable);**
- (b) The most granular unit cost available (i.e. by asset or activity), at minimum separate unit costs for tree trimming versus tree removal;**
- (c) Source and derivation of total cost estimate;**
- (d) Estimated reliability improvement in total and all support for the derivation of this estimated reliability improvement, including all calculations in Excel;**

Response IR-40:

(a-b) Please refer to the table below for costs associated with the strategies identified on page 15, lines 23-26 of the Five-Year Reliability Plan. The table represents the most granular costs that are available. In most instances, tree removals are completed as part of the overall clearing and included in the total costs for each strategy.

Strategy	Spans	Kilometer	Total Cost	Cost/Span	Cost/Kilometer
Distribution Corridor Widening with Managed Rights-of-Way	3,618	201	\$ 11,944,226	\$ 3,301	\$ 59,424
Transmission Corridor Widening with Managed Rights-of-Way		120	\$ 2,881,238		\$ 24,010
Establishing New Rights-of-Way (ROW),	4,608	256	\$ 18,506,783	\$ 4,016	\$ 72,292
Trimming and removal of trees around existing power lines.	4,158	231	\$ 5,639,871	\$ 1,356	\$ 24,415

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1 (c) Costs are determined primarily through rates submitted through the RFP process. Estimates
2 are calculated based on the type of work prescribed and the corresponding rates for that
3 prescription. In some instances, work can not be completed under unit rates and need to
4 be completed using hourly rates which could result in final costs being higher or lower than
5 the unit rate estimates.

6
7 (d) Please refer to Synapse IR-38, Synapse IR-38 Attachment 2, Synapse IR-41, Synapse IR-
8 42, and Synapse IR-43.

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Request IR-41:

Regarding Figure 5: Distribution Vegetation Management Right of Way Widening (2025) on page 17 of the Reliability Plan and the Distribution Corridor Widening with Managed Right-of-Way program:

- (a) In Excel, please provide the Feeder IDs shown that correspond to this map and align with the Feeder IDs provided in response to question 17.**
- (b) Please explain and provide all quantitative support for why these feeders were targeted in 2025. Please use data provided in response to question 17 as part of this response, and provide any other data or calculations as needed in Excel.**
- (c) Please indicate the feeder IDs for which work was completed in 2025.**
 - (i) Please provide the total cost of each program for each feeder where work was accomplished.**
 - (ii) For feeders where work was not accomplished, please explain why this was the case.**
 - (iii) Please provide a list of feeder IDs that were not prioritized in the Reliability Plan, but were targeted for reliability investment in 2025.**
 - (iv) Why did NS Power implement programs on feeders it had not originally planned on targeting? Please provide all qualitative and quantitative analysis in support of this response.**

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1 Response IR-41:
2

3 (a) Please refer to Attachment 1 that identifies the feeders and general geographical location
4 from the map on page 17 of the Five-Year Reliability Plan. To align with Synapse IR-17,
5 this work would be proactive to prevent tree contacts with power lines in these regions.
6

7 (b) Please refer to matter M12619 NSEB-IR-188(a) for an explanation of qualitative factors
8 that influenced the 2025 vegetation management planning. In addition to the qualitative
9 factors, quantitative factors such as vegetation condition ratings will also influence risk-
10 based decisions when selecting feeders for treatment. Please refer to Attachment 1 for the
11 vegetation condition rating for the feeders listed.
12

13 (c)

14 (i) Please refer to Attachment 2 for contract dollars per feeder. NS Power does not
15 track other costs such as labour, materials, and administrative overhead at the feeder
16 level. "Other" denotes work within small miscellaneous projects that are not
17 tracked at the feeder level
18

19 (ii) The work that was not accomplished is a result of addressing other concerns that
20 were higher priority. Please refer to part (b) and c (iv) for more explanation.
21

22 (iii) Please refer to Attachment 3 for a summary of feeders that had work completed in
23 2025 that were not included in the original plan, but added due to reprioritization:
24

25 (iv) As noted in part (c)(ii) and part (b) above, reliability performance and other risk
26 factors are continuously reassessed. While certain feeders may either be deferred
27 or have work volume reductions from the plan, the same reassessment factors can
28 also necessitate additions to the plan to address emerging concerns. Unforeseen
29 issues such as those arising from storm events, wildfire threats, or general safety

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1 considerations can develop rapidly and often require near-term action after
2 qualitative or quantitative analysis of the original plan is complete.

Distribution Vegetation Management Right of Way Widening (2025)

Feeder	Geographic Location	Feeder Condition Score	Feeder Criticality	Feeder Risk	Veg Condition Score	Adjusted Project Risk	Key Risk Factors
100C-421	Havre Boucher	5	4	20	5	20	
113H-433	Upper Lawrencetown	4	5	20	5	25	
11S-302	Blacketts Lake	3	3	9	5	15	
11S-411	Eskasoni	4	5	20	5	25	
16N-301	Stewiacke	4	4	16	3	16	
16W-301	Hebron	4	5	20	5	25	
16W-302	Lake George	4	5	20	5	25	
25W-301	Upper Ohio	5	4	20	5	20	
30N-412	River Hebert	4	5	20	3	20	
37N-411	Economy	3	4	12	5	20	
37N-412	Diligent River, Parrsboro	4	3	12	5	15	
3S-403	Boularderie/Pt. Aconi	4	3	12	5	15	
46W-303	White Point	4	3	12	5	15	
4C-430	Cape George	5	5	25	5	25	
50N-410	French River	4	4	16	5	20	
55V-314	Alyesford Mountain	4	4	16	5	20	
56N-414	Scotsburn	4	5	20	3	20	
57S-401	Little Lorraine	5	5	25	5	25	
57S-402	Trout Brook	5	4	20	5	20	
57W-401	South Brookfield	5	5	25	5	25	
57W-402	Caledonia	4	5	20	3	20	
58C-403	Inverness	4	4	16	5	20	
59C-402	Lake Uist	4	4	16	5	20	
62N-413	Sherbrooke	5	3	15	5	15	
70V-311	Bridgetown	3	5	15	5	25	
70W-311	Conquerall Mills	5	3	15	5	15	
70W-313	Highway 332	5	5	25	5	25	
73W-411	Stanburne	5	5	25	5	25	
76V-301	Maitland Bridge	5	5	25	3	25	
78W-301	Mader's Cove	3	5	15	5	25	
78W-302	Lilydale	4	5	20	2	20	
80W-301	Feltzen South	4	5	20	5	25	
81N-412	Wentworth	3	5	15	5	25	
91W-411	Molega Lake	5	5	25	5	25	
93V-312	Saunierville	3	4	12	2	12	
93V-313	Meteghan Station/Mavillette	5	4	20	3	20	
96H-411	Sheet Harbour	5	4	20	5	20	
96H-412	Sheet Harbour/Liscomb	5	4	20	3	20	
82V-401	Shubenacadie/Milford	3	4	12	5	20	
87W-312	Fox Point (Hwy 329)	4	3	12	3	12	

Feeder	Contract \$
103W-312	\$7,251
11S-411	\$211,758
16V-315	\$966,196
22N-403	\$102,393
23W-301/302	\$2,368
25W-301	\$1,378,522
37N-411	\$1,167,369
4C-424	\$98,276
50N-410	\$129,830
50N-410/415	\$436,719
50W-412	\$444,570
55V-314	\$25,030
56N-414	\$758,621
62N-415	\$271,867
70V-312	\$350,005
70W-311	\$3,806
73W-411	\$303,826
79V-401/402	\$22,391
81N-412	\$777,441
81S-302	\$261,188
85S-401	\$10,091
92H-331	\$1,425,558
Other	\$176,394
Total	\$9,331,469

Feeder

101W-411

103W-311

103W-312

12V-304

16V-314

16V-315

18V-412

1N-402

22N-403

22V-313

22V-314

23W-301

23W-302

25W-302

2H-423

4C-424

4N-312

50N-415

50W-412

62N-414

62N-415

65V-301

70V-312

79V-401

79V-402

79V-403

81N-411

81S-302

85S-401

92H-331

92H-334

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Request IR-42:

Regarding Figure 7: Transmission Corridors Targeted for Widening (2025) on page 19 of the Reliability Plan and the Transmission Corridor Widening with Managed Rights of Way program:

- (a) In Excel, please provide the Feeder IDs shown that correspond to this map and align with the Feeder IDs provided in response to question 17.**
- (b) Please explain and provide all quantitative support for why these feeders were targeted in 2025. Please use data provided in response to question 17 as part of this response, and provide any other data or calculations as needed in Excel.**
- (c) Please indicate the feeder IDs for which work was completed in 2025.**
 - (i) Please provide the total cost of each program for each feeder where work was accomplished.**
 - (ii) For feeders where work was not accomplished, please explain why this was the case.**
 - (iii) Please provide a list of feeder IDs that were not prioritized in the Reliability Plan, but were targeted for reliability investment in 2025.**
 - (iv) Why did NS Power implement programs on feeders it had not originally planned on targeting? Please provide all qualitative and quantitative analysis in support of this response.**

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Response IR-42:

(a) Transmission corridor widening with managed Rights-of-Way (ROWs) is a high-priority initiative focused primarily on NERC-regulated transmission lines, in alignment with NERC FAC-003-5 requirements. This approach helps to storm-harden corridors against extreme weather event-caused tree contacts. Corridor widening is a well-established industry best practice for vegetation management and a proven reliability enhancement during severe weather. NERC transmission corridors with forest edges can present a high risk of fall-in tree threats and are therefore targeted for widening. These priorities are informed by both LiDAR analysis and field-verified data. Exceptions may occur where non-NERC facilities require prioritization, such as L-6002 (non-NERC) and L-7009 (NERC), which share the same transmission corridor and where landowner permission has been granted to widen across the property. Please refer to Table 1 below for the transmission work plan. The specific transmission risk scores, and narrative on the specific drivers for their inclusion are included in Attachment 1.

Table 1. 2025 Transmission Work Plan

2025 T010 Transmission Corridor Widening			
Transmission Line	Geographic Location of the Line	2025 Planned km	2025 Completed km
L-6503-added	Onslow to Trenton	0	17
L-6002-added	Sackville to Bridgewater	0	12
L-7005	Onslow to Hopewell	16	9
L-7003	Onslow to Port Hastings	29	31
L-7004	Dalhousie Mountain to Port Hastings	23	18
L-7009	Brushy Hill to Bridgewater	18	15
L-7008	Brushy Hill to Bridgewater	15	12
L-6511	New Glasgow to Glen Dhu	19	6
	Total km	120	120

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(b) All transmission lines that had corridor widening completed in 2025 were targeted based on their vegetative condition and criticality to the transmission system. They are all NERC-regulated transmission lines and therefore considered high priority. The sole exception is L-6002, which shares portions of the same transmission corridor as L-7009. As landowner permission was granted for the entire corridor and associated property, widening activities for L-6002 were completed concurrently with L-7009 within the shared ROW to realize additional benefits. As an example, quantitative support is provided for NERC line L-6511 through LiDAR flight data in Attachment 2 which identified locations where forest-edge trees presented fall-in risks capable of contacting transmission equipment and causing outages. Identified threat areas are therefore targeted for corridor widening across all lines included in the plan using the same methodology.

(c) (i) Please refer to Table 2 below for costs associated with each transmission line worked in 2025.

Table 2. 2025 Work Plan Expenditure

2025 T010 Transmission Corridor Widening			
Transmission Line	Geographic Location of the Line	2025 Actual Spend \$	2025 Completed km
L-6503-added	Onslow to Trenton	408,170	17
L-6002-added	Sackville to Bridgewater	288,120	12
L-7005	Onslow to Hopewell	216,090	9
L-7003	Onslow to Port Hastings	744,310	31
L-7004	Dalhousie Mountain to Port Hastings	432,180	18
L-7009	Brushy Hill to Bridgewater	360,150	15
L-7008	Brushy Hill to Bridgewater	288,158	12
L-6511	New Glasgow to Glen Dhu	144,060	6
	Total km	2,881,238	120

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- 1 (ii) Lines where work was not accomplished as originally planned was due to
2 insufficient landowner permissions to widen the ROW.
3
- 4 (iii) Please refer to Table 1 in part (c) (i) for lines that were added to the 2025
5 transmission work plan.
6
- 7 (iv) All NERC lines are considered high criticality, and this status informs the
8 prioritization of interventions. When discussions with certain landowners do not
9 progress as quickly as anticipated, additional high-criticality lines and associated
10 ROWs are added to the program. Some landowners reside outside of Nova Scotia
11 or in some cases internationally and the amount of time required to thoroughly
12 communicate the scope of work can take anywhere from a few days to multiple
13 months or years, depending on the individual landowner and their objectives.

Transmission Corridors Targeted for Widening (2025)							
Transmission Line	Geographic Location of the Line	Transmission ROW Condition Score	Transmission Criticality	Transmission Risk	2025 Planned km	2025 Completed km	Key Risk Factors
L-6503-added	Onslow to Trenton	5	4	20	0	17	High criticality, NERC, reduce impact during severe weather storm by widening ROW
L-6002-added	Sackville to Bridgewater	5	5	25	0	12	Shared commission corridor with L-7009
L-7005	Onslow to Hopewell	4	5	20	16	9	
L-7003	Onslow to Port Hastings	5	5	25	29	31	
L-7004	Dalhousie Mountain to Port Hastings	4	5	20	23	18	
L-7009	Brushy Hill to Bridgewater	5	5	25	18	15	
L-7008	Brushy Hill to Bridgewater	4	5	20	15	12	
L-6511	New Glasgow to Glen Dhu	5	4	20	19	6	

Condition Assessment Notes:

Condition assessment is informed by vegetation ROW inventory conducted by NS Power's Forestry subject matter experts using knowledge of forest-edge, structure type, and species across identified actionable segments of the corridor.

While residual risk remains, the proposed work supports sustaining transmission line reliability performance by reducing vegetation-related exposure under severe weather conditions.

Line Number	Line/Structure Number	VEG_POLYGO	CONDUCTOR	Risk	MEASURE	AVG_HEIGHT	MAX_HEIGHT	VOLTAGE	SURVEY_NAM	SURVEY_END	ALTITUDE	CENTERX	CENTERY	Classification	SHAPE_Length	SHAPE_Area
L6511	Span from L6511-118 to L6511-119	31_4725	Blowout	Fall-In	0.002767	18.44	23.24	138	2024NSP24	9/6/2024	94.283678	-62.372833	45.604708	Danger	41.148	52.466992
L6511	Span from L6511-022 to L6511-023	29_11907	Blowout	Fall-In	0.004122	10.93	14.75	138	2024NSP24	9/6/2024	88.297582	-62.60071	45.619193	Danger	35.6616	44.732814
L6511	Span from L6511-126 to L6511-127	31_10035	Blowout	Fall-In	0.009278	12.08	16	138	2024NSP24	9/6/2024	97.330636	-62.352336	45.610873	Danger	42.9768	59.992138
L6511	Span from L6511-108 to L6511-109	32_24028	Blowout	Fall-In	0.012715	6.07	10.34	138	2024NSP24	9/6/2024	74.031548	-62.395872	45.593421	Danger	28.3464	26.965107
L6511	Span from L6511-124 to L6511-125	31_9051	Blowout	Fall-In	0.013241	2.71	11.08	138	2024NSP24	9/6/2024	96.638984	-62.357405	45.610279	Danger	24.6888	18.18577
L6511	Span from L6511-032 to L6511-033	53_6211	Blowout	Fall-In	0.016484	12.42	16.26	138	2024NSP24	9/6/2024	73.466665	-62.575251	45.614226	Danger	59.436	77.132749
L6511	Span from L6511-039 to L6511-040	53_12418	Blowout	Fall-In	0.019003	11.69	15.56	138	2024NSP24	9/6/2024	56.516342	-62.555152	45.611393	Danger	33.8328	31.77284
L6511	Span from L6511-121 to L6511-122	31_6768	Blowout	Fall-In	0.022346	8.3	12.71	138	2024NSP24	9/6/2024	90.701731	-62.364767	45.608149	Danger	33.833	37.417385
L6511	Span from L6511-022 to L6511-023	29_11265	Blowout	Fall-In	0.026117	12.98	18.19	138	2024NSP24	9/6/2024	89.707093	-62.601053	45.619227	Danger	51.2064	77.132749
L6511	Span from L6511-062 to L6511-063	53_33476	Blowout	Fall-In	0.030125	3.26	10.75	138	2024NSP24	9/6/2024	14.063359	-62.502839	45.591854	Danger	19.2024	12.750942
L6511	Span from L6511-117 to L6511-118	31_3166	Blowout	Fall-In	0.031225	8.85	13.1	138	2024NSP24	9/6/2024	100.562848	-62.373939	45.604076	Danger	29.261	33.445323
L6511	Span from L6511-123 to L6511-124	31_7401	Blowout	Fall-In	0.031232	12.92	17.24	138	2024NSP24	9/6/2024	97.127425	-62.361466	45.609234	Danger	34.7472	42.433464
L6511	Span from L6511-033 to L6511-034	53_6871	Blowout	Fall-In	0.035584	16.18	20.85	138	2024NSP24	9/6/2024	68.886723	-62.572162	45.613762	Danger	52.1208	90.301755
L6511	Span from L6511-136 to L6511-137	31_14827	Blowout	Fall-In	0.046402	15.53	19.73	138	2024NSP24	9/6/2024	97.885287	-62.328831	45.618244	Danger	39.3194	56.857438
L6511	Span from L6511-117 to L6511-118	31_3466	Blowout	Fall-In	0.047199	10.12	12.14	138	2024NSP24	9/6/2024	97.182414	-62.374164	45.603643	Danger	30.1752	40.343145
L6511	Span from L6511-118 to L6511-119	31_4707	Blowout	Fall-In	0.050263	12.6	16.9	138	2024NSP24	9/6/2024	92.816018	-62.372574	45.604772	Danger	62.1794	73.371136
L6511	Span from L6511-119 to L6511-120	31_5462	Blowout	Fall-In	0.054955	13.51	16.75	138	2024NSP24	9/6/2024	89.324517	-62.369092	45.606332	Danger	55.7784	78.38694
L6511	Span from L6511-122 to L6511-123	31_7598	Blowout	Fall-In	0.056357	9.63	13.69	138	2024NSP24	9/6/2024	96.22325	-62.362917	45.608956	Danger	21.0314	14.632503
L6511	Span from L6511-123 to L6511-124	31_8348	Blowout	Fall-In	0.059993	7.1	12.41	138	2024NSP24	9/6/2024	93.21754	-62.359565	45.609626	Danger	32.004	33.236063
L6511	Span from L6511-148 to L6511-149	31_23663	Blowout	Fall-In	0.062899	14.82	19.52	138	2024NSP24	9/6/2024	81.794408	-62.301912	45.629303	Danger	47.5488	72.534048
L6511	Span from L6511-106 to L6511-107	32_22564	Blowout	Fall-In	0.068352	8.3	17.43	138	2024NSP24	9/6/2024	69.992981	-62.398986	45.59169	Danger	66.7522	72.326434
L6511	Span from L6511-024 to L6511-025	38_21091	Blowout	Fall-In	0.069675	10.91	13.75	138	2024NSP24	9/6/2024	95.551046	-62.592999	45.618268	Danger	26.5176	31.354776
L6511	Span from L6511-117 to L6511-118	31_3559	Blowout	Fall-In	0.078894	4.47	9.77	138	2024NSP24	9/6/2024	95.273888	-62.374582	45.603491	Danger	26.5178	20.276226
L6511	Span from L6511-117 to L6511-118	31_3390	Blowout	Fall-In	0.079497	10.45	14.37	138	2024NSP24	9/6/2024	95.126793	-62.374787	45.603762	Danger	32.0042	38.880151
L6511	Span from L6511-023 to L6511-024	29_12672	Blowout	Fall-In	0.081267	12.46	16.4	138	2024NSP24	9/6/2024	90.532338	-62.597231	45.618993	Danger	45.72	57.065692
L6511	Span from L6511-023 to L6511-024	29_12913	Blowout	Fall-In	0.089769	5.09	11.16	138	2024NSP24	9/6/2024	90.494153	-62.597212	45.618662	Danger	23.7748	15.259782
L6511	Span from L6511-006 to L6511-007	29_2448	Blowout	Fall-In	0.09016	5.08	9.98	138	2024NSP24	9/6/2024	13.813797	-62.635532	45.624721	Danger	31.0896	29.264458
L6511	Span from L6511-107 to L6511-108	32_23253	Blowout	Fall-In	0.093436	8.72	14.77	138	2024NSP24	9/6/2024	74.977587	-62.397505	45.592528	Danger	44.8056	66.890189
L6511	Span from L6511-119 to L6511-120	31_3950	Blowout	Fall-In	0.093977	9.67	15.54	138	2024NSP24	9/6/2024	94.637555	-62.369794	45.605893	Danger	41.148	43.687655
L6511	Span from L6511-031 to L6511-032	53_5993	Blowout	Fall-In	0.094392	10.24	12.63	138	2024NSP24	9/6/2024	72.089081	-62.577527	45.614552	Danger	31.0898	35.117943
L6511	Span from L6511-118 to L6511-119	31_4240	Blowout	Fall-In	0.095906	9.97	14.26	138	2024NSP24	9/6/2024	95.124346	-62.370145	45.605454	Danger	29.2608	31.145744
L6511	Span from L6511-032 to L6511-033	53_6205	Blowout	Fall-In	0.10029	13.16	15.59	138	2024NSP24	9/6/2024	76.066656	-62.575465	45.614281	Danger	36.576	53.512151
L6511	Span from L6511-118 to L6511-119	31_4834	Blowout	Fall-In	0.100591	13.69	16.37	138	2024NSP24	9/6/2024	92.390602	-62.372143	45.604465	Danger	51.2064	81.104354
L6511	Span from L6511-156 to L6511-157	31_28559	Blowout	Fall-In	0.108366	9.28	13.99	138	2024NSP24	9/6/2024	124.895373	-62.284172	45.63615	Danger	31.0896	33.445094
L6511	Span from L6511-108 to L6511-109	32_23682	Blowout	Fall-In	0.108496	7.92	12.92	138	2024NSP24	9/6/2024	72.9944	-62.395615	45.593845	Danger	33.8328	34.490254
L6511	Span from L6511-119 to L6511-120	31_4156	Blowout	Fall-In	0.110865	8.68	14.5	138	2024NSP24	9/6/2024	97.275055	-62.369868	45.605581	Danger	52.1208	65.426966
L6511	Span from L6511-034 to L6511-035	53_8352	Blowout	Fall-In	0.116916	6.75	12.25	138	2024NSP24	9/6/2024	62.888469	-62.56872	45.613327	Danger	18.2882	11.49698
L6511	Span from L6511-103 to L6511-104	32_20293	Blowout	Fall-In	0.118127	11.18	16.43	138	2024NSP24	9/6/2024	66.00431	-62.404357	45.589263	Danger	32.004	38.043795
L6511	Span from L6511-023 to L6511-024	29_12536	Blowout	Fall-In	0.129411	13.3	18.81	138	2024NSP24	9/6/2024	92.548704	-62.598001	45.618712	Danger	58.522	82.568171
L6511	Span from L6511-119 to L6511-120	31_5424	Blowout	Fall-In	0.132213	5.73	12.43	138	2024NSP24	9/6/2024	89.448777	-62.368048	45.606383	Danger	30.1754	24.8752
L6511	Span from L6511-118 to L6511-119	31_4443	Blowout	Fall-In	0.135707	3.38	13.78	138	2024NSP24	9/6/2024	89.021583	-62.371555	45.605174	Danger	23.7744	21.739311
L6511	Span from L6511-022 to L6511-023	29_12008	Blowout	Fall-In	0.143876	14.3	19.34	138	2024NSP24	9/6/2024	92.354462	-62.598191	45.619114	Danger	52.1212	72.535877
L6511	Span from L6511-117 to L6511-118	31_3748	Blowout	Fall-In	0.145114	3.43	6.47	138	2024NSP24	9/6/2024	95.065473	-62.375318	45.603193	Danger	24.6888	15.468356
L6511	Span from L6511-105 to L6511-106	32_21745	Blowout	Fall-In	0.145952	9.31	13.87	138	2024NSP24	9/6/2024	71.358919	-62.401776	45.590589	Danger	43.8912	64.381807
L6511	Span from L6511-117 to L6511-118	31_3354	Blowout	Fall-In	0.148166	4.49	8.89	138	2024NSP24	9/6/2024	96.189677	-62.374508	45.603789	Danger	25.6034	16.513607
L6511	Span from L6511-102 to L6511-103	63_1108	Blowout	Fall-In	0.151463	12.64	16.56	138	2024NSP24	9/6/2024	69.110945	-62.408115	45.587785	Danger	45.7202	70.862114
L6511	Span from L6511-023 to L6511-024	29_12714	Blowout	Fall-In	0.157355	6.61	12.16	138	2024NSP24	9/6/2024	90.407747	-62.596953	45.618875	Danger	23.7746	14.841306
L6511	Span from L6511-033 to L6511-034	53_7597	Blowout	Fall-In	0.157931	14.82	17.8	138	2024NSP24	9/6/2024	65.168965	-62.571257	45.613644	Danger	37.4908	54.140161
L6511	Span from L6511-033 to L6511-034	53_7622	Blowout	Fall-In	0.158813	14.27	17.4	138	2024NSP24	9/6/2024	65.661478	-62.570372	45.61356	Danger	36.576	46.823132
L6511	Span from L6511-108 to L6511-109	32_23856	Blowout	Fall-In	0.168282	4.47	17.11	138	2024NSP24	9/6/2024	73.037976	-62.395298	45.593619	Danger	25.6032	12.123847
L6511	Span from L6511-006 to L6511-007	29_2416	Blowout	Fall-In	0.168725	7.92	12.36	138	2024NSP24	9/6/2024	13.521108	-62.635573	45.624756	Danger	30.1752	31.77284
L6511	Span from L6511-036 to L6511-037	53_9313	Blowout	Fall-In	0.170691	5.36	10.37	138	2024NSP24	9/6/2024	56.433864	-62.563185	45.612582	Danger	18.288	11.914815
L6511	Span from L6511-118 to L6511-119	31_4447	Blowout	Fall-In	0.172455	10.7	14.9	138	2024NSP24	9/6/2024	91.285462	-62.370606	45.605169	Danger	32.004	35.953476
L6511	Span from L6511-136 to L6511-137	31_14842	Blowout	Fall-In	0.175475	9.16	14.47	138	2024NSP24	9/6/2024	98.581833	-62.328049	45.618202	Danger	39.3192	42.433464

L6511	Span from L6511-033 to L6511-034	53_7639	Blowout	Fall-In	0.178289	13.18	17.82	138	2024NSP24	9/6/2024	66.931433	-62.570012	45.613468	Danger	60.3506	84.658718
L6511	Span from L6511-039 to L6511-040	53_12398	Blowout	Fall-In	0.178292	3.9	13.52	138	2024NSP24	9/6/2024	56.392078	-62.555154	45.611448	Danger	21.0312	15.468356
L6511	Span from L6511-148 to L6511-149	31_23686	Blowout	Fall-In	0.180497	12.43	16.32	138	2024NSP24	9/6/2024	81.900811	-62.301781	45.629234	Danger	44.8058	57.693565
L6511	Span from L6511-148 to L6511-149	31_23689	Blowout	Fall-In	0.184136	11.62	18.55	138	2024NSP24	9/6/2024	81.790883	-62.301878	45.629229	Danger	33.8328	43.060559
L6511	Span from L6511-117 to L6511-118	31_3429	Blowout	Fall-In	0.184884	8.22	14.32	138	2024NSP24	9/6/2024	95.054481	-62.374793	45.603702	Danger	32.0042	34.281405
L6511	Span from L6511-120 to L6511-121	31_5858	Blowout	Fall-In	0.186684	13.98	17.55	138	2024NSP24	9/6/2024	91.592379	-62.366237	45.607556	Danger	53.0356	72.325108
L6511	Span from L6511-118 to L6511-119	31_4502	Blowout	Fall-In	0.189524	13.53	18.26	138	2024NSP24	9/6/2024	89.20814	-62.371881	45.60512	Danger	54.864	82.149513
L6511	Span from L6511-062 to L6511-063	53_33546	Blowout	Fall-In	0.190708	12.15	15.67	138	2024NSP24	9/6/2024	14.662281	-62.502838	45.591699	Danger	35.6618	45.151197
L6511	Span from L6511-118 to L6511-119	31_4921	Blowout	Fall-In	0.190993	13.09	16.08	138	2024NSP24	9/6/2024	98.171533	-62.37283	45.604199	Danger	52.121	63.755077
L6511	Span from L6511-030 to L6511-031	53_5378	Blowout	Fall-In	0.193314	7.84	15.68	138	2024NSP24	9/6/2024	76.515762	-62.579492	45.614913	Danger	54.864	60.20117
L6511	Span from L6511-136 to L6511-137	31_14943	Blowout	Fall-In	0.19504	8.93	14.93	138	2024NSP24	9/6/2024	97.998159	-62.32842	45.618063	Danger	49.3776	63.545679
L6511	Span from L6511-118 to L6511-119	31_4821	Blowout	Fall-In	0.195655	8.26	14.28	138	2024NSP24	9/6/2024	92.46742	-62.372231	45.60448	Danger	31.0896	27.174139
L6511	Span from L6511-117 to L6511-118	31_3587	Blowout	Fall-In	0.198473	3.29	6.44	138	2024NSP24	9/6/2024	94.588424	-62.375347	45.603446	Danger	16.4592	9.824496
L6511	Span from L6511-121 to L6511-122	31_6919	Blowout	Fall-In	0.199479	8.31	12.26	138	2024NSP24	9/6/2024	91.302983	-62.364421	45.607968	Danger	26.5176	23.620598
L6511	Span from L6511-118 to L6511-119	31_4102	Blowout	Fall-In	0.202116	7.19	17.71	138	2024NSP24	9/6/2024	94.423648	-62.370445	45.605652	Danger	38.4048	32.817999
L6511	Span from L6511-122 to L6511-123	31_7685	Blowout	Fall-In	0.205092	4.87	12.44	138	2024NSP24	9/6/2024	97.437819	-62.363139	45.608823	Danger	28.3464	23.82963
L6511	Span from L6511-039 to L6511-040	53_12415	Blowout	Fall-In	0.211198	9.03	14.26	138	2024NSP24	9/6/2024	56.388196	-62.55521	45.611401	Danger	32.9184	34.908317
L6511	Span from L6511-112 to L6511-113	31_1101	Blowout	Fall-In	0.212273	9.38	11.86	138	2024NSP24	9/6/2024	70.219277	-62.386756	45.598666	Danger	30.1754	31.355279
L6511	Span from L6511-023 to L6511-024	29_12978	Blowout	Fall-In	0.21244	10.57	16.01	138	2024NSP24	9/6/2024	90.746211	-62.597476	45.618638	Danger	45.7202	58.111172
L6511	Span from L6511-032 to L6511-033	53_6318	Blowout	Fall-In	0.212449	12.09	15.89	138	2024NSP24	9/6/2024	72.823255	-62.575149	45.614216	Danger	31.0898	36.163103
L6511	Span from L6511-117 to L6511-118	31_3637	Blowout	Fall-In	0.221152	8.89	11.71	138	2024NSP24	9/6/2024	94.785519	-62.37473	45.603371	Danger	33.8328	39.297986
L6511	Span from L6511-121 to L6511-122	31_6591	Blowout	Fall-In	0.232847	9.83	14.36	138	2024NSP24	9/6/2024	92.814967	-62.364361	45.608367	Danger	32.9184	40.343145
L6511	Span from L6511-041 to L6511-042	53_14613	Blowout	Fall-In	0.236202	8.1	14.47	138	2024NSP24	9/6/2024	58.319245	-62.550689	45.610772	Danger	29.2608	32.190903
L6511	Span from L6511-006 to L6511-007	29_2295	Blowout	Fall-In	0.236749	16.01	20.31	138	2024NSP24	9/6/2024	12.602859	-62.635885	45.62493	Danger	52.1208	67.726316
L6511	Span from L6511-019 to L6511-020	29_9630	Blowout	Fall-In	0.240586	8.56	18.95	138	2024NSP24	9/6/2024	81.753968	-62.606419	45.61998	Danger	31.0896	26.965107
L6511	Span from L6511-118 to L6511-119	31_4674	Blowout	Fall-In	0.240591	2.84	10.68	138	2024NSP24	9/6/2024	89.761595	-62.371653	45.604817	Danger	35.6616	22.366407
L6511	Span from L6511-034 to L6511-035	53_8346	Blowout	Fall-In	0.245202	2.89	11.44	138	2024NSP24	9/6/2024	63.339995	-62.568925	45.613369	Danger	14.6304	6.061923
L6511	Span from L6511-117 to L6511-118	31_3451	Blowout	Fall-In	0.245376	5.21	12.22	138	2024NSP24	9/6/2024	94.886921	-62.374803	45.603657	Danger	21.0312	12.959974
L6511	Span from L6511-117 to L6511-118	31_3536	Blowout	Fall-In	0.247516	4.72	8.96	138	2024NSP24	9/6/2024	95.254322	-62.374634	45.603526	Danger	24.6888	23.620598
L6511	Span from L6511-038 to L6511-039	53_12039	Blowout	Fall-In	0.247791	12.22	13.72	138	2024NSP24	9/6/2024	59.828431	-62.557559	45.611727	Danger	21.0312	15.677388
L6511	Span from L6511-118 to L6511-119	31_4676	Blowout	Fall-In	0.249959	7.35	12.14	138	2024NSP24	9/6/2024	89.631646	-62.371556	45.604806	Danger	28.3464	28.637362
L6511	Span from L6511-031 to L6511-032	53_5956	Blowout	Fall-In	0.25291	9.25	12.42	138	2024NSP24	9/6/2024	74.077171	-62.578042	45.614652	Danger	41.148	47.450228
L6511	Span from L6511-032 to L6511-033	53_6870	Blowout	Fall-In	0.255727	15.58	19.79	138	2024NSP24	9/6/2024	67.794979	-62.572464	45.613774	Danger	52.1208	85.494023
L6511	Span from L6511-122 to L6511-123	31_7375	Blowout	Fall-In	0.257634	4.89	11.81	138	2024NSP24	9/6/2024	97.254462	-62.361647	45.609284	Danger	39.3194	31.564311
L6511	Span from L6511-031 to L6511-032	53_6204	Blowout	Fall-In	0.257765	13.23	16.86	138	2024NSP24	9/6/2024	77.254425	-62.575614	45.614298	Danger	53.9496	76.505653
L6511	Span from L6511-108 to L6511-109	32_23590	Blowout	Fall-In	0.260689	8.35	15.16	138	2024NSP24	9/6/2024	73.379078	-62.395291	45.594	Danger	27.432	25.919948
L6511	Span from L6511-119 to L6511-120	31_4077	Blowout	Fall-In	0.269656	9.53	12.52	138	2024NSP24	9/6/2024	94.905139	-62.369662	45.60568	Danger	34.7472	42.851527
L6511	Span from L6511-037 to L6511-038	53_10333	Blowout	Fall-In	0.272636	9.36	12.83	138	2024NSP24	9/6/2024	64.070231	-62.560142	45.612149	Danger	31.0896	29.055426
L6511	Span from L6511-024 to L6511-025	29_13591	Blowout	Fall-In	0.276126	5.89	12.02	138	2024NSP24	9/6/2024	95.468904	-62.593045	45.618005	Danger	31.09	25.711145
L6511	Span from L6511-118 to L6511-119	31_4109	Blowout	Fall-In	0.283821	11.88	21.23	138	2024NSP24	9/6/2024	92.426276	-62.370741	45.605629	Danger	23.7744	22.157375
L6511	Span from L6511-118 to L6511-119	31_4871	Blowout	Fall-In	0.285845	9.59	13.33	138	2024NSP24	9/6/2024	94.668093	-62.372494	45.60436	Danger	33.8328	40.970241
L6511	Span from L6511-034 to L6511-035	53_8378	Blowout	Fall-In	0.294285	13.58	15.47	138	2024NSP24	9/6/2024	63.336817	-62.567948	45.613135	Danger	38.405	51.004135
L6511	Span from L6511-117 to L6511-118	31_3315	Blowout	Fall-In	0.300934	8.99	12.11	138	2024NSP24	9/6/2024	99.527112	-62.373874	45.603843	Danger	31.0898	34.072601
L6511	Span from L6511-032 to L6511-033	53_6199	Blowout	Fall-In	0.302148	9.98	15.78	138	2024NSP24	9/6/2024	77.032871	-62.575526	45.614304	Danger	30.1752	24.038662
L6511	Span from L6511-025 to L6511-026	38_21396	Blowout	Fall-In	0.304995	11.12	15.74	138	2024NSP24	9/6/2024	95.810301	-62.592034	45.617821	Danger	37.4904	50.376673
L6511	Span from L6511-108 to L6511-109	32_24029	Blowout	Fall-In	0.312329	4.8	9.47	138	2024NSP24	9/6/2024	74.255676	-62.395934	45.59341	Danger	21.9456	13.796101
L6511	Span from L6511-025 to L6511-026	62_45475	Blowout	Fall-In	0.312818	11.8	16.54	138	2024NSP24	9/6/2024	97.482367	-62.592146	45.618154	Danger	32.9184	37.207668
L6511	Span from L6511-117 to L6511-118	31_3758	Blowout	Fall-In	0.317119	11.03	14.7	138	2024NSP24	9/6/2024	96.723509	-62.375937	45.60319	Danger	32.004	40.552177
L6511	Span from L6511-119 to L6511-120	31_5283	Blowout	Fall-In	0.324123	9.43	13.83	138	2024NSP24	9/6/2024	91.375919	-62.367626	45.606556	Danger	34.7472	34.07219
L6511	Span from L6511-122 to L6511-123	31_7729	Blowout	Fall-In	0.326656	4.63	9.03	138	2024NSP24	9/6/2024	97.185551	-62.362926	45.608696	Danger	21.9458	12.960203
L6511	Span from L6511-036 to L6511-037	53_9084	Blowout	Fall-In	0.327686	4.67	9.25	138	2024NSP24	9/6/2024	57.186027	-62.56368	45.61264	Danger	30.1752	28.637362
L6511	Span from L6511-062 to L6511-063	53_33596	Blowout	Fall-In	0.334125	9.4	14.5	138	2024NSP24	9/6/2024	16.02385	-62.502622	45.591579	Danger	35.6616	41.806368
L6511	Span from L6511-117 to L6511-118	31_3365	Blowout	Fall-In	0.34117	9.18	10.8	138	2024NSP24	9/6/2024	95.483882	-62.374704	45.60379	Danger	35.6616	47.450228
L6511	Span from L6511-108 to L6511-109	32_23717	Blowout	Fall-In	0.343837	11.61	18.63	138	2024NSP24	9/6/2024	73.250199	-62.395944	45.593806	Danger	48.4632	64.590839
L6511	Span from L6511-036 to L6511-037	53_9311	Blowout	Fall-In	0.343984	5.41	12.02	138	2024NSP24	9/6/2024	56.545323	-62.563322	45.612597	Danger	24.6888	22.366407

L6511	Span from L6511-107 to L6511-108	32_23095	Blowout	Fall-In	0.347481	11.31	18.71	138	2024NSP24	9/6/2024	74.803861	-62.397681	45.592837	Danger	35.6616	36.580572
L6511	Span from L6511-062 to L6511-063	53_33275	Blowout	Fall-In	0.350592	7.53	11.79	138	2024NSP24	9/6/2024	16.558754	-62.503818	45.592541	Danger	25.6032	21.53028
L6511	Span from L6511-034 to L6511-035	53_7636	Blowout	Fall-In	0.352083	11.96	15.82	138	2024NSP24	9/6/2024	67.122761	-62.569678	45.613463	Danger	35.6616	50.167642
L6511	Span from L6511-024 to L6511-025	29_13619	Blowout	Fall-In	0.35309	12.96	17.31	138	2024NSP24	9/6/2024	96.977945	-62.592828	45.617947	Danger	48.4632	63.127616
L6511	Span from L6511-119 to L6511-120	31_5574	Blowout	Fall-In	0.355703	9.72	17.66	138	2024NSP24	9/6/2024	92.608217	-62.369693	45.606049	Danger	36.576	37.207668
L6511	Span from L6511-106 to L6511-107	32_22223	Blowout	Fall-In	0.356106	10.45	15.98	138	2024NSP24	9/6/2024	71.142039	-62.39894	45.592142	Danger	32.0042	33.654629
L6511	Span from L6511-122 to L6511-123	31_7447	Blowout	Fall-In	0.369738	11.94	17.38	138	2024NSP24	9/6/2024	95.285376	-62.362549	45.609176	Danger	38.4048	43.269591
L6511	Span from L6511-108 to L6511-109	32_23851	Blowout	Fall-In	0.373015	4.33	17.01	138	2024NSP24	9/6/2024	73.055578	-62.395234	45.593625	Danger	26.5176	13.796101
L6511	Span from L6511-117 to L6511-118	31_3160	Blowout	Fall-In	0.378056	11.5	14.02	138	2024NSP24	9/6/2024	100.491457	-62.374009	45.604097	Danger	29.2608	32.608967
L6511	Span from L6511-034 to L6511-035	53_8339	Blowout	Fall-In	0.391379	7.8	12.17	138	2024NSP24	9/6/2024	64.363234	-62.569218	45.613407	Danger	21.9456	14.005133
L6511	Span from L6511-022 to L6511-023	29_11245	Blowout	Fall-In	0.392969	9.46	16.72	138	2024NSP24	9/6/2024	89.690481	-62.600956	45.619247	Danger	41.148	37.207668
L6511	Span from L6511-126 to L6511-127	31_9949	Blowout	Fall-In	0.399888	9.6	13.22	138	2024NSP24	9/6/2024	99.396465	-62.351621	45.611057	Danger	34.7472	43.478623
L6511	Span from L6511-137 to L6511-138	31_14721	Blowout	Fall-In	0.403182	10.08	13.08	138	2024NSP24	9/6/2024	97.238443	-62.328081	45.618489	Danger	32.9184	36.789604
L6511	Span from L6511-156 to L6511-157	31_28578	Blowout	Fall-In	0.409444	11.38	14.5	138	2024NSP24	9/6/2024	125.738088	-62.284313	45.636116	Danger	28.3464	32.190903
L6511	Span from L6511-122 to L6511-123	31_7619	Blowout	Fall-In	0.413828	6.13	12.66	138	2024NSP24	9/6/2024	96.281641	-62.362973	45.608925	Danger	30.1754	26.756533
L6511	Span from L6511-119 to L6511-120	31_5564	Blowout	Fall-In	0.414351	11.11	13.82	138	2024NSP24	9/6/2024	89.048637	-62.368634	45.606057	Danger	35.6616	43.687655
L6511	Span from L6511-121 to L6511-122	31_6715	Blowout	Fall-In	0.42126	8.88	15.85	138	2024NSP24	9/6/2024	90.779513	-62.364796	45.60819	Danger	19.2024	9.824496
L6511	Span from L6511-034 to L6511-035	53_8433	Blowout	Fall-In	0.427241	1.67	12.56	138	2024NSP24	9/6/2024	65.289559	-62.56749	45.613168	Danger	10.973	4.180865
L6511	Span from L6511-121 to L6511-122	31_7059	Blowout	Fall-In	0.442248	7.85	15.22	138	2024NSP24	9/6/2024	90.258794	-62.365013	45.607704	Danger	23.7746	22.366818
L6511	Span from L6511-122 to L6511-123	31_7361	Blowout	Fall-In	0.442529	4.18	11.52	138	2024NSP24	9/6/2024	97.24654	-62.361715	45.609284	Danger	19.2024	13.378038
L6511	Span from L6511-119 to L6511-120	31_5549	Blowout	Fall-In	0.446076	9.89	14.02	138	2024NSP24	9/6/2024	88.911045	-62.368552	45.606092	Danger	27.432	21.948343
L6511	Span from L6511-119 to L6511-120	31_5670	Blowout	Fall-In	0.449119	10.15	15.76	138	2024NSP24	9/6/2024	90.797539	-62.369097	45.605848	Danger	39.3192	47.450228
L6511	Span from L6511-118 to L6511-119	31_4565	Blowout	Fall-In	0.450083	5.08	15.86	138	2024NSP24	9/6/2024	89.80824	-62.370974	45.604992	Danger	23.7744	18.18577
L6511	Span from L6511-023 to L6511-024	29_13058	Blowout	Fall-In	0.452566	7.65	9.7	138	2024NSP24	9/6/2024	92.199908	-62.596301	45.618521	Danger	32.9186	37.208216
L6511	Span from L6511-027 to L6511-028	53_1826	Blowout	Fall-In	0.458432	15.36	18.65	138	2024NSP24	9/6/2024	95.510368	-62.587376	45.616917	Danger	42.977	67.099724
L6511	Span from L6511-122 to L6511-123	31_6346	Blowout	Fall-In	0.461681	14.93	22.32	138	2024NSP24	9/6/2024	98.140231	-62.363372	45.608915	Danger	63.0936	87.584341
L6511	Span from L6511-035 to L6511-036	53_8853	Blowout	Fall-In	0.466051	8.41	18.99	138	2024NSP24	9/6/2024	65.13329	-62.567125	45.613027	Danger	32.9184	40.761209
L6511	Span from L6511-107 to L6511-108	32_22991	Blowout	Fall-In	0.471464	6.75	12.99	138	2024NSP24	9/6/2024	75.280229	-62.397337	45.592959	Danger	25.6032	20.694152
L6511	Span from L6511-041 to L6511-042	53_14016	Blowout	Fall-In	0.473467	5.2	12.18	138	2024NSP24	9/6/2024	57.699061	-62.551658	45.610941	Danger	25.6032	27.801235
L6511	Span from L6511-006 to L6511-007	29_2684	Blowout	Fall-In	0.473601	14.69	19.3	138	2024NSP24	9/6/2024	27.556929	-62.633982	45.624498	Danger	52.1208	71.697921
L6511	Span from L6511-117 to L6511-118	31_3570	Blowout	Fall-In	0.481559	9.7	11.66	138	2024NSP24	9/6/2024	95.397894	-62.374485	45.603491	Danger	34.7472	45.150877
L6511	Span from L6511-033 to L6511-034	53_7612	Blowout	Fall-In	0.483878	16.6	22.22	138	2024NSP24	9/6/2024	65.561348	-62.571421	45.613609	Danger	61.265	85.912635
L6511	Span from L6511-122 to L6511-123	31_6363	Blowout	Fall-In	0.489612	14.33	18.26	138	2024NSP24	9/6/2024	98.883297	-62.363423	45.60882	Danger	41.148	51.630864
L6511	Span from L6511-034 to L6511-035	53_8370	Blowout	Fall-In	0.490773	5.73	11.95	138	2024NSP24	9/6/2024	63.610616	-62.567847	45.613203	Danger	16.4592	9.824496
L6511	Span from L6511-034 to L6511-035	53_8359	Blowout	Fall-In	0.492557	14.61	17.2	138	2024NSP24	9/6/2024	64.337897	-62.569254	45.613323	Danger	53.9496	76.296622
L6511	Span from L6511-108 to L6511-109	32_24065	Blowout	Fall-In	0.499487	5.78	8.82	138	2024NSP24	9/6/2024	74.468665	-62.395969	45.593365	Danger	48.4632	59.156011
L6511	Span from L6511-116 to L6511-117	31_2926	Blowout	Fall-In	0.500995	12.98	17.31	138	2024NSP24	9/6/2024	100.960881	-62.376821	45.602485	Danger	54.864	64.172775
L6511	Span from L6511-031 to L6511-032	53_5957	Blowout	Fall-In	0.501957	7.92	11.33	138	2024NSP24	9/6/2024	73.007468	-62.57779	45.614629	Danger	25.6032	25.710916
L6511	Span from L6511-035 to L6511-036	53_8852	Blowout	Fall-In	0.505631	9.75	16.19	138	2024NSP24	9/6/2024	64.043376	-62.566855	45.613032	Danger	35.6618	36.37186
L6511	Span from L6511-123 to L6511-124	31_8489	Blowout	Fall-In	0.508265	16.56	21.15	138	2024NSP24	9/6/2024	92.584674	-62.359707	45.609479	Danger	45.7204	63.755946
L6511	Span from L6511-121 to L6511-122	31_5920	Blowout	Fall-In	0.511804	9.04	16.69	138	2024NSP24	9/6/2024	90.774003	-62.365332	45.607493	Danger	128.9304	248.120794
L6511	Span from L6511-117 to L6511-118	31_3813	Blowout	Fall-In	0.512158	8.97	15.77	138	2024NSP24	9/6/2024	95.279876	-62.375328	45.603063	Danger	43.8912	51.630864
L6511	Span from L6511-118 to L6511-119	31_4914	Blowout	Fall-In	0.514563	9.86	12.5	138	2024NSP24	9/6/2024	98.626999	-62.372929	45.604229	Danger	57.6072	68.771475
L6511	Span from L6511-106 to L6511-107	32_22330	Blowout	Fall-In	0.518593	10.84	15.79	138	2024NSP24	9/6/2024	70.042517	-62.399176	45.591996	Danger	18.288	12.123847
L6511	Span from L6511-107 to L6511-108	32_23087	Blowout	Fall-In	0.522652	18.79	22.65	138	2024NSP24	9/6/2024	74.805626	-62.397766	45.592861	Danger	42.977	66.682026
L6511	Span from L6511-023 to L6511-024	29_13079	Blowout	Fall-In	0.522938	9.24	14.09	138	2024NSP24	9/6/2024	91.354356	-62.596565	45.618507	Danger	31.0896	34.699285
L6511	Span from L6511-031 to L6511-032	53_5955	Blowout	Fall-In	0.523503	9	12.08	138	2024NSP24	9/6/2024	73.836433	-62.57796	45.61465	Danger	40.2336	43.687655
L6511	Span from L6511-033 to L6511-034	53_7569	Blowout	Fall-In	0.527601	7.86	14.79	138	2024NSP24	9/6/2024	64.841225	-62.571031	45.613659	Danger	23.7744	13.796101
L6511	Span from L6511-137 to L6511-138	31_14729	Blowout	Fall-In	0.528338	5.28	13.42	138	2024NSP24	9/6/2024	97.98276	-62.328181	45.61845	Danger	17.3736	7.734178
L6511	Span from L6511-106 to L6511-107	32_22611	Blowout	Fall-In	0.528573	12.55	18.38	138	2024NSP24	9/6/2024	69.794125	-62.399192	45.59157	Danger	46.6344	57.692788
L6511	Span from L6511-117 to L6511-118	31_3733	Blowout	Fall-In	0.532211	3.17	5.6	138	2024NSP24	9/6/2024	94.847373	-62.375282	45.603248	Danger	39.3194	48.077826
L6511	Span from L6511-062 to L6511-063	53_33257	Blowout	Fall-In	0.532395	3.64	8.4	138	2024NSP24	9/6/2024	16.444605	-62.50375	45.592592	Danger	19.2024	13.796101
L6511	Span from L6511-103 to L6511-104	32_20355	Blowout	Fall-In	0.538435	13.18	17.67	138	2024NSP24	9/6/2024	67.079993	-62.404125	45.589091	Danger	39.3192	50.585705
L6511	Span from L6511-105 to L6511-106	32_21763	Blowout	Fall-In	0.543775	8.77	13.1	138	2024NSP24	9/6/2024	70.278739	-62.401234	45.590537	Danger	34.7472	42.0154
L6511	Span from L6511-062 to L6511-063	53_33293	Blowout	Fall-In	0.544155	5.37	9.86	138	2024NSP24	9/6/2024	15.786375	-62.503707	45.592485	Danger	21.9456	24.247693

L6511	Span from L6511-120 to L6511-121	31_5017	Blowout	Fall-In	0.544262	10.22	14.87	138	2024NSP24	9/6/2024	91.948585	-62.367498	45.606971	Danger	35.6618	47.65958
L6511	Span from L6511-025 to L6511-026	38_21384	Blowout	Fall-In	0.545674	9.74	15.88	138	2024NSP24	9/6/2024	97.516172	-62.592227	45.617875	Danger	51.2064	65.217934
L6511	Span from L6511-043 to L6511-044	53_16198	Blowout	Fall-In	0.549049	8.01	13.68	138	2024NSP24	9/6/2024	58.864988	-62.546702	45.609633	Danger	47.5488	52.466992
L6511	Span from L6511-121 to L6511-122	31_6820	Blowout	Fall-In	0.566181	13.65	19.62	138	2024NSP24	9/6/2024	90.100793	-62.365132	45.608098	Danger	50.292	72.74308
L6511	Span from L6511-041 to L6511-042	53_14009	Blowout	Fall-In	0.574907	4.17	14.48	138	2024NSP24	9/6/2024	58.571095	-62.551951	45.610954	Danger	21.9456	18.812866
L6511	Span from L6511-117 to L6511-118	31_3293	Blowout	Fall-In	0.583287	7.81	12.82	138	2024NSP24	9/6/2024	100.487379	-62.373804	45.603872	Danger	21.9456	14.632229
L6511	Span from L6511-124 to L6511-125	31_8865	Blowout	Fall-In	0.585979	10.99	16.93	138	2024NSP24	9/6/2024	99.605231	-62.356879	45.610446	Danger	35.6616	33.654126
L6511	Span from L6511-108 to L6511-109	32_23691	Blowout	Fall-In	0.588763	7.73	12.14	138	2024NSP24	9/6/2024	72.999225	-62.395698	45.593823	Danger	26.5176	25.292853
L6511	Span from L6511-035 to L6511-036	53_8861	Blowout	Fall-In	0.591979	3.62	10.61	138	2024NSP24	9/6/2024	63.409041	-62.566169	45.612968	Danger	19.2026	11.078916
L6511	Span from L6511-108 to L6511-109	32_23610	Blowout	Fall-In	0.592607	9.07	13.63	138	2024NSP24	9/6/2024	73.19762	-62.3954	45.593984	Danger	50.292	56.020533
L6511	Span from L6511-106 to L6511-107	32_22652	Blowout	Fall-In	0.594686	15.21	18.75	138	2024NSP24	9/6/2024	70.030495	-62.399448	45.591462	Danger	44.8056	69.189539
L6511	Span from L6511-108 to L6511-109	32_23647	Blowout	Fall-In	0.597523	6.82	12.09	138	2024NSP24	9/6/2024	73.030884	-62.395515	45.593906	Danger	26.5178	24.038753
L6511	Span from L6511-118 to L6511-119	31_4806	Blowout	Fall-In	0.601353	14.7	17.48	138	2024NSP24	9/6/2024	97.116386	-62.373014	45.604534	Danger	41.148	57.692788
L6511	Span from L6511-137 to L6511-138	31_15578	Blowout	Fall-In	0.601447	11.24	15.86	138	2024NSP24	9/6/2024	97.624916	-62.326532	45.6188	Danger	32.004	34.908317
L6511	Span from L6511-137 to L6511-138	31_15698	Blowout	Fall-In	0.610504	7.7	12.95	138	2024NSP24	9/6/2024	95.710806	-62.327398	45.618495	Danger	33.8328	45.568941
L6511	Span from L6511-119 to L6511-120	31_5582	Blowout	Fall-In	0.612359	8.28	12.71	138	2024NSP24	9/6/2024	89.313509	-62.368764	45.606021	Danger	31.0898	34.281725
L6511	Span from L6511-023 to L6511-024	29_13113	Blowout	Fall-In	0.614028	9.34	13.92	138	2024NSP24	9/6/2024	91.530196	-62.596504	45.618493	Danger	53.9496	60.828265
L6511	Span from L6511-022 to L6511-023	29_12426	Blowout	Fall-In	0.614296	6.08	16.95	138	2024NSP24	9/6/2024	89.513033	-62.598745	45.618815	Danger	22.86	14.632229
L6511	Span from L6511-119 to L6511-120	31_5185	Blowout	Fall-In	0.619512	13.26	20.63	138	2024NSP24	9/6/2024	89.489043	-62.368296	45.606716	Danger	53.0352	68.14438
L6511	Span from L6511-105 to L6511-106	32_21700	Blowout	Fall-In	0.619643	8.47	12.98	138	2024NSP24	9/6/2024	71.003581	-62.401693	45.590636	Danger	31.0896	32.608967
L6511	Span from L6511-104 to L6511-105	32_21384	Blowout	Fall-In	0.619711	9.4	14.72	138	2024NSP24	9/6/2024	69.618086	-62.402855	45.589622	Danger	50.2922	47.450411
L6511	Span from L6511-156 to L6511-157	31_28367	Blowout	Fall-In	0.623354	3.8	9.17	138	2024NSP24	9/6/2024	125.895199	-62.282993	45.636579	Danger	32.9184	25.919948
L6511	Span from L6511-149 to L6511-150	31_25388	Blowout	Fall-In	0.625941	13.43	18.43	138	2024NSP24	9/6/2024	62.93287	-62.300247	45.629472	Danger	45.72	63.963743
L6511	Span from L6511-119 to L6511-120	31_5624	Blowout	Fall-In	0.630611	3.27	12.05	138	2024NSP24	9/6/2024	92.851392	-62.369627	45.605945	Danger	23.7746	17.559132
L6511	Span from L6511-103 to L6511-104	32_20250	Blowout	Fall-In	0.632482	7.44	12.53	138	2024NSP24	9/6/2024	70.583145	-62.404068	45.58939	Danger	46.6344	57.274724
L6511	Span from L6511-022 to L6511-023	29_12241	Blowout	Fall-In	0.632841	1.86	11.25	138	2024NSP24	9/6/2024	89.34463	-62.598776	45.618929	Danger	15.5448	7.316114
L6511	Span from L6511-024 to L6511-025	62_45373	Blowout	Fall-In	0.636571	11.36	16.31	138	2024NSP24	9/6/2024	94.032464	-62.593388	45.618434	Danger	52.1208	73.997271
L6511	Span from L6511-119 to L6511-120	31_4100	Blowout	Fall-In	0.64237	8.53	11.97	138	2024NSP24	9/6/2024	95.719877	-62.369762	45.605644	Danger	32.9184	37.834763
L6511	Span from L6511-105 to L6511-106	32_21598	Blowout	Fall-In	0.654996	6.49	11.62	138	2024NSP24	9/6/2024	70.135689	-62.401319	45.59082	Danger	56.693	61.037983
L6511	Span from L6511-027 to L6511-028	53_1850	Blowout	Fall-In	0.659382	13.33	18.31	138	2024NSP24	9/6/2024	93.372372	-62.587037	45.616815	Danger	39.3196	44.94212
L6511	Span from L6511-041 to L6511-042	53_14024	Blowout	Fall-In	0.674368	8.85	15.1	138	2024NSP24	9/6/2024	57.59362	-62.551608	45.610891	Danger	43.8916	48.495936
L6511	Span from L6511-106 to L6511-107	32_22368	Blowout	Fall-In	0.681279	12.71	17.07	138	2024NSP24	9/6/2024	69.734335	-62.399331	45.591969	Danger	57.6072	81.313386
L6511	Span from L6511-103 to L6511-104	32_20371	Blowout	Fall-In	0.685974	13.77	18.52	138	2024NSP24	9/6/2024	68.63626	-62.403999	45.589066	Danger	48.4634	82.986143
L6511	Span from L6511-107 to L6511-108	32_23162	Blowout	Fall-In	0.689064	9.11	16.65	138	2024NSP24	9/6/2024	74.849436	-62.397811	45.592721	Danger	31.0896	35.535413
L6511	Span from L6511-103 to L6511-104	32_20296	Blowout	Fall-In	0.690259	16.78	20.7	138	2024NSP24	9/6/2024	64.551283	-62.404562	45.589262	Danger	38.4048	56.020533
L6511	Span from L6511-120 to L6511-121	31_6259	Blowout	Fall-In	0.692084	8.65	12.93	138	2024NSP24	9/6/2024	90.648244	-62.367072	45.606812	Danger	31.0898	34.908729
L6511	Span from L6511-121 to L6511-122	31_6535	Blowout	Fall-In	0.692207	7.97	11.66	138	2024NSP24	9/6/2024	94.648725	-62.364084	45.608464	Danger	30.1752	35.744445
L6511	Span from L6511-037 to L6511-038	53_10340	Blowout	Fall-In	0.69342	10.84	13.9	138	2024NSP24	9/6/2024	63.864462	-62.560215	45.61213	Danger	32.9184	41.806368
L6511	Span from L6511-034 to L6511-035	38_30535	Blowout	Fall-In	0.696452	16.07	18.86	138	2024NSP24	9/6/2024	62.640161	-62.568366	45.613174	Danger	37.4906	52.467861
L6511	Span from L6511-006 to L6511-007	29_2519	Blowout	Fall-In	0.696732	8.58	10.69	138	2024NSP24	9/6/2024	16.431816	-62.635049	45.624645	Danger	28.3466	29.892102
L6511	Span from L6511-107 to L6511-108	32_23140	Blowout	Fall-In	0.698924	7.68	12.72	138	2024NSP24	9/6/2024	75.622858	-62.397011	45.592756	Danger	32.004	37.834763
L6511	Span from L6511-036 to L6511-037	53_9063	Blowout	Fall-In	0.704251	5.45	12.22	138	2024NSP24	9/6/2024	61.967545	-62.5645	45.612715	Danger	21.0314	14.214439
L6511	Span from L6511-119 to L6511-120	31_5653	Blowout	Fall-In	0.707878	2.89	8.66	138	2024NSP24	9/6/2024	91.772582	-62.369319	45.60588	Danger	20.1168	16.095452
L6511	Span from L6511-106 to L6511-107	32_22286	Blowout	Fall-In	0.708466	8.8	14.89	138	2024NSP24	9/6/2024	70.393726	-62.399052	45.592055	Danger	20.117	14.841398
L6511	Span from L6511-025 to L6511-026	38_22176	Blowout	Fall-In	0.712682	10.09	13.25	138	2024NSP24	9/6/2024	91.500171	-62.591179	45.617682	Danger	34.7474	41.388853
L6511	Span from L6511-120 to L6511-121	31_6261	Blowout	Fall-In	0.713425	9.28	15.63	138	2024NSP24	9/6/2024	90.586253	-62.366984	45.606799	Danger	42.0624	45.359909
L6511	Span from L6511-117 to L6511-118	31_3788	Blowout	Fall-In	0.718698	2.81	7.52	138	2024NSP24	9/6/2024	95.638877	-62.375533	45.603114	Danger	16.4592	11.078688
L6511	Span from L6511-104 to L6511-105	32_21445	Blowout	Fall-In	0.718866	10.13	14.76	138	2024NSP24	9/6/2024	70.807919	-62.40328	45.589377	Danger	28.3464	31.354776
L6511	Span from L6511-107 to L6511-108	32_23144	Blowout	Fall-In	0.720929	7.49	12.12	138	2024NSP24	9/6/2024	75.380189	-62.397151	45.59274	Danger	24.6888	21.948343
L6511	Span from L6511-108 to L6511-109	32_23578	Blowout	Fall-In	0.727887	4.57	12.11	138	2024NSP24	9/6/2024	73.54704	-62.395227	45.59402	Danger	23.7744	11.705783
L6511	Span from L6511-112 to L6511-113	31_997	Blowout	Fall-In	0.729397	10.78	12.66	138	2024NSP24	9/6/2024	72.661927	-62.386437	45.598874	Danger	31.0896	36.789604
L6511	Span from L6511-025 to L6511-026	38_22348	Blowout	Fall-In	0.730047	9.07	14.76	138	2024NSP24	9/6/2024	92.250243	-62.589923	45.617469	Danger	36.5762	51.212938
L6511	Span from L6511-117 to L6511-118	31_3524	Blowout	Fall-In	0.732485	2.42	4.57	138	2024NSP24	9/6/2024	94.486016	-62.375053	45.603545	Danger	20.1168	14.005133
L6511	Span from L6511-040 to L6511-041	53_13977	Blowout	Fall-In	0.73316	11.89	16.95	138	2024NSP24	9/6/2024	56.28034	-62.552847	45.611059	Danger	38.4048	45.150877
L6511	Span from L6511-121 to L6511-122	31_6876	Blowout	Fall-In	0.73573	10.25	13.95	138	2024NSP24	9/6/2024	90.086537	-62.365121	45.608036	Danger	35.6616	40.343145

L6511	Span from L6511-112 to L6511-113	31_892	Blowout	Fall-In	0.735814	7.12	11.45	138	2024NSP24	9/6/2024	76.802243	-62.385986	45.599053	Danger	58.5216	68.353412
L6511	Span from L6511-032 to L6511-033	38_28783	Blowout	Fall-In	0.736642	14.89	17.33	138	2024NSP24	9/6/2024	66.222758	-62.57425	45.614009	Danger	39.3192	61.037297
L6511	Span from L6511-036 to L6511-037	53_9079	Blowout	Fall-In	0.736941	8.6	13.73	138	2024NSP24	9/6/2024	60.075888	-62.564289	45.612669	Danger	45.7206	47.660403
L6511	Span from L6511-121 to L6511-122	31_6408	Blowout	Fall-In	0.74131	11.1	16.26	138	2024NSP24	9/6/2024	98.488446	-62.363765	45.608674	Danger	35.6616	42.433464
L6511	Span from L6511-112 to L6511-113	31_856	Blowout	Fall-In	0.751483	9.96	15.63	138	2024NSP24	9/6/2024	77.467818	-62.385962	45.599117	Danger	34.7472	33.863158
L6511	Span from L6511-035 to L6511-036	38_31114	Blowout	Fall-In	0.755923	14.22	18.36	138	2024NSP24	9/6/2024	63.725832	-62.565991	45.612831	Danger	52.1208	73.370176
L6511	Span from L6511-102 to L6511-103	63_1107	Blowout	Fall-In	0.761848	10.05	12.95	138	2024NSP24	9/6/2024	69.233457	-62.408141	45.587837	Danger	31.0896	29.473489
L6511	Span from L6511-117 to L6511-118	31_3859	Blowout	Fall-In	0.763485	12.77	18.73	138	2024NSP24	9/6/2024	96.182148	-62.375535	45.602933	Danger	44.8056	61.873425
L6511	Span from L6511-117 to L6511-118	31_3593	Blowout	Fall-In	0.771566	2.89	7.33	138	2024NSP24	9/6/2024	94.674009	-62.375371	45.603434	Danger	21.9456	12.959974
L6511	Span from L6511-117 to L6511-118	31_3360	Blowout	Fall-In	0.773172	12.13	14.21	138	2024NSP24	9/6/2024	99.670883	-62.373828	45.603794	Danger	34.7472	39.507018
L6511	Span from L6511-032 to L6511-033	53_6839	Blowout	Fall-In	0.774557	5.93	13.56	138	2024NSP24	9/6/2024	64.764398	-62.57319	45.613939	Danger	28.3466	26.547181
L6511	Span from L6511-149 to L6511-150	31_23739	Blowout	Fall-In	0.775664	11.38	14.73	138	2024NSP24	9/6/2024	79.213629	-62.301225	45.629144	Danger	33.8328	47.450228
L6511	Span from L6511-043 to L6511-044	53_16003	Blowout	Fall-In	0.778321	11.03	15.6	138	2024NSP24	9/6/2024	57.782898	-62.547365	45.609942	Danger	32.0042	34.90882
L6511	Span from L6511-121 to L6511-122	31_6974	Blowout	Fall-In	0.779969	11.46	15.64	138	2024NSP24	9/6/2024	90.423076	-62.365474	45.607892	Danger	32.9186	42.642541
L6511	Span from L6511-023 to L6511-024	29_12735	Blowout	Fall-In	0.78954	8.06	13.22	138	2024NSP24	9/6/2024	90.415164	-62.596873	45.618887	Danger	53.0356	63.546137
L6511	Span from L6511-120 to L6511-121	31_6028	Blowout	Fall-In	0.791393	10.94	15.71	138	2024NSP24	9/6/2024	89.91864	-62.366871	45.607268	Danger	44.8058	59.36582
L6511	Span from L6511-117 to L6511-118	31_3386	Blowout	Fall-In	0.794083	5.21	9.47	138	2024NSP24	9/6/2024	95.522371	-62.374626	45.603763	Danger	29.2608	26.547044
L6511	Span from L6511-006 to L6511-007	29_2293	Blowout	Fall-In	0.794815	9.85	17.45	138	2024NSP24	9/6/2024	12.593942	-62.635959	45.624913	Danger	33.8328	30.72768
L6511	Span from L6511-032 to L6511-033	38_28780	Blowout	Fall-In	0.798647	14.55	16.94	138	2024NSP24	9/6/2024	66.818893	-62.574368	45.614028	Danger	40.2336	61.664393
L6511	Span from L6511-119 to L6511-120	31_4028	Blowout	Fall-In	0.809353	2.78	9.97	138	2024NSP24	9/6/2024	94.539759	-62.369658	45.605738	Danger	29.2608	21.53028
L6511	Span from L6511-121 to L6511-122	31_6423	Blowout	Fall-In	0.811996	15.03	17.48	138	2024NSP24	9/6/2024	97.413305	-62.363859	45.608648	Danger	40.2338	56.229885
L6511	Span from L6511-043 to L6511-044	53_15450	Blowout	Fall-In	0.813746	13.42	16.34	138	2024NSP24	9/6/2024	59.885219	-62.547908	45.610239	Danger	49.3776	77.759844
L6511	Span from L6511-117 to L6511-118	31_3792	Blowout	Fall-In	0.823247	11.01	14.53	138	2024NSP24	9/6/2024	94.992065	-62.37524	45.603116	Danger	33.833	38.461904
L6511	Span from L6511-118 to L6511-119	31_4858	Blowout	Fall-In	0.825032	10.39	14.47	138	2024NSP24	9/6/2024	99.469859	-62.373176	45.604401	Danger	39.3192	40.761209
L6511	Span from L6511-119 to L6511-120	31_5223	Blowout	Fall-In	0.826075	4.39	15.22	138	2024NSP24	9/6/2024	92.582718	-62.367435	45.606631	Danger	21.9458	14.214302
L6511	Span from L6511-032 to L6511-033	53_6859	Blowout	Fall-In	0.83303	10.38	17.23	138	2024NSP24	9/6/2024	65.073254	-62.573088	45.613864	Danger	36.576	38.461859
L6511	Span from L6511-033 to L6511-034	38_29568	Blowout	Fall-In	0.83373	18.94	22.87	138	2024NSP24	9/6/2024	67.636551	-62.571937	45.613689	Danger	35.6618	56.230296
L6511	Span from L6511-021 to L6511-022	29_11179	Blowout	Fall-In	0.839026	9.2	15.32	138	2024NSP24	9/6/2024	89.398187	-62.601837	45.619359	Danger	39.3192	37.834763
L6511	Span from L6511-118 to L6511-119	31_4636	Blowout	Fall-In	0.839647	3.61	8.34	138	2024NSP24	9/6/2024	89.41153	-62.371342	45.604891	Danger	28.3468	17.976967
L6511	Span from L6511-041 to L6511-042	53_14603	Blowout	Fall-In	0.840663	8	14.72	138	2024NSP24	9/6/2024	57.310107	-62.551134	45.610809	Danger	35.6616	38.461859
L6511	Span from L6511-122 to L6511-123	31_6368	Blowout	Fall-In	0.842046	9.23	13.25	138	2024NSP24	9/6/2024	98.874396	-62.3634	45.608769	Danger	22.86	18.812866
L6511	Span from L6511-117 to L6511-118	31_3296	Blowout	Fall-In	0.84347	9.21	12.67	138	2024NSP24	9/6/2024	101.011126	-62.373727	45.603886	Danger	35.6616	45.777973
L6511	Span from L6511-105 to L6511-106	32_21533	Blowout	Fall-In	0.850655	8.34	13.37	138	2024NSP24	9/6/2024	71.180143	-62.40057	45.590927	Danger	43.8912	42.433464
L6511	Span from L6511-031 to L6511-032	53_5987	Blowout	Fall-In	0.853701	10.4	12.37	138	2024NSP24	9/6/2024	72.520564	-62.577671	45.614571	Danger	34.7476	37.835495
L6511	Span from L6511-035 to L6511-036	53_8866	Blowout	Fall-In	0.858855	14.08	18.33	138	2024NSP24	9/6/2024	64.070536	-62.566949	45.612987	Danger	45.72	76.296622
L6511	Span from L6511-112 to L6511-113	31_1104	Blowout	Fall-In	0.859097	9.57	11.44	138	2024NSP24	9/6/2024	70.129376	-62.386832	45.598667	Danger	32.9184	41.597336
L6511	Span from L6511-034 to L6511-035	53_8350	Blowout	Fall-In	0.859774	15.06	17.43	138	2024NSP24	9/6/2024	65.411735	-62.56945	45.613373	Danger	39.3192	52.885056
L6511	Span from L6511-106 to L6511-107	32_22367	Blowout	Fall-In	0.861181	9.44	14.79	138	2024NSP24	9/6/2024	69.861531	-62.399226	45.591963	Danger	45.72	60.619234
L6511	Span from L6511-137 to L6511-138	31_15637	Blowout	Fall-In	0.863252	11.55	17.93	138	2024NSP24	9/6/2024	95.844024	-62.327823	45.61868	Danger	36.576	54.348278
L6511	Span from L6511-123 to L6511-124	31_8377	Blowout	Fall-In	0.865769	8	13.46	138	2024NSP24	9/6/2024	93.386053	-62.361095	45.6096	Danger	36.576	35.326381
L6511	Span from L6511-027 to L6511-028	53_1835	Blowout	Fall-In	0.866188	11.36	14.82	138	2024NSP24	9/6/2024	93.563688	-62.587045	45.616871	Danger	33.8332	39.716507
L6511	Span from L6511-121 to L6511-122	31_6316	Blowout	Fall-In	0.866677	8.08	11.79	138	2024NSP24	9/6/2024	93.857721	-62.364213	45.608418	Danger	13.7162	6.480033
L6511	Span from L6511-107 to L6511-108	32_23151	Blowout	Fall-In	0.875445	10.84	17.35	138	2024NSP24	9/6/2024	74.874368	-62.397872	45.592744	Danger	32.004	38.252827
L6511	Span from L6511-063 to L6511-064	53_33605	Blowout	Fall-In	0.878564	5.61	12.1	138	2024NSP24	9/6/2024	16.073294	-62.502438	45.591525	Danger	17.3736	10.451592
L6511	Span from L6511-105 to L6511-106	32_21688	Blowout	Fall-In	0.88207	8.6	12.16	138	2024NSP24	9/6/2024	70.074582	-62.401016	45.590651	Danger	33.833	45.151289
L6511	Span from L6511-114 to L6511-115	31_2089	Blowout	Fall-In	0.893495	11.1	15.92	138	2024NSP24	9/6/2024	96.534542	-62.379858	45.601612	Danger	37.4904	52.25796
L6511	Span from L6511-115 to L6511-116	31_2072	Blowout	Fall-In	0.896702	9.09	14.91	138	2024NSP24	9/6/2024	98.234471	-62.379723	45.601645	Danger	21.0314	18.813231
L6511	Span from L6511-120 to L6511-121	31_6086	Blowout	Fall-In	0.897513	7.8	15.97	138	2024NSP24	9/6/2024	90.377473	-62.366233	45.607139	Danger	36.576	38.67089
L6511	Span from L6511-117 to L6511-118	31_2831	Blowout	Fall-In	0.898323	14.19	18.86	138	2024NSP24	9/6/2024	98.953207	-62.376005	45.602785	Danger	47.5488	62.291488
L6511	Span from L6511-117 to L6511-118	31_3245	Blowout	Fall-In	0.900908	10.27	13.17	138	2024NSP24	9/6/2024	97.673749	-62.374348	45.603967	Hazard	35.6616	39.71605
L6511	Span from L6511-136 to L6511-137	31_14947	Blowout	Fall-In	0.906711	5.67	14.03	138	2024NSP24	9/6/2024	98.145046	-62.328728	45.618032	Hazard	28.3464	28.846394
L6511	Span from L6511-033 to L6511-034	53_7625	Blowout	Fall-In	0.907682	11.5	16.61	138	2024NSP24	9/6/2024	66.882665	-62.57007	45.613518	Hazard	20.1168	12.123847
L6511	Span from L6511-105 to L6511-106	32_21663	Blowout	Fall-In	0.913196	7.83	13.27	138	2024NSP24	9/6/2024	70.192245	-62.400874	45.590723	Hazard	56.6928	75.460494
L6511	Span from L6511-123 to L6511-124	31_8471	Blowout	Fall-In	0.919154	3.42	12.2	138	2024NSP24	9/6/2024	91.952562	-62.360038	45.609499	Hazard	28.3466	24.457137
L6511	Span from L6511-062 to L6511-063	45_31001	Blowout	Fall-In	0.919165	8.64	16.51	138	2024NSP24	9/6/2024	13.612119	-62.503109	45.591845	Hazard	40.2336	38.879922

L6511	Span from L6511-118 to L6511-119	31_4464	Blowout	Fall-In	0.926236	2.77	10.94	138	2024NSP24	9/6/2024	90.533719	-62.370817	45.605137	Hazard	17.3736	12.123847
L6511	Span from L6511-118 to L6511-119	31_4112	Blowout	Fall-In	0.935058	10.69	20.02	138	2024NSP24	9/6/2024	92.477694	-62.370644	45.605628	Hazard	39.3194	36.580938
L6511	Span from L6511-118 to L6511-119	31_4808	Blowout	Fall-In	0.93511	17.11	20.29	138	2024NSP24	9/6/2024	98.08332	-62.373134	45.604524	Hazard	39.3192	58.319883
L6511	Span from L6511-104 to L6511-105	32_21352	Blowout	Fall-In	0.93545	7.93	12.05	138	2024NSP24	9/6/2024	69.624515	-62.402782	45.589687	Hazard	28.3464	31.981872
L6511	Span from L6511-041 to L6511-042	53_14620	Blowout	Fall-In	0.942211	9.6	15.25	138	2024NSP24	9/6/2024	58.040346	-62.55078	45.610758	Hazard	34.7474	39.716553
L6511	Span from L6511-117 to L6511-118	31_3547	Blowout	Fall-In	0.943217	2.71	4.7	138	2024NSP24	9/6/2024	94.458712	-62.375156	45.603515	Hazard	21.0312	12.750942
L6511	Span from L6511-120 to L6511-121	31_5879	Blowout	Fall-In	0.9443	13.56	18.36	138	2024NSP24	9/6/2024	90.567095	-62.366472	45.607512	Hazard	52.1208	66.890189
L6511	Span from L6511-156 to L6511-157	31_28448	Blowout	Fall-In	0.948919	1.55	5.25	138	2024NSP24	9/6/2024	124.062265	-62.283472	45.636353	Hazard	7.3152	2.090318
L6511	Span from L6511-043 to L6511-044	53_16145	Blowout	Fall-In	0.949165	9.1	15.54	138	2024NSP24	9/6/2024	58.049039	-62.546974	45.609739	Hazard	31.0898	30.728321
L6511	Span from L6511-023 to L6511-024	29_13075	Blowout	Fall-In	0.950311	2.76	10.6	138	2024NSP24	9/6/2024	92.992464	-62.596108	45.618496	Hazard	23.7744	15.050292
L6511	Span from L6511-121 to L6511-122	31_6989	Blowout	Fall-In	0.952497	15.21	19.3	138	2024NSP24	9/6/2024	91.026898	-62.364443	45.607857	Hazard	35.6616	49.749578
L6511	Span from L6511-123 to L6511-124	31_8228	Blowout	Fall-In	0.956322	5.98	10.28	138	2024NSP24	9/6/2024	91.521703	-62.360311	45.609741	Hazard	27.432	21.53028
L6511	Span from L6511-117 to L6511-118	31_3685	Blowout	Fall-In	0.95704	3.75	5.33	138	2024NSP24	9/6/2024	94.730912	-62.375217	45.603291	Hazard	22.8606	19.231844
L6511	Span from L6511-117 to L6511-118	31_3605	Blowout	Fall-In	0.959883	3.56	5.36	138	2024NSP24	9/6/2024	94.514374	-62.374976	45.603407	Hazard	15.5448	9.197401
L6511	Span from L6511-156 to L6511-157	31_28614	Blowout	Fall-In	0.962449	8.95	12.62	138	2024NSP24	9/6/2024	126.114002	-62.284391	45.636049	Hazard	29.2612	34.909415
L6511	Span from L6511-025 to L6511-026	62_45725	Blowout	Fall-In	0.964342	9.26	13.07	138	2024NSP24	9/6/2024	91.237796	-62.591021	45.61801	Hazard	34.7472	36.789604
L6511	Span from L6511-118 to L6511-119	31_4736	Blowout	Fall-In	0.968299	3.69	9.85	138	2024NSP24	9/6/2024	90.846807	-62.371966	45.604668	Hazard	22.8602	10.451866
L6511	Span from L6511-117 to L6511-118	31_3660	Blowout	Fall-In	0.970745	2.96	4.95	138	2024NSP24	9/6/2024	94.611341	-62.37507	45.603325	Hazard	21.0312	16.095452
L6511	Span from L6511-041 to L6511-042	53_14203	Blowout	Fall-In	0.982312	11.84	15.59	138	2024NSP24	9/6/2024	57.364191	-62.551492	45.610831	Hazard	32.0044	40.971109
L6511	Span from L6511-122 to L6511-123	31_6462	Blowout	Fall-In	0.984673	4.1	11.87	138	2024NSP24	9/6/2024	99.069936	-62.363215	45.608558	Hazard	23.7744	14.423197
L6511	Span from L6511-032 to L6511-033	53_6868	Blowout	Fall-In	0.985532	14.63	17.96	138	2024NSP24	9/6/2024	68.881508	-62.572252	45.613804	Hazard	44.8056	67.308252
L6511	Span from L6511-041 to L6511-042	53_14619	Blowout	Fall-In	0.986181	8.46	14.53	138	2024NSP24	9/6/2024	59.019617	-62.550501	45.610751	Hazard	26.5176	26.756076
L6511	Span from L6511-108 to L6511-109	32_23523	Blowout	Fall-In	0.991536	14.3	17.14	138	2024NSP24	9/6/2024	73.852626	-62.39519	45.594116	Hazard	43.8914	50.795514
L6511	Span from L6511-120 to L6511-121	31_6111	Blowout	Fall-In	0.995133	5.78	11.72	138	2024NSP24	9/6/2024	90.074105	-62.366386	45.607098	Hazard	50.292	60.619234
L6511	Span from L6511-034 to L6511-035	38_30547	Blowout	Fall-In	0.998467	15.74	18.98	138	2024NSP24	9/6/2024	62.607239	-62.568484	45.613164	Hazard	47.549	82.568445
L6511	Span from L6511-023 to L6511-024	29_13180	Blowout	Fall-In	1.001725	9.22	14.23	138	2024NSP24	9/6/2024	96.393723	-62.595572	45.618391	Hazard	53.9498	59.783152
L6511	Span from L6511-117 to L6511-118	31_3727	Blowout	Fall-In	1.004143	3.78	5.29	138	2024NSP24	9/6/2024	94.939505	-62.375332	45.603232	Hazard	21.9456	20.694152
L6511	Span from L6511-104 to L6511-105	32_20195	Blowout	Fall-In	1.004729	8.15	13.68	138	2024NSP24	9/6/2024	71.378092	-62.403715	45.589573	Hazard	31.0896	32.399935
L6511	Span from L6511-121 to L6511-122	31_6532	Blowout	Fall-In	1.004765	7.93	13.85	138	2024NSP24	9/6/2024	100.303341	-62.36338	45.608462	Hazard	34.7472	38.461859
L6511	Span from L6511-117 to L6511-118	31_3413	Blowout	Fall-In	1.005465	14.45	19.26	138	2024NSP24	9/6/2024	94.732644	-62.374981	45.603736	Hazard	36.5762	47.659945
L6511	Span from L6511-137 to L6511-138	31_15729	Blowout	Fall-In	1.005566	7.48	12.95	138	2024NSP24	9/6/2024	96.221507	-62.327663	45.618402	Hazard	35.6616	26.547044
L6511	Span from L6511-108 to L6511-109	32_23893	Blowout	Fall-In	1.01097	6.16	10.09	138	2024NSP24	9/6/2024	73.125858	-62.395524	45.593589	Hazard	35.6616	42.0154
L6511	Span from L6511-137 to L6511-138	31_15619	Blowout	Fall-In	1.012964	13.07	18.35	138	2024NSP24	9/6/2024	95.754531	-62.327741	45.618717	Hazard	36.576	42.224432
L6511	Span from L6511-033 to L6511-034	38_29608	Blowout	Fall-In	1.020049	17.62	21.42	138	2024NSP24	9/6/2024	66.530005	-62.57174	45.613652	Hazard	39.3194	63.964566
L6511	Span from L6511-107 to L6511-108	32_22998	Blowout	Fall-In	1.023485	6.77	10.73	138	2024NSP24	9/6/2024	77.397748	-62.396721	45.592954	Hazard	31.0896	29.473489
L6511	Span from L6511-027 to L6511-028	53_2332	Blowout	Fall-In	1.036561	11.94	17.68	138	2024NSP24	9/6/2024	91.623196	-62.586206	45.616594	Hazard	53.0352	74.833399
L6511	Span from L6511-031 to L6511-032	53_5960	Blowout	Fall-In	1.037748	5.1	10.32	138	2024NSP24	9/6/2024	72.52962	-62.577638	45.614622	Hazard	32.004	19.858025
L6511	Span from L6511-106 to L6511-107	32_22650	Blowout	Fall-In	1.037966	9.88	15.52	138	2024NSP24	9/6/2024	70.345413	-62.399557	45.591454	Hazard	27.432	26.12898
L6511	Span from L6511-121 to L6511-122	31_6961	Blowout	Fall-In	1.038649	8.76	12.14	138	2024NSP24	9/6/2024	90.201499	-62.365362	45.60792	Hazard	30.1752	35.535413
L6511	Span from L6511-122 to L6511-123	31_7634	Blowout	Fall-In	1.039769	10.27	16.37	138	2024NSP24	9/6/2024	95.529486	-62.362273	45.608905	Hazard	38.4052	44.106358
L6511	Span from L6511-103 to L6511-104	32_20302	Blowout	Fall-In	1.040531	14.3	19.04	138	2024NSP24	9/6/2024	65.17812	-62.404448	45.589252	Hazard	42.0624	64.381807
L6511	Span from L6511-022 to L6511-023	29_12412	Blowout	Fall-In	1.047414	4.78	15.15	138	2024NSP24	9/6/2024	90.315525	-62.598627	45.618819	Hazard	26.5176	23.82963
L6511	Span from L6511-117 to L6511-118	31_3539	Blowout	Fall-In	1.04784	9.45	23.53	138	2024NSP24	9/6/2024	94.655441	-62.375466	45.603537	Hazard	34.7472	36.37154
L6511	Span from L6511-027 to L6511-028	53_1929	Blowout	Fall-In	1.049977	10.67	16.24	138	2024NSP24	9/6/2024	91.94365	-62.586633	45.616723	Hazard	34.7474	47.659717
L6511	Span from L6511-108 to L6511-109	32_23683	Blowout	Fall-In	1.053508	13.15	22.6	138	2024NSP24	9/6/2024	73.149043	-62.395909	45.593867	Hazard	56.6928	73.370176
L6511	Span from L6511-033 to L6511-034	53_7638	Blowout	Fall-In	1.054743	13.06	18.75	138	2024NSP24	9/6/2024	66.613412	-62.57015	45.613481	Hazard	67.6656	89.465628
L6511	Span from L6511-041 to L6511-042	53_14631	Blowout	Fall-In	1.05545	9.04	16.76	138	2024NSP24	9/6/2024	59.016067	-62.550531	45.610683	Hazard	54.864	59.156011
L6511	Span from L6511-156 to L6511-157	31_28449	Blowout	Fall-In	1.062763	9.82	13.49	138	2024NSP24	9/6/2024	123.938855	-62.283685	45.636385	Hazard	32.9186	40.761255
L6511	Span from L6511-106 to L6511-107	32_22673	Blowout	Fall-In	1.0629	13.64	17.04	138	2024NSP24	9/6/2024	70.3828	-62.399578	45.591389	Hazard	42.0624	56.647629
L6511	Span from L6511-117 to L6511-118	31_3127	Blowout	Fall-In	1.074371	12.06	14.75	138	2024NSP24	9/6/2024	102.115001	-62.373836	45.604174	Hazard	55.779	70.653631
L6511	Span from L6511-117 to L6511-118	31_3642	Blowout	Fall-In	1.078148	12.17	14.39	138	2024NSP24	9/6/2024	94.963725	-62.374621	45.603366	Hazard	38.4048	45.359909
L6511	Span from L6511-117 to L6511-118	31_3331	Blowout	Fall-In	1.07956	11.29	13.25	138	2024NSP24	9/6/2024	100.280616	-62.373778	45.603828	Hazard	33.8328	45.359909
L6511	Span from L6511-106 to L6511-107	32_22669	Blowout	Fall-In	1.080897	9.42	14.95	138	2024NSP24	9/6/2024	70.442965	-62.39966	45.591393	Hazard	37.4906	41.179867
L6511	Span from L6511-117 to L6511-118	31_3575	Blowout	Fall-In	1.081124	2.25	5.77	138	2024NSP24	9/6/2024	94.565468	-62.375312	45.603466	Hazard	18.288	11.705783
L6511	Span from L6511-123 to L6511-124	31_8200	Blowout	Fall-In	1.081276	8.14	10.49	138	2024NSP24	9/6/2024	91.52154	-62.360337	45.609775	Hazard	37.4906	38.671348

L6511	Span from L6511-041 to L6511-042	53_14616	Blowout	Fall-In	1.093037	5.01	11.85	138	2024NSP24	9/6/2024	59.354617	-62.550431	45.610767	Hazard	26.5176	21.112216
L6511	Span from L6511-036 to L6511-037	38_31601	Blowout	Fall-In	1.097565	4.68	16.62	138	2024NSP24	9/6/2024	57.996996	-62.563883	45.612544	Hazard	23.7744	23.82963
L6511	Span from L6511-120 to L6511-121	31_5934	Blowout	Fall-In	1.098199	8.29	11.92	138	2024NSP24	9/6/2024	90.37607	-62.366459	45.607389	Hazard	18.288	11.914815
L6511	Span from L6511-122 to L6511-123	31_7486	Blowout	Fall-In	1.098319	8.81	13.31	138	2024NSP24	9/6/2024	95.304199	-62.362529	45.609118	Hazard	31.0896	32.608967
L6511	Span from L6511-121 to L6511-122	31_6956	Blowout	Fall-In	1.099922	5.91	11.65	138	2024NSP24	9/6/2024	90.879362	-62.364553	45.607917	Hazard	25.6032	27.592203
L6511	Span from L6511-024 to L6511-025	29_13614	Blowout	Fall-In	1.106631	11.03	16.23	138	2024NSP24	9/6/2024	97.982375	-62.592611	45.617927	Hazard	33.8328	38.252827
L6511	Span from L6511-122 to L6511-123	31_7523	Blowout	Fall-In	1.108188	10.09	14.84	138	2024NSP24	9/6/2024	95.481724	-62.36274	45.609074	Hazard	35.6618	43.688249
L6511	Span from L6511-043 to L6511-044	53_15944	Blowout	Fall-In	1.110882	9.73	12.69	138	2024NSP24	9/6/2024	57.814501	-62.54737	45.610002	Hazard	32.9184	36.998636
L6511	Span from L6511-019 to L6511-020	29_9447	Blowout	Fall-In	1.111802	2.58	9.82	138	2024NSP24	9/6/2024	81.733602	-62.606424	45.620108	Hazard	21.0312	18.812866
L6511	Span from L6511-108 to L6511-109	32_23722	Blowout	Fall-In	1.114146	8.49	15.43	138	2024NSP24	9/6/2024	73.130428	-62.395842	45.593795	Hazard	32.0042	36.372226
L6511	Span from L6511-030 to L6511-031	53_5375	Blowout	Fall-In	1.124581	13.92	18.73	138	2024NSP24	9/6/2024	75.621674	-62.579723	45.614914	Hazard	25.6032	26.12898
L6511	Span from L6511-025 to L6511-026	38_22160	Blowout	Fall-In	1.124767	8.89	14.93	138	2024NSP24	9/6/2024	91.85014	-62.591349	45.617678	Hazard	18.288	12.54191
L6511	Span from L6511-136 to L6511-137	31_14987	Blowout	Fall-In	1.129138	15.39	18.54	138	2024NSP24	9/6/2024	98.013036	-62.328518	45.617966	Hazard	41.148	54.975374
L6511	Span from L6511-106 to L6511-107	32_22654	Blowout	Fall-In	1.132136	8.19	14.85	138	2024NSP24	9/6/2024	70.43542	-62.399613	45.59144	Hazard	22.86	15.259324
L6511	Span from L6511-023 to L6511-024	29_13143	Blowout	Fall-In	1.136049	6.36	13.52	138	2024NSP24	9/6/2024	96.379838	-62.595616	45.61842	Hazard	23.7748	14.423426
L6511	Span from L6511-118 to L6511-119	31_4449	Blowout	Fall-In	1.137052	3.68	10.09	138	2024NSP24	9/6/2024	89.057131	-62.371412	45.605163	Hazard	25.6032	15.88642
L6511	Span from L6511-124 to L6511-125	31_8776	Blowout	Fall-In	1.141604	10.97	16.34	138	2024NSP24	9/6/2024	105.464037	-62.356212	45.610525	Hazard	35.6616	42.0154
L6511	Span from L6511-108 to L6511-109	32_23716	Blowout	Fall-In	1.143326	7.78	12.21	138	2024NSP24	9/6/2024	73.045307	-62.395774	45.593801	Hazard	32.9186	29.055471
L6511	Span from L6511-120 to L6511-121	31_5958	Blowout	Fall-In	1.145613	10.04	14.89	138	2024NSP24	9/6/2024	90.132884	-62.366597	45.607379	Hazard	48.4632	72.115985
L6511	Span from L6511-035 to L6511-036	53_8922	Blowout	Fall-In	1.147647	10.85	15.43	138	2024NSP24	9/6/2024	64.214936	-62.565809	45.612851	Hazard	40.2336	44.523782
L6511	Span from L6511-006 to L6511-007	29_2615	Blowout	Fall-In	1.148995	10.49	16.72	138	2024NSP24	9/6/2024	23.077028	-62.634331	45.62456	Hazard	32.004	42.0154
L6511	Span from L6511-035 to L6511-036	53_8923	Blowout	Fall-In	1.150906	7.8	13.83	138	2024NSP24	9/6/2024	65.220233	-62.565563	45.612857	Hazard	55.7786	60.619965
L6511	Span from L6511-116 to L6511-117	31_2912	Blowout	Fall-In	1.153664	10.35	13.76	138	2024NSP24	9/6/2024	101.077159	-62.376764	45.602544	Hazard	43.8912	44.31475
L6511	Span from L6511-123 to L6511-124	31_7192	Blowout	Fall-In	1.155195	8.37	12.99	138	2024NSP24	9/6/2024	94.936981	-62.36138	45.609583	Hazard	35.6616	37.416699
L6511	Span from L6511-041 to L6511-042	53_14626	Blowout	Fall-In	1.155637	8.51	13.5	138	2024NSP24	9/6/2024	59.746644	-62.550349	45.610711	Hazard	33.8328	39.925081
L6511	Span from L6511-031 to L6511-032	53_5999	Blowout	Fall-In	1.155947	7.25	11.68	138	2024NSP24	9/6/2024	71.480554	-62.577173	45.614534	Hazard	31.0898	30.309983
L6511	Span from L6511-105 to L6511-106	32_21521	Blowout	Fall-In	1.160002	8.27	12.88	138	2024NSP24	9/6/2024	71.712746	-62.400482	45.590957	Hazard	35.6616	32.190903
L6511	Span from L6511-029 to L6511-030	53_3655	Blowout	Fall-In	1.160048	11.71	18.32	138	2024NSP24	9/6/2024	88.902229	-62.583633	45.615963	Hazard	30.1754	37.625777
L6511	Span from L6511-006 to L6511-007	29_2379	Blowout	Fall-In	1.163029	10.38	13.31	138	2024NSP24	9/6/2024	13.484792	-62.635546	45.624799	Hazard	34.7472	39.088954
L6511	Span from L6511-117 to L6511-118	31_3535	Blowout	Fall-In	1.170179	10.66	12.69	138	2024NSP24	9/6/2024	95.980704	-62.374282	45.603541	Hazard	42.9768	53.512151
L6511	Span from L6511-121 to L6511-122	31_6580	Blowout	Fall-In	1.174095	13.56	16.98	138	2024NSP24	9/6/2024	92.533024	-62.364454	45.608396	Hazard	48.4632	70.861794
L6511	Span from L6511-041 to L6511-042	53_14618	Blowout	Fall-In	1.181633	10.76	15.62	138	2024NSP24	9/6/2024	57.383573	-62.551055	45.610763	Hazard	31.0896	35.326381
L6511	Span from L6511-122 to L6511-123	31_7522	Blowout	Fall-In	1.191706	10.01	20.54	138	2024NSP24	9/6/2024	96.439389	-62.361781	45.609081	Hazard	50.2922	54.348553
L6511	Span from L6511-104 to L6511-105	32_20271	Blowout	Fall-In	1.19181	7.48	12.27	138	2024NSP24	9/6/2024	71.753247	-62.403504	45.589321	Hazard	31.0898	31.14579
L6511	Span from L6511-117 to L6511-118	31_3810	Blowout	Fall-In	1.192182	14.34	17.99	138	2024NSP24	9/6/2024	98.617589	-62.376193	45.603084	Hazard	44.8056	68.14438
L6511	Span from L6511-118 to L6511-119	31_4780	Blowout	Fall-In	1.196733	14.72	18.57	138	2024NSP24	9/6/2024	95.934163	-62.372954	45.6046	Hazard	41.1482	63.964566
L6511	Span from L6511-036 to L6511-037	53_9059	Blowout	Fall-In	1.198643	10.42	13.99	138	2024NSP24	9/6/2024	63.163289	-62.564635	45.612734	Hazard	23.7744	16.722547
L6511	Span from L6511-117 to L6511-118	31_3682	Blowout	Fall-In	1.199431	2.83	4.83	138	2024NSP24	9/6/2024	94.668113	-62.375144	45.603311	Hazard	34.7476	37.416928
L6511	Span from L6511-032 to L6511-033	38_28883	Blowout	Fall-In	1.201466	17.57	20.15	138	2024NSP24	9/6/2024	65.619426	-62.572877	45.613808	Hazard	49.3776	76.08759
L6511	Span from L6511-148 to L6511-149	31_23653	Blowout	Fall-In	1.20338	14.13	17.67	138	2024NSP24	9/6/2024	82.011333	-62.301798	45.629302	Hazard	44.8058	53.094682
L6511	Span from L6511-117 to L6511-118	31_3714	Blowout	Fall-In	1.204081	3.9	6.83	138	2024NSP24	9/6/2024	94.756483	-62.375171	45.603235	Hazard	20.1172	12.960203
L6511	Span from L6511-117 to L6511-118	31_3586	Blowout	Fall-In	1.207758	3.15	4.7	138	2024NSP24	9/6/2024	94.524284	-62.375271	45.603448	Hazard	20.1168	13.58707
L6511	Span from L6511-119 to L6511-120	31_5488	Blowout	Fall-In	1.21016	10.2	13.76	138	2024NSP24	9/6/2024	89.688556	-62.369207	45.60624	Hazard	33.8328	33.236063
L6511	Span from L6511-116 to L6511-117	31_2907	Blowout	Fall-In	1.212096	8.34	12.74	138	2024NSP24	9/6/2024	101.013338	-62.376847	45.60254	Hazard	20.1168	12.750942
L6511	Span from L6511-121 to L6511-122	31_6463	Blowout	Fall-In	1.220953	5.45	10.98	138	2024NSP24	9/6/2024	97.373003	-62.363795	45.608561	Hazard	18.288	11.914815
L6511	Span from L6511-043 to L6511-044	53_15818	Blowout	Fall-In	1.221291	3.69	10.73	138	2024NSP24	9/6/2024	58.227286	-62.547513	45.610124	Hazard	23.7744	15.677388
L6511	Span from L6511-034 to L6511-035	38_30536	Blowout	Fall-In	1.228606	17.13	19.87	138	2024NSP24	9/6/2024	62.62457	-62.568583	45.613175	Hazard	39.3194	65.427743
L6511	Span from L6511-117 to L6511-118	31_3580	Blowout	Fall-In	1.23188	11.21	13.67	138	2024NSP24	9/6/2024	95.747357	-62.374415	45.603474	Hazard	39.3192	46.196037
L6511	Span from L6511-112 to L6511-113	31_1009	Blowout	Fall-In	1.233124	4.97	11.53	138	2024NSP24	9/6/2024	76.937903	-62.38579	45.598826	Hazard	12.8018	6.48017
L6511	Span from L6511-122 to L6511-123	31_7445	Blowout	Fall-In	1.233148	10.49	13.1	138	2024NSP24	9/6/2024	96.810672	-62.361745	45.609177	Hazard	35.6616	47.868291
L6511	Span from L6511-123 to L6511-124	31_8372	Blowout	Fall-In	1.241922	10.03	13.1	138	2024NSP24	9/6/2024	92.928892	-62.359644	45.609589	Hazard	22.86	14.841261
L6511	Span from L6511-025 to L6511-026	38_21403	Blowout	Fall-In	1.249694	12.9	15.62	138	2024NSP24	9/6/2024	93.873005	-62.591745	45.617745	Hazard	50.2924	75.462186
L6511	Span from L6511-108 to L6511-109	32_22749	Blowout	Fall-In	1.255589	8.25	13.11	138	2024NSP24	9/6/2024	76.371493	-62.396488	45.593407	Hazard	31.0898	33.236428
L6511	Span from L6511-034 to L6511-035	53_8358	Blowout	Fall-In	1.256229	14.49	17.74	138	2024NSP24	9/6/2024	64.916099	-62.569359	45.613328	Hazard	47.549	70.026489
L6511	Span from L6511-137 to L6511-138	31_14874	Blowout	Fall-In	1.261272	12.95	16.77	138	2024NSP24	9/6/2024	98.007819	-62.327994	45.618175	Hazard	42.9768	49.95861

L6511	Span from L6511-149 to L6511-150	31_25354	Blowout	Fall-In	1.261978	8.98	13.55	138	2024NSP24	9/6/2024	62.602836	-62.300214	45.629537	Hazard	31.0896	36.37154
L6511	Span from L6511-122 to L6511-123	31_7583	Blowout	Fall-In	1.263871	9.8	13.02	138	2024NSP24	9/6/2024	95.96095	-62.362864	45.609001	Hazard	38.4048	42.642495
L6511	Span from L6511-040 to L6511-041	53_13903	Blowout	Fall-In	1.264102	9.6	14.59	138	2024NSP24	9/6/2024	55.164968	-62.553439	45.611145	Hazard	32.9184	44.105718
L6511	Span from L6511-027 to L6511-028	53_2319	Blowout	Fall-In	1.265465	11.92	18.52	138	2024NSP24	9/6/2024	91.587087	-62.586308	45.616602	Hazard	33.8328	35.117349
L6511	Span from L6511-105 to L6511-106	32_21063	Blowout	Fall-In	1.26559	10.7	14.18	138	2024NSP24	9/6/2024	72.121793	-62.401664	45.590292	Hazard	34.7474	46.823406
L6511	Span from L6511-035 to L6511-036	53_8869	Blowout	Fall-In	1.268139	6.96	12.12	138	2024NSP24	9/6/2024	63.288712	-62.566266	45.61296	Hazard	25.6032	22.784471
L6511	Span from L6511-121 to L6511-122	31_6801	Blowout	Fall-In	1.271185	8.78	12.12	138	2024NSP24	9/6/2024	90.405699	-62.364926	45.608115	Hazard	37.4904	45.150877
L6511	Span from L6511-024 to L6511-025	38_21048	Blowout	Fall-In	1.273755	9.27	13.96	138	2024NSP24	9/6/2024	94.3869	-62.593277	45.618327	Hazard	31.0896	33.445094
L6511	Span from L6511-112 to L6511-113	31_934	Blowout	Fall-In	1.274555	8.13	10.69	138	2024NSP24	9/6/2024	74.578331	-62.386166	45.598965	Hazard	29.261	34.699697
L6511	Span from L6511-117 to L6511-118	31_3132	Blowout	Fall-In	1.277917	8.11	12.77	138	2024NSP24	9/6/2024	102.039538	-62.373833	45.604131	Hazard	19.2024	12.959974
L6511	Span from L6511-022 to L6511-023	29_11791	Blowout	Fall-In	1.281318	13.78	17.94	138	2024NSP24	9/6/2024	87.894852	-62.598941	45.619273	Hazard	42.9768	50.376673
L6511	Span from L6511-025 to L6511-026	38_20485	Blowout	Fall-In	1.281999	7.06	12.99	138	2024NSP24	9/6/2024	96.010311	-62.592051	45.617872	Hazard	17.3736	9.197401
L6511	Span from L6511-025 to L6511-026	38_22136	Blowout	Fall-In	1.283042	10.27	13.98	138	2024NSP24	9/6/2024	93.186904	-62.591651	45.617726	Hazard	35.6618	49.331697
L6511	Span from L6511-041 to L6511-042	53_14591	Blowout	Fall-In	1.284313	3.22	10.98	138	2024NSP24	9/6/2024	57.50722	-62.550973	45.610833	Hazard	25.6034	19.858208
L6511	Span from L6511-107 to L6511-108	32_23090	Blowout	Fall-In	1.285921	8.15	13.39	138	2024NSP24	9/6/2024	76.083947	-62.396889	45.592839	Hazard	33.8328	40.761209
L6511	Span from L6511-105 to L6511-106	32_20957	Blowout	Fall-In	1.299768	8.71	14.08	138	2024NSP24	9/6/2024	71.70496	-62.401855	45.590561	Hazard	44.8056	51.421833
L6511	Span from L6511-119 to L6511-120	31_5306	Blowout	Fall-In	1.305992	3.53	9.84	138	2024NSP24	9/6/2024	88.874968	-62.36843	45.606529	Hazard	19.2024	14.423197
L6511	Span from L6511-117 to L6511-118	31_3290	Blowout	Fall-In	1.306653	11.42	13.18	138	2024NSP24	9/6/2024	96.292779	-62.374542	45.603898	Hazard	32.0042	36.372226
L6511	Span from L6511-039 to L6511-040	53_12196	Blowout	Fall-In	1.316178	4.56	7.37	138	2024NSP24	9/6/2024	55.700309	-62.555995	45.611565	Hazard	25.6032	25.501884
L6511	Span from L6511-137 to L6511-138	31_15646	Blowout	Fall-In	1.325955	8.09	13.99	138	2024NSP24	9/6/2024	95.981014	-62.326953	45.618646	Hazard	37.4906	39.08964
L6511	Span from L6511-118 to L6511-119	31_4770	Blowout	Fall-In	1.334814	4.75	10.26	138	2024NSP24	9/6/2024	94.16017	-62.37264	45.604614	Hazard	21.0314	13.169372
L6511	Span from L6511-034 to L6511-035	53_8333	Blowout	Fall-In	1.335383	5.95	12.25	138	2024NSP24	9/6/2024	65.99346	-62.569525	45.613462	Hazard	19.2024	11.705783
L6511	Span from L6511-006 to L6511-007	29_2518	Blowout	Fall-In	1.336207	7.88	12.34	138	2024NSP24	9/6/2024	17.932548	-62.634846	45.624651	Hazard	35.6618	40.552817
L6511	Span from L6511-034 to L6511-035	38_30504	Blowout	Fall-In	1.341332	15.72	18.13	138	2024NSP24	9/6/2024	63.517099	-62.569022	45.613265	Hazard	43.8912	69.189539
L6511	Span from L6511-120 to L6511-121	31_5854	Blowout	Fall-In	1.348155	14.77	17.04	138	2024NSP24	9/6/2024	91.001481	-62.366369	45.607553	Hazard	42.0624	59.783106
L6511	Span from L6511-031 to L6511-032	53_5937	Blowout	Fall-In	1.353992	9.35	12.69	138	2024NSP24	9/6/2024	75.734093	-62.578277	45.614696	Hazard	28.3464	33.027031
L6511	Span from L6511-106 to L6511-107	32_22372	Blowout	Fall-In	1.355113	14.71	18.29	138	2024NSP24	9/6/2024	72.649293	-62.3984	45.591946	Hazard	36.5762	47.450913
L6511	Span from L6511-106 to L6511-107	32_22395	Blowout	Fall-In	1.35672	17.77	21.99	138	2024NSP24	9/6/2024	69.579349	-62.399458	45.591927	Hazard	34.7472	49.749578
L6511	Span from L6511-022 to L6511-023	29_11985	Blowout	Fall-In	1.358972	8.84	12.76	138	2024NSP24	9/6/2024	86.903631	-62.60037	45.619128	Hazard	34.7474	34.699926
L6511	Span from L6511-120 to L6511-121	31_5904	Blowout	Fall-In	1.360649	6.76	15.47	138	2024NSP24	9/6/2024	90.566733	-62.366426	45.607442	Hazard	20.1168	15.468356
L6511	Span from L6511-031 to L6511-032	53_6183	Blowout	Fall-In	1.364837	8.35	11.4	138	2024NSP24	9/6/2024	72.969685	-62.576315	45.614387	Hazard	36.576	45.359909
L6511	Span from L6511-148 to L6511-149	31_23777	Blowout	Fall-In	1.366161	11.72	15.47	138	2024NSP24	9/6/2024	82.504397	-62.301407	45.629086	Hazard	35.6616	42.851527
L6511	Span from L6511-118 to L6511-119	31_4720	Blowout	Fall-In	1.372655	11.08	14.57	138	2024NSP24	9/6/2024	93.118614	-62.372642	45.604719	Hazard	34.7474	44.524148
L6511	Span from L6511-117 to L6511-118	31_3749	Blowout	Fall-In	1.37819	2.56	5.07	138	2024NSP24	9/6/2024	95.092447	-62.375388	45.603208	Hazard	36.576	36.789604
L6511	Span from L6511-021 to L6511-022	29_11134	Blowout	Fall-In	1.380309	10.32	15.26	138	2024NSP24	9/6/2024	88.266783	-62.602397	45.619423	Hazard	43.8912	56.85666
L6511	Span from L6511-031 to L6511-032	53_6021	Blowout	Fall-In	1.381177	8.73	12.16	138	2024NSP24	9/6/2024	71.452509	-62.577173	45.614485	Hazard	45.72	44.523782
L6511	Span from L6511-025 to L6511-026	38_22141	Blowout	Fall-In	1.382018	10.59	15.85	138	2024NSP24	9/6/2024	92.7092	-62.59156	45.617714	Hazard	35.6616	29.055426
L6511	Span from L6511-006 to L6511-007	29_2502	Blowout	Fall-In	1.389548	10.5	13.89	138	2024NSP24	9/6/2024	17.285611	-62.634925	45.624659	Hazard	34.7476	37.208308
L6511	Span from L6511-118 to L6511-119	31_4525	Blowout	Fall-In	1.392278	2.54	5	138	2024NSP24	9/6/2024	89.614807	-62.371167	45.605049	Hazard	22.8602	17.559132
L6511	Span from L6511-036 to L6511-037	53_9053	Blowout	Fall-In	1.394893	7.9	12.2	138	2024NSP24	9/6/2024	63.62686	-62.564746	45.612763	Hazard	29.2608	16.095452
L6511	Span from L6511-122 to L6511-123	31_7367	Blowout	Fall-In	1.396129	9.58	15.49	138	2024NSP24	9/6/2024	95.69794	-62.36209	45.609299	Hazard	42.0624	61.246329
L6511	Span from L6511-108 to L6511-109	32_23566	Blowout	Fall-In	1.399627	13.97	16.74	138	2024NSP24	9/6/2024	73.235579	-62.395449	45.594052	Hazard	35.6616	45.568941
L6511	Span from L6511-107 to L6511-108	32_23172	Blowout	Fall-In	1.400679	15.64	19.77	138	2024NSP24	9/6/2024	75.85629	-62.396899	45.59272	Hazard	49.3776	81.940481
L6511	Span from L6511-108 to L6511-109	32_24073	Blowout	Fall-In	1.400946	5.69	8.79	138	2024NSP24	9/6/2024	74.892355	-62.396031	45.593333	Hazard	28.3464	25.292853
L6511	Span from L6511-062 to L6511-063	53_33266	Blowout	Fall-In	1.4047	2.61	6.76	138	2024NSP24	9/6/2024	16.247394	-62.503706	45.592572	Hazard	20.1168	10.660624
L6511	Span from L6511-041 to L6511-042	38_37221	Blowout	Fall-In	1.410002	11.16	15.55	138	2024NSP24	9/6/2024	57.461547	-62.551612	45.610823	Hazard	34.7474	42.642633
L6511	Span from L6511-117 to L6511-118	31_3472	Blowout	Fall-In	1.41238	14.17	18.95	138	2024NSP24	9/6/2024	94.472037	-62.375199	45.603647	Hazard	39.3194	57.484488
L6511	Span from L6511-043 to L6511-044	53_16215	Blowout	Fall-In	1.415464	6.13	14.67	138	2024NSP24	9/6/2024	60.0762	-62.546544	45.60954	Hazard	28.3464	23.202534
L6511	Span from L6511-023 to L6511-024	29_13169	Blowout	Fall-In	1.417669	12.98	15.61	138	2024NSP24	9/6/2024	92.799385	-62.596229	45.618412	Hazard	51.2066	70.025895
L6511	Span from L6511-149 to L6511-150	31_23620	Blowout	Fall-In	1.421624	6.63	13.51	138	2024NSP24	9/6/2024	79.235154	-62.301433	45.629364	Hazard	18.288	11.078688
L6511	Span from L6511-149 to L6511-150	31_25363	Blowout	Fall-In	1.422699	11.15	17.46	138	2024NSP24	9/6/2024	60.364317	-62.300032	45.629522	Hazard	35.6616	46.196037
L6511	Span from L6511-022 to L6511-023	29_11808	Blowout	Fall-In	1.42677	7.1	14.34	138	2024NSP24	9/6/2024	87.642265	-62.599014	45.619244	Hazard	30.1752	27.592203
L6511	Span from L6511-105 to L6511-106	32_21686	Blowout	Fall-In	1.42953	10.02	15.49	138	2024NSP24	9/6/2024	71.191342	-62.40176	45.590665	Hazard	36.576	51.212801
L6511	Span from L6511-117 to L6511-118	31_3676	Blowout	Fall-In	1.433419	3.82	6.89	138	2024NSP24	9/6/2024	94.605352	-62.375018	45.603304	Hazard	22.86	14.632229
L6511	Span from L6511-024 to L6511-025	38_21062	Blowout	Fall-In	1.435038	9.38	13.29	138	2024NSP24	9/6/2024	94.701919	-62.593198	45.61831	Hazard	24.6888	27.592203

L6511	Span from L6511-102 to L6511-103	63_1126	Blowout	Fall-In	1.437674	16.23	18.59	138	2024NSP24	9/6/2024	70.218859	-62.408216	45.588195	Hazard	47.5488	74.624367
L6511	Span from L6511-104 to L6511-105	32_20205	Blowout	Fall-In	1.442505	5.62	9.96	138	2024NSP24	9/6/2024	71.749212	-62.403695	45.589529	Hazard	22.86	19.858025
L6511	Span from L6511-036 to L6511-037	53_9075	Blowout	Fall-In	1.445148	10.68	14.4	138	2024NSP24	9/6/2024	61.314978	-62.564462	45.612673	Hazard	35.662	42.851756
L6511	Span from L6511-026 to L6511-027	53_1817	Blowout	Fall-In	1.447134	11.86	20.25	138	2024NSP24	9/6/2024	96.981087	-62.58764	45.616953	Hazard	55.7784	76.714685
L6511	Span from L6511-036 to L6511-037	53_9337	Blowout	Fall-In	1.447881	8.82	15.07	138	2024NSP24	9/6/2024	56.669767	-62.563455	45.612513	Hazard	34.7472	33.027031
L6511	Span from L6511-121 to L6511-122	31_6428	Blowout	Fall-In	1.450023	6.97	13.94	138	2024NSP24	9/6/2024	98.530736	-62.363713	45.608623	Hazard	30.1754	25.920634
L6511	Span from L6511-106 to L6511-107	32_22639	Blowout	Fall-In	1.451264	16.1	23.61	138	2024NSP24	9/6/2024	69.794414	-62.399137	45.591512	Hazard	52.1208	68.771475
L6511	Span from L6511-112 to L6511-113	31_858	Blowout	Fall-In	1.454597	8.72	12.13	138	2024NSP24	9/6/2024	78.114912	-62.385883	45.59911	Hazard	32.004	31.77284
L6511	Span from L6511-123 to L6511-124	31_8422	Blowout	Fall-In	1.455456	5.26	12.43	138	2024NSP24	9/6/2024	92.014517	-62.359967	45.609534	Hazard	23.7744	13.378038
L6511	Span from L6511-036 to L6511-037	53_9088	Blowout	Fall-In	1.455905	4.62	10.51	138	2024NSP24	9/6/2024	58.535939	-62.564002	45.612641	Hazard	44.8056	47.65926
L6511	Span from L6511-035 to L6511-036	53_8860	Blowout	Fall-In	1.456674	4.28	11.81	138	2024NSP24	9/6/2024	63.271814	-62.566313	45.612985	Hazard	19.2024	10.660624
L6511	Span from L6511-118 to L6511-119	31_4695	Blowout	Fall-In	1.45965	8.75	12.75	138	2024NSP24	9/6/2024	92.591788	-62.372521	45.604758	Hazard	18.288	10.660624
L6511	Span from L6511-025 to L6511-026	62_45483	Blowout	Fall-In	1.463527	13.34	18.79	138	2024NSP24	9/6/2024	94.969996	-62.591792	45.618141	Hazard	47.549	57.693657
L6511	Span from L6511-023 to L6511-024	29_12072	Blowout	Fall-In	1.464908	14.22	17.83	138	2024NSP24	9/6/2024	92.664434	-62.597907	45.619063	Hazard	38.4048	53.721183
L6511	Span from L6511-119 to L6511-120	31_5686	Blowout	Fall-In	1.465585	9.65	12.81	138	2024NSP24	9/6/2024	91.432706	-62.369212	45.605809	Hazard	30.1752	39.507018
L6511	Span from L6511-102 to L6511-103	63_1195	Blowout	Fall-In	1.469835	9.37	14.91	138	2024NSP24	9/6/2024	69.098125	-62.408006	45.587813	Hazard	36.5762	46.614512
L6511	Span from L6511-006 to L6511-007	29_2344	Blowout	Fall-In	1.473304	2.95	9.63	138	2024NSP24	9/6/2024	12.498349	-62.636138	45.624832	Hazard	26.5176	16.095452
L6511	Span from L6511-117 to L6511-118	31_3320	Blowout	Fall-In	1.473731	5.48	9.72	138	2024NSP24	9/6/2024	98.975152	-62.37396	45.603823	Hazard	20.1168	14.214165
L6511	Span from L6511-117 to L6511-118	31_3564	Blowout	Fall-In	1.473968	11.51	13.62	138	2024NSP24	9/6/2024	95.857087	-62.374338	45.603498	Hazard	40.2336	48.286355
L6511	Span from L6511-108 to L6511-109	32_23785	Blowout	Fall-In	1.475265	4.51	9.18	138	2024NSP24	9/6/2024	73.042187	-62.395356	45.593706	Hazard	19.2024	12.54191
L6511	Span from L6511-156 to L6511-157	31_28394	Blowout	Fall-In	1.475627	9.12	11.44	138	2024NSP24	9/6/2024	124.604252	-62.283326	45.636507	Hazard	31.0898	34.281679
L6511	Span from L6511-106 to L6511-107	32_22604	Blowout	Fall-In	1.475907	7.72	13.86	138	2024NSP24	9/6/2024	69.816038	-62.3993	45.591591	Hazard	32.004	30.72768
L6511	Span from L6511-025 to L6511-026	53_1116	Blowout	Fall-In	1.48385	8.8	12.4	138	2024NSP24	9/6/2024	93.787662	-62.589609	45.617431	Hazard	34.7472	38.879922
L6511	Span from L6511-117 to L6511-118	31_3259	Blowout	Fall-In	1.484641	9.67	14.25	138	2024NSP24	9/6/2024	102.51164	-62.373562	45.603945	Hazard	44.8056	57.90182
L6511	Span from L6511-121 to L6511-122	31_6621	Blowout	Fall-In	1.488526	3.94	9.53	138	2024NSP24	9/6/2024	92.783369	-62.364314	45.608326	Hazard	30.1752	20.903184
L6511	Span from L6511-108 to L6511-109	32_22736	Blowout	Fall-In	1.489369	10.31	14.15	138	2024NSP24	9/6/2024	76.257298	-62.396516	45.593459	Hazard	32.0042	36.1626
L6511	Span from L6511-118 to L6511-119	31_4717	Blowout	Fall-In	1.490569	8.26	12.74	138	2024NSP24	9/6/2024	92.635272	-62.372545	45.604721	Hazard	22.86	15.259324
L6511	Span from L6511-062 to L6511-063	53_33366	Blowout	Fall-In	1.490589	3.56	4.91	138	2024NSP24	9/6/2024	13.639592	-62.503302	45.592238	Hazard	27.432	25.919948
L6511	Span from L6511-116 to L6511-117	31_2900	Blowout	Fall-In	1.491176	8.75	13.65	138	2024NSP24	9/6/2024	101.37806	-62.376708	45.602583	Hazard	30.1752	31.981872
L6511	Span from L6511-022 to L6511-023	29_12529	Blowout	Fall-In	1.492709	15.82	18.78	138	2024NSP24	9/6/2024	92.341661	-62.598347	45.618728	Hazard	57.6074	105.9796
L6511	Span from L6511-039 to L6511-040	53_12413	Blowout	Fall-In	1.496651	10.47	12.82	138	2024NSP24	9/6/2024	56.018334	-62.55529	45.611408	Hazard	23.7746	25.293447
L6511	Span from L6511-118 to L6511-119	31_4339	Blowout	Fall-In	1.497151	3.24	11.62	138	2024NSP24	9/6/2024	89.711677	-62.371143	45.6053	Hazard	22.86	16.931579
L6511	Span from L6511-027 to L6511-028	53_2310	Blowout	Fall-In	1.498003	3.01	14.89	138	2024NSP24	9/6/2024	91.651596	-62.586114	45.616614	Hazard	21.0312	18.394802
L6511	Span from L6511-028 to L6511-029	53_2701	Blowout	Fall-In	1.500117	10.88	14.33	138	2024NSP24	9/6/2024	87.619693	-62.584256	45.61615	Hazard	37.4904	52.885056
L6511	Span from L6511-037 to L6511-038	38_32863	Blowout	Fall-In	1.50431	16.86	23.46	138	2024NSP24	9/6/2024	62.552762	-62.561385	45.61217	Hazard	50.292	68.980507
L6511	Span from L6511-117 to L6511-118	31_3791	Blowout	Fall-In	1.505599	12.73	16.25	138	2024NSP24	9/6/2024	97.55645	-62.376034	45.603143	Hazard	48.4632	60.619234
L6511	Span from L6511-108 to L6511-109	32_23524	Blowout	Fall-In	1.505609	16.16	18.89	138	2024NSP24	9/6/2024	73.517956	-62.395308	45.594109	Hazard	35.6616	54.766342
L6511	Span from L6511-117 to L6511-118	31_3210	Blowout	Fall-In	1.508594	9.63	13.78	138	2024NSP24	9/6/2024	98.193357	-62.37423	45.604022	Hazard	34.7472	39.71605
L6511	Span from L6511-031 to L6511-032	53_5989	Blowout	Fall-In	1.51065	9.23	12.42	138	2024NSP24	9/6/2024	71.919728	-62.577448	45.614556	Hazard	32.0042	43.479309
L6511	Span from L6511-040 to L6511-041	53_13971	Blowout	Fall-In	1.511277	9.16	14.82	138	2024NSP24	9/6/2024	57.589325	-62.55261	45.611049	Hazard	38.4048	37.834763
L6511	Span from L6511-112 to L6511-113	31_1113	Blowout	Fall-In	1.515865	1.83	7.43	138	2024NSP24	9/6/2024	70.261065	-62.386718	45.598617	Hazard	15.5448	6.689019
L6511	Span from L6511-039 to L6511-040	53_12209	Blowout	Fall-In	1.516553	4.58	6.85	138	2024NSP24	9/6/2024	55.492387	-62.55581	45.611531	Hazard	31.0896	32.399935
L6511	Span from L6511-112 to L6511-113	31_959	Blowout	Fall-In	1.519292	9.68	12.01	138	2024NSP24	9/6/2024	73.528103	-62.386316	45.598927	Hazard	33.8328	39.088954
L6511	Span from L6511-107 to L6511-108	32_23279	Blowout	Fall-In	1.52321	9.98	17.02	138	2024NSP24	9/6/2024	75.059864	-62.39758	45.592431	Hazard	33.8328	44.105718
L6511	Span from L6511-025 to L6511-026	62_45514	Blowout	Fall-In	1.525125	7.12	12.16	138	2024NSP24	9/6/2024	94.09629	-62.591687	45.61805	Hazard	16.4592	10.869656
L6511	Span from L6511-062 to L6511-063	53_33746	Blowout	Fall-In	1.534574	3.19	6.01	138	2024NSP24	9/6/2024	14.262142	-62.503456	45.592342	Hazard	11.8872	3.762573
L6511	Span from L6511-117 to L6511-118	31_3579	Blowout	Fall-In	1.537779	10.85	16.27	138	2024NSP24	9/6/2024	94.71009	-62.375479	45.603482	Hazard	41.148	48.077323
L6511	Span from L6511-040 to L6511-041	53_13945	Blowout	Fall-In	1.537861	2.77	12.53	138	2024NSP24	9/6/2024	57.632292	-62.552519	45.611066	Hazard	15.5448	7.94321
L6511	Span from L6511-118 to L6511-119	31_4882	Blowout	Fall-In	1.539436	5.72	10.18	138	2024NSP24	9/6/2024	96.476661	-62.372696	45.604329	Hazard	24.6888	24.874789
L6511	Span from L6511-115 to L6511-116	31_2059	Blowout	Fall-In	1.541285	13.63	16.99	138	2024NSP24	9/6/2024	97.994264	-62.379676	45.601706	Hazard	47.549	68.563358
L6511	Span from L6511-156 to L6511-157	31_28519	Blowout	Fall-In	1.541355	10.31	13.94	138	2024NSP24	9/6/2024	124.557896	-62.284051	45.636213	Hazard	35.6616	44.941846
L6511	Span from L6511-124 to L6511-125	31_9059	Blowout	Fall-In	1.541443	7.17	10.3	138	2024NSP24	9/6/2024	96.147131	-62.357619	45.610274	Hazard	28.3464	27.174139
L6511	Span from L6511-105 to L6511-106	32_21560	Blowout	Fall-In	1.541631	7.84	11.06	138	2024NSP24	9/6/2024	70.117123	-62.401295	45.590867	Hazard	37.4904	41.179272
L6511	Span from L6511-102 to L6511-103	63_1210	Blowout	Fall-In	1.542162	15.82	19.53	138	2024NSP24	9/6/2024	69.071272	-62.408025	45.587747	Hazard	39.3194	54.348918
L6511	Span from L6511-117 to L6511-118	31_3438	Blowout	Fall-In	1.545138	8.51	12.59	138	2024NSP24	9/6/2024	94.736063	-62.374908	45.603691	Hazard	24.6888	19.439961

L6511	Span from L6511-030 to L6511-031	53_5340	Blowout	Fall-In	1.55242	11.72	14.72	138	2024NSP24	9/6/2024	74.784519	-62.58025	45.615093	Hazard	29.261	35.117852
L6511	Span from L6511-124 to L6511-125	31_8821	Blowout	Fall-In	1.553439	12.02	16.77	138	2024NSP24	9/6/2024	101.280793	-62.356635	45.610486	Hazard	36.576	44.523782
L6511	Span from L6511-137 to L6511-138	31_14807	Blowout	Fall-In	1.555573	9.83	13.9	138	2024NSP24	9/6/2024	96.847555	-62.327805	45.618275	Hazard	41.1482	52.258006
L6511	Span from L6511-119 to L6511-120	31_5577	Blowout	Fall-In	1.556633	7.57	10.32	138	2024NSP24	9/6/2024	91.825439	-62.369494	45.606033	Hazard	29.2608	30.936712
L6511	Span from L6511-102 to L6511-103	63_1614	Blowout	Fall-In	1.556698	17.34	19.28	138	2024NSP24	9/6/2024	70.634805	-62.408313	45.58821	Hazard	36.576	48.495387
L6511	Span from L6511-036 to L6511-037	53_9092	Blowout	Fall-In	1.558528	3.26	7.78	138	2024NSP24	9/6/2024	56.700311	-62.563457	45.61261	Hazard	24.6888	19.858025
L6511	Span from L6511-102 to L6511-103	32_19852	Blowout	Fall-In	1.560115	18.45	20.52	138	2024NSP24	9/6/2024	71.095221	-62.408392	45.588237	Hazard	37.4904	60.410202
L6511	Span from L6511-119 to L6511-120	31_3994	Blowout	Fall-In	1.56071	9.14	14.93	138	2024NSP24	9/6/2024	96.671622	-62.370053	45.605804	Hazard	29.261	29.264732
L6511	Span from L6511-034 to L6511-035	53_8435	Blowout	Fall-In	1.560731	1.55	11.46	138	2024NSP24	9/6/2024	65.867909	-62.567373	45.613158	Hazard	10.9728	6.270955
L6511	Span from L6511-112 to L6511-113	31_949	Blowout	Fall-In	1.560972	9.1	10.99	138	2024NSP24	9/6/2024	74.179345	-62.386246	45.598949	Hazard	32.9184	38.879922
L6511	Span from L6511-041 to L6511-042	53_14628	Blowout	Fall-In	1.562435	8.45	12.71	138	2024NSP24	9/6/2024	60.695612	-62.550229	45.610705	Hazard	49.3778	61.664713
L6511	Span from L6511-033 to L6511-034	53_6955	Blowout	Fall-In	1.568996	16.88	21.22	138	2024NSP24	9/6/2024	68.057566	-62.57203	45.613729	Hazard	39.3192	54.139247
L6511	Span from L6511-118 to L6511-119	31_3113	Blowout	Fall-In	1.572646	9.32	11.94	138	2024NSP24	9/6/2024	100.614673	-62.373041	45.604172	Hazard	32.0042	31.146384
L6511	Span from L6511-102 to L6511-103	63_1133	Blowout	Fall-In	1.576093	7.93	13.35	138	2024NSP24	9/6/2024	70.351276	-62.40832	45.588111	Hazard	29.2608	28.637362
L6511	Span from L6511-136 to L6511-137	31_14948	Blowout	Fall-In	1.583561	5.74	13.74	138	2024NSP24	9/6/2024	98.112665	-62.32864	45.618027	Hazard	27.432	22.157375
L6511	Span from L6511-137 to L6511-138	31_15711	Blowout	Fall-In	1.591612	6.03	10.75	138	2024NSP24	9/6/2024	96.019756	-62.327609	45.618451	Hazard	30.1754	27.592294
L6511	Span from L6511-022 to L6511-023	29_12452	Blowout	Fall-In	1.596388	11.11	17.84	138	2024NSP24	9/6/2024	92.103609	-62.598372	45.618804	Hazard	39.3192	45.987005
L6511	Span from L6511-103 to L6511-104	32_19867	Blowout	Fall-In	1.596672	16.28	22.72	138	2024NSP24	9/6/2024	64.056778	-62.40739	45.588189	Hazard	53.9502	84.450098
L6511	Span from L6511-117 to L6511-118	31_3867	Blowout	Fall-In	1.598403	4.75	14.34	138	2024NSP24	9/6/2024	98.811104	-62.376066	45.602892	Hazard	19.2024	10.451592
L6511	Span from L6511-043 to L6511-044	53_15850	Blowout	Fall-In	1.599557	8.07	12.57	138	2024NSP24	9/6/2024	58.27734	-62.547584	45.610102	Hazard	37.4906	42.225163
L6511	Span from L6511-107 to L6511-108	32_22877	Blowout	Fall-In	1.603686	10.91	15.47	138	2024NSP24	9/6/2024	76.550432	-62.397077	45.593139	Hazard	40.2338	43.061336
L6511	Span from L6511-107 to L6511-108	32_23054	Blowout	Fall-In	1.60681	6.87	14.3	138	2024NSP24	9/6/2024	74.959989	-62.397516	45.592896	Hazard	32.004	37.834763
L6511	Span from L6511-126 to L6511-127	31_9981	Blowout	Fall-In	1.608929	7.44	14.75	138	2024NSP24	9/6/2024	98.752192	-62.351707	45.610993	Hazard	52.1208	58.528915
L6511	Span from L6511-118 to L6511-119	31_4187	Blowout	Fall-In	1.612011	10.39	13.6	138	2024NSP24	9/6/2024	97.621838	-62.369936	45.605531	Hazard	33.833	38.252964
L6511	Span from L6511-103 to L6511-104	32_20336	Blowout	Fall-In	1.614791	9.34	15.95	138	2024NSP24	9/6/2024	71.206315	-62.403787	45.589151	Hazard	51.2064	62.918584
L6511	Span from L6511-021 to L6511-022	29_11127	Blowout	Fall-In	1.617862	11.08	13.58	138	2024NSP24	9/6/2024	88.310338	-62.602303	45.619427	Hazard	32.004	33.445094
L6511	Span from L6511-137 to L6511-138	31_15516	Blowout	Fall-In	1.619841	8.47	12.57	138	2024NSP24	9/6/2024	95.918405	-62.327123	45.618907	Hazard	40.2336	43.896686
L6511	Span from L6511-124 to L6511-125	31_8873	Blowout	Fall-In	1.627166	6.48	14.17	138	2024NSP24	9/6/2024	101.298073	-62.356656	45.610429	Hazard	24.6888	20.694152
L6511	Span from L6511-118 to L6511-119	31_4239	Blowout	Fall-In	1.630822	11.42	16.28	138	2024NSP24	9/6/2024	95.542354	-62.370078	45.605448	Hazard	26.5176	29.264458
L6511	Span from L6511-104 to L6511-105	32_21436	Blowout	Fall-In	1.631097	10.5	14.71	138	2024NSP24	9/6/2024	70.361098	-62.403183	45.589432	Hazard	32.004	36.37154
L6511	Span from L6511-022 to L6511-023	29_11845	Blowout	Fall-In	1.63156	15.32	18.25	138	2024NSP24	9/6/2024	89.595429	-62.598584	45.619237	Hazard	39.3192	58.110852
L6511	Span from L6511-117 to L6511-118	31_3220	Blowout	Fall-In	1.635275	10.98	15.2	138	2024NSP24	9/6/2024	98.01591	-62.374303	45.604014	Hazard	34.7472	38.043795
L6511	Span from L6511-118 to L6511-119	31_4484	Blowout	Fall-In	1.638173	11.13	13.89	138	2024NSP24	9/6/2024	89.101771	-62.371796	45.605116	Hazard	24.6888	18.18577
L6511	Span from L6511-118 to L6511-119	31_4675	Blowout	Fall-In	1.650233	15.73	21.39	138	2024NSP24	9/6/2024	92.819435	-62.372659	45.604832	Hazard	39.3194	63.12789
L6511	Span from L6511-036 to L6511-037	53_9052	Blowout	Fall-In	1.652194	6.23	12.22	138	2024NSP24	9/6/2024	64.655256	-62.564834	45.612769	Hazard	28.3464	15.259324
L6511	Span from L6511-118 to L6511-119	31_4241	Blowout	Fall-In	1.659779	13.63	17.4	138	2024NSP24	9/6/2024	90.347951	-62.371051	45.605457	Hazard	34.7472	47.65926
L6511	Span from L6511-062 to L6511-063	53_33347	Blowout	Fall-In	1.661879	3.66	4.65	138	2024NSP24	9/6/2024	13.774816	-62.503316	45.59229	Hazard	28.3464	28.637362
L6511	Span from L6511-124 to L6511-125	31_8820	Blowout	Fall-In	1.664724	9.88	15.11	138	2024NSP24	9/6/2024	103.397303	-62.356447	45.610479	Hazard	31.0896	41.388304
L6511	Span from L6511-032 to L6511-033	53_6325	Blowout	Fall-In	1.670612	14.37	18.07	138	2024NSP24	9/6/2024	72.659927	-62.575182	45.614154	Hazard	46.6346	79.432785
L6511	Span from L6511-117 to L6511-118	31_3594	Blowout	Fall-In	1.671967	2.47	4.75	138	2024NSP24	9/6/2024	94.529558	-62.374943	45.603419	Hazard	14.6304	8.570305
L6511	Span from L6511-032 to L6511-033	38_28808	Blowout	Fall-In	1.672817	13.98	16.94	138	2024NSP24	9/6/2024	65.931485	-62.574186	45.613969	Hazard	42.0624	62.291488
L6511	Span from L6511-120 to L6511-121	31_6014	Blowout	Fall-In	1.673846	8.31	11.65	138	2024NSP24	9/6/2024	91.069367	-62.366059	45.607261	Hazard	32.9186	39.716598
L6511	Span from L6511-117 to L6511-118	31_3744	Blowout	Fall-In	1.674031	2.69	5.09	138	2024NSP24	9/6/2024	95.152174	-62.375438	45.603195	Hazard	18.288	12.123847
L6511	Span from L6511-156 to L6511-157	31_28581	Blowout	Fall-In	1.677468	11.3	16.23	138	2024NSP24	9/6/2024	125.905503	-62.284387	45.636112	Hazard	33.833	47.660082
L6511	Span from L6511-006 to L6511-007	29_2315	Blowout	Fall-In	1.680803	8.62	15.38	138	2024NSP24	9/6/2024	12.498349	-62.636132	45.624887	Hazard	39.3192	43.687655
L6511	Span from L6511-121 to L6511-122	31_6652	Blowout	Fall-In	1.682392	9.63	15.67	138	2024NSP24	9/6/2024	91.191405	-62.364664	45.608286	Hazard	38.4048	41.388304
L6511	Span from L6511-106 to L6511-107	32_22508	Blowout	Fall-In	1.684219	5.26	14.23	138	2024NSP24	9/6/2024	70.255301	-62.398964	45.591758	Hazard	41.148	45.568941
L6511	Span from L6511-149 to L6511-150	31_25258	Blowout	Fall-In	1.684807	14.44	23.9	138	2024NSP24	9/6/2024	57.774819	-62.299862	45.629739	Hazard	52.121	68.981284
L6511	Span from L6511-123 to L6511-124	31_8479	Blowout	Fall-In	1.685997	5.19	12.6	138	2024NSP24	9/6/2024	92.002013	-62.359983	45.609489	Hazard	29.261	29.473947
L6511	Span from L6511-122 to L6511-123	31_7255	Blowout	Fall-In	1.696486	11.96	15.6	138	2024NSP24	9/6/2024	96.883308	-62.361824	45.609472	Hazard	32.0042	38.671028
L6511	Span from L6511-036 to L6511-037	53_9998	Blowout	Fall-In	1.697354	9.31	15.64	138	2024NSP24	9/6/2024	61.661806	-62.561829	45.612326	Hazard	27.432	26.338012
L6511	Span from L6511-041 to L6511-042	53_14629	Blowout	Fall-In	1.699564	10.93	16	138	2024NSP24	9/6/2024	61.387882	-62.550109	45.610671	Hazard	37.4904	47.65926
L6511	Span from L6511-119 to L6511-120	31_4090	Blowout	Fall-In	1.701354	10.43	12.99	138	2024NSP24	9/6/2024	94.403109	-62.369577	45.605661	Hazard	41.148	45.150877
L6511	Span from L6511-136 to L6511-137	31_14911	Blowout	Fall-In	1.708508	7.25	14.32	138	2024NSP24	9/6/2024	98.02704	-62.328883	45.618113	Hazard	31.09	37.417019
L6511	Span from L6511-106 to L6511-107	32_22532	Blowout	Fall-In	1.709081	10.05	15.81	138	2024NSP24	9/6/2024	70.242891	-62.398897	45.591718	Hazard	38.405	50.377451

L6511	Span from L6511-043 to L6511-044	53_16122	Blowout	Fall-In	1.710327	8.66	12.7	138	2024NSP24	9/6/2024	57.960581	-62.546994	45.609782	Hazard	37.4906	39.089366
L6511	Span from L6511-032 to L6511-033	53_6846	Blowout	Fall-In	1.711295	8.6	13.94	138	2024NSP24	9/6/2024	65.045055	-62.573096	45.613928	Hazard	35.6616	43.060559
L6511	Span from L6511-103 to L6511-104	32_20341	Blowout	Fall-In	1.725369	9.35	15.39	138	2024NSP24	9/6/2024	68.735417	-62.403945	45.589115	Hazard	28.3464	28.42833
L6511	Span from L6511-117 to L6511-118	31_3298	Blowout	Fall-In	1.725483	4.82	8.93	138	2024NSP24	9/6/2024	97.303807	-62.374355	45.603885	Hazard	32.9184	35.744445
L6511	Span from L6511-106 to L6511-107	32_22585	Blowout	Fall-In	1.726644	8.12	13.72	138	2024NSP24	9/6/2024	69.794673	-62.399227	45.591619	Hazard	34.7472	36.162508
L6511	Span from L6511-032 to L6511-033	53_6862	Blowout	Fall-In	1.726857	14.22	17.65	138	2024NSP24	9/6/2024	65.377382	-62.572956	45.613858	Hazard	33.8328	49.122482
L6511	Span from L6511-155 to L6511-156	31_27146	Blowout	Fall-In	1.732732	7.74	10.81	138	2024NSP24	9/6/2024	112.124314	-62.286511	45.6352	Hazard	32.0042	40.134296
L6511	Span from L6511-149 to L6511-150	31_23690	Blowout	Fall-In	1.732913	6.53	11.42	138	2024NSP24	9/6/2024	77.857977	-62.301209	45.629224	Hazard	15.5448	7.94321
L6511	Span from L6511-149 to L6511-150	31_25358	Blowout	Fall-In	1.73713	16.31	19.88	138	2024NSP24	9/6/2024	59.615676	-62.299932	45.629536	Hazard	43.8912	76.08759
L6511	Span from L6511-027 to L6511-028	53_1815	Blowout	Fall-In	1.738467	7.9	15.53	138	2024NSP24	9/6/2024	95.114353	-62.587288	45.616937	Hazard	21.0314	14.423288
L6511	Span from L6511-043 to L6511-044	53_15940	Blowout	Fall-In	1.738874	9.77	12.91	138	2024NSP24	9/6/2024	58.029751	-62.547496	45.610015	Hazard	33.8328	39.925081
L6511	Span from L6511-137 to L6511-138	31_14823	Blowout	Fall-In	1.741135	7.05	13.02	138	2024NSP24	9/6/2024	97.541809	-62.327896	45.618249	Hazard	40.2336	37.207668
L6511	Span from L6511-036 to L6511-037	38_31641	Blowout	Fall-In	1.742397	7.21	15.56	138	2024NSP24	9/6/2024	56.982797	-62.563599	45.612501	Hazard	29.261	25.293401
L6511	Span from L6511-123 to L6511-124	31_7210	Blowout	Fall-In	1.74488	4.24	9.31	138	2024NSP24	9/6/2024	94.900742	-62.361354	45.609531	Hazard	26.5176	13.796101
L6511	Span from L6511-156 to L6511-157	31_28532	Blowout	Fall-In	1.745505	11.92	14	138	2024NSP24	9/6/2024	124.715778	-62.284131	45.636195	Hazard	34.7472	40.761209
L6511	Span from L6511-106 to L6511-107	32_22109	Blowout	Fall-In	1.745539	9.73	15.15	138	2024NSP24	9/6/2024	72.592412	-62.39866	45.592281	Hazard	33.8328	37.625731
L6511	Span from L6511-108 to L6511-109	32_23602	Blowout	Fall-In	1.746307	13.35	17.27	138	2024NSP24	9/6/2024	73.05308	-62.395593	45.594003	Hazard	45.72	71.488889
L6511	Span from L6511-122 to L6511-123	31_7662	Blowout	Fall-In	1.746678	8.03	13.99	138	2024NSP24	9/6/2024	95.595694	-62.362382	45.608868	Hazard	35.6616	36.998636
L6511	Span from L6511-117 to L6511-118	31_3416	Blowout	Fall-In	1.748868	10.11	13.46	138	2024NSP24	9/6/2024	98.587254	-62.373967	45.603718	Hazard	32.9186	40.343694
L6511	Span from L6511-108 to L6511-109	32_23651	Blowout	Fall-In	1.755913	8.56	12.75	138	2024NSP24	9/6/2024	72.987554	-62.395688	45.593897	Hazard	27.432	25.710916
L6511	Span from L6511-036 to L6511-037	53_9076	Blowout	Fall-In	1.769571	4.74	8.18	138	2024NSP24	9/6/2024	58.175137	-62.563923	45.612655	Hazard	25.6032	21.948343
L6511	Span from L6511-119 to L6511-120	31_5290	Blowout	Fall-In	1.772729	1.36	8.33	138	2024NSP24	9/6/2024	90.490053	-62.367808	45.60653	Hazard	10.0584	4.807732
L6511	Span from L6511-033 to L6511-034	53_6958	Blowout	Fall-In	1.775336	10.11	13.4	138	2024NSP24	9/6/2024	65.658523	-62.571406	45.6137	Hazard	43.8912	44.31475
L6511	Span from L6511-028 to L6511-029	53_2640	Blowout	Fall-In	1.78028	12.38	17.06	138	2024NSP24	9/6/2024	89.650687	-62.585111	45.616355	Hazard	42.9774	52.049431
L6511	Span from L6511-063 to L6511-064	45_31249	Blowout	Fall-In	1.786468	10.38	16.34	138	2024NSP24	9/6/2024	13.91939	-62.5023	45.591232	Hazard	20.1168	11.914815
L6511	Span from L6511-118 to L6511-119	31_4544	Blowout	Fall-In	1.788801	4.16	8.82	138	2024NSP24	9/6/2024	89.13746	-62.37173	45.605019	Hazard	18.288	12.750942
L6511	Span from L6511-112 to L6511-113	31_1020	Blowout	Fall-In	1.79562	4.24	7.15	138	2024NSP24	9/6/2024	73.72448	-62.386197	45.598836	Hazard	42.9772	49.123214
L6511	Span from L6511-023 to L6511-024	29_13082	Blowout	Fall-In	1.802479	10.64	14.15	138	2024NSP24	9/6/2024	90.65079	-62.59685	45.618506	Encroachment	32.004	38.043795
L6511	Span from L6511-023 to L6511-024	29_13098	Blowout	Fall-In	1.803229	6.86	12.94	138	2024NSP24	9/6/2024	91.630586	-62.596425	45.618488	Encroachment	31.0896	32.608967
L6511	Span from L6511-117 to L6511-118	31_3441	Blowout	Fall-In	1.811142	1.62	7.02	138	2024NSP24	9/6/2024	96.614099	-62.374304	45.603671	Encroachment	12.8016	5.64386
L6511	Span from L6511-006 to L6511-007	29_2501	Blowout	Fall-In	1.812199	12.1	20.1	138	2024NSP24	9/6/2024	21.112338	-62.634497	45.62466	Encroachment	29.261	33.236565
L6511	Span from L6511-107 to L6511-108	32_22927	Blowout	Fall-In	1.81741	5.66	11.46	138	2024NSP24	9/6/2024	75.8902	-62.397177	45.593045	Encroachment	29.261	17.559177
L6511	Span from L6511-118 to L6511-119	31_4529	Blowout	Fall-In	1.826543	10.1	15.81	138	2024NSP24	9/6/2024	89.654717	-62.372017	45.605061	Encroachment	34.7476	54.140298
L6511	Span from L6511-108 to L6511-109	32_24084	Blowout	Fall-In	1.828133	5.7	8.81	138	2024NSP24	9/6/2024	75.247331	-62.396084	45.5933	Encroachment	26.5176	27.801235
L6511	Span from L6511-118 to L6511-119	31_4044	Blowout	Fall-In	1.829768	2.32	16.76	138	2024NSP24	9/6/2024	95.50635	-62.370283	45.605712	Encroachment	21.9456	14.214165
L6511	Span from L6511-119 to L6511-120	31_5279	Blowout	Fall-In	1.830941	10.19	17.92	138	2024NSP24	9/6/2024	92.266274	-62.367462	45.606569	Encroachment	34.7474	34.072967
L6511	Span from L6511-117 to L6511-118	31_3616	Blowout	Fall-In	1.8349	2.71	4.48	138	2024NSP24	9/6/2024	94.504448	-62.375005	45.603393	Encroachment	14.6304	8.570305
L6511	Span from L6511-062 to L6511-063	53_33277	Blowout	Fall-In	1.835106	4.85	6.65	138	2024NSP24	9/6/2024	15.76715	-62.503627	45.59254	Encroachment	29.2608	26.965107
L6511	Span from L6511-117 to L6511-118	31_3447	Blowout	Fall-In	1.835558	11.44	16.78	138	2024NSP24	9/6/2024	94.514664	-62.375093	45.603685	Encroachment	42.0624	54.348278
L6511	Span from L6511-119 to L6511-120	31_5626	Blowout	Fall-In	1.836419	7.93	14.8	138	2024NSP24	9/6/2024	93.756748	-62.369723	45.60595	Encroachment	27.4322	25.502433
L6511	Span from L6511-031 to L6511-032	53_6022	Blowout	Fall-In	1.837836	7.02	10.22	138	2024NSP24	9/6/2024	71.441309	-62.576959	45.614476	Encroachment	31.0896	34.490254
L6511	Span from L6511-121 to L6511-122	31_6506	Blowout	Fall-In	1.840396	9.32	13.16	138	2024NSP24	9/6/2024	95.475424	-62.364019	45.608501	Encroachment	34.7472	33.027031
L6511	Span from L6511-105 to L6511-106	32_21530	Blowout	Fall-In	1.843427	9.3	12.8	138	2024NSP24	9/6/2024	70.167088	-62.401192	45.590938	Encroachment	37.4904	42.0154
L6511	Span from L6511-025 to L6511-026	62_45724	Blowout	Fall-In	1.853979	6.61	12.2	138	2024NSP24	9/6/2024	92.013884	-62.591282	45.618007	Encroachment	21.9456	14.632229
L6511	Span from L6511-063 to L6511-064	53_33619	Blowout	Fall-In	1.854423	10.32	17.44	138	2024NSP24	9/6/2024	16.139252	-62.502576	45.591495	Encroachment	39.3192	46.405068
L6511	Span from L6511-122 to L6511-123	31_7562	Blowout	Fall-In	1.857751	10.83	19.37	138	2024NSP24	9/6/2024	95.804851	-62.361958	45.609012	Encroachment	20.1168	11.078688
L6511	Span from L6511-156 to L6511-157	31_28416	Blowout	Fall-In	1.858574	7.95	11.05	138	2024NSP24	9/6/2024	124.354139	-62.283379	45.636474	Encroachment	32.0042	35.953888
L6511	Span from L6511-122 to L6511-123	31_7664	Blowout	Fall-In	1.860983	3	5.79	138	2024NSP24	9/6/2024	95.980235	-62.362663	45.608853	Encroachment	19.2024	14.632229
L6511	Span from L6511-108 to L6511-109	32_23955	Blowout	Fall-In	1.866049	3.92	9.77	138	2024NSP24	9/6/2024	73.477248	-62.395719	45.593508	Encroachment	20.1168	9.406433
L6511	Span from L6511-023 to L6511-024	29_13127	Blowout	Fall-In	1.866449	7.68	12.73	138	2024NSP24	9/6/2024	92.581649	-62.596276	45.618459	Encroachment	36.5762	49.959433
L6511	Span from L6511-122 to L6511-123	31_7747	Blowout	Fall-In	1.869246	4.91	9.1	138	2024NSP24	9/6/2024	97.957011	-62.363044	45.608645	Encroachment	28.3464	24.874789
L6511	Span from L6511-119 to L6511-120	31_5260	Blowout	Fall-In	1.873698	12.77	18.78	138	2024NSP24	9/6/2024	92.473303	-62.367388	45.60661	Encroachment	58.5218	78.805232
L6511	Span from L6511-118 to L6511-119	31_3035	Blowout	Fall-In	1.874502	8.85	12.48	138	2024NSP24	9/6/2024	100.951866	-62.373247	45.604371	Encroachment	30.1754	33.027762
L6511	Span from L6511-038 to L6511-039	53_11036	Blowout	Fall-In	1.875176	8.92	12.87	138	2024NSP24	9/6/2024	60.318986	-62.55852	45.611842	Encroachment	32.0042	31.146476
L6511	Span from L6511-062 to L6511-063	53_33317	Blowout	Fall-In	1.875345	4.03	5.26	138	2024NSP24	9/6/2024	14.526043	-62.503488	45.592402	Encroachment	27.4322	26.338332

L6511	Span from L6511-118 to L6511-119	31_4927	Blowout	Fall-In	1.878015	11.75	14.56	138	2024NSP24	9/6/2024	99.555058	-62.372918	45.604169	Encroachment	42.0626	48.705516
L6511	Span from L6511-039 to L6511-040	53_12988	Blowout	Fall-In	1.881461	13.93	18.4	138	2024NSP24	9/6/2024	58.584204	-62.554728	45.611305	Encroachment	48.4634	85.494754
L6511	Span from L6511-119 to L6511-120	31_5567	Blowout	Fall-In	1.881718	4.26	9.61	138	2024NSP24	9/6/2024	91.064956	-62.369388	45.606057	Encroachment	28.3466	20.067605
L6511	Span from L6511-117 to L6511-118	31_3704	Blowout	Fall-In	1.885805	5.7	8.04	138	2024NSP24	9/6/2024	94.605299	-62.374983	45.603269	Encroachment	33.833	33.236611
L6511	Span from L6511-117 to L6511-118	31_2838	Blowout	Fall-In	1.887477	13.32	17.57	138	2024NSP24	9/6/2024	100.175214	-62.376184	45.602776	Encroachment	48.4632	79.432099
L6511	Span from L6511-041 to L6511-042	38_37918	Blowout	Fall-In	1.889279	11.54	16.22	138	2024NSP24	9/6/2024	57.201938	-62.551337	45.610789	Encroachment	36.576	43.269591
L6511	Span from L6511-126 to L6511-127	31_9795	Blowout	Fall-In	1.89284	10.87	15.02	138	2024NSP24	9/6/2024	101.370947	-62.351368	45.61138	Encroachment	33.833	35.74513
L6511	Span from L6511-108 to L6511-109	32_23949	Blowout	Fall-In	1.894485	7.65	12.49	138	2024NSP24	9/6/2024	75.071476	-62.396313	45.593536	Encroachment	31.0896	32.608967
L6511	Span from L6511-039 to L6511-040	53_12207	Blowout	Fall-In	1.897196	4.01	6.95	138	2024NSP24	9/6/2024	55.597055	-62.555892	45.611542	Encroachment	31.0896	29.891553
L6511	Span from L6511-122 to L6511-123	31_6477	Blowout	Fall-In	1.897611	3.24	12.27	138	2024NSP24	9/6/2024	99.365048	-62.363254	45.608532	Encroachment	21.9456	15.050292
L6511	Span from L6511-023 to L6511-024	29_13022	Blowout	Fall-In	1.898634	3.34	7.98	138	2024NSP24	9/6/2024	91.511765	-62.596465	45.618562	Encroachment	25.6032	19.230929
L6511	Span from L6511-032 to L6511-033	38_28837	Blowout	Fall-In	1.90233	15.39	17.34	138	2024NSP24	9/6/2024	64.599716	-62.573509	45.613897	Encroachment	37.4904	57.483756
L6511	Span from L6511-102 to L6511-103	63_1074	Blowout	Fall-In	1.904448	12.6	17.09	138	2024NSP24	9/6/2024	69.939614	-62.408309	45.587753	Encroachment	43.8912	63.127616
L6511	Span from L6511-034 to L6511-035	53_8436	Blowout	Fall-In	1.906664	1.6	11.52	138	2024NSP24	9/6/2024	65.942466	-62.567352	45.613153	Encroachment	8.2296	2.090318
L6511	Span from L6511-062 to L6511-063	53_33365	Blowout	Fall-In	1.908339	3.47	4.75	138	2024NSP24	9/6/2024	13.552572	-62.503235	45.592234	Encroachment	24.6888	20.694152
L6511	Span from L6511-137 to L6511-138	31_15642	Blowout	Fall-In	1.908399	14.94	21.43	138	2024NSP24	9/6/2024	96.373979	-62.32795	45.618669	Encroachment	39.3192	58.110852
L6511	Span from L6511-025 to L6511-026	38_21393	Blowout	Fall-In	1.90859	8.21	11.66	138	2024NSP24	9/6/2024	95.154412	-62.591943	45.617831	Encroachment	37.4904	39.507018
L6511	Span from L6511-006 to L6511-007	29_2299	Blowout	Fall-In	1.910332	8.63	12.53	138	2024NSP24	9/6/2024	12.551511	-62.636229	45.624902	Encroachment	32.9184	34.281222
L6511	Span from L6511-117 to L6511-118	31_3725	Blowout	Fall-In	1.912473	10.72	15.67	138	2024NSP24	9/6/2024	96.620836	-62.375936	45.603248	Encroachment	37.4906	42.433692
L6511	Span from L6511-122 to L6511-123	31_7618	Blowout	Fall-In	1.913381	11.03	16.79	138	2024NSP24	9/6/2024	97.060057	-62.363161	45.608941	Encroachment	34.7472	43.060559
L6511	Span from L6511-118 to L6511-119	31_4787	Blowout	Fall-In	1.915123	14.14	17.67	138	2024NSP24	9/6/2024	90.551398	-62.371785	45.604571	Encroachment	44.8058	70.653356
L6511	Span from L6511-118 to L6511-119	31_4564	Blowout	Fall-In	1.915238	8.07	13.93	138	2024NSP24	9/6/2024	89.939122	-62.370903	45.604998	Encroachment	29.2608	34.908317
L6511	Span from L6511-024 to L6511-025	62_45391	Blowout	Fall-In	1.915836	12.6	14.65	138	2024NSP24	9/6/2024	94.393742	-62.59325	45.618374	Encroachment	34.7472	37.625731
L6511	Span from L6511-043 to L6511-044	38_39173	Blowout	Fall-In	1.915964	11.7	15.79	138	2024NSP24	9/6/2024	59.163447	-62.547806	45.610154	Encroachment	31.0896	37.834763
L6511	Span from L6511-119 to L6511-120	31_5627	Blowout	Fall-In	1.925731	9.74	14.31	138	2024NSP24	9/6/2024	89.886059	-62.368903	45.605946	Encroachment	35.6618	43.061336
L6511	Span from L6511-108 to L6511-109	32_24013	Blowout	Fall-In	1.925957	5.56	9.43	138	2024NSP24	9/6/2024	73.859114	-62.39581	45.593437	Encroachment	29.261	28.010952
L6511	Span from L6511-118 to L6511-119	31_4521	Blowout	Fall-In	1.927665	2.98	5.98	138	2024NSP24	9/6/2024	89.740573	-62.371076	45.605054	Encroachment	20.117	14.214485
L6511	Span from L6511-031 to L6511-032	53_5970	Blowout	Fall-In	1.928057	5.61	9.35	138	2024NSP24	9/6/2024	71.782376	-62.577413	45.61459	Encroachment	24.6888	17.140611
L6511	Span from L6511-022 to L6511-023	29_11855	Blowout	Fall-In	1.933578	6.11	13.17	138	2024NSP24	9/6/2024	88.453489	-62.600774	45.619222	Encroachment	26.5178	24.248379
L6511	Span from L6511-108 to L6511-109	32_22774	Blowout	Fall-In	1.933932	8.56	14.51	138	2024NSP24	9/6/2024	77.875032	-62.396632	45.593334	Encroachment	32.004	34.07219
L6511	Span from L6511-149 to L6511-150	31_23571	Blowout	Fall-In	1.93989	8.04	11.91	138	2024NSP24	9/6/2024	78.011011	-62.301233	45.629204	Encroachment	17.3736	8.361274
L6511	Span from L6511-031 to L6511-032	53_6208	Blowout	Fall-In	1.940088	16.9	22.7	138	2024NSP24	9/6/2024	76.200926	-62.575794	45.614247	Encroachment	51.2066	68.563358
L6511	Span from L6511-033 to L6511-034	53_6946	Blowout	Fall-In	1.948015	9.62	15.02	138	2024NSP24	9/6/2024	68.165306	-62.571997	45.613797	Encroachment	19.2024	14.005133
L6511	Span from L6511-118 to L6511-119	31_4595	Blowout	Fall-In	1.94823	2.41	5.35	138	2024NSP24	9/6/2024	89.417957	-62.371391	45.604939	Encroachment	19.2024	16.513515
L6511	Span from L6511-106 to L6511-107	32_22317	Blowout	Fall-In	1.949707	11.21	16.32	138	2024NSP24	9/6/2024	69.991979	-62.399237	45.592033	Encroachment	29.2608	32.190903
L6511	Span from L6511-137 to L6511-138	31_14819	Blowout	Fall-In	1.954332	6.18	11.29	138	2024NSP24	9/6/2024	97.972078	-62.327975	45.618241	Encroachment	31.0896	27.383171
L6511	Span from L6511-025 to L6511-026	38_22245	Blowout	Fall-In	1.955716	10.25	16.91	138	2024NSP24	9/6/2024	91.311368	-62.59118	45.617612	Encroachment	40.2338	57.693657
L6511	Span from L6511-025 to L6511-026	29_13627	Blowout	Fall-In	1.963298	12.68	17.45	138	2024NSP24	9/6/2024	98.926903	-62.592412	45.617886	Encroachment	56.693	79.014721
L6511	Span from L6511-123 to L6511-124	31_8542	Blowout	Fall-In	1.968164	13.87	18.62	138	2024NSP24	9/6/2024	91.869142	-62.360286	45.609369	Encroachment	40.2336	59.783106
L6511	Span from L6511-034 to L6511-035	38_30521	Blowout	Fall-In	1.972005	16.99	19.51	138	2024NSP24	9/6/2024	63.032377	-62.568832	45.613213	Encroachment	38.405	66.263185
L6511	Span from L6511-118 to L6511-119	31_4510	Blowout	Fall-In	1.976507	2.73	5.01	138	2024NSP24	9/6/2024	89.437453	-62.371187	45.60509	Encroachment	44.8058	39.507155
L6511	Span from L6511-032 to L6511-033	38_28852	Blowout	Fall-In	1.981878	14.76	17.01	138	2024NSP24	9/6/2024	64.617446	-62.57341	45.613874	Encroachment	37.4904	48.077323
L6511	Span from L6511-136 to L6511-137	31_14753	Blowout	Fall-In	1.983559	7.17	13.1	138	2024NSP24	9/6/2024	98.402669	-62.328281	45.618395	Encroachment	30.1752	33.027031
L6511	Span from L6511-136 to L6511-137	31_14756	Blowout	Fall-In	1.983683	9.31	14.16	138	2024NSP24	9/6/2024	98.206581	-62.328372	45.618393	Encroachment	32.004	34.908317
L6511	Span from L6511-105 to L6511-106	32_21536	Blowout	Fall-In	1.984047	6.94	10.21	138	2024NSP24	9/6/2024	70.21049	-62.401089	45.590926	Encroachment	44.8056	42.851527
L6511	Span from L6511-123 to L6511-124	31_8562	Blowout	Fall-In	1.986254	9.52	12.9	138	2024NSP24	9/6/2024	93.411938	-62.360925	45.609327	Encroachment	33.8328	41.806368
L6511	Span from L6511-025 to L6511-026	53_1086	Blowout	Fall-In	1.989439	6.06	12.12	138	2024NSP24	9/6/2024	92.430284	-62.58987	45.617494	Encroachment	24.689	14.841535
L6511	Span from L6511-117 to L6511-118	31_2777	Blowout	Fall-In	1.995468	10.48	14.09	138	2024NSP24	9/6/2024	101.022972	-62.376417	45.602942	Encroachment	33.8328	40.343145
L6511	Span from L6511-036 to L6511-037	53_9323	Blowout	Fall-In	1.998749	7.21	11.24	138	2024NSP24	9/6/2024	56.447608	-62.563276	45.61256	Encroachment	35.6616	38.043795
L6511	Span from L6511-118 to L6511-119	31_4290	Blowout	Fall-In	1.999706	10.74	13.77	138	2024NSP24	9/6/2024	94.713221	-62.370155	45.605385	Encroachment	29.2608	33.863158
L6511	Span from L6511-104 to L6511-105	32_21411	Blowout	Fall-In	2.000519	7.63	11.74	138	2024NSP24	9/6/2024	69.91019	-62.40305	45.589547	Encroachment	35.6616	38.043795
L6511	Span from L6511-106 to L6511-107	32_22141	Blowout	Fall-In	2.002826	4.35	14.25	138	2024NSP24	9/6/2024	72.610163	-62.398693	45.592225	Encroachment	25.6032	15.88642
L6511	Span from L6511-137 to L6511-138	31_15429	Blowout	Fall-In	2.003517	9.92	14.25	138	2024NSP24	9/6/2024	97.000248	-62.326834	45.619016	Encroachment	39.3192	44.31475
L6511	Span from L6511-117 to L6511-118	31_3614	Blowout	Fall-In	2.003564	2.59	3.83	138	2024NSP24	9/6/2024	94.645904	-62.375351	45.603401	Encroachment	18.288	12.959974
L6511	Span from L6511-137 to L6511-138	31_15375	Blowout	Fall-In	2.004412	10.93	16.36	138	2024NSP24	9/6/2024	97.500601	-62.326743	45.619088	Encroachment	35.6616	41.806368

L6511	Span from L6511-107 to L6511-108	32_23274	Blowout	Fall-In	2.005713	12.09	16.3	138	2024NSP24	9/6/2024	74.995509	-62.397509	45.592458	Encroachment	31.0896	38.043795
L6511	Span from L6511-062 to L6511-063	53_33330	Blowout	Fall-In	2.0072	3.66	4.79	138	2024NSP24	9/6/2024	14.121922	-62.503421	45.592346	Encroachment	28.3464	26.547044
L6511	Span from L6511-124 to L6511-125	31_8876	Blowout	Fall-In	2.009206	11.91	20.57	138	2024NSP24	9/6/2024	97.587208	-62.35721	45.610442	Encroachment	39.3192	42.224432
L6511	Span from L6511-124 to L6511-125	31_9072	Blowout	Fall-In	2.011625	3.63	10.41	138	2024NSP24	9/6/2024	96.248902	-62.357567	45.610257	Encroachment	21.9456	16.931579
L6511	Span from L6511-117 to L6511-118	31_3363	Blowout	Fall-In	2.013273	13.69	17.52	138	2024NSP24	9/6/2024	95.14856	-62.374842	45.603805	Encroachment	50.292	73.579208
L6511	Span from L6511-117 to L6511-118	31_3454	Blowout	Fall-In	2.013719	2.68	6.38	138	2024NSP24	9/6/2024	96.264869	-62.374354	45.603654	Encroachment	22.86	17.558675
L6511	Span from L6511-121 to L6511-122	31_5788	Blowout	Fall-In	2.013757	14.09	19.88	138	2024NSP24	9/6/2024	92.116747	-62.365924	45.607746	Encroachment	57.6074	86.749311
L6511	Span from L6511-108 to L6511-109	32_23505	Blowout	Fall-In	2.013944	17.6	20	138	2024NSP24	9/6/2024	73.983175	-62.39524	45.594154	Encroachment	35.6616	47.868291
L6511	Span from L6511-023 to L6511-024	29_13015	Blowout	Fall-In	2.015726	3.33	7.47	138	2024NSP24	9/6/2024	91.978105	-62.596322	45.618566	Encroachment	22.86	19.648993
L6511	Span from L6511-023 to L6511-024	29_13153	Blowout	Fall-In	2.016162	4.1	12.82	138	2024NSP24	9/6/2024	96.162989	-62.595681	45.618414	Encroachment	31.0898	24.87488
L6511	Span from L6511-156 to L6511-157	31_28438	Blowout	Fall-In	2.017273	10.17	12.76	138	2024NSP24	9/6/2024	123.992672	-62.283612	45.63641	Encroachment	32.004	35.117349
L6511	Span from L6511-118 to L6511-119	31_4771	Blowout	Fall-In	2.019908	10.05	15.28	138	2024NSP24	9/6/2024	90.699848	-62.371884	45.60461	Encroachment	32.9186	39.507795
L6511	Span from L6511-022 to L6511-023	29_11967	Blowout	Fall-In	2.021175	3.6	11.73	138	2024NSP24	9/6/2024	89.430905	-62.598646	45.61912	Encroachment	18.2882	12.123938
L6511	Span from L6511-062 to L6511-063	53_33298	Blowout	Fall-In	2.022161	4.12	6.04	138	2024NSP24	9/6/2024	14.993396	-62.503581	45.592464	Encroachment	26.5176	25.292853
L6511	Span from L6511-110 to L6511-111	32_25696	Blowout	Fall-In	2.026271	6.44	8.36	138	2024NSP24	9/6/2024	76.656625	-62.390318	45.596383	Encroachment	29.2608	29.473489
L6511	Span from L6511-039 to L6511-040	53_12205	Blowout	Fall-In	2.029072	4.5	6.72	138	2024NSP24	9/6/2024	55.639117	-62.555954	45.611536	Encroachment	25.6034	21.112719
L6511	Span from L6511-021 to L6511-022	29_10869	Blowout	Fall-In	2.029473	2.39	4.12	138	2024NSP24	9/6/2024	88.3542	-62.60226	45.619653	Encroachment	22.86	15.677388
L6511	Span from L6511-103 to L6511-104	32_20240	Blowout	Fall-In	2.030452	10.15	14.05	138	2024NSP24	9/6/2024	72.071738	-62.403966	45.589432	Encroachment	39.3194	49.331606
L6511	Span from L6511-027 to L6511-028	53_1854	Blowout	Fall-In	2.031409	8.21	12.75	138	2024NSP24	9/6/2024	92.258035	-62.586726	45.616777	Encroachment	35.6616	49.749578
L6511	Span from L6511-028 to L6511-029	53_2661	Blowout	Fall-In	2.039848	15.02	21.68	138	2024NSP24	9/6/2024	90.250283	-62.585284	45.616329	Encroachment	53.95	83.403887
L6511	Span from L6511-119 to L6511-120	31_5699	Blowout	Fall-In	2.047171	9	12.99	138	2024NSP24	9/6/2024	92.16056	-62.369277	45.605773	Encroachment	28.3464	36.37154
L6511	Span from L6511-117 to L6511-118	31_3497	Blowout	Fall-In	2.055159	2.32	6.92	138	2024NSP24	9/6/2024	95.636225	-62.374534	45.603582	Encroachment	21.9458	16.095863
L6511	Span from L6511-117 to L6511-118	31_3864	Blowout	Fall-In	2.056085	6.65	10.78	138	2024NSP24	9/6/2024	97.850148	-62.375875	45.602902	Encroachment	32.0042	33.445369
L6511	Span from L6511-122 to L6511-123	31_7314	Blowout	Fall-In	2.059491	17.17	22.4	138	2024NSP24	9/6/2024	95.518847	-62.362279	45.60939	Encroachment	53.9498	72.117036
L6511	Span from L6511-107 to L6511-108	32_23295	Blowout	Fall-In	2.061313	14.29	19.36	138	2024NSP24	9/6/2024	75.242103	-62.397618	45.59236	Encroachment	53.9496	71.906953
L6511	Span from L6511-105 to L6511-106	32_21825	Blowout	Fall-In	2.061862	8.23	12.08	138	2024NSP24	9/6/2024	71.112772	-62.401473	45.590398	Encroachment	45.7202	41.38835
L6511	Span from L6511-035 to L6511-036	53_8879	Blowout	Fall-In	2.0644	7.26	13.33	138	2024NSP24	9/6/2024	63.935554	-62.565918	45.612879	Encroachment	25.6032	14.423197
L6511	Span from L6511-137 to L6511-138	31_15548	Blowout	Fall-In	2.064974	6.3	11.99	138	2024NSP24	9/6/2024	95.704731	-62.327176	45.618866	Encroachment	32.004	29.055426
L6511	Span from L6511-118 to L6511-119	31_4494	Blowout	Fall-In	2.071194	2.45	4.43	138	2024NSP24	9/6/2024	89.755758	-62.371108	45.605094	Encroachment	20.1168	15.468356
L6511	Span from L6511-041 to L6511-042	53_14565	Blowout	Fall-In	2.0718	3.27	6.17	138	2024NSP24	9/6/2024	57.882793	-62.550788	45.610873	Encroachment	19.203	15.259919
L6511	Span from L6511-006 to L6511-007	29_2497	Blowout	Fall-In	2.073058	7.25	9.94	138	2024NSP24	9/6/2024	16.164161	-62.635113	45.624662	Encroachment	27.4322	33.863798
L6511	Span from L6511-137 to L6511-138	31_15598	Blowout	Fall-In	2.074507	8.28	12.67	138	2024NSP24	9/6/2024	95.453694	-62.327459	45.618767	Encroachment	32.9188	39.298717
L6511	Span from L6511-028 to L6511-029	53_2373	Blowout	Fall-In	2.074543	14.04	16.72	138	2024NSP24	9/6/2024	92.072827	-62.585515	45.616453	Encroachment	32.9184	45.150877
L6511	Span from L6511-062 to L6511-063	53_33753	Blowout	Fall-In	2.077346	2.91	4.92	138	2024NSP24	9/6/2024	13.557069	-62.503302	45.592208	Encroachment	11.8874	3.553724
L6511	Span from L6511-062 to L6511-063	53_33338	Blowout	Fall-In	2.079489	3.05	5.85	138	2024NSP24	9/6/2024	14.02842	-62.503427	45.592303	Encroachment	16.4592	7.525146
L6511	Span from L6511-106 to L6511-107	32_22679	Blowout	Fall-In	2.086024	11.15	13.23	138	2024NSP24	9/6/2024	71.18768	-62.399742	45.591348	Encroachment	34.7472	47.65926
L6511	Span from L6511-119 to L6511-120	31_5581	Blowout	Fall-In	2.087829	5.97	12.99	138	2024NSP24	9/6/2024	89.215211	-62.368685	45.60602	Encroachment	25.6032	20.276088
L6511	Span from L6511-022 to L6511-023	29_11973	Blowout	Fall-In	2.089493	9.61	16.41	138	2024NSP24	9/6/2024	91.413361	-62.59835	45.619133	Encroachment	34.7474	42.016131
L6511	Span from L6511-121 to L6511-122	31_7102	Blowout	Fall-In	2.092752	9.5	15.26	138	2024NSP24	9/6/2024	90.532237	-62.365199	45.607594	Encroachment	35.6616	40.134113
L6511	Span from L6511-027 to L6511-028	53_1836	Blowout	Fall-In	2.099271	6.82	14.58	138	2024NSP24	9/6/2024	94.008298	-62.587142	45.616883	Encroachment	60.3508	73.997637
L6511	Span from L6511-120 to L6511-121	31_6199	Blowout	Fall-In	2.100368	3.72	5.42	138	2024NSP24	9/6/2024	90.436985	-62.367036	45.606925	Encroachment	21.9456	17.558675
L6511	Span from L6511-102 to L6511-103	63_1127	Blowout	Fall-In	2.104321	9.84	17.55	138	2024NSP24	9/6/2024	71.066665	-62.408454	45.588182	Encroachment	29.2608	28.637362
L6511	Span from L6511-031 to L6511-032	53_5958	Blowout	Fall-In	2.104851	7.68	10.67	138	2024NSP24	9/6/2024	73.583364	-62.577878	45.614635	Encroachment	35.6616	38.67089
L6511	Span from L6511-106 to L6511-107	32_22545	Blowout	Fall-In	2.106774	9.85	12.93	138	2024NSP24	9/6/2024	69.942543	-62.399079	45.591695	Encroachment	31.09	32.609744
L6511	Span from L6511-149 to L6511-150	31_23612	Blowout	Fall-In	2.108627	8.4	13.51	138	2024NSP24	9/6/2024	78.139698	-62.301412	45.629397	Encroachment	19.2026	12.960248
L6511	Span from L6511-156 to L6511-157	31_28491	Blowout	Fall-In	2.110392	1.3	4.37	138	2024NSP24	9/6/2024	123.947867	-62.283684	45.636252	Encroachment	7.3152	2.29935
L6511	Span from L6511-137 to L6511-138	31_15570	Blowout	Fall-In	2.11162	4.76	11.52	138	2024NSP24	9/6/2024	95.623263	-62.327238	45.618829	Encroachment	37.4904	45.359909
L6511	Span from L6511-118 to L6511-119	31_4593	Blowout	Fall-In	2.111683	6.64	12.41	138	2024NSP24	9/6/2024	90.001883	-62.372138	45.604965	Encroachment	29.2608	26.338012
L6511	Span from L6511-006 to L6511-007	29_2529	Blowout	Fall-In	2.117369	7.74	10.67	138	2024NSP24	9/6/2024	16.967869	-62.634975	45.624637	Encroachment	29.2612	30.727955
L6511	Span from L6511-022 to L6511-023	29_11955	Blowout	Fall-In	2.121032	14.26	17.99	138	2024NSP24	9/6/2024	91.952063	-62.598267	45.619151	Encroachment	36.5762	46.823635
L6511	Span from L6511-033 to L6511-034	53_7623	Blowout	Fall-In	2.122174	13.31	16.57	138	2024NSP24	9/6/2024	64.915427	-62.570715	45.613572	Encroachment	61.2652	71.698333
L6511	Span from L6511-118 to L6511-119	31_4320	Blowout	Fall-In	2.125997	9.93	14.44	138	2024NSP24	9/6/2024	93.741341	-62.370267	45.605334	Encroachment	32.004	39.507018
L6511	Span from L6511-118 to L6511-119	31_4221	Blowout	Fall-In	2.131037	7.32	12.31	138	2024NSP24	9/6/2024	91.418626	-62.370822	45.605479	Encroachment	26.5178	24.665849
L6511	Span from L6511-024 to L6511-025	62_45449	Blowout	Fall-In	2.131289	10.44	14.9	138	2024NSP24	9/6/2024	96.842338	-62.592753	45.618255	Encroachment	36.576	45.568941
L6511	Span from L6511-126 to L6511-127	31_9929	Blowout	Fall-In	2.132212	3.77	9.71	138	2024NSP24	9/6/2024	99.452371	-62.351565	45.611089	Encroachment	31.0896	24.247693

L6511	Span from L6511-149 to L6511-150	31_25246	Blowout	Fall-In	2.132836	10.02	13.46	138	2024NSP24	9/6/2024	63.502181	-62.300528	45.629755	Encroachment	38.405	48.495981
L6511	Span from L6511-025 to L6511-026	29_13649	Blowout	Fall-In	2.134652	13.96	16.47	138	2024NSP24	9/6/2024	97.010851	-62.592137	45.617794	Encroachment	57.6074	83.404344
L6511	Span from L6511-122 to L6511-123	31_7301	Blowout	Fall-In	2.13555	8.62	15.07	138	2024NSP24	9/6/2024	96.357964	-62.361966	45.609388	Encroachment	29.2608	27.801235
L6511	Span from L6511-043 to L6511-044	53_15447	Blowout	Fall-In	2.136287	8.96	15.3	138	2024NSP24	9/6/2024	60.191446	-62.547931	45.610313	Encroachment	40.2336	47.032164
L6511	Span from L6511-041 to L6511-042	53_14200	Blowout	Fall-In	2.142153	5.48	9.41	138	2024NSP24	9/6/2024	57.291684	-62.551471	45.610876	Encroachment	21.9462	14.214485
L6511	Span from L6511-037 to L6511-038	53_10041	Blowout	Fall-In	2.142648	8.8	12.61	138	2024NSP24	9/6/2024	62.081895	-62.56098	45.612226	Encroachment	37.4906	39.925676
L6511	Span from L6511-122 to L6511-123	31_7555	Blowout	Fall-In	2.142895	8.72	13.03	138	2024NSP24	9/6/2024	95.663282	-62.362787	45.609041	Encroachment	32.0042	34.281542
L6511	Span from L6511-120 to L6511-121	31_5198	Blowout	Fall-In	2.145053	14.09	16.82	138	2024NSP24	9/6/2024	91.987817	-62.367285	45.606667	Encroachment	15.5448	8.361274
L6511	Span from L6511-118 to L6511-119	31_4638	Blowout	Fall-In	2.145879	11.27	15.5	138	2024NSP24	9/6/2024	90.866325	-62.372318	45.604905	Encroachment	41.148	47.241196
L6511	Span from L6511-041 to L6511-042	53_14196	Blowout	Fall-In	2.148417	3.22	6.68	138	2024NSP24	9/6/2024	57.200851	-62.551271	45.610906	Encroachment	26.5176	15.468356
L6511	Span from L6511-116 to L6511-117	31_2920	Blowout	Fall-In	2.161052	8.78	12.78	138	2024NSP24	9/6/2024	100.954047	-62.376882	45.602498	Encroachment	27.432	26.547044
L6511	Span from L6511-040 to L6511-041	53_13967	Blowout	Fall-In	2.163515	8.84	13.16	138	2024NSP24	9/6/2024	56.350464	-62.552797	45.611075	Encroachment	18.288	8.988369
L6511	Span from L6511-121 to L6511-122	31_7058	Blowout	Fall-In	2.167236	11.55	15.94	138	2024NSP24	9/6/2024	90.276888	-62.364828	45.607707	Encroachment	22.8602	16.304849
L6511	Span from L6511-149 to L6511-150	31_23617	Blowout	Fall-In	2.168221	3.69	12.28	138	2024NSP24	9/6/2024	78.000132	-62.301377	45.629374	Encroachment	20.1168	15.677388
L6511	Span from L6511-023 to L6511-024	29_13158	Blowout	Fall-In	2.16993	3.64	12.78	138	2024NSP24	9/6/2024	93.942464	-62.596	45.618405	Encroachment	24.6888	18.603834
L6511	Span from L6511-107 to L6511-108	32_23023	Blowout	Fall-In	2.172054	4.14	7.73	138	2024NSP24	9/6/2024	76.716735	-62.396845	45.592909	Encroachment	18.288	16.095452
L6511	Span from L6511-155 to L6511-156	31_27154	Blowout	Fall-In	2.175106	2.43	9.96	138	2024NSP24	9/6/2024	112.117285	-62.286525	45.635156	Encroachment	19.2028	10.660898
L6511	Span from L6511-105 to L6511-106	32_21695	Blowout	Fall-In	2.17601	5.13	12.01	138	2024NSP24	9/6/2024	70.095026	-62.401078	45.590625	Encroachment	24.6888	18.18577
L6511	Span from L6511-117 to L6511-118	31_3531	Blowout	Fall-In	2.177393	1.15	5.18	138	2024NSP24	9/6/2024	94.479403	-62.375232	45.603521	Encroachment	11.8872	3.553541
L6511	Span from L6511-156 to L6511-157	31_28432	Blowout	Fall-In	2.178641	7.18	11.07	138	2024NSP24	9/6/2024	124.32985	-62.283441	45.636432	Encroachment	43.8912	49.331514
L6511	Span from L6511-043 to L6511-044	53_16015	Blowout	Fall-In	2.179226	8.63	12.48	138	2024NSP24	9/6/2024	57.717472	-62.54728	45.609936	Encroachment	41.1482	40.761757
L6511	Span from L6511-126 to L6511-127	31_9972	Blowout	Fall-In	2.185203	9.69	13.76	138	2024NSP24	9/6/2024	99.264942	-62.351598	45.611001	Encroachment	39.3192	43.060559
L6511	Span from L6511-035 to L6511-036	53_8874	Blowout	Fall-In	2.185962	5.64	12	138	2024NSP24	9/6/2024	63.912924	-62.565894	45.612907	Encroachment	17.3736	10.451592
L6511	Span from L6511-023 to L6511-024	29_12651	Blowout	Fall-In	2.186657	12.94	18.07	138	2024NSP24	9/6/2024	90.991831	-62.597453	45.619039	Encroachment	38.4048	40.552177
L6511	Span from L6511-115 to L6511-116	31_2057	Blowout	Fall-In	2.187315	8.21	13.1	138	2024NSP24	9/6/2024	97.866563	-62.379547	45.601708	Encroachment	38.4048	35.953476
L6511	Span from L6511-043 to L6511-044	53_16221	Blowout	Fall-In	2.187492	6.29	14.86	138	2024NSP24	9/6/2024	59.805556	-62.546594	45.609513	Encroachment	20.1168	14.005133
L6511	Span from L6511-027 to L6511-028	53_1936	Blowout	Fall-In	2.187675	8.64	13.94	138	2024NSP24	9/6/2024	91.59741	-62.586355	45.616654	Encroachment	34.7472	37.625731
L6511	Span from L6511-118 to L6511-119	31_4208	Blowout	Fall-In	2.187924	9.55	12.6	138	2024NSP24	9/6/2024	95.917018	-62.370092	45.605495	Encroachment	26.5178	26.129574
L6511	Span from L6511-118 to L6511-119	31_4371	Blowout	Fall-In	2.193716	3.34	5.36	138	2024NSP24	9/6/2024	90.700651	-62.370804	45.605279	Encroachment	63.0936	65.008902
L6511	Span from L6511-118 to L6511-119	31_4334	Blowout	Fall-In	2.193808	4.72	11.3	138	2024NSP24	9/6/2024	89.669772	-62.371211	45.605314	Encroachment	29.2608	24.247693
L6511	Span from L6511-105 to L6511-106	32_21742	Blowout	Fall-In	2.197232	9.4	12.84	138	2024NSP24	9/6/2024	70.09147	-62.401073	45.590579	Encroachment	32.9184	38.461859
L6511	Span from L6511-118 to L6511-119	31_4872	Blowout	Fall-In	2.201094	9.04	14.49	138	2024NSP24	9/6/2024	94.26577	-62.372415	45.604368	Encroachment	57.6072	65.426966
L6511	Span from L6511-121 to L6511-122	31_6438	Blowout	Fall-In	2.207486	13.72	16.84	138	2024NSP24	9/6/2024	97.013546	-62.36395	45.608609	Encroachment	37.4906	57.484716
L6511	Span from L6511-103 to L6511-104	32_20395	Blowout	Fall-In	2.209502	15.14	20.14	138	2024NSP24	9/6/2024	65.945514	-62.404228	45.589018	Encroachment	67.6662	104.099914
L6511	Span from L6511-024 to L6511-025	62_45458	Blowout	Fall-In	2.209868	13.44	16.82	138	2024NSP24	9/6/2024	98.377779	-62.592515	45.618213	Encroachment	34.7474	52.049797
L6511	Span from L6511-104 to L6511-105	32_21431	Blowout	Fall-In	2.213631	7.58	13.32	138	2024NSP24	9/6/2024	70.182447	-62.403124	45.589467	Encroachment	29.261	32.818548
L6511	Span from L6511-149 to L6511-150	31_25280	Blowout	Fall-In	2.21368	16.09	23.75	138	2024NSP24	9/6/2024	57.795924	-62.29976	45.629691	Encroachment	43.8912	65.635998
L6511	Span from L6511-107 to L6511-108	32_23122	Blowout	Fall-In	2.219752	1.4	9.43	138	2024NSP24	9/6/2024	75.431465	-62.397125	45.592767	Encroachment	8.2296	3.553541
L6511	Span from L6511-118 to L6511-119	31_4847	Blowout	Fall-In	2.220871	6.45	11.87	138	2024NSP24	9/6/2024	98.655893	-62.373106	45.604419	Encroachment	26.5176	19.021897
L6511	Span from L6511-118 to L6511-119	31_3124	Blowout	Fall-In	2.221174	9.03	11.97	138	2024NSP24	9/6/2024	101.651426	-62.373112	45.60415	Encroachment	31.0898	31.982374
L6511	Span from L6511-118 to L6511-119	31_4619	Blowout	Fall-In	2.222875	8.74	14.22	138	2024NSP24	9/6/2024	89.531535	-62.371122	45.60491	Encroachment	27.432	30.309617
L6511	Span from L6511-062 to L6511-063	53_33336	Blowout	Fall-In	2.223681	3.45	4.44	138	2024NSP24	9/6/2024	13.940761	-62.503372	45.592317	Encroachment	27.432	22.575439
L6511	Span from L6511-119 to L6511-120	31_5617	Blowout	Fall-In	2.228789	3.13	10.13	138	2024NSP24	9/6/2024	92.601869	-62.369579	45.605955	Encroachment	22.8602	16.722867
L6511	Span from L6511-039 to L6511-040	53_12213	Blowout	Fall-In	2.229288	3.59	6.95	138	2024NSP24	9/6/2024	55.485324	-62.55564	45.611524	Encroachment	27.432	20.48512
L6511	Span from L6511-023 to L6511-024	29_13114	Blowout	Fall-In	2.23039	14.27	18.06	138	2024NSP24	9/6/2024	90.547031	-62.596947	45.618478	Encroachment	36.5762	51.840582
L6511	Span from L6511-102 to L6511-103	63_1065	Blowout	Fall-In	2.231891	6.09	10.87	138	2024NSP24	9/6/2024	69.469665	-62.408199	45.587829	Encroachment	17.3736	11.914815
L6511	Span from L6511-043 to L6511-044	53_16206	Blowout	Fall-In	2.235051	9.82	16.11	138	2024NSP24	9/6/2024	59.041062	-62.546729	45.609588	Encroachment	30.1752	32.817999
L6511	Span from L6511-102 to L6511-103	63_1066	Blowout	Fall-In	2.235092	9.15	14.8	138	2024NSP24	9/6/2024	69.874007	-62.408287	45.587815	Encroachment	21.9456	11.914815
L6511	Span from L6511-117 to L6511-118	31_3361	Blowout	Fall-In	2.236891	3.63	8.21	138	2024NSP24	9/6/2024	98.264927	-62.374065	45.603778	Encroachment	19.2024	13.169006
L6511	Span from L6511-023 to L6511-024	29_12679	Blowout	Fall-In	2.237358	8.95	13.85	138	2024NSP24	9/6/2024	90.397697	-62.59702	45.618966	Encroachment	42.9768	37.834763
L6511	Span from L6511-006 to L6511-007	29_2436	Blowout	Fall-In	2.239284	10.47	14.53	138	2024NSP24	9/6/2024	15.25002	-62.635212	45.624734	Encroachment	32.004	37.625731
L6511	Span from L6511-023 to L6511-024	29_13050	Blowout	Fall-In	2.243918	16.47	19.52	138	2024NSP24	9/6/2024	90.534057	-62.597333	45.618545	Encroachment	42.0624	57.90182
L6511	Span from L6511-121 to L6511-122	31_6483	Blowout	Fall-In	2.244439	7.75	11.13	138	2024NSP24	9/6/2024	96.0522	-62.363948	45.608544	Encroachment	34.7472	34.908317
L6511	Span from L6511-116 to L6511-117	31_2872	Blowout	Fall-In	2.245771	15.83	19.16	138	2024NSP24	9/6/2024	102.613662	-62.376423	45.602666	Encroachment	44.806	61.45559
L6511	Span from L6511-023 to L6511-024	29_13081	Blowout	Fall-In	2.250247	10.89	13.66	138	2024NSP24	9/6/2024	90.793587	-62.596776	45.618516	Encroachment	36.576	38.461859

L6511	Span from L6511-028 to L6511-029	53_3576	Blowout	Fall-In	2.250927	12.69	19.3	138	2024NSP24	9/6/2024	88.191551	-62.58394	45.616024	Encroachment	23.7744	18.812866
L6511	Span from L6511-062 to L6511-063	53_33490	Blowout	Fall-In	2.250975	6.8	13.32	138	2024NSP24	9/6/2024	13.979942	-62.502948	45.591817	Encroachment	21.9456	15.468356
L6511	Span from L6511-124 to L6511-125	31_9101	Blowout	Fall-In	2.25158	2.23	9.38	138	2024NSP24	9/6/2024	96.12986	-62.357638	45.610226	Encroachment	16.4592	9.615465
L6511	Span from L6511-117 to L6511-118	31_3532	Blowout	Fall-In	2.251776	11.58	24.63	138	2024NSP24	9/6/2024	94.670169	-62.375572	45.603552	Encroachment	46.6344	62.709552
L6511	Span from L6511-137 to L6511-138	31_14720	Blowout	Fall-In	2.260893	10.02	15.56	138	2024NSP24	9/6/2024	97.704436	-62.328204	45.61851	Encroachment	49.3778	65.218848
L6511	Span from L6511-021 to L6511-022	29_10864	Blowout	Fall-In	2.264468	3.08	4.1	138	2024NSP24	9/6/2024	88.323445	-62.602316	45.619653	Encroachment	21.0312	15.468356
L6511	Span from L6511-121 to L6511-122	31_6922	Blowout	Fall-In	2.264878	6.42	12.24	138	2024NSP24	9/6/2024	90.092861	-62.36525	45.607973	Encroachment	33.8328	26.965107
L6511	Span from L6511-108 to L6511-109	32_23999	Blowout	Fall-In	2.270173	5.57	9.22	138	2024NSP24	9/6/2024	73.472869	-62.395678	45.593463	Encroachment	33.833	31.773205
L6511	Span from L6511-019 to L6511-020	29_9126	Blowout	Fall-In	2.270212	3.12	5.52	138	2024NSP24	9/6/2024	81.615929	-62.606349	45.620305	Encroachment	18.288	14.214165
L6511	Span from L6511-118 to L6511-119	31_4744	Blowout	Fall-In	2.27252	2.26	7.64	138	2024NSP24	9/6/2024	91.22866	-62.372086	45.604656	Encroachment	15.5448	9.197401
L6511	Span from L6511-036 to L6511-037	53_9055	Blowout	Fall-In	2.273718	10.01	14.72	138	2024NSP24	9/6/2024	66.243258	-62.564986	45.612776	Encroachment	42.9768	45.777973
L6511	Span from L6511-119 to L6511-120	31_5558	Blowout	Fall-In	2.287383	9.39	14.06	138	2024NSP24	9/6/2024	91.617928	-62.369522	45.606091	Encroachment	30.1752	32.817999
L6511	Span from L6511-025 to L6511-026	62_45521	Blowout	Fall-In	2.289271	4.71	10.34	138	2024NSP24	9/6/2024	94.170433	-62.591748	45.618046	Encroachment	21.9456	14.423197
L6511	Span from L6511-023 to L6511-024	29_12654	Blowout	Fall-In	2.289561	11.75	16.05	138	2024NSP24	9/6/2024	90.630717	-62.597309	45.619031	Encroachment	41.148	44.31475
L6511	Span from L6511-149 to L6511-150	31_25365	Blowout	Fall-In	2.290004	5.65	11.95	138	2024NSP24	9/6/2024	71.087793	-62.301003	45.629501	Encroachment	21.9456	15.050292
L6511	Span from L6511-105 to L6511-106	32_20964	Blowout	Fall-In	2.296935	8.94	13.27	138	2024NSP24	9/6/2024	72.139191	-62.401917	45.590526	Encroachment	36.576	39.507018
L6511	Span from L6511-126 to L6511-127	31_9928	Blowout	Fall-In	2.300179	7.17	10.1	138	2024NSP24	9/6/2024	100.191559	-62.351456	45.611101	Encroachment	33.8328	42.0154
L6511	Span from L6511-031 to L6511-032	53_5998	Blowout	Fall-In	2.30434	10.51	12.34	138	2024NSP24	9/6/2024	72.250262	-62.577618	45.614542	Encroachment	30.1754	34.072693
L6511	Span from L6511-022 to L6511-023	29_11275	Blowout	Fall-In	2.306692	8.35	15.35	138	2024NSP24	9/6/2024	89.646062	-62.600959	45.619189	Encroachment	41.148	40.552177
L6511	Span from L6511-118 to L6511-119	31_4788	Blowout	Fall-In	2.307723	10.9	14.86	138	2024NSP24	9/6/2024	91.040135	-62.371905	45.604563	Encroachment	33.8328	41.597336
L6511	Span from L6511-032 to L6511-033	53_6872	Blowout	Fall-In	2.309332	16.38	19.91	138	2024NSP24	9/6/2024	68.026087	-62.572361	45.613759	Encroachment	39.3192	59.783106
L6511	Span from L6511-031 to L6511-032	53_6186	Blowout	Fall-In	2.313696	6.75	15.08	138	2024NSP24	9/6/2024	73.339688	-62.576233	45.614376	Encroachment	36.576	41.597336
L6511	Span from L6511-062 to L6511-063	53_33304	Blowout	Fall-In	2.31438	3.75	5	138	2024NSP24	9/6/2024	14.687963	-62.503532	45.592445	Encroachment	25.6034	26.338606
L6511	Span from L6511-106 to L6511-107	32_22682	Blowout	Fall-In	2.316109	7.07	12.42	138	2024NSP24	9/6/2024	71.204268	-62.399807	45.591326	Encroachment	19.2024	11.914815
L6511	Span from L6511-120 to L6511-121	31_5036	Blowout	Fall-In	2.316426	4.93	10.91	138	2024NSP24	9/6/2024	91.972586	-62.367493	45.606923	Encroachment	26.5178	14.423243
L6511	Span from L6511-117 to L6511-118	31_2866	Blowout	Fall-In	2.316859	14.96	18.1	138	2024NSP24	9/6/2024	101.342054	-62.376288	45.602694	Encroachment	61.2648	95.945615
L6511	Span from L6511-120 to L6511-121	31_5857	Blowout	Fall-In	2.318067	7.66	12.83	138	2024NSP24	9/6/2024	91.328862	-62.366188	45.607527	Encroachment	22.8602	13.796421
L6511	Span from L6511-156 to L6511-157	31_28620	Blowout	Fall-In	2.319088	0.91	7.49	138	2024NSP24	9/6/2024	126.107297	-62.284312	45.636005	Encroachment	6.4008	1.881287
L6511	Span from L6511-022 to L6511-023	29_11685	Blowout	Fall-In	2.319145	4.82	9.27	138	2024NSP24	9/6/2024	86.035089	-62.599896	45.619348	Encroachment	21.0312	21.53028
L6511	Span from L6511-107 to L6511-108	32_23108	Blowout	Fall-In	2.319596	8.42	12.08	138	2024NSP24	9/6/2024	74.820191	-62.397608	45.592814	Encroachment	27.432	30.518649
L6511	Span from L6511-040 to L6511-041	53_13063	Blowout	Fall-In	2.320365	7.94	12.66	138	2024NSP24	9/6/2024	55.284597	-62.55324	45.611132	Encroachment	14.6304	6.479987
L6511	Span from L6511-040 to L6511-041	53_13898	Blowout	Fall-In	2.320939	5.77	12.45	138	2024NSP24	9/6/2024	55.278848	-62.55326	45.611147	Encroachment	12.8016	6.479987
L6511	Span from L6511-117 to L6511-118	31_3776	Blowout	Fall-In	2.322225	3.29	5.48	138	2024NSP24	9/6/2024	95.450341	-62.375486	45.603134	Encroachment	14.6304	8.779337
L6511	Span from L6511-108 to L6511-109	32_23637	Blowout	Fall-In	2.322355	15.36	19.62	138	2024NSP24	9/6/2024	73.018807	-62.395805	45.593939	Encroachment	53.0356	81.315123
L6511	Span from L6511-106 to L6511-107	32_22116	Blowout	Fall-In	2.328985	11.48	17.14	138	2024NSP24	9/6/2024	72.501945	-62.398742	45.592273	Encroachment	38.4048	36.162508
L6511	Span from L6511-121 to L6511-122	31_6472	Blowout	Fall-In	2.329992	9.69	13.84	138	2024NSP24	9/6/2024	95.698416	-62.364021	45.608571	Encroachment	38.4048	48.704419
L6511	Span from L6511-117 to L6511-118	31_3644	Blowout	Fall-In	2.332923	13.12	17.69	138	2024NSP24	9/6/2024	95.667421	-62.375797	45.603358	Encroachment	16.4592	8.570305
L6511	Span from L6511-025 to L6511-026	62_45520	Blowout	Fall-In	2.335015	11.33	14.72	138	2024NSP24	9/6/2024	91.878709	-62.591232	45.618069	Encroachment	46.6344	70.652762
L6511	Span from L6511-121 to L6511-122	31_7108	Blowout	Fall-In	2.339436	12.34	16.93	138	2024NSP24	9/6/2024	90.459518	-62.365114	45.607564	Encroachment	58.5216	81.731449
L6511	Span from L6511-108 to L6511-109	32_23782	Blowout	Fall-In	2.344054	10.06	17.25	138	2024NSP24	9/6/2024	73.72706	-62.396053	45.593724	Encroachment	29.2608	25.083821
L6511	Span from L6511-119 to L6511-120	31_5390	Blowout	Fall-In	2.344696	3.11	4.96	138	2024NSP24	9/6/2024	89.199621	-62.368182	45.606427	Encroachment	17.3736	12.750942
L6511	Span from L6511-105 to L6511-106	32_21519	Blowout	Fall-In	2.345193	7	9.94	138	2024NSP24	9/6/2024	70.436706	-62.401015	45.590989	Encroachment	46.6346	63.336968
L6511	Span from L6511-021 to L6511-022	29_10854	Blowout	Fall-In	2.347247	3.09	4	138	2024NSP24	9/6/2024	88.297376	-62.602363	45.619663	Encroachment	21.9456	15.050292
L6511	Span from L6511-040 to L6511-041	53_13938	Blowout	Fall-In	2.349784	10.66	14.81	138	2024NSP24	9/6/2024	55.272066	-62.553272	45.611101	Encroachment	30.1752	38.252827
L6511	Span from L6511-105 to L6511-106	32_21570	Blowout	Fall-In	2.350236	3.9	9.48	138	2024NSP24	9/6/2024	70.117794	-62.401228	45.590833	Encroachment	22.8602	12.960066
L6511	Span from L6511-031 to L6511-032	53_6190	Blowout	Fall-In	2.351456	7.44	11.82	138	2024NSP24	9/6/2024	74.650858	-62.576004	45.614363	Encroachment	43.8912	54.139247
L6511	Span from L6511-040 to L6511-041	53_13985	Blowout	Fall-In	2.368207	11.27	14.64	138	2024NSP24	9/6/2024	56.91247	-62.552721	45.611035	Encroachment	38.405	53.721914
L6511	Span from L6511-112 to L6511-113	31_864	Blowout	Fall-In	2.369329	7.74	13.72	138	2024NSP24	9/6/2024	77.061898	-62.386039	45.599105	Encroachment	39.3192	39.507018
L6511	Span from L6511-119 to L6511-120	31_5540	Blowout	Fall-In	2.371011	5.83	11.59	138	2024NSP24	9/6/2024	91.072992	-62.369402	45.606113	Encroachment	26.5178	23.203129
L6511	Span from L6511-149 to L6511-150	31_25301	Blowout	Fall-In	2.371198	11.52	15.43	138	2024NSP24	9/6/2024	68.413943	-62.300837	45.62965	Encroachment	40.2336	49.749578
L6511	Span from L6511-106 to L6511-107	32_22319	Blowout	Fall-In	2.372303	6.88	12.31	138	2024NSP24	9/6/2024	70.301657	-62.399099	45.59202	Encroachment	21.9456	12.123847
L6511	Span from L6511-043 to L6511-044	53_16233	Blowout	Fall-In	2.379093	9.58	14.59	138	2024NSP24	9/6/2024	61.387533	-62.546361	45.60942	Encroachment	41.1482	54.139932
L6511	Span from L6511-121 to L6511-122	31_5769	Blowout	Fall-In	2.381108	10.19	13.99	138	2024NSP24	9/6/2024	91.052839	-62.36566	45.607792	Encroachment	36.576	50.794737
L6511	Span from L6511-006 to L6511-007	29_2619	Blowout	Fall-In	2.388085	14.91	19.64	138	2024NSP24	9/6/2024	26.369021	-62.63407	45.624555	Encroachment	37.4906	49.3322
L6511	Span from L6511-118 to L6511-119	31_4322	Blowout	Fall-In	2.390983	2.97	10.58	138	2024NSP24	9/6/2024	89.981574	-62.371076	45.605328	Encroachment	22.86	16.931579

L6511	Span from L6511-124 to L6511-125	31_8791	Blowout	Fall-In	2.391209	6.68	15.17	138	2024NSP24	9/6/2024	104.800718	-62.356266	45.610494	Encroachment	18.288	7.316114
L6511	Span from L6511-118 to L6511-119	31_4829	Blowout	Fall-In	2.393335	7.92	16.18	138	2024NSP24	9/6/2024	97.72924	-62.373043	45.604477	Encroachment	36.576	39.088954
L6511	Span from L6511-102 to L6511-103	63_1615	Blowout	Fall-In	2.396715	14.67	18.87	138	2024NSP24	9/6/2024	69.499036	-62.40809	45.588155	Encroachment	60.3508	94.06634
L6511	Span from L6511-062 to L6511-063	53_33439	Blowout	Fall-In	2.397253	4.04	6.27	138	2024NSP24	9/6/2024	13.566707	-62.502955	45.59198	Encroachment	27.432	30.518649
L6511	Span from L6511-119 to L6511-120	31_4113	Blowout	Fall-In	2.398214	8.75	11.85	138	2024NSP24	9/6/2024	95.328981	-62.369683	45.605627	Encroachment	32.9184	36.580572
L6511	Span from L6511-033 to L6511-034	53_6864	Blowout	Fall-In	2.399843	9.02	14.81	138	2024NSP24	9/6/2024	69.00723	-62.572158	45.613826	Encroachment	26.5176	21.739311
L6511	Span from L6511-108 to L6511-109	32_24094	Blowout	Fall-In	2.400198	5.26	8.3	138	2024NSP24	9/6/2024	75.579242	-62.396155	45.593274	Encroachment	30.1752	26.12898
L6511	Span from L6511-027 to L6511-028	53_2293	Blowout	Fall-In	2.402789	6.08	12.32	138	2024NSP24	9/6/2024	91.581173	-62.586278	45.616656	Encroachment	30.1752	27.383171
L6511	Span from L6511-063 to L6511-064	45_31174	Blowout	Fall-In	2.410024	17.7	20.22	138	2024NSP24	9/6/2024	14.981013	-62.502501	45.591297	Encroachment	36.5762	50.586483
L6511	Span from L6511-006 to L6511-007	29_2314	Blowout	Fall-In	2.412883	5.85	15.18	138	2024NSP24	9/6/2024	12.611385	-62.63588	45.624872	Encroachment	26.5176	18.812866
L6511	Span from L6511-137 to L6511-138	31_14711	Blowout	Fall-In	2.414031	10.43	15.72	138	2024NSP24	9/6/2024	97.285826	-62.328151	45.618536	Encroachment	39.3192	40.761209
L6511	Span from L6511-115 to L6511-116	31_2052	Blowout	Fall-In	2.423177	12.02	14.89	138	2024NSP24	9/6/2024	97.985295	-62.379599	45.601741	Encroachment	32.9184	40.970241
L6511	Span from L6511-104 to L6511-105	32_21373	Blowout	Fall-In	2.430591	10.74	14.12	138	2024NSP24	9/6/2024	70.952707	-62.403612	45.589648	Encroachment	30.1752	37.625731
L6511	Span from L6511-023 to L6511-024	29_13188	Blowout	Fall-In	2.433539	10.43	15.41	138	2024NSP24	9/6/2024	96.215964	-62.595678	45.618368	Encroachment	35.6618	37.417385
L6511	Span from L6511-107 to L6511-108	32_23242	Blowout	Fall-In	2.436432	1.93	9.46	138	2024NSP24	9/6/2024	75.009553	-62.397596	45.592541	Encroachment	22.86	12.123847
L6511	Span from L6511-119 to L6511-120	31_5497	Blowout	Fall-In	2.438941	8.66	14.44	138	2024NSP24	9/6/2024	88.867141	-62.368263	45.606208	Encroachment	31.0896	36.998636
L6511	Span from L6511-025 to L6511-026	38_22196	Blowout	Fall-In	2.448939	9.58	14.14	138	2024NSP24	9/6/2024	92.178874	-62.591408	45.617662	Encroachment	29.2608	29.264458
L6511	Span from L6511-031 to L6511-032	53_6014	Blowout	Fall-In	2.453742	9.41	12.16	138	2024NSP24	9/6/2024	71.575596	-62.57731	45.614502	Encroachment	37.4904	45.150877
L6511	Span from L6511-021 to L6511-022	29_10827	Blowout	Fall-In	2.454895	2.74	4.45	138	2024NSP24	9/6/2024	88.28534	-62.602419	45.61969	Encroachment	18.288	15.259324
L6511	Span from L6511-118 to L6511-119	31_4545	Blowout	Fall-In	2.458958	8.39	15.61	138	2024NSP24	9/6/2024	89.847164	-62.372126	45.605029	Encroachment	32.004	28.637362
L6511	Span from L6511-062 to L6511-063	53_33322	Blowout	Fall-In	2.459028	3.42	4.47	138	2024NSP24	9/6/2024	14.31688	-62.503456	45.592371	Encroachment	17.3736	6.898051
L6511	Span from L6511-105 to L6511-106	32_21522	Blowout	Fall-In	2.462463	4.32	8.1	138	2024NSP24	9/6/2024	70.517519	-62.400901	45.590953	Encroachment	29.2608	19.648993
L6511	Span from L6511-119 to L6511-120	31_5352	Blowout	Fall-In	2.463084	2.58	4.77	138	2024NSP24	9/6/2024	88.870401	-62.368375	45.60648	Encroachment	23.7744	17.140611
L6511	Span from L6511-126 to L6511-127	31_9781	Blowout	Fall-In	2.471735	13.44	16.51	138	2024NSP24	9/6/2024	102.222969	-62.351277	45.611423	Encroachment	44.8056	68.771475
L6511	Span from L6511-107 to L6511-108	32_22856	Blowout	Fall-In	2.473489	11.12	15.33	138	2024NSP24	9/6/2024	76.890644	-62.397038	45.59318	Encroachment	47.549	58.738221
L6511	Span from L6511-063 to L6511-064	45_31179	Blowout	Fall-In	2.476189	16.75	20.99	138	2024NSP24	9/6/2024	14.535109	-62.502443	45.591249	Encroachment	45.72	71.488889
L6511	Span from L6511-024 to L6511-025	62_45411	Blowout	Fall-In	2.477072	13	14.85	138	2024NSP24	9/6/2024	94.891945	-62.593068	45.618349	Encroachment	49.3778	62.083417
L6511	Span from L6511-037 to L6511-038	53_10323	Blowout	Fall-In	2.47743	4.08	10.82	138	2024NSP24	9/6/2024	63.805198	-62.560212	45.612167	Encroachment	19.2024	14.841261
L6511	Span from L6511-117 to L6511-118	31_3796	Blowout	Fall-In	2.481727	9.34	14.77	138	2024NSP24	9/6/2024	98.094533	-62.376072	45.60309	Encroachment	20.1168	14.841261
L6511	Span from L6511-023 to L6511-024	29_12664	Blowout	Fall-In	2.487853	8.01	14.03	138	2024NSP24	9/6/2024	90.685998	-62.597359	45.618996	Encroachment	36.576	34.281222
L6511	Span from L6511-119 to L6511-120	31_5281	Blowout	Fall-In	2.490493	4.45	9.55	138	2024NSP24	9/6/2024	88.875558	-62.368479	45.606565	Encroachment	31.0896	31.77284
L6511	Span from L6511-024 to L6511-025	62_45396	Blowout	Fall-In	2.491426	11.64	14.96	138	2024NSP24	9/6/2024	94.298265	-62.593332	45.618374	Encroachment	34.7472	39.297986
L6511	Span from L6511-118 to L6511-119	31_4697	Blowout	Fall-In	2.491897	3.87	7.28	138	2024NSP24	9/6/2024	90.18518	-62.371803	45.604745	Encroachment	17.3736	10.033528
L6511	Span from L6511-022 to L6511-023	29_12125	Blowout	Fall-In	2.496997	4.14	6.99	138	2024NSP24	9/6/2024	87.543505	-62.599113	45.619018	Encroachment	26.5176	22.784471
L6511	Span from L6511-121 to L6511-122	31_6537	Blowout	Fall-In	2.497479	9.04	15.8	138	2024NSP24	9/6/2024	93.905658	-62.364239	45.608467	Encroachment	35.6618	42.434332
L6511	Span from L6511-117 to L6511-118	31_3260	Blowout	Fall-In	2.498975	9.31	12.72	138	2024NSP24	9/6/2024	101.914504	-62.373645	45.603933	Encroachment	30.1752	35.535413
L6511	Span from L6511-039 to L6511-040	53_12186	Blowout	Fall-In	2.502183	3.65	5.47	138	2024NSP24	9/6/2024	55.807468	-62.556047	45.611577	Encroachment	26.5176	23.202534
L6511	Span from L6511-119 to L6511-120	31_4139	Blowout	Fall-In	2.50297	8.64	13.53	138	2024NSP24	9/6/2024	95.987636	-62.36978	45.605588	Encroachment	34.7472	41.597336
L6511	Span from L6511-024 to L6511-025	62_45422	Blowout	Fall-In	2.503671	11.02	14.4	138	2024NSP24	9/6/2024	95.386598	-62.593022	45.618316	Encroachment	32.004	42.642495
L6511	Span from L6511-115 to L6511-116	31_2458	Blowout	Fall-In	2.505877	9.83	14.7	138	2024NSP24	9/6/2024	100.256738	-62.378496	45.602126	Encroachment	31.0896	30.309617
L6511	Span from L6511-030 to L6511-031	53_5365	Blowout	Fall-In	2.507169	10.22	18.8	138	2024NSP24	9/6/2024	74.853239	-62.580095	45.614997	Encroachment	34.7474	41.180004
L6511	Span from L6511-122 to L6511-123	31_7501	Blowout	Fall-In	2.509106	3.29	11.86	138	2024NSP24	9/6/2024	95.381928	-62.362599	45.609087	Encroachment	21.9456	13.796101
L6511	Span from L6511-149 to L6511-150	31_25378	Blowout	Fall-In	2.511561	3.89	14.24	138	2024NSP24	9/6/2024	65.831929	-62.300452	45.629454	Encroachment	14.6304	7.316114
L6511	Span from L6511-023 to L6511-024	29_12863	Blowout	Fall-In	2.512479	4.28	5.86	138	2024NSP24	9/6/2024	90.7627	-62.596678	45.618713	Encroachment	25.6032	21.53028
L6511	Span from L6511-149 to L6511-150	31_23623	Blowout	Fall-In	2.512521	7.86	13.11	138	2024NSP24	9/6/2024	79.755883	-62.301462	45.629349	Encroachment	15.5448	10.24256
L6511	Span from L6511-102 to L6511-103	63_1184	Blowout	Fall-In	2.512772	3.8	10.28	138	2024NSP24	9/6/2024	69.114375	-62.408038	45.587869	Encroachment	28.3466	26.547547
L6511	Span from L6511-124 to L6511-125	31_8946	Blowout	Fall-In	2.513344	3.48	9.54	138	2024NSP24	9/6/2024	99.01318	-62.356947	45.610358	Encroachment	21.0314	13.378129
L6511	Span from L6511-126 to L6511-127	31_9982	Blowout	Fall-In	2.513863	6.67	10.91	138	2024NSP24	9/6/2024	97.850941	-62.351971	45.610968	Encroachment	26.5176	28.637362
L6511	Span from L6511-117 to L6511-118	31_3402	Blowout	Fall-In	2.514902	10.86	13.49	138	2024NSP24	9/6/2024	98.824871	-62.373902	45.603734	Encroachment	35.662	40.762443
L6511	Span from L6511-118 to L6511-119	31_4740	Blowout	Fall-In	2.515784	3.54	14.92	138	2024NSP24	9/6/2024	90.140208	-62.371696	45.60466	Encroachment	21.0312	15.468356
L6511	Span from L6511-123 to L6511-124	31_8516	Blowout	Fall-In	2.516964	6.89	18.05	138	2024NSP24	9/6/2024	91.870248	-62.360059	45.609433	Encroachment	32.9184	34.699285
L6511	Span from L6511-117 to L6511-118	31_3756	Blowout	Fall-In	2.518157	2.49	4.37	138	2024NSP24	9/6/2024	95.228495	-62.375471	45.603179	Encroachment	19.2024	12.959974
L6511	Span from L6511-117 to L6511-118	31_3521	Blowout	Fall-In	2.518325	2.15	3.29	138	2024NSP24	9/6/2024	94.465872	-62.375121	45.603544	Encroachment	15.5448	10.660624
L6511	Span from L6511-122 to L6511-123	31_7308	Blowout	Fall-In	2.521642	6.1	11.66	138	2024NSP24	9/6/2024	96.681008	-62.361851	45.609384	Encroachment	28.3464	27.174139
L6511	Span from L6511-108 to L6511-109	32_23632	Blowout	Fall-In	2.524161	12.37	16.4	138	2024NSP24	9/6/2024	72.990038	-62.395682	45.593955	Encroachment	52.121	75.252468

L6511	Span from L6511-103 to L6511-104	32_20333	Blowout	Fall-In	2.525223	9.6	14.41	138	2024NSP24	9/6/2024	70.698587	-62.403872	45.589152	Encroachment	40.2336	45.777973
L6511	Span from L6511-034 to L6511-035	38_30542	Blowout	Fall-In	2.529457	12.72	16.35	138	2024NSP24	9/6/2024	62.880345	-62.56815	45.613146	Encroachment	34.7476	36.999001
L6511	Span from L6511-105 to L6511-106	32_21665	Blowout	Fall-In	2.531193	11.1	15.73	138	2024NSP24	9/6/2024	70.895491	-62.401707	45.590711	Encroachment	41.148	55.602469
L6511	Span from L6511-112 to L6511-113	31_1126	Blowout	Fall-In	2.533573	5.25	9.74	138	2024NSP24	9/6/2024	69.939996	-62.386865	45.598605	Encroachment	29.2608	24.456725
L6511	Span from L6511-106 to L6511-107	32_22435	Blowout	Fall-In	2.534118	12.88	17.21	138	2024NSP24	9/6/2024	69.565363	-62.399476	45.59187	Encroachment	42.0624	55.602469
L6511	Span from L6511-063 to L6511-064	53_33606	Blowout	Fall-In	2.536733	5.18	11.92	138	2024NSP24	9/6/2024	16.484073	-62.502505	45.591533	Encroachment	27.432	21.948343
L6511	Span from L6511-103 to L6511-104	32_20383	Blowout	Fall-In	2.536912	15.88	18.89	138	2024NSP24	9/6/2024	67.254641	-62.404096	45.589029	Encroachment	39.3194	60.82918
L6511	Span from L6511-122 to L6511-123	31_7416	Blowout	Fall-In	2.537727	2.81	14.15	138	2024NSP24	9/6/2024	95.292767	-62.362375	45.609204	Encroachment	15.5448	9.406433
L6511	Span from L6511-041 to L6511-042	38_37953	Blowout	Fall-In	2.540377	11.2	15.99	138	2024NSP24	9/6/2024	58.125335	-62.55076	45.610694	Encroachment	32.9184	37.625731
L6511	Span from L6511-112 to L6511-113	31_1030	Blowout	Fall-In	2.540629	9.77	13.14	138	2024NSP24	9/6/2024	71.64504	-62.386572	45.598817	Encroachment	33.833	42.224797
L6511	Span from L6511-117 to L6511-118	31_3490	Blowout	Fall-In	2.543125	6.36	15.47	138	2024NSP24	9/6/2024	94.47364	-62.375272	45.603606	Encroachment	25.6032	24.665757
L6511	Span from L6511-006 to L6511-007	29_2265	Blowout	Fall-In	2.549889	10.81	15.98	138	2024NSP24	9/6/2024	13.659462	-62.6367	45.624998	Encroachment	34.7472	46.6141
L6511	Span from L6511-023 to L6511-024	29_12833	Blowout	Fall-In	2.55042	4.26	6.03	138	2024NSP24	9/6/2024	90.848621	-62.59671	45.618751	Encroachment	28.3464	26.547044
L6511	Span from L6511-115 to L6511-116	31_2063	Blowout	Fall-In	2.552049	3.96	12.72	138	2024NSP24	9/6/2024	98.019215	-62.379617	45.601673	Encroachment	22.86	18.812866
L6511	Span from L6511-102 to L6511-103	63_1136	Blowout	Fall-In	2.553435	7.39	13.48	138	2024NSP24	9/6/2024	70.031897	-62.408147	45.588112	Encroachment	58.5218	67.517559
L6511	Span from L6511-023 to L6511-024	29_12115	Blowout	Fall-In	2.555956	10.84	14.37	138	2024NSP24	9/6/2024	91.763745	-62.597717	45.619034	Encroachment	35.6616	54.766342
L6511	Span from L6511-149 to L6511-150	31_23588	Blowout	Fall-In	2.560649	14.81	18.24	138	2024NSP24	9/6/2024	76.143712	-62.301395	45.629553	Encroachment	45.72	63.336648
L6511	Span from L6511-137 to L6511-138	31_15495	Blowout	Fall-In	2.566861	5.06	12.72	138	2024NSP24	9/6/2024	96.43704	-62.326935	45.61893	Encroachment	33.833	30.519243
L6511	Span from L6511-024 to L6511-025	29_13637	Blowout	Fall-In	2.569677	14.34	17.38	138	2024NSP24	9/6/2024	98.362526	-62.592618	45.617851	Encroachment	52.1208	74.833399
L6511	Span from L6511-006 to L6511-007	29_2492	Blowout	Fall-In	2.576537	9.24	16.82	138	2024NSP24	9/6/2024	19.334869	-62.634673	45.624677	Encroachment	37.4908	29.682704
L6511	Span from L6511-031 to L6511-032	53_5980	Blowout	Fall-In	2.577726	8.71	11.44	138	2024NSP24	9/6/2024	73.131821	-62.577844	45.614588	Encroachment	34.7474	41.17973
L6511	Span from L6511-126 to L6511-127	31_9973	Blowout	Fall-In	2.580947	4.76	6.75	138	2024NSP24	9/6/2024	97.565423	-62.352152	45.611	Encroachment	31.0896	28.637362
L6511	Span from L6511-117 to L6511-118	31_3619	Blowout	Fall-In	2.585619	1.87	4.82	138	2024NSP24	9/6/2024	94.665444	-62.374899	45.60339	Encroachment	18.288	10.869656
L6511	Span from L6511-039 to L6511-040	53_12218	Blowout	Fall-In	2.58873	4.11	6.74	138	2024NSP24	9/6/2024	55.468871	-62.555743	45.611516	Encroachment	32.004	26.965107
L6511	Span from L6511-102 to L6511-103	63_1198	Blowout	Fall-In	2.58971	9.62	13.88	138	2024NSP24	9/6/2024	68.752607	-62.407825	45.587798	Encroachment	32.004	38.461859
L6511	Span from L6511-043 to L6511-044	53_16061	Blowout	Fall-In	2.594834	8.53	14.12	138	2024NSP24	9/6/2024	57.689482	-62.547257	45.609888	Encroachment	42.9768	42.224432
L6511	Span from L6511-025 to L6511-026	29_13650	Blowout	Fall-In	2.59721	15.86	19.46	138	2024NSP24	9/6/2024	97.342254	-62.592249	45.61779	Encroachment	53.0354	74.625327
L6511	Span from L6511-107 to L6511-108	32_23287	Blowout	Fall-In	2.599245	6.01	12	138	2024NSP24	9/6/2024	75.279936	-62.397694	45.592399	Encroachment	38.4048	28.42833
L6511	Span from L6511-041 to L6511-042	38_37227	Blowout	Fall-In	2.601098	12.2	17.88	138	2024NSP24	9/6/2024	57.854457	-62.551756	45.610814	Encroachment	37.4904	45.150877
L6511	Span from L6511-105 to L6511-106	32_21552	Blowout	Fall-In	2.601421	6.63	9.83	138	2024NSP24	9/6/2024	70.118042	-62.401189	45.590883	Encroachment	41.148	37.207668
L6511	Span from L6511-121 to L6511-122	31_6972	Blowout	Fall-In	2.601618	16.45	21.31	138	2024NSP24	9/6/2024	90.636098	-62.365626	45.607913	Encroachment	53.0352	78.177908
L6511	Span from L6511-124 to L6511-125	31_9152	Blowout	Fall-In	2.60262	7	15.01	138	2024NSP24	9/6/2024	95.921645	-62.358115	45.610209	Encroachment	44.8056	59.156011
L6511	Span from L6511-031 to L6511-032	53_6031	Blowout	Fall-In	2.620625	8.06	10.58	138	2024NSP24	9/6/2024	71.785861	-62.576728	45.614434	Encroachment	31.0896	34.699285
L6511	Span from L6511-117 to L6511-118	31_3624	Blowout	Fall-In	2.621441	11.45	18.46	138	2024NSP24	9/6/2024	95.589916	-62.375773	45.603403	Encroachment	37.4904	39.088954
L6511	Span from L6511-110 to L6511-111	32_25763	Blowout	Fall-In	2.623533	8.76	11.59	138	2024NSP24	9/6/2024	75.893258	-62.390464	45.596231	Encroachment	32.9184	41.597336
L6511	Span from L6511-006 to L6511-007	29_2461	Blowout	Fall-In	2.625294	12.29	15.51	138	2024NSP24	9/6/2024	16.872882	-62.634954	45.624715	Encroachment	35.6616	45.568941
L6511	Span from L6511-119 to L6511-120	31_5221	Blowout	Fall-In	2.625648	4.01	9.4	138	2024NSP24	9/6/2024	91.894855	-62.36759	45.606636	Encroachment	21.0312	16.304484
L6511	Span from L6511-117 to L6511-118	31_3645	Blowout	Fall-In	2.627164	1.91	3.43	138	2024NSP24	9/6/2024	94.599408	-62.375046	45.603344	Encroachment	14.6304	8.988369
L6511	Span from L6511-028 to L6511-029	53_2366	Blowout	Fall-In	2.636657	8.77	15.74	138	2024NSP24	9/6/2024	92.705288	-62.585626	45.616481	Encroachment	48.4632	51.839896
L6511	Span from L6511-036 to L6511-037	38_31511	Blowout	Fall-In	2.642015	14.36	16.94	138	2024NSP24	9/6/2024	62.510519	-62.564568	45.612645	Encroachment	42.9768	56.85666
L6511	Span from L6511-039 to L6511-040	53_12224	Blowout	Fall-In	2.642513	5.38	7.71	138	2024NSP24	9/6/2024	55.46891	-62.555685	45.611496	Encroachment	26.5176	26.338012
L6511	Span from L6511-023 to L6511-024	29_12681	Blowout	Fall-In	2.646789	9.29	14.35	138	2024NSP24	9/6/2024	90.400278	-62.596941	45.618961	Encroachment	33.833	43.4794
L6511	Span from L6511-117 to L6511-118	31_3865	Blowout	Fall-In	2.647373	1.91	12.42	138	2024NSP24	9/6/2024	98.521602	-62.375963	45.60289	Encroachment	13.716	6.479987
L6511	Span from L6511-019 to L6511-020	29_9144	Blowout	Fall-In	2.647715	4.68	6.6	138	2024NSP24	9/6/2024	82.177557	-62.606094	45.620306	Encroachment	28.3464	30.518649
L6511	Span from L6511-117 to L6511-118	31_3712	Blowout	Fall-In	2.648613	3.74	3.74	138	2024NSP24	9/6/2024	94.785722	-62.375203	45.603227	Encroachment	1.8288	0.209032
L6511	Span from L6511-102 to L6511-103	63_1139	Blowout	Fall-In	2.648633	4.65	11.44	138	2024NSP24	9/6/2024	70.040255	-62.408255	45.588074	Encroachment	31.0896	30.936712
L6511	Span from L6511-031 to L6511-032	53_6193	Blowout	Fall-In	2.649463	5.9	16.28	138	2024NSP24	9/6/2024	73.34135	-62.576212	45.614335	Encroachment	31.0896	27.174139
L6511	Span from L6511-034 to L6511-035	53_8335	Blowout	Fall-In	2.650199	9.28	12.23	138	2024NSP24	9/6/2024	66.33865	-62.569587	45.613456	Encroachment	27.432	26.756076
L6511	Span from L6511-120 to L6511-121	31_6078	Blowout	Fall-In	2.654081	5.4	9.76	138	2024NSP24	9/6/2024	90.211984	-62.366336	45.607154	Encroachment	31.0896	23.82963
L6511	Span from L6511-040 to L6511-041	53_13994	Blowout	Fall-In	2.657328	12.42	15.39	138	2024NSP24	9/6/2024	57.172827	-62.552637	45.611019	Encroachment	33.8328	40.552177
L6511	Span from L6511-155 to L6511-156	31_27158	Blowout	Fall-In	2.657465	8.01	11.45	138	2024NSP24	9/6/2024	112.002677	-62.286602	45.635153	Encroachment	29.261	30.310211
L6511	Span from L6511-042 to L6511-043	53_15344	Blowout	Fall-In	2.660486	7.68	11.97	138	2024NSP24	9/6/2024	60.35867	-62.548636	45.610501	Encroachment	28.3464	29.055426
L6511	Span from L6511-137 to L6511-138	31_15395	Blowout	Fall-In	2.665075	12.72	15.8	138	2024NSP24	9/6/2024	97.235757	-62.326845	45.619084	Encroachment	59.436	88.002405
L6511	Span from L6511-034 to L6511-035	38_30510	Blowout	Fall-In	2.669126	16.94	19.35	138	2024NSP24	9/6/2024	62.910267	-62.56875	45.613225	Encroachment	20.117	14.423608
L6511	Span from L6511-036 to L6511-037	53_9993	Blowout	Fall-In	2.672228	9.03	15.42	138	2024NSP24	9/6/2024	58.379527	-62.562336	45.612353	Encroachment	37.4906	43.270231

L6511	Span from L6511-117 to L6511-118	31_2832	Blowout	Fall-In	2.673323	10.85	17.17	138	2024NSP24	9/6/2024	101.333077	-62.376284	45.602762	Encroachment	21.0312	14.423197
L6511	Span from L6511-028 to L6511-029	53_3546	Blowout	Fall-In	2.675522	9.85	17.77	138	2024NSP24	9/6/2024	88.119725	-62.583969	45.616061	Encroachment	39.3192	41.597336
L6511	Span from L6511-120 to L6511-121	31_6138	Blowout	Fall-In	2.677721	4.29	9.05	138	2024NSP24	9/6/2024	89.867709	-62.366656	45.607028	Encroachment	24.6888	13.796101
L6511	Span from L6511-119 to L6511-120	31_5697	Blowout	Fall-In	2.679058	12.1	18.26	138	2024NSP24	9/6/2024	91.297379	-62.369145	45.605784	Encroachment	35.6616	39.925081
L6511	Span from L6511-121 to L6511-122	31_6806	Blowout	Fall-In	2.679595	7.82	11.4	138	2024NSP24	9/6/2024	93.288764	-62.364059	45.608102	Encroachment	38.4048	32.817999
L6511	Span from L6511-105 to L6511-106	32_21827	Blowout	Fall-In	2.680232	6.22	11.33	138	2024NSP24	9/6/2024	71.28691	-62.401535	45.590378	Encroachment	17.3738	10.451912
L6511	Span from L6511-034 to L6511-035	38_30485	Blowout	Fall-In	2.681867	15.36	18.3	138	2024NSP24	9/6/2024	65.940979	-62.569553	45.613345	Encroachment	40.2336	61.246329
L6511	Span from L6511-032 to L6511-033	38_28875	Blowout	Fall-In	2.682976	15.86	19.11	138	2024NSP24	9/6/2024	66.154072	-62.572754	45.61381	Encroachment	42.0624	50.794737
L6511	Span from L6511-034 to L6511-035	38_30549	Blowout	Fall-In	2.68327	8.59	16.3	138	2024NSP24	9/6/2024	63.070875	-62.568041	45.61314	Encroachment	35.6618	48.495615
L6511	Span from L6511-103 to L6511-104	32_20260	Blowout	Fall-In	2.684543	14.45	18.71	138	2024NSP24	9/6/2024	65.500571	-62.404476	45.589377	Encroachment	45.72	59.156011
L6511	Span from L6511-105 to L6511-106	32_21534	Blowout	Fall-In	2.685902	5.23	7.96	138	2024NSP24	9/6/2024	70.403531	-62.40096	45.590918	Encroachment	29.261	25.920588
L6511	Span from L6511-028 to L6511-029	38_25240	Blowout	Fall-In	2.68632	18.31	20.43	138	2024NSP24	9/6/2024	88.286294	-62.583929	45.615962	Encroachment	43.8914	70.026261
L6511	Span from L6511-032 to L6511-033	53_6855	Blowout	Fall-In	2.687073	7.03	15.03	138	2024NSP24	9/6/2024	66.988356	-62.572563	45.613864	Encroachment	27.4322	16.722776
L6511	Span from L6511-021 to L6511-022	29_10888	Blowout	Fall-In	2.689538	3.24	4.37	138	2024NSP24	9/6/2024	88.529972	-62.602117	45.61964	Encroachment	23.7744	20.48512
L6511	Span from L6511-117 to L6511-118	31_3505	Blowout	Fall-In	2.692046	5.42	13.27	138	2024NSP24	9/6/2024	94.470789	-62.375202	45.603585	Encroachment	47.549	51.213532
L6511	Span from L6511-107 to L6511-108	32_23026	Blowout	Fall-In	2.692947	12.44	15.5	138	2024NSP24	9/6/2024	74.992798	-62.397554	45.592942	Encroachment	51.2064	64.381807
L6511	Span from L6511-025 to L6511-026	38_21386	Blowout	Fall-In	2.694583	8.92	13.86	138	2024NSP24	9/6/2024	96.634122	-62.592119	45.617858	Encroachment	32.004	44.732814
L6511	Span from L6511-031 to L6511-032	53_6037	Blowout	Fall-In	2.696012	7.89	12.19	138	2024NSP24	9/6/2024	72.006647	-62.576599	45.614396	Encroachment	35.6616	46.823132
L6511	Span from L6511-136 to L6511-137	31_14737	Blowout	Fall-In	2.698029	12.11	15.14	138	2024NSP24	9/6/2024	98.347942	-62.328386	45.618445	Encroachment	33.8328	37.834763
L6511	Span from L6511-137 to L6511-138	31_15703	Blowout	Fall-In	2.698241	8.63	13.28	138	2024NSP24	9/6/2024	95.674124	-62.327313	45.618474	Encroachment	33.8328	45.568941
L6511	Span from L6511-035 to L6511-036	38_31090	Blowout	Fall-In	2.699473	15.03	20.25	138	2024NSP24	9/6/2024	63.264368	-62.566396	45.612889	Encroachment	42.0624	55.184406
L6511	Span from L6511-118 to L6511-119	31_4820	Blowout	Fall-In	2.70171	4.33	12.21	138	2024NSP24	9/6/2024	97.25941	-62.372979	45.604478	Encroachment	22.86	17.558675
L6511	Span from L6511-118 to L6511-119	31_3024	Blowout	Fall-In	2.707094	13.3	16.18	138	2024NSP24	9/6/2024	99.842393	-62.373276	45.604439	Encroachment	42.977	57.275364
L6511	Span from L6511-122 to L6511-123	31_7327	Blowout	Fall-In	2.707814	4.72	13.47	138	2024NSP24	9/6/2024	96.36312	-62.361904	45.609349	Encroachment	30.1752	25.083821
L6511	Span from L6511-118 to L6511-119	31_4490	Blowout	Fall-In	2.709093	2.81	4.19	138	2024NSP24	9/6/2024	89.942939	-62.37102	45.605103	Encroachment	17.3736	10.24256
L6511	Span from L6511-104 to L6511-105	32_21447	Blowout	Fall-In	2.710761	9.59	15.24	138	2024NSP24	9/6/2024	70.477826	-62.40321	45.589383	Encroachment	31.0896	36.998636
L6511	Span from L6511-023 to L6511-024	29_12839	Blowout	Fall-In	2.713472	3.36	9.17	138	2024NSP24	9/6/2024	91.012437	-62.597552	45.618727	Encroachment	20.117	14.632549
L6511	Span from L6511-149 to L6511-150	31_23615	Blowout	Fall-In	2.715589	11.15	14.98	138	2024NSP24	9/6/2024	79.360955	-62.3015	45.629409	Encroachment	48.4634	68.563495
L6511	Span from L6511-103 to L6511-104	32_20258	Blowout	Fall-In	2.724473	11.26	17.05	138	2024NSP24	9/6/2024	66.352003	-62.404365	45.589371	Encroachment	34.7472	47.868291
L6511	Span from L6511-156 to L6511-157	31_28632	Blowout	Fall-In	2.72591	8.67	11.92	138	2024NSP24	9/6/2024	126.553507	-62.28447	45.636012	Encroachment	34.7472	39.71605
L6511	Span from L6511-117 to L6511-118	31_3606	Blowout	Fall-In	2.726478	0.77	2.96	138	2024NSP24	9/6/2024	94.690262	-62.375392	45.603399	Encroachment	9.144	2.508382
L6511	Span from L6511-032 to L6511-033	38_28757	Blowout	Fall-In	2.727828	14.98	18.6	138	2024NSP24	9/6/2024	68.598499	-62.574693	45.614058	Encroachment	53.95	81.104765
L6511	Span from L6511-124 to L6511-125	31_9049	Blowout	Fall-In	2.728374	2.95	4.78	138	2024NSP24	9/6/2024	97.578571	-62.357189	45.610271	Encroachment	21.0314	16.722684
L6511	Span from L6511-027 to L6511-028	53_1825	Blowout	Fall-In	2.728585	2.58	11.63	138	2024NSP24	9/6/2024	93.406446	-62.586995	45.616899	Encroachment	18.288	11.496751
L6511	Span from L6511-119 to L6511-120	31_5284	Blowout	Fall-In	2.731851	1.39	8.02	138	2024NSP24	9/6/2024	90.620461	-62.367773	45.606536	Encroachment	10.9728	5.64386
L6511	Span from L6511-110 to L6511-111	32_24967	Blowout	Fall-In	2.743451	2.97	5.49	138	2024NSP24	9/6/2024	75.671354	-62.390665	45.596245	Encroachment	23.7746	19.44051
L6511	Span from L6511-023 to L6511-024	29_13071	Blowout	Fall-In	2.745575	7.11	10.47	138	2024NSP24	9/6/2024	91.083768	-62.596644	45.618512	Encroachment	28.3464	30.309617
L6511	Span from L6511-121 to L6511-122	31_5805	Blowout	Fall-In	2.746045	9.09	16.14	138	2024NSP24	9/6/2024	92.17052	-62.365876	45.60767	Encroachment	40.2336	47.032164
L6511	Span from L6511-031 to L6511-032	53_6187	Blowout	Fall-In	2.746679	1.8	12.27	138	2024NSP24	9/6/2024	76.700114	-62.575708	45.614341	Encroachment	18.288	8.988369
L6511	Span from L6511-031 to L6511-032	53_6171	Blowout	Fall-In	2.749453	3.72	7.98	138	2024NSP24	9/6/2024	72.970025	-62.576341	45.614442	Encroachment	29.2608	17.976738
L6511	Span from L6511-118 to L6511-119	31_4910	Blowout	Fall-In	2.750583	4.56	9.82	138	2024NSP24	9/6/2024	99.864176	-62.37302	45.604217	Encroachment	26.5176	20.067057
L6511	Span from L6511-121 to L6511-122	31_6649	Blowout	Fall-In	2.75221	2.39	4.97	138	2024NSP24	9/6/2024	93.505577	-62.36418	45.608292	Encroachment	46.6346	43.896869
L6511	Span from L6511-025 to L6511-026	62_45532	Blowout	Fall-In	2.753018	8.78	12.61	138	2024NSP24	9/6/2024	92.33283	-62.591338	45.618028	Encroachment	37.4904	45.777973
L6511	Span from L6511-126 to L6511-127	31_9954	Blowout	Fall-In	2.754845	4.03	6.09	138	2024NSP24	9/6/2024	97.74343	-62.352061	45.611043	Encroachment	25.6032	18.603834
L6511	Span from L6511-124 to L6511-125	31_9076	Blowout	Fall-In	2.756138	3.08	4.88	138	2024NSP24	9/6/2024	97.215503	-62.357259	45.610245	Encroachment	19.2024	13.378038
L6511	Span from L6511-033 to L6511-034	38_29618	Blowout	Fall-In	2.760267	18.39	20.63	138	2024NSP24	9/6/2024	66.30055	-62.571638	45.613635	Encroachment	36.5762	51.840765
L6511	Span from L6511-033 to L6511-034	38_29620	Blowout	Fall-In	2.763481	17.73	21.52	138	2024NSP24	9/6/2024	67.347733	-62.571849	45.61364	Encroachment	42.0626	63.964566
L6511	Span from L6511-025 to L6511-026	62_45507	Blowout	Fall-In	2.764716	12.1	16.48	138	2024NSP24	9/6/2024	92.372891	-62.59137	45.618094	Encroachment	49.3776	66.681157
L6511	Span from L6511-112 to L6511-113	31_1004	Blowout	Fall-In	2.765045	10.8	13.05	138	2024NSP24	9/6/2024	72.16553	-62.386519	45.598869	Encroachment	32.0042	39.089183
L6511	Span from L6511-031 to L6511-032	53_6185	Blowout	Fall-In	2.766888	7.63	11.3	138	2024NSP24	9/6/2024	73.819378	-62.57613	45.614372	Encroachment	36.576	45.568941
L6511	Span from L6511-117 to L6511-118	31_3503	Blowout	Fall-In	2.767594	1.13	3.06	138	2024NSP24	9/6/2024	94.527039	-62.375003	45.603572	Encroachment	17.3736	8.779337
L6511	Span from L6511-023 to L6511-024	29_12895	Blowout	Fall-In	2.772598	3.37	5.6	138	2024NSP24	9/6/2024	91.223275	-62.596497	45.618696	Encroachment	42.0626	39.089548
L6511	Span from L6511-106 to L6511-107	32_22663	Blowout	Fall-In	2.775447	3.14	11.87	138	2024NSP24	9/6/2024	70.806574	-62.399733	45.591404	Encroachment	22.86	15.259324
L6511	Span from L6511-136 to L6511-137	31_14906	Blowout	Fall-In	2.77705	4.22	11.71	138	2024NSP24	9/6/2024	98.02081	-62.328367	45.618093	Encroachment	21.0312	11.914815
L6511	Span from L6511-118 to L6511-119	31_4424	Blowout	Fall-In	2.777324	2.62	4.16	138	2024NSP24	9/6/2024	90.269548	-62.370937	45.605187	Encroachment	21.0312	15.259324

L6511	Span from L6511-023 to L6511-024	29_13080	Blowout	Fall-In	2.781019	8.89	13.49	138	2024NSP24	9/6/2024	90.879865	-62.596712	45.618504	Encroachment	30.1752	31.981872
L6511	Span from L6511-121 to L6511-122	31_6644	Blowout	Fall-In	2.78235	4.1	8.07	138	2024NSP24	9/6/2024	92.227292	-62.364444	45.608279	Encroachment	20.1168	12.54191
L6511	Span from L6511-104 to L6511-105	32_21283	Blowout	Fall-In	2.78594	5.72	9.4	138	2024NSP24	9/6/2024	70.058529	-62.40256	45.589836	Encroachment	21.0312	10.660624
L6511	Span from L6511-035 to L6511-036	53_8842	Blowout	Fall-In	2.786582	6.38	12.11	138	2024NSP24	9/6/2024	64.49985	-62.567045	45.613072	Encroachment	26.5176	15.050292
L6511	Span from L6511-006 to L6511-007	29_2279	Blowout	Fall-In	2.786714	15.39	20.52	138	2024NSP24	9/6/2024	12.738695	-62.635785	45.62496	Encroachment	47.5488	58.528915
L6511	Span from L6511-118 to L6511-119	31_3041	Blowout	Fall-In	2.789788	4.89	10.96	138	2024NSP24	9/6/2024	100.997356	-62.373239	45.604323	Encroachment	14.6306	11.288039
L6511	Span from L6511-122 to L6511-123	31_6466	Blowout	Fall-In	2.790249	8.33	11.39	138	2024NSP24	9/6/2024	98.644338	-62.36316	45.60855	Encroachment	19.2024	13.796101
L6511	Span from L6511-105 to L6511-106	32_21074	Blowout	Fall-In	2.793247	7.98	12.42	138	2024NSP24	9/6/2024	72.389925	-62.401732	45.590266	Encroachment	32.004	34.281222
L6511	Span from L6511-024 to L6511-025	62_45402	Blowout	Fall-In	2.795645	12.41	15.19	138	2024NSP24	9/6/2024	94.843037	-62.593174	45.618364	Encroachment	36.576	42.851527
L6511	Span from L6511-119 to L6511-120	31_5395	Blowout	Fall-In	2.797902	2.5	4.4	138	2024NSP24	9/6/2024	89.060388	-62.368234	45.606427	Encroachment	21.9456	18.603834
L6511	Span from L6511-032 to L6511-033	38_28822	Blowout	Fall-In	2.807406	14.41	19.28	138	2024NSP24	9/6/2024	65.496931	-62.574057	45.613956	Encroachment	52.1208	89.883691
L6511	Span from L6511-117 to L6511-118	31_3573	Blowout	Fall-In	2.807749	1.63	2.96	138	2024NSP24	9/6/2024	94.474438	-62.375203	45.60347	Encroachment	15.545	10.242789
L6511	Span from L6511-025 to L6511-026	38_22367	Blowout	Fall-In	2.809862	9.67	13.51	138	2024NSP24	9/6/2024	92.49981	-62.589859	45.617436	Encroachment	37.4906	46.196585
L6511	Span from L6511-120 to L6511-121	31_6226	Blowout	Fall-In	2.81448	4.18	6.19	138	2024NSP24	9/6/2024	90.723927	-62.367095	45.606874	Encroachment	26.5176	27.801235
L6511	Span from L6511-105 to L6511-106	32_21611	Blowout	Fall-In	2.815355	8.24	12.62	138	2024NSP24	9/6/2024	70.409149	-62.400745	45.590773	Encroachment	29.2608	33.445094
L6511	Span from L6511-037 to L6511-038	53_10046	Blowout	Fall-In	2.81693	7.98	11.4	138	2024NSP24	9/6/2024	62.360762	-62.560655	45.612188	Encroachment	28.3464	31.354776
L6511	Span from L6511-123 to L6511-124	31_8395	Blowout	Fall-In	2.819608	9.7	13.93	138	2024NSP24	9/6/2024	93.110667	-62.359571	45.609571	Encroachment	38.4048	47.241196
L6511	Span from L6511-024 to L6511-025	29_13625	Blowout	Fall-In	2.821508	13.82	18.67	138	2024NSP24	9/6/2024	97.363989	-62.592776	45.617881	Encroachment	31.0896	41.597336
L6511	Span from L6511-118 to L6511-119	31_4084	Blowout	Fall-In	2.823887	12.2	22.64	138	2024NSP24	9/6/2024	93.111405	-62.370638	45.60568	Encroachment	38.405	40.970652
L6511	Span from L6511-120 to L6511-121	31_5895	Blowout	Fall-In	2.823893	13.42	17.45	138	2024NSP24	9/6/2024	90.350912	-62.366587	45.607484	Encroachment	58.5216	98.663028
L6511	Span from L6511-107 to L6511-108	32_23180	Blowout	Fall-In	2.825444	7.62	11.6	138	2024NSP24	9/6/2024	75.257337	-62.397158	45.592685	Encroachment	42.0626	49.540683
L6511	Span from L6511-027 to L6511-028	53_1805	Blowout	Fall-In	2.825993	8.38	15.55	138	2024NSP24	9/6/2024	96.06029	-62.587428	45.616958	Encroachment	28.3464	17.767706
L6511	Span from L6511-120 to L6511-121	31_6211	Blowout	Fall-In	2.830172	2.39	5.22	138	2024NSP24	9/6/2024	90.770839	-62.367142	45.606905	Encroachment	22.86	15.050292
L6511	Span from L6511-126 to L6511-127	31_9951	Blowout	Fall-In	2.832517	5.09	9.77	138	2024NSP24	9/6/2024	98.722345	-62.351747	45.611037	Encroachment	20.1168	13.169006
L6511	Span from L6511-031 to L6511-032	53_6207	Blowout	Fall-In	2.832819	16.68	20.26	138	2024NSP24	9/6/2024	76.830511	-62.575697	45.61424	Encroachment	41.148	58.528915
L6511	Span from L6511-136 to L6511-137	31_14914	Blowout	Fall-In	2.834423	8.77	13.13	138	2024NSP24	9/6/2024	98.117319	-62.328273	45.618107	Encroachment	39.3192	44.941846
L6511	Span from L6511-136 to L6511-137	31_15008	Blowout	Fall-In	2.835531	10.39	16.12	138	2024NSP24	9/6/2024	98.335376	-62.328727	45.617908	Encroachment	54.8642	56.647812
L6511	Span from L6511-122 to L6511-123	31_7579	Blowout	Fall-In	2.842864	10.78	13.57	138	2024NSP24	9/6/2024	96.060043	-62.36294	45.609011	Encroachment	35.6618	45.360732
L6511	Span from L6511-114 to L6511-115	31_2065	Blowout	Fall-In	2.844546	13.86	17	138	2024NSP24	9/6/2024	97.77519	-62.379776	45.601684	Encroachment	37.4904	54.348278
L6511	Span from L6511-104 to L6511-105	32_21350	Blowout	Fall-In	2.845066	9.06	14.45	138	2024NSP24	9/6/2024	70.677957	-62.403611	45.589712	Encroachment	37.4904	45.777973
L6511	Span from L6511-122 to L6511-123	31_7637	Blowout	Fall-In	2.846244	8.12	10.74	138	2024NSP24	9/6/2024	96.926913	-62.363082	45.608907	Encroachment	27.432	30.309617
L6511	Span from L6511-117 to L6511-118	31_3879	Blowout	Fall-In	2.848528	10.07	13.61	138	2024NSP24	9/6/2024	98.481321	-62.37594	45.60285	Encroachment	40.2338	43.688295
L6511	Span from L6511-102 to L6511-103	63_1616	Blowout	Fall-In	2.852048	14.34	17.32	138	2024NSP24	9/6/2024	69.293142	-62.407971	45.588136	Encroachment	45.7202	59.783929
L6511	Span from L6511-041 to L6511-042	53_13990	Blowout	Fall-In	2.852788	6.32	8.01	138	2024NSP24	9/6/2024	58.329578	-62.551859	45.611016	Encroachment	41.148	40.552177
L6511	Span from L6511-105 to L6511-106	32_21848	Blowout	Fall-In	2.853239	10.36	19.71	138	2024NSP24	9/6/2024	71.686415	-62.401518	45.590292	Encroachment	49.3776	60.410202
L6511	Span from L6511-136 to L6511-137	31_14886	Blowout	Fall-In	2.855873	4.34	13.22	138	2024NSP24	9/6/2024	97.972196	-62.328818	45.618137	Encroachment	28.3466	26.756487
L6511	Span from L6511-118 to L6511-119	31_4912	Blowout	Fall-In	2.858764	7.71	14.63	138	2024NSP24	9/6/2024	97.558233	-62.372747	45.60421	Encroachment	30.1752	29.682521
L6511	Span from L6511-137 to L6511-138	31_14699	Blowout	Fall-In	2.859859	13.76	17.06	138	2024NSP24	9/6/2024	97.05315	-62.328088	45.618598	Encroachment	37.4904	45.777973
L6511	Span from L6511-105 to L6511-106	32_21104	Blowout	Fall-In	2.865262	9.37	15.33	138	2024NSP24	9/6/2024	73.071374	-62.40178	45.590209	Encroachment	36.576	44.941846
L6511	Span from L6511-006 to L6511-007	29_2258	Blowout	Fall-In	2.867316	11.44	14.85	138	2024NSP24	9/6/2024	13.979064	-62.636785	45.625017	Encroachment	36.576	48.495387
L6511	Span from L6511-021 to L6511-022	29_10917	Blowout	Fall-In	2.868526	3.43	4.55	138	2024NSP24	9/6/2024	88.479684	-62.602167	45.619613	Encroachment	24.689	21.321613
L6511	Span from L6511-021 to L6511-022	29_10918	Blowout	Fall-In	2.868792	3.45	4.91	138	2024NSP24	9/6/2024	88.412018	-62.602237	45.61961	Encroachment	25.6034	22.157924
L6511	Span from L6511-031 to L6511-032	53_5982	Blowout	Fall-In	2.877201	9.17	11.69	138	2024NSP24	9/6/2024	72.754044	-62.577776	45.614575	Encroachment	27.4322	29.473992
L6511	Span from L6511-021 to L6511-022	29_10868	Blowout	Fall-In	2.877765	2.69	3.87	138	2024NSP24	9/6/2024	88.424932	-62.602196	45.619651	Encroachment	24.6888	18.812866
L6511	Span from L6511-117 to L6511-118	31_3529	Blowout	Fall-In	2.881122	2.98	2.98	138	2024NSP24	9/6/2024	94.45931	-62.375182	45.603515	Encroachment	1.8288	0.209032
L6511	Span from L6511-119 to L6511-120	31_5419	Blowout	Fall-In	2.890492	9.69	14.11	138	2024NSP24	9/6/2024	89.747258	-62.367898	45.606384	Encroachment	34.7474	35.327204
L6511	Span from L6511-035 to L6511-036	38_31133	Blowout	Fall-In	2.891425	12.34	16.82	138	2024NSP24	9/6/2024	66.34961	-62.565332	45.612767	Encroachment	33.8328	41.806368
L6511	Span from L6511-021 to L6511-022	29_10826	Blowout	Fall-In	2.8938	3.09	3.97	138	2024NSP24	9/6/2024	88.298081	-62.602325	45.619688	Encroachment	18.288	13.169006
L6511	Span from L6511-021 to L6511-022	29_10903	Blowout	Fall-In	2.893849	2.85	4.34	138	2024NSP24	9/6/2024	88.352911	-62.602302	45.61962	Encroachment	19.2024	15.259324
L6511	Span from L6511-125 to L6511-126	31_8741	Blowout	Fall-In	2.899557	8.18	13.94	138	2024NSP24	9/6/2024	104.543997	-62.355901	45.610581	Encroachment	52.121	60.619737
L6511	Span from L6511-149 to L6511-150	31_25410	Blowout	Fall-In	2.901102	11.62	16.19	138	2024NSP24	9/6/2024	65.80758	-62.300441	45.629411	Encroachment	34.7474	44.733362
L6511	Span from L6511-027 to L6511-028	53_1831	Blowout	Fall-In	2.904778	6	15.04	138	2024NSP24	9/6/2024	95.069798	-62.587288	45.616888	Encroachment	32.0042	33.863524
L6511	Span from L6511-119 to L6511-120	31_5714	Blowout	Fall-In	2.906067	10.62	14.45	138	2024NSP24	9/6/2024	92.930474	-62.369348	45.605717	Encroachment	32.9186	43.478988
L6511	Span from L6511-118 to L6511-119	31_4512	Blowout	Fall-In	2.910398	2.23	3.83	138	2024NSP24	9/6/2024	89.361675	-62.37124	45.605067	Encroachment	21.0314	15.886786
L6511	Span from L6511-116 to L6511-117	31_2942	Blowout	Fall-In	2.91125	8.77	12.63	138	2024NSP24	9/6/2024	100.6608	-62.37708	45.602391	Encroachment	40.2342	42.643593

L6511	Span from L6511-106 to L6511-107	32_22253	Blowout	Fall-In	2.913837	11.86	17.37	138	2024NSP24	9/6/2024	70.404921	-62.399098	45.592114	Encroachment	48.4636	62.082822
L6511	Span from L6511-031 to L6511-032	53_6032	Blowout	Fall-In	2.914042	7.5	11.65	138	2024NSP24	9/6/2024	71.829773	-62.57664	45.614429	Encroachment	28.3464	30.100585
L6511	Span from L6511-117 to L6511-118	31_3317	Blowout	Fall-In	2.915032	8.46	11.4	138	2024NSP24	9/6/2024	96.070183	-62.374601	45.603851	Encroachment	28.3464	30.518649
L6511	Span from L6511-106 to L6511-107	32_22632	Blowout	Fall-In	2.917762	12.87	14.79	138	2024NSP24	9/6/2024	69.830472	-62.399345	45.591529	Encroachment	41.148	54.55731
L6511	Span from L6511-119 to L6511-120	31_5411	Blowout	Fall-In	2.92732	2.46	4.25	138	2024NSP24	9/6/2024	89.15572	-62.368191	45.606396	Encroachment	21.0314	15.677799
L6511	Span from L6511-023 to L6511-024	29_12874	Blowout	Fall-In	2.929494	4.35	5.59	138	2024NSP24	9/6/2024	91.531652	-62.596435	45.6187	Encroachment	27.4322	26.547272
L6511	Span from L6511-108 to L6511-109	32_23837	Blowout	Fall-In	2.929841	3.29	9.96	138	2024NSP24	9/6/2024	73.031	-62.395354	45.593644	Encroachment	20.1168	12.54191
L6511	Span from L6511-105 to L6511-106	32_21000	Blowout	Fall-In	2.93096	8.13	13.26	138	2024NSP24	9/6/2024	73.568382	-62.402106	45.590422	Encroachment	31.0896	35.744445
L6511	Span from L6511-104 to L6511-105	32_21306	Blowout	Fall-In	2.931653	7.64	10.8	138	2024NSP24	9/6/2024	70.013153	-62.40259	45.589801	Encroachment	33.8328	37.625731
L6511	Span from L6511-117 to L6511-118	31_2749	Blowout	Fall-In	2.932327	12.89	17.34	138	2024NSP24	9/6/2024	99.544068	-62.37631	45.603079	Encroachment	53.0352	72.115985
L6511	Span from L6511-118 to L6511-119	31_4489	Blowout	Fall-In	2.934565	3.65	6.1	138	2024NSP24	9/6/2024	90.210702	-62.3709	45.605103	Encroachment	20.1168	18.812866
L6511	Span from L6511-107 to L6511-108	32_23071	Blowout	Fall-In	2.939117	4.69	7.96	138	2024NSP24	9/6/2024	76.021945	-62.39696	45.592854	Encroachment	21.0312	15.468356
L6511	Span from L6511-031 to L6511-032	53_6197	Blowout	Fall-In	2.939568	9.4	12.03	138	2024NSP24	9/6/2024	74.21588	-62.576069	45.614334	Encroachment	35.6616	46.823132
L6511	Span from L6511-036 to L6511-037	38_31712	Blowout	Fall-In	2.939638	9.88	15.54	138	2024NSP24	9/6/2024	56.432131	-62.563089	45.612436	Encroachment	39.3192	41.806368
L6511	Span from L6511-021 to L6511-022	29_10825	Blowout	Fall-In	2.941506	2.4	3.74	138	2024NSP24	9/6/2024	88.332299	-62.602272	45.61969	Encroachment	20.1168	16.095452
L6511	Span from L6511-028 to L6511-029	53_3524	Blowout	Fall-In	2.945619	3.97	14.1	138	2024NSP24	9/6/2024	88.458096	-62.583829	45.616069	Encroachment	25.6032	24.456725
L6511	Span from L6511-105 to L6511-106	32_21756	Blowout	Fall-In	2.94567	6.36	14.18	138	2024NSP24	9/6/2024	70.174066	-62.401155	45.590539	Encroachment	26.5176	24.874789
L6511	Span from L6511-105 to L6511-106	32_21561	Blowout	Fall-In	2.950143	4.61	7.75	138	2024NSP24	9/6/2024	70.333513	-62.400932	45.590855	Encroachment	22.86	16.513515
L6511	Span from L6511-102 to L6511-103	63_1620	Blowout	Fall-In	2.952532	8.39	13.07	138	2024NSP24	9/6/2024	69.475736	-62.408033	45.588097	Encroachment	30.1754	24.248105
L6511	Span from L6511-108 to L6511-109	32_23914	Blowout	Fall-In	2.953002	4.55	7.76	138	2024NSP24	9/6/2024	73.193652	-62.395586	45.593561	Encroachment	27.432	26.756076
L6511	Span from L6511-137 to L6511-138	31_15613	Blowout	Fall-In	2.955286	9.36	15.27	138	2024NSP24	9/6/2024	97.178444	-62.326629	45.618735	Encroachment	54.8642	66.263962
L6511	Span from L6511-107 to L6511-108	32_23033	Blowout	Fall-In	2.957499	2.49	4.25	138	2024NSP24	9/6/2024	76.090255	-62.397018	45.592904	Encroachment	22.86	17.140611
L6511	Span from L6511-117 to L6511-118	31_3335	Blowout	Fall-In	2.958576	9.83	12.2	138	2024NSP24	9/6/2024	95.66757	-62.374672	45.603833	Encroachment	31.0896	38.252827
L6511	Span from L6511-116 to L6511-117	31_2810	Blowout	Fall-In	2.960444	10.05	13.55	138	2024NSP24	9/6/2024	102.289139	-62.376697	45.602847	Encroachment	33.833	36.581258
L6511	Span from L6511-036 to L6511-037	53_9064	Blowout	Fall-In	2.960908	13.48	16.97	138	2024NSP24	9/6/2024	64.944508	-62.564905	45.612724	Encroachment	37.4908	51.841314
L6511	Span from L6511-062 to L6511-063	53_33281	Blowout	Fall-In	2.961306	3.14	5.18	138	2024NSP24	9/6/2024	15.722941	-62.503657	45.59251	Encroachment	15.5448	9.406433
L6511	Span from L6511-033 to L6511-034	38_29659	Blowout	Fall-In	2.962545	15.17	17.38	138	2024NSP24	9/6/2024	64.80045	-62.570935	45.613541	Encroachment	45.72	59.365043
L6511	Span from L6511-028 to L6511-029	53_2699	Blowout	Fall-In	2.963175	7.6	13.67	138	2024NSP24	9/6/2024	87.612902	-62.584332	45.616169	Encroachment	45.72	54.348278
L6511	Span from L6511-118 to L6511-119	31_3039	Blowout	Fall-In	2.964965	10.33	14.54	138	2024NSP24	9/6/2024	101.203655	-62.373323	45.604377	Encroachment	51.2064	58.110852
L6511	Span from L6511-062 to L6511-063	53_33262	Blowout	Fall-In	2.969573	3.84	5.01	138	2024NSP24	9/6/2024	16.018437	-62.503662	45.592582	Encroachment	31.0896	27.592203
L6511	Span from L6511-136 to L6511-137	31_14993	Blowout	Fall-In	2.971648	12.4	17.06	138	2024NSP24	9/6/2024	97.992977	-62.328401	45.617964	Encroachment	51.2064	72.534048
L6511	Span from L6511-022 to L6511-023	29_12442	Blowout	Fall-In	2.972783	6.65	16.32	138	2024NSP24	9/6/2024	92.508018	-62.598311	45.6188	Encroachment	20.1168	14.841261
L6511	Span from L6511-116 to L6511-117	31_2927	Blowout	Fall-In	2.974114	17.43	20.39	138	2024NSP24	9/6/2024	101.481133	-62.376618	45.602488	Encroachment	47.5488	78.38694
L6511	Span from L6511-043 to L6511-044	53_15449	Blowout	Fall-In	2.974547	6.94	11.74	138	2024NSP24	9/6/2024	59.724056	-62.547869	45.610284	Encroachment	26.5176	22.993502
L6511	Span from L6511-117 to L6511-118	31_3501	Blowout	Fall-In	2.97529	10.76	12.86	138	2024NSP24	9/6/2024	96.889523	-62.374179	45.603582	Encroachment	33.8328	39.71605
L6511	Span from L6511-106 to L6511-107	32_22142	Blowout	Fall-In	2.976977	9.86	15.26	138	2024NSP24	9/6/2024	72.058558	-62.398769	45.592236	Encroachment	32.004	31.354776
L6511	Span from L6511-122 to L6511-123	31_7617	Blowout	Fall-In	2.977898	7.11	11.91	138	2024NSP24	9/6/2024	96.586349	-62.363041	45.608929	Encroachment	25.6032	15.88642
L6511	Span from L6511-041 to L6511-042	53_14570	Blowout	Fall-In	2.980091	3.92	5.21	138	2024NSP24	9/6/2024	57.431473	-62.551011	45.610876	Encroachment	30.1754	25.502205
L6511	Span from L6511-117 to L6511-118	31_3836	Blowout	Fall-In	2.981849	6.12	8.89	138	2024NSP24	9/6/2024	96.214752	-62.375619	45.602999	Encroachment	39.3192	43.269591
L6511	Span from L6511-117 to L6511-118	31_3630	Blowout	Fall-In	2.983186	1.21	3.16	138	2024NSP24	9/6/2024	94.601134	-62.375002	45.60336	Encroachment	11.8872	4.807732
L6511	Span from L6511-107 to L6511-108	32_22904	Blowout	Fall-In	2.983726	9.52	13.88	138	2024NSP24	9/6/2024	76.212787	-62.397156	45.59309	Encroachment	32.9184	43.060559
L6511	Span from L6511-105 to L6511-106	32_21618	Blowout	Fall-In	2.98517	6.69	9.61	138	2024NSP24	9/6/2024	70.237184	-62.401413	45.590773	Encroachment	29.2608	25.292853
L6511	Span from L6511-022 to L6511-023	29_12266	Blowout	Fall-In	2.992033	6.69	9.33	138	2024NSP24	9/6/2024	87.605099	-62.599119	45.618936	Encroachment	35.6616	44.523782
L6511	Span from L6511-062 to L6511-063	53_33314	Blowout	Fall-In	2.993445	3.81	4.76	138	2024NSP24	9/6/2024	14.42936	-62.50342	45.592404	Encroachment	25.6032	24.456725
L6511	Span from L6511-119 to L6511-120	31_5392	Blowout	Fall-In	2.997797	14.59	19.68	138	2024NSP24	9/6/2024	88.89729	-62.368961	45.606444	Encroachment	36.576	48.913451
L6511	Span from L6511-033 to L6511-034	53_7626	Blowout	Fall-In	2.999702	9.89	14.53	138	2024NSP24	9/6/2024	66.026331	-62.570272	45.613531	Encroachment	41.148	52.466992
L6511	Span from L6511-122 to L6511-123	31_6347	Blowout	Fall-In	3.000833	10.87	19.4	138	2024NSP24	9/6/2024	98.30033	-62.363411	45.608878	Encroachment	25.6032	17.349643
L6511	Span from L6511-116 to L6511-117	31_2877	Blowout	Fall-In	3.005948	9.68	14.69	138	2024NSP24	9/6/2024	102.122197	-62.37654	45.60265	Encroachment	49.3784	64.800236
L6511	Span from L6511-105 to L6511-106	32_21614	Blowout	Fall-In	3.010293	2.29	8.26	138	2024NSP24	9/6/2024	70.223459	-62.401378	45.590758	Encroachment	10.9728	3.553541
L6511	Span from L6511-118 to L6511-119	31_3044	Blowout	Fall-In	3.010688	4.52	11.28	138	2024NSP24	9/6/2024	101.022001	-62.373291	45.604328	Encroachment	22.86	12.54191
L6511	Span from L6511-023 to L6511-024	29_12758	Blowout	Fall-In	3.010691	4.33	5.96	138	2024NSP24	9/6/2024	90.396677	-62.597015	45.61883	Encroachment	32.9184	29.473489
L6511	Span from L6511-031 to L6511-032	53_6194	Blowout	Fall-In	3.011189	8.8	12.1	138	2024NSP24	9/6/2024	75.981649	-62.575793	45.61434	Encroachment	37.4908	40.761803
L6511	Span from L6511-032 to L6511-033	53_6844	Blowout	Fall-In	3.011523	5.89	11.98	138	2024NSP24	9/6/2024	65.363805	-62.572923	45.613917	Encroachment	26.5176	16.095452
L6511	Span from L6511-121 to L6511-122	31_6666	Blowout	Fall-In	3.01205	2.23	4.29	138	2024NSP24	9/6/2024	94.380625	-62.364004	45.608254	Encroachment	29.2608	17.976738
L6511	Span from L6511-019 to L6511-020	29_9145	Blowout	Fall-In	3.012182	2.27	4.85	138	2024NSP24	9/6/2024	81.792764	-62.606244	45.620298	Encroachment	22.86	20.067057

L6511	Span from L6511-106 to L6511-107	32_22606	Blowout	Fall-In	3.012519	5.49	12.99	138	2024NSP24	9/6/2024	69.832916	-62.39938	45.591577	Encroachment	27.432	17.976738
L6511	Span from L6511-112 to L6511-113	31_948	Blowout	Fall-In	3.013731	2.67	6.63	138	2024NSP24	9/6/2024	75.555676	-62.386058	45.598936	Encroachment	21.9456	15.259324
L6511	Span from L6511-022 to L6511-023	29_11623	Blowout	Fall-In	3.016968	5.87	8.58	138	2024NSP24	9/6/2024	86.36068	-62.600136	45.619398	Encroachment	32.9186	27.801783
L6511	Span from L6511-110 to L6511-111	32_24960	Blowout	Fall-In	3.017509	2.64	6.27	138	2024NSP24	9/6/2024	75.854615	-62.390598	45.596271	Encroachment	24.6888	17.140611
L6511	Span from L6511-137 to L6511-138	31_15606	Blowout	Fall-In	3.018163	9.38	15.16	138	2024NSP24	9/6/2024	97.40311	-62.326529	45.618745	Encroachment	39.3194	36.99923
L6511	Span from L6511-019 to L6511-020	29_9186	Blowout	Fall-In	3.02092	4.17	5.95	138	2024NSP24	9/6/2024	82.397556	-62.606039	45.620281	Encroachment	29.2608	30.936712
L6511	Span from L6511-118 to L6511-119	31_3163	Blowout	Fall-In	3.022888	9.9	12.13	138	2024NSP24	9/6/2024	103.206764	-62.373212	45.604093	Encroachment	36.5762	45.151106
L6511	Span from L6511-118 to L6511-119	31_4468	Blowout	Fall-In	3.024628	2.57	3.93	138	2024NSP24	9/6/2024	90.056508	-62.370993	45.605126	Encroachment	18.288	12.750942
L6511	Span from L6511-136 to L6511-137	31_14898	Blowout	Fall-In	3.026156	4.94	10.59	138	2024NSP24	9/6/2024	98.104365	-62.328331	45.618132	Encroachment	20.1168	8.570305
L6511	Span from L6511-117 to L6511-118	31_3721	Blowout	Fall-In	3.027931	2.15	3.5	138	2024NSP24	9/6/2024	94.821191	-62.375221	45.603225	Encroachment	11.8872	5.64386
L6511	Span from L6511-106 to L6511-107	32_22495	Blowout	Fall-In	3.028288	9.83	17.08	138	2024NSP24	9/6/2024	69.649876	-62.399626	45.591782	Encroachment	53.0354	63.128027
L6511	Span from L6511-023 to L6511-024	29_12765	Blowout	Fall-In	3.03136	4.21	5.98	138	2024NSP24	9/6/2024	90.599472	-62.597229	45.618816	Encroachment	30.1752	30.100585
L6511	Span from L6511-022 to L6511-023	29_12258	Blowout	Fall-In	3.031625	3.12	8.84	138	2024NSP24	9/6/2024	88.356594	-62.598967	45.618927	Encroachment	22.86	15.259324
L6511	Span from L6511-031 to L6511-032	53_6030	Blowout	Fall-In	3.033161	5.32	8.24	138	2024NSP24	9/6/2024	72.312059	-62.576452	45.614437	Encroachment	32.0044	30.309983
L6511	Span from L6511-025 to L6511-026	62_45723	Blowout	Fall-In	3.034441	10.16	12.22	138	2024NSP24	9/6/2024	91.596701	-62.591168	45.61804	Encroachment	40.234	42.852304
L6511	Span from L6511-103 to L6511-104	32_19870	Blowout	Fall-In	3.034855	12.22	18.45	138	2024NSP24	9/6/2024	64.694939	-62.407431	45.588141	Encroachment	25.6036	21.112993
L6511	Span from L6511-031 to L6511-032	53_6184	Blowout	Fall-In	3.03508	7.93	12.02	138	2024NSP24	9/6/2024	72.491926	-62.576461	45.614379	Encroachment	32.0042	36.580983
L6511	Span from L6511-024 to L6511-025	29_13628	Blowout	Fall-In	3.035493	13.44	16.69	138	2024NSP24	9/6/2024	99.438005	-62.592509	45.617878	Encroachment	42.9768	50.167642
L6511	Span from L6511-023 to L6511-024	29_13161	Blowout	Fall-In	3.037537	7.62	14.3	138	2024NSP24	9/6/2024	92.977789	-62.596147	45.618405	Encroachment	22.86	16.931579
L6511	Span from L6511-023 to L6511-024	29_12822	Blowout	Fall-In	3.037795	4.22	5.76	138	2024NSP24	9/6/2024	90.724318	-62.596787	45.618757	Encroachment	29.2608	30.936712
L6511	Span from L6511-036 to L6511-037	53_9047	Blowout	Fall-In	3.038489	9.17	14.11	138	2024NSP24	9/6/2024	66.89807	-62.565074	45.612789	Encroachment	25.6032	24.247693
L6511	Span from L6511-126 to L6511-127	31_9965	Blowout	Fall-In	3.039553	4.49	6.39	138	2024NSP24	9/6/2024	97.619503	-62.352096	45.611012	Encroachment	26.5176	21.53028
L6511	Span from L6511-121 to L6511-122	31_6617	Blowout	Fall-In	3.039622	6.62	12.88	138	2024NSP24	9/6/2024	97.987644	-62.363581	45.608348	Encroachment	52.121	63.337653
L6511	Span from L6511-104 to L6511-105	32_20224	Blowout	Fall-In	3.040344	9.53	13.73	138	2024NSP24	9/6/2024	72.70198	-62.403921	45.589473	Encroachment	32.0042	34.909186
L6511	Span from L6511-118 to L6511-119	31_4189	Blowout	Fall-In	3.040782	7.08	15.97	138	2024NSP24	9/6/2024	91.392705	-62.370883	45.605526	Encroachment	27.4322	22.784608
L6511	Span from L6511-102 to L6511-103	63_1149	Blowout	Fall-In	3.043371	3.94	5.11	138	2024NSP24	9/6/2024	70.931834	-62.408456	45.588011	Encroachment	26.5176	23.411566
L6511	Span from L6511-025 to L6511-026	62_45526	Blowout	Fall-In	3.044868	8.79	12.1	138	2024NSP24	9/6/2024	92.654431	-62.591423	45.618043	Encroachment	37.4904	45.987005
L6511	Span from L6511-116 to L6511-117	31_2952	Blowout	Fall-In	3.048268	7.91	11.68	138	2024NSP24	9/6/2024	100.6755	-62.377183	45.602361	Encroachment	38.4052	43.269865
L6511	Span from L6511-023 to L6511-024	29_13030	Blowout	Fall-In	3.049375	3.29	6.51	138	2024NSP24	9/6/2024	92.419428	-62.596243	45.618543	Encroachment	21.0312	11.705783
L6511	Span from L6511-006 to L6511-007	29_2400	Blowout	Fall-In	3.049501	9.3	15.05	138	2024NSP24	9/6/2024	15.066014	-62.635244	45.624779	Encroachment	32.9184	45.777973
L6511	Span from L6511-122 to L6511-123	31_7246	Blowout	Fall-In	3.052486	8.98	12.63	138	2024NSP24	9/6/2024	97.178185	-62.361747	45.609486	Encroachment	34.7474	35.117852
L6511	Span from L6511-035 to L6511-036	53_8921	Blowout	Fall-In	3.053909	6.39	15.57	138	2024NSP24	9/6/2024	64.41796	-62.565719	45.612853	Encroachment	31.0896	28.42833
L6511	Span from L6511-122 to L6511-123	31_7765	Blowout	Fall-In	3.055559	11.37	14.78	138	2024NSP24	9/6/2024	97.561063	-62.362931	45.608557	Encroachment	38.405	39.089548
L6511	Span from L6511-119 to L6511-120	31_5472	Blowout	Fall-In	3.05777	10.08	13.15	138	2024NSP24	9/6/2024	89.640838	-62.369206	45.606295	Encroachment	35.6616	43.478623
L6511	Span from L6511-117 to L6511-118	31_3455	Blowout	Fall-In	3.058265	2.44	4.85	138	2024NSP24	9/6/2024	95.818471	-62.37448	45.603645	Encroachment	14.6304	8.779337
L6511	Span from L6511-137 to L6511-138	31_15621	Blowout	Fall-In	3.058908	16.74	22.14	138	2024NSP24	9/6/2024	95.995731	-62.327873	45.618728	Encroachment	58.5218	74.625144
L6511	Span from L6511-063 to L6511-064	45_31164	Blowout	Fall-In	3.059234	15.19	19.14	138	2024NSP24	9/6/2024	16.129767	-62.502603	45.591417	Encroachment	58.5216	77.759844
L6511	Span from L6511-024 to L6511-025	29_13612	Blowout	Fall-In	3.062597	9.63	13.83	138	2024NSP24	9/6/2024	95.993785	-62.593004	45.617939	Encroachment	35.6616	39.71605
L6511	Span from L6511-116 to L6511-117	31_2906	Blowout	Fall-In	3.065556	11.57	19.12	138	2024NSP24	9/6/2024	101.492748	-62.37665	45.602556	Encroachment	32.9184	36.789604
L6511	Span from L6511-023 to L6511-024	29_13023	Blowout	Fall-In	3.065828	11.26	16.71	138	2024NSP24	9/6/2024	90.703745	-62.597404	45.61857	Encroachment	31.0896	27.383171
L6511	Span from L6511-120 to L6511-121	31_5892	Blowout	Fall-In	3.067578	6.32	11.97	138	2024NSP24	9/6/2024	90.622627	-62.36637	45.607448	Encroachment	16.4592	10.660624
L6511	Span from L6511-023 to L6511-024	29_13210	Blowout	Fall-In	3.069873	14.6	16.59	138	2024NSP24	9/6/2024	94.732903	-62.595889	45.61834	Encroachment	42.0624	54.139247
L6511	Span from L6511-119 to L6511-120	31_5154	Blowout	Fall-In	3.07261	3.4	6.42	138	2024NSP24	9/6/2024	91.716969	-62.367727	45.606742	Encroachment	21.9456	14.632229
L6511	Span from L6511-137 to L6511-138	31_15726	Blowout	Fall-In	3.076322	2.97	9.96	138	2024NSP24	9/6/2024	96.438527	-62.327707	45.618388	Encroachment	16.4592	7.94321
L6511	Span from L6511-102 to L6511-103	63_1618	Blowout	Fall-In	3.078458	8.68	12.26	138	2024NSP24	9/6/2024	69.266089	-62.407948	45.588101	Encroachment	23.7744	16.095452
L6511	Span from L6511-149 to L6511-150	31_25270	Blowout	Fall-In	3.080887	16.43	19.96	138	2024NSP24	9/6/2024	69.413532	-62.300974	45.629721	Encroachment	42.9768	63.963743
L6511	Span from L6511-122 to L6511-123	31_6380	Blowout	Fall-In	3.083558	9.82	13.78	138	2024NSP24	9/6/2024	99.415275	-62.363494	45.608767	Encroachment	52.1208	61.664393
L6511	Span from L6511-021 to L6511-022	29_10861	Blowout	Fall-In	3.086189	2.71	3.75	138	2024NSP24	9/6/2024	88.285451	-62.602413	45.619653	Encroachment	14.6304	10.24256
L6511	Span from L6511-036 to L6511-037	38_31497	Blowout	Fall-In	3.086956	15.08	18.1	138	2024NSP24	9/6/2024	64.207845	-62.564785	45.612666	Encroachment	45.7202	67.517513
L6511	Span from L6511-107 to L6511-108	32_22042	Blowout	Fall-In	3.088844	6.92	11.63	138	2024NSP24	9/6/2024	75.461773	-62.397768	45.592371	Encroachment	37.4906	42.852167
L6511	Span from L6511-041 to L6511-042	53_14571	Blowout	Fall-In	3.090331	1.42	7.94	138	2024NSP24	9/6/2024	57.217088	-62.55121	45.610861	Encroachment	14.6306	5.435056
L6511	Span from L6511-127 to L6511-128	31_9780	Blowout	Fall-In	3.091998	6.95	14.55	138	2024NSP24	9/6/2024	102.299604	-62.351189	45.6114	Encroachment	24.6888	22.575439
L6511	Span from L6511-124 to L6511-125	31_8767	Blowout	Fall-In	3.094144	10.09	14.9	138	2024NSP24	9/6/2024	104.760721	-62.356306	45.61054	Encroachment	34.7472	44.523782
L6511	Span from L6511-028 to L6511-029	53_3496	Blowout	Fall-In	3.094872	8.76	13.27	138	2024NSP24	9/6/2024	87.912935	-62.584039	45.6161	Encroachment	29.2608	32.399935
L6511	Span from L6511-032 to L6511-033	53_6828	Blowout	Fall-In	3.09653	3.4	10.04	138	2024NSP24	9/6/2024	65.068682	-62.573034	45.613971	Encroachment	23.7744	18.18577

L6511	Span from L6511-036 to L6511-037	53_9066	Blowout	Fall-In	3.10493	13.11	16.68	138	2024NSP24	9/6/2024	66.928011	-62.565033	45.612731	Encroachment	52.121	66.263779
L6511	Span from L6511-122 to L6511-123	31_7724	Blowout	Fall-In	3.10798	3.97	5.65	138	2024NSP24	9/6/2024	96.9011	-62.362879	45.608715	Encroachment	27.432	22.993502
L6511	Span from L6511-032 to L6511-033	53_6866	Blowout	Fall-In	3.113716	11.55	17.02	138	2024NSP24	9/6/2024	66.991215	-62.572563	45.613813	Encroachment	31.0898	31.773388
L6511	Span from L6511-116 to L6511-117	31_2908	Blowout	Fall-In	3.115756	12.81	18.13	138	2024NSP24	9/6/2024	101.864586	-62.376541	45.602568	Encroachment	51.2066	82.567805
L6511	Span from L6511-119 to L6511-120	31_3955	Blowout	Fall-In	3.116058	12.05	22.52	138	2024NSP24	9/6/2024	96.557875	-62.370093	45.605897	Encroachment	54.8642	64.591159
L6511	Span from L6511-021 to L6511-022	29_10898	Blowout	Fall-In	3.119926	3.26	5.07	138	2024NSP24	9/6/2024	88.287498	-62.602395	45.619631	Encroachment	18.288	12.332879
L6511	Span from L6511-118 to L6511-119	31_4488	Blowout	Fall-In	3.119983	10.34	14.29	138	2024NSP24	9/6/2024	91.073452	-62.370633	45.605111	Encroachment	35.6618	38.880151
L6511	Span from L6511-121 to L6511-122	31_6573	Blowout	Fall-In	3.120299	9.42	12.35	138	2024NSP24	9/6/2024	98.739309	-62.363504	45.608387	Encroachment	31.0896	31.563808
L6511	Span from L6511-104 to L6511-105	32_21334	Blowout	Fall-In	3.121113	6.22	11.15	138	2024NSP24	9/6/2024	69.677169	-62.402717	45.589734	Encroachment	31.0896	26.338012
L6511	Span from L6511-022 to L6511-023	29_12293	Blowout	Fall-In	3.124476	6.93	8.98	138	2024NSP24	9/6/2024	88.355576	-62.598926	45.618913	Encroachment	26.5176	25.710916
L6511	Span from L6511-106 to L6511-107	32_22666	Blowout	Fall-In	3.125736	2.68	11.25	138	2024NSP24	9/6/2024	70.834006	-62.39976	45.591388	Encroachment	22.86	14.423197
L6511	Span from L6511-037 to L6511-038	53_10001	Blowout	Fall-In	3.127266	6.46	9.79	138	2024NSP24	9/6/2024	62.21529	-62.561149	45.612327	Encroachment	40.2336	45.568941
L6511	Span from L6511-137 to L6511-138	31_15717	Blowout	Fall-In	3.12793	7.78	12.89	138	2024NSP24	9/6/2024	95.765107	-62.32741	45.618435	Encroachment	34.7472	44.523782
L6511	Span from L6511-117 to L6511-118	31_3372	Blowout	Fall-In	3.129171	3.3	5.45	138	2024NSP24	9/6/2024	95.847555	-62.374567	45.603767	Encroachment	28.3468	16.722867
L6511	Span from L6511-027 to L6511-028	53_1917	Blowout	Fall-In	3.129308	4.29	7.41	138	2024NSP24	9/6/2024	91.786176	-62.5865	45.616803	Encroachment	23.7744	21.53028
L6511	Span from L6511-105 to L6511-106	32_21512	Blowout	Fall-In	3.136387	5.17	9.59	138	2024NSP24	9/6/2024	70.302551	-62.401083	45.590983	Encroachment	21.9456	14.423197
L6511	Span from L6511-118 to L6511-119	31_4737	Blowout	Fall-In	3.13702	9.05	13.16	138	2024NSP24	9/6/2024	94.121268	-62.372739	45.604691	Encroachment	37.4904	47.032164
L6511	Span from L6511-037 to L6511-038	53_10346	Blowout	Fall-In	3.139879	7.99	12.09	138	2024NSP24	9/6/2024	64.068682	-62.560125	45.612099	Encroachment	33.8328	36.789604
L6511	Span from L6511-115 to L6511-116	31_2441	Blowout	Fall-In	3.140666	10.49	15.78	138	2024NSP24	9/6/2024	100.812839	-62.378434	45.602171	Encroachment	45.7202	53.930946
L6511	Span from L6511-037 to L6511-038	53_10035	Blowout	Fall-In	3.140814	6.45	12	138	2024NSP24	9/6/2024	62.099356	-62.56107	45.612243	Encroachment	26.518	27.802378
L6511	Span from L6511-107 to L6511-108	32_23117	Blowout	Fall-In	3.141109	10.79	16.11	138	2024NSP24	9/6/2024	76.133118	-62.396864	45.592788	Encroachment	31.0896	36.162508
L6511	Span from L6511-023 to L6511-024	29_12974	Blowout	Fall-In	3.141339	4.39	5.78	138	2024NSP24	9/6/2024	93.44824	-62.595996	45.618606	Encroachment	31.0896	31.77284
L6511	Span from L6511-126 to L6511-127	31_9938	Blowout	Fall-In	3.144522	5.24	12.3	138	2024NSP24	9/6/2024	99.925836	-62.351509	45.61107	Encroachment	32.004	34.699285
L6511	Span from L6511-019 to L6511-020	29_9095	Blowout	Fall-In	3.147595	2.24	6.55	138	2024NSP24	9/6/2024	81.669372	-62.606288	45.620327	Encroachment	17.3736	11.496751
L6511	Span from L6511-035 to L6511-036	53_8863	Blowout	Fall-In	3.149379	11.27	16.22	138	2024NSP24	9/6/2024	63.869429	-62.566835	45.612985	Encroachment	30.1754	36.163103
L6511	Span from L6511-148 to L6511-149	31_23709	Blowout	Fall-In	3.152364	7.65	13.75	138	2024NSP24	9/6/2024	81.746415	-62.301998	45.629188	Encroachment	32.004	30.100585
L6511	Span from L6511-118 to L6511-119	31_4440	Blowout	Fall-In	3.158513	2.81	4.19	138	2024NSP24	9/6/2024	90.190521	-62.370966	45.605167	Encroachment	18.288	11.287719
L6511	Span from L6511-117 to L6511-118	31_3270	Blowout	Fall-In	3.158731	4.26	8.96	138	2024NSP24	9/6/2024	96.966283	-62.374431	45.60391	Encroachment	24.6888	13.169006
L6511	Span from L6511-105 to L6511-106	32_21539	Blowout	Fall-In	3.160162	11.61	14.13	138	2024NSP24	9/6/2024	71.353491	-62.400489	45.590906	Encroachment	32.004	37.207668
L6511	Span from L6511-124 to L6511-125	31_8857	Blowout	Fall-In	3.165179	6.31	11.82	138	2024NSP24	9/6/2024	102.266066	-62.356503	45.610442	Encroachment	21.0314	15.46863
L6511	Span from L6511-021 to L6511-022	29_10838	Blowout	Fall-In	3.165726	2.92	4.25	138	2024NSP24	9/6/2024	88.323208	-62.602527	45.619685	Encroachment	22.86	14.214165
L6511	Span from L6511-149 to L6511-150	31_25371	Blowout	Fall-In	3.169373	4.85	10.95	138	2024NSP24	9/6/2024	66.705085	-62.300581	45.629492	Encroachment	21.9456	20.276088
L6511	Span from L6511-021 to L6511-022	29_10855	Blowout	Fall-In	3.172452	2.28	3.68	138	2024NSP24	9/6/2024	88.285775	-62.60246	45.619662	Encroachment	19.2024	12.959974
L6511	Span from L6511-123 to L6511-124	31_8399	Blowout	Fall-In	3.174473	3.7	7.82	138	2024NSP24	9/6/2024	92.026973	-62.359996	45.609552	Encroachment	18.288	10.869656
L6511	Span from L6511-105 to L6511-106	32_21594	Blowout	Fall-In	3.174583	6.07	7.56	138	2024NSP24	9/6/2024	70.24223	-62.400912	45.590805	Encroachment	36.5762	39.925767
L6511	Span from L6511-028 to L6511-029	53_2378	Blowout	Fall-In	3.174836	12.5	17.54	138	2024NSP24	9/6/2024	91.004554	-62.585377	45.616385	Encroachment	28.3468	37.627103
L6511	Span from L6511-119 to L6511-120	31_3932	Blowout	Fall-In	3.176164	12.35	19.37	138	2024NSP24	9/6/2024	94.560107	-62.369913	45.605978	Encroachment	45.7202	75.25224
L6511	Span from L6511-104 to L6511-105	32_21182	Blowout	Fall-In	3.176859	8.25	11.41	138	2024NSP24	9/6/2024	70.061398	-62.402827	45.590076	Encroachment	34.7472	45.150877
L6511	Span from L6511-037 to L6511-038	53_10052	Blowout	Fall-In	3.179236	10.02	13.95	138	2024NSP24	9/6/2024	62.290601	-62.560702	45.612159	Encroachment	33.8328	43.269591
L6511	Span from L6511-024 to L6511-025	62_45448	Blowout	Fall-In	3.181621	11.9	16.12	138	2024NSP24	9/6/2024	97.374046	-62.592638	45.618263	Encroachment	37.4904	44.31475
L6511	Span from L6511-041 to L6511-042	53_14553	Blowout	Fall-In	3.183769	2.65	4.91	138	2024NSP24	9/6/2024	57.410414	-62.550969	45.610905	Encroachment	24.6888	17.349643
L6511	Span from L6511-120 to L6511-121	31_5119	Blowout	Fall-In	3.187976	4.08	6.38	138	2024NSP24	9/6/2024	92.182052	-62.367436	45.606791	Encroachment	21.0314	18.604108
L6511	Span from L6511-107 to L6511-108	32_22947	Blowout	Fall-In	3.190502	2.67	4.05	138	2024NSP24	9/6/2024	77.08013	-62.396847	45.593008	Encroachment	21.0312	14.841261
L6511	Span from L6511-124 to L6511-125	31_9105	Blowout	Fall-In	3.192325	2.68	4.98	138	2024NSP24	9/6/2024	96.509627	-62.357465	45.610223	Encroachment	21.0312	12.750942
L6511	Span from L6511-035 to L6511-036	38_31142	Blowout	Fall-In	3.195407	14.9	18.84	138	2024NSP24	9/6/2024	65.418121	-62.565585	45.612756	Encroachment	56.6936	91.139208
L6511	Span from L6511-036 to L6511-037	53_9068	Blowout	Fall-In	3.195873	12.35	15.09	138	2024NSP24	9/6/2024	62.946234	-62.564644	45.612693	Encroachment	20.117	11.078916
L6511	Span from L6511-104 to L6511-105	32_20294	Blowout	Fall-In	3.196755	7.17	11.43	138	2024NSP24	9/6/2024	72.539392	-62.40363	45.589266	Encroachment	40.2336	46.405068
L6511	Span from L6511-120 to L6511-121	31_6114	Blowout	Fall-In	3.196961	6.2	9.38	138	2024NSP24	9/6/2024	89.898097	-62.366515	45.607074	Encroachment	21.0312	14.423197
L6511	Span from L6511-062 to L6511-063	53_33755	Blowout	Fall-In	3.201153	3.16	4.65	138	2024NSP24	9/6/2024	13.376049	-62.503139	45.592121	Encroachment	12.8016	3.971605
L6511	Span from L6511-115 to L6511-116	31_2560	Blowout	Fall-In	3.201977	6.26	11.48	138	2024NSP24	9/6/2024	100.99014	-62.378213	45.601939	Encroachment	27.4322	25.293401
L6511	Span from L6511-024 to L6511-025	38_21051	Blowout	Fall-In	3.20257	4.12	10.22	138	2024NSP24	9/6/2024	94.185703	-62.593347	45.618319	Encroachment	23.7744	16.931579
L6511	Span from L6511-123 to L6511-124	31_8581	Blowout	Fall-In	3.202743	5.86	13.16	138	2024NSP24	9/6/2024	93.939241	-62.361011	45.609287	Encroachment	39.3194	35.117852
L6511	Span from L6511-121 to L6511-122	31_6803	Blowout	Fall-In	3.209045	15.27	21.95	138	2024NSP24	9/6/2024	90.089445	-62.365225	45.608129	Encroachment	48.4634	69.189813
L6511	Span from L6511-112 to L6511-113	31_1046	Blowout	Fall-In	3.210362	9.61	15.2	138	2024NSP24	9/6/2024	77.799088	-62.385626	45.598782	Encroachment	33.8328	35.326381
L6511	Span from L6511-023 to L6511-024	29_12868	Blowout	Fall-In	3.211584	3.07	5.04	138	2024NSP24	9/6/2024	90.499024	-62.59718	45.618699	Encroachment	16.4592	8.988369

L6511	Span from L6511-122 to L6511-123	31_7520	Blowout	Fall-In	3.215963	3.72	12.61	138	2024NSP24	9/6/2024	95.707405	-62.362078	45.609064	Encroachment	27.4324	19.022263
L6511	Span from L6511-032 to L6511-033	53_6963	Blowout	Fall-In	3.223239	1.73	6.06	138	2024NSP24	9/6/2024	65.369722	-62.573977	45.61409	Encroachment	7.3154	2.090456
L6511	Span from L6511-023 to L6511-024	29_12853	Blowout	Fall-In	3.223589	2.68	4.98	138	2024NSP24	9/6/2024	90.505335	-62.5972	45.618722	Encroachment	21.9456	14.214165
L6511	Span from L6511-108 to L6511-109	32_22876	Blowout	Fall-In	3.226002	5.93	8.7	138	2024NSP24	9/6/2024	77.469356	-62.396344	45.593145	Encroachment	48.4632	59.365043
L6511	Span from L6511-136 to L6511-137	31_15006	Blowout	Fall-In	3.229958	8.63	14.78	138	2024NSP24	9/6/2024	98.414082	-62.328821	45.617913	Encroachment	50.293	45.778567
L6511	Span from L6511-119 to L6511-120	31_5544	Blowout	Fall-In	3.231293	3.6	8.59	138	2024NSP24	9/6/2024	90.99407	-62.369343	45.606109	Encroachment	28.3464	22.993502
L6511	Span from L6511-028 to L6511-029	53_3623	Blowout	Fall-In	3.234637	13.82	19.28	138	2024NSP24	9/6/2024	88.112306	-62.584055	45.616022	Encroachment	60.3506	87.793693
L6511	Span from L6511-037 to L6511-038	53_10042	Blowout	Fall-In	3.236429	9.41	15.14	138	2024NSP24	9/6/2024	62.388528	-62.56129	45.612231	Encroachment	46.6346	61.874019
L6511	Span from L6511-062 to L6511-063	53_33412	Blowout	Fall-In	3.236616	3.48	6.4	138	2024NSP24	9/6/2024	13.376033	-62.503095	45.592094	Encroachment	29.2608	26.756076
L6511	Span from L6511-023 to L6511-024	29_13101	Blowout	Fall-In	3.238513	6.56	8.22	138	2024NSP24	9/6/2024	92.014249	-62.596352	45.618488	Encroachment	32.9184	34.699285
L6511	Span from L6511-028 to L6511-029	53_2703	Blowout	Fall-In	3.238974	7.81	13.67	138	2024NSP24	9/6/2024	87.667752	-62.584183	45.616128	Encroachment	26.5176	23.620598
L6511	Span from L6511-105 to L6511-106	32_21540	Blowout	Fall-In	3.240055	6.18	7.82	138	2024NSP24	9/6/2024	70.482667	-62.400802	45.59091	Encroachment	33.8328	40.552177
L6511	Span from L6511-119 to L6511-120	31_5721	Blowout	Fall-In	3.241881	11.41	14.83	138	2024NSP24	9/6/2024	93.05035	-62.369445	45.605683	Encroachment	36.5762	38.461904
L6511	Span from L6511-123 to L6511-124	31_8575	Blowout	Fall-In	3.242949	6.71	14.77	138	2024NSP24	9/6/2024	93.102692	-62.36082	45.6093	Encroachment	33.8328	34.490254
L6511	Span from L6511-121 to L6511-122	31_6402	Blowout	Fall-In	3.243086	7.3	11.25	138	2024NSP24	9/6/2024	100.279661	-62.363586	45.608679	Encroachment	32.0042	36.37218
L6511	Span from L6511-034 to L6511-035	53_7640	Blowout	Fall-In	3.244617	13.21	15.96	138	2024NSP24	9/6/2024	67.760596	-62.569769	45.613436	Encroachment	42.9768	58.946979
L6511	Span from L6511-022 to L6511-023	29_12459	Blowout	Fall-In	3.244655	7.41	16.46	138	2024NSP24	9/6/2024	89.98197	-62.598689	45.618786	Encroachment	26.5176	18.812866
L6511	Span from L6511-023 to L6511-024	29_12487	Blowout	Fall-In	3.245551	8.71	17.09	138	2024NSP24	9/6/2024	93.636834	-62.598173	45.618758	Encroachment	21.9458	14.632366
L6511	Span from L6511-122 to L6511-123	31_7705	Blowout	Fall-In	3.250558	2.61	4.7	138	2024NSP24	9/6/2024	96.634681	-62.362846	45.608772	Encroachment	24.6888	15.259324
L6511	Span from L6511-041 to L6511-042	53_14190	Blowout	Fall-In	3.256219	2.76	5.54	138	2024NSP24	9/6/2024	57.275651	-62.551432	45.61094	Encroachment	40.2338	41.598068
L6511	Span from L6511-117 to L6511-118	31_3467	Blowout	Fall-In	3.257551	0.62	5.22	138	2024NSP24	9/6/2024	95.855353	-62.374472	45.60362	Encroachment	10.0584	4.807732
L6511	Span from L6511-019 to L6511-020	29_9167	Blowout	Fall-In	3.257601	3.69	5.42	138	2024NSP24	9/6/2024	81.94396	-62.606171	45.620304	Encroachment	42.0624	53.512151
L6511	Span from L6511-021 to L6511-022	29_10875	Blowout	Fall-In	3.262734	2.64	3.51	138	2024NSP24	9/6/2024	88.384628	-62.602246	45.619634	Encroachment	11.8872	4.180637
L6511	Span from L6511-119 to L6511-120	31_5455	Blowout	Fall-In	3.267307	2.38	4.01	138	2024NSP24	9/6/2024	88.925371	-62.368294	45.606323	Encroachment	20.1168	14.423197
L6511	Span from L6511-118 to L6511-119	31_4210	Blowout	Fall-In	3.268914	3.37	9.38	138	2024NSP24	9/6/2024	91.866504	-62.370678	45.605498	Encroachment	28.3468	22.994371
L6511	Span from L6511-122 to L6511-123	31_7507	Blowout	Fall-In	3.269265	7.1	17.94	138	2024NSP24	9/6/2024	95.740668	-62.362845	45.609105	Encroachment	58.5218	75.251645
L6511	Span from L6511-122 to L6511-123	31_7262	Blowout	Fall-In	3.272907	3.31	10.2	138	2024NSP24	9/6/2024	97.161698	-62.361742	45.609447	Encroachment	22.86	15.88642
L6511	Span from L6511-024 to L6511-025	29_13242	Blowout	Fall-In	3.273743	14.1	18.84	138	2024NSP24	9/6/2024	99.005366	-62.595347	45.618289	Encroachment	53.9496	64.172775
L6511	Span from L6511-124 to L6511-125	31_8782	Blowout	Fall-In	3.275136	14.54	17.46	138	2024NSP24	9/6/2024	102.553008	-62.356526	45.610533	Encroachment	48.4634	72.743949
L6511	Span from L6511-124 to L6511-125	31_8806	Blowout	Fall-In	3.275159	6.85	13.79	138	2024NSP24	9/6/2024	104.698399	-62.356315	45.610484	Encroachment	25.6032	19.021897
L6511	Span from L6511-106 to L6511-107	32_22573	Blowout	Fall-In	3.276426	7.24	12.28	138	2024NSP24	9/6/2024	69.886384	-62.3991	45.591647	Encroachment	39.3192	42.642495
L6511	Span from L6511-032 to L6511-033	53_6860	Blowout	Fall-In	3.276864	7.46	12.46	138	2024NSP24	9/6/2024	68.588955	-62.572267	45.613841	Encroachment	22.86	12.54191
L6511	Span from L6511-126 to L6511-127	31_9966	Blowout	Fall-In	3.280131	10.43	13.98	138	2024NSP24	9/6/2024	99.952857	-62.351469	45.611019	Encroachment	41.148	49.331514
L6511	Span from L6511-062 to L6511-063	53_33284	Blowout	Fall-In	3.28434	3.74	5.05	138	2024NSP24	9/6/2024	15.412509	-62.503566	45.592505	Encroachment	25.6032	27.174139
L6511	Span from L6511-117 to L6511-118	31_3508	Blowout	Fall-In	3.29038	0.93	2.32	138	2024NSP24	9/6/2024	94.509886	-62.37503	45.603553	Encroachment	9.144	2.29935
L6511	Span from L6511-036 to L6511-037	53_9931	Blowout	Fall-In	3.293626	7.06	10.57	138	2024NSP24	9/6/2024	57.61563	-62.562511	45.61244	Encroachment	40.2336	42.851527
L6511	Span from L6511-119 to L6511-120	31_5302	Blowout	Fall-In	3.294922	11.74	16.67	138	2024NSP24	9/6/2024	88.670982	-62.368729	45.606535	Encroachment	21.9458	19.022263
L6511	Span from L6511-019 to L6511-020	29_9535	Blowout	Fall-In	3.295191	5.2	7.7	138	2024NSP24	9/6/2024	82.521181	-62.606067	45.620051	Encroachment	32.0042	28.428787
L6511	Span from L6511-104 to L6511-105	32_21288	Blowout	Fall-In	3.298409	7.17	10.52	138	2024NSP24	9/6/2024	70.088025	-62.40249	45.58984	Encroachment	37.4904	42.851527
L6511	Span from L6511-118 to L6511-119	31_4541	Blowout	Fall-In	3.300296	2.52	3.15	138	2024NSP24	9/6/2024	89.457722	-62.371299	45.605012	Encroachment	10.0584	3.344509
L6511	Span from L6511-019 to L6511-020	29_9606	Blowout	Fall-In	3.300331	6.95	11.85	138	2024NSP24	9/6/2024	82.022864	-62.606272	45.619996	Encroachment	25.6032	17.976738
L6511	Span from L6511-118 to L6511-119	31_4689	Blowout	Fall-In	3.30083	9.7	16.2	138	2024NSP24	9/6/2024	89.441126	-62.371381	45.604784	Encroachment	40.2342	53.930809
L6511	Span from L6511-035 to L6511-036	53_8855	Blowout	Fall-In	3.301611	8.85	11.62	138	2024NSP24	9/6/2024	63.819846	-62.566758	45.613015	Encroachment	33.8328	44.732814
L6511	Span from L6511-039 to L6511-040	53_12223	Blowout	Fall-In	3.303656	5.25	7.09	138	2024NSP24	9/6/2024	55.493899	-62.555603	45.611493	Encroachment	25.6032	24.247693
L6511	Span from L6511-106 to L6511-107	32_22343	Blowout	Fall-In	3.305755	17.17	21.14	138	2024NSP24	9/6/2024	69.6265	-62.399445	45.592001	Encroachment	39.3192	55.811501
L6511	Span from L6511-124 to L6511-125	31_8869	Blowout	Fall-In	3.305839	4.78	11.56	138	2024NSP24	9/6/2024	102.223037	-62.356542	45.610426	Encroachment	20.117	12.542093
L6511	Span from L6511-107 to L6511-108	32_22946	Blowout	Fall-In	3.307178	2.69	4.11	138	2024NSP24	9/6/2024	77.374581	-62.396791	45.59301	Encroachment	21.0312	14.214165
L6511	Span from L6511-108 to L6511-109	32_24031	Blowout	Fall-In	3.307232	2.18	3.52	138	2024NSP24	9/6/2024	74.813956	-62.396075	45.593405	Encroachment	19.2024	12.54191
L6511	Span from L6511-105 to L6511-106	32_21569	Blowout	Fall-In	3.312487	6.34	7.68	138	2024NSP24	9/6/2024	70.377249	-62.400862	45.59085	Encroachment	37.4906	44.733042
L6511	Span from L6511-112 to L6511-113	31_973	Blowout	Fall-In	3.315712	9.83	11.93	138	2024NSP24	9/6/2024	72.859177	-62.386407	45.598917	Encroachment	37.4904	44.523782
L6511	Span from L6511-118 to L6511-119	31_4690	Blowout	Fall-In	3.316254	1.36	6.03	138	2024NSP24	9/6/2024	90.219709	-62.371839	45.604754	Encroachment	10.0584	4.807732
L6511	Span from L6511-119 to L6511-120	31_4158	Blowout	Fall-In	3.321117	10.58	14.11	138	2024NSP24	9/6/2024	95.898704	-62.369716	45.605569	Encroachment	31.0896	38.043795
L6511	Span from L6511-122 to L6511-123	31_7730	Blowout	Fall-In	3.324492	3.4	5.69	138	2024NSP24	9/6/2024	97.346989	-62.362982	45.608691	Encroachment	18.288	10.451592
L6511	Span from L6511-041 to L6511-042	53_14195	Blowout	Fall-In	3.325853	2.4	5.25	138	2024NSP24	9/6/2024	57.207037	-62.551212	45.610906	Encroachment	18.288	12.750942
L6511	Span from L6511-117 to L6511-118	31_3551	Blowout	Fall-In	3.32863	1.4	2.54	138	2024NSP24	9/6/2024	94.464288	-62.375197	45.603505	Encroachment	13.7162	5.853074

L6511	Span from L6511-119 to L6511-120	31_5114	Blowout	Fall-In	3.329848	9.76	13.29	138	2024NSP24	9/6/2024	90.677657	-62.367972	45.606805	Encroachment	26.5176	20.903184
L6511	Span from L6511-119 to L6511-120	31_5660	Blowout	Fall-In	3.332545	11.91	17.23	138	2024NSP24	9/6/2024	90.037515	-62.368906	45.605882	Encroachment	36.576	51.421833
L6511	Span from L6511-025 to L6511-026	29_13630	Blowout	Fall-In	3.332571	10.42	15.44	138	2024NSP24	9/6/2024	98.376908	-62.592316	45.617867	Encroachment	34.7472	35.535413
L6511	Span from L6511-062 to L6511-063	53_33381	Blowout	Fall-In	3.334282	2.8	3.34	138	2024NSP24	9/6/2024	13.444175	-62.503214	45.592187	Encroachment	10.9728	3.762573
L6511	Span from L6511-023 to L6511-024	29_12775	Blowout	Fall-In	3.334875	4.47	6.34	138	2024NSP24	9/6/2024	90.653089	-62.59734	45.618819	Encroachment	39.3192	38.252827
L6511	Span from L6511-118 to L6511-119	31_4515	Blowout	Fall-In	3.341116	5.89	9.51	138	2024NSP24	9/6/2024	90.19953	-62.370844	45.605065	Encroachment	34.7474	34.490894
L6511	Span from L6511-117 to L6511-118	31_3707	Blowout	Fall-In	3.342152	2.31	2.75	138	2024NSP24	9/6/2024	94.77076	-62.375206	45.603237	Encroachment	3.6576	0.627096
L6511	Span from L6511-039 to L6511-040	53_12248	Blowout	Fall-In	3.342316	3.76	5.28	138	2024NSP24	9/6/2024	55.526658	-62.555854	45.611554	Encroachment	10.9728	2.508382
L6511	Span from L6511-117 to L6511-118	31_3566	Blowout	Fall-In	3.349681	1.8	2.44	138	2024NSP24	9/6/2024	94.496534	-62.375233	45.603468	Encroachment	5.4864	1.045159
L6511	Span from L6511-108 to L6511-109	32_22817	Blowout	Fall-In	3.350223	4.95	7.07	138	2024NSP24	9/6/2024	75.943063	-62.396217	45.593229	Encroachment	32.004	37.625731
L6511	Span from L6511-029 to L6511-030	53_3754	Blowout	Fall-In	3.350865	10.91	14.58	138	2024NSP24	9/6/2024	84.047483	-62.583173	45.61584	Encroachment	31.0896	35.326381
L6511	Span from L6511-149 to L6511-150	31_25311	Blowout	Fall-In	3.354696	8.63	13.47	138	2024NSP24	9/6/2024	67.139298	-62.300737	45.629645	Encroachment	53.9496	68.980507
L6511	Span from L6511-107 to L6511-108	32_23075	Blowout	Fall-In	3.357835	7.48	12.69	138	2024NSP24	9/6/2024	74.835068	-62.397575	45.592866	Encroachment	30.1752	34.281222
L6511	Span from L6511-025 to L6511-026	62_45469	Blowout	Fall-In	3.358755	11.11	16.03	138	2024NSP24	9/6/2024	94.293099	-62.591721	45.618159	Encroachment	22.86	17.140611
L6511	Span from L6511-120 to L6511-121	31_6128	Blowout	Fall-In	3.361228	2.89	5.66	138	2024NSP24	9/6/2024	90.430672	-62.367111	45.607045	Encroachment	15.5448	9.406433
L6511	Span from L6511-117 to L6511-118	31_3484	Blowout	Fall-In	3.364432	14.24	19.08	138	2024NSP24	9/6/2024	94.47948	-62.375345	45.603627	Encroachment	42.9768	58.528915
L6511	Span from L6511-117 to L6511-118	31_3763	Blowout	Fall-In	3.365037	13.87	18.54	138	2024NSP24	9/6/2024	97.713857	-62.376095	45.603193	Encroachment	42.0624	56.85666
L6511	Span from L6511-117 to L6511-118	31_3223	Blowout	Fall-In	3.365603	8.61	12.2	138	2024NSP24	9/6/2024	103.725413	-62.373483	45.603998	Encroachment	36.576	37.834763
L6511	Span from L6511-118 to L6511-119	31_4493	Blowout	Fall-In	3.36913	2.6	3.36	138	2024NSP24	9/6/2024	89.843964	-62.371055	45.605091	Encroachment	18.288	12.123847
L6511	Span from L6511-027 to L6511-028	53_1829	Blowout	Fall-In	3.371125	7.39	16.74	138	2024NSP24	9/6/2024	96.02073	-62.587479	45.616905	Encroachment	38.4048	47.868291
L6511	Span from L6511-022 to L6511-023	29_11954	Blowout	Fall-In	3.371167	7.26	10.45	138	2024NSP24	9/6/2024	87.228868	-62.600475	45.619151	Encroachment	26.5178	29.892102
L6511	Span from L6511-117 to L6511-118	31_3411	Blowout	Fall-In	3.376687	2.61	5.36	138	2024NSP24	9/6/2024	95.441354	-62.374676	45.603718	Encroachment	21.9458	13.79633
L6511	Span from L6511-030 to L6511-031	53_5350	Blowout	Fall-In	3.37712	7.74	11.88	138	2024NSP24	9/6/2024	74.912757	-62.580019	45.615057	Encroachment	30.1752	31.354776
L6511	Span from L6511-025 to L6511-026	62_45470	Blowout	Fall-In	3.378817	12.06	15.96	138	2024NSP24	9/6/2024	96.900387	-62.592073	45.618175	Encroachment	35.6618	44.105855
L6511	Span from L6511-039 to L6511-040	53_12202	Blowout	Fall-In	3.37924	5.42	7.59	138	2024NSP24	9/6/2024	55.844051	-62.556077	45.61154	Encroachment	27.432	27.174139
L6511	Span from L6511-025 to L6511-026	62_45472	Blowout	Fall-In	3.379912	10.91	14.27	138	2024NSP24	9/6/2024	97.969642	-62.592219	45.618169	Encroachment	35.6616	43.687655
L6511	Span from L6511-025 to L6511-026	62_45511	Blowout	Fall-In	3.380876	7.38	12.02	138	2024NSP24	9/6/2024	94.808351	-62.591789	45.618077	Encroachment	25.6034	23.621101
L6511	Span from L6511-123 to L6511-124	31_8535	Blowout	Fall-In	3.382871	7.88	13.84	138	2024NSP24	9/6/2024	92.088925	-62.360471	45.609382	Encroachment	29.2608	29.473489
L6511	Span from L6511-119 to L6511-120	31_5586	Blowout	Fall-In	3.384856	2.65	7.16	138	2024NSP24	9/6/2024	91.436479	-62.369438	45.606018	Encroachment	23.7744	18.394802
L6511	Span from L6511-024 to L6511-025	62_45455	Blowout	Fall-In	3.38492	8.72	13.74	138	2024NSP24	9/6/2024	97.386737	-62.5927	45.618224	Encroachment	29.261	31.982694
L6511	Span from L6511-136 to L6511-137	31_14854	Blowout	Fall-In	3.385854	8.94	15.15	138	2024NSP24	9/6/2024	97.963128	-62.328823	45.618186	Encroachment	32.0042	26.965702
L6511	Span from L6511-122 to L6511-123	31_7409	Blowout	Fall-In	3.38732	6.59	16.04	138	2024NSP24	9/6/2024	95.269525	-62.362457	45.609214	Encroachment	15.5448	9.406433
L6511	Span from L6511-119 to L6511-120	31_5635	Blowout	Fall-In	3.387391	2.87	4.45	138	2024NSP24	9/6/2024	91.506823	-62.369296	45.605921	Encroachment	18.288	14.005133
L6511	Span from L6511-117 to L6511-118	31_3626	Blowout	Fall-In	3.38787	1.2	2.29	138	2024NSP24	9/6/2024	94.844389	-62.375442	45.603368	Encroachment	12.8016	5.225796
L6511	Span from L6511-117 to L6511-118	31_3145	Blowout	Fall-In	3.389199	5.91	9.65	138	2024NSP24	9/6/2024	101.059767	-62.373874	45.604113	Encroachment	21.0314	16.095635
L6511	Span from L6511-041 to L6511-042	53_14007	Blowout	Fall-In	3.389462	4.46	6.58	138	2024NSP24	9/6/2024	57.553881	-62.551602	45.610963	Encroachment	32.9184	23.411566
L6511	Span from L6511-115 to L6511-116	31_2445	Blowout	Fall-In	3.389948	12.04	17.46	138	2024NSP24	9/6/2024	100.264862	-62.378542	45.602179	Encroachment	60.3504	75.878558
L6511	Span from L6511-137 to L6511-138	31_15681	Blowout	Fall-In	3.391489	4.82	8.42	138	2024NSP24	9/6/2024	95.715849	-62.327432	45.618534	Encroachment	24.6888	21.53028
L6511	Span from L6511-041 to L6511-042	53_14588	Blowout	Fall-In	3.392917	3.84	5.85	138	2024NSP24	9/6/2024	57.794389	-62.550832	45.610832	Encroachment	26.518	21.948938
L6511	Span from L6511-112 to L6511-113	31_1022	Blowout	Fall-In	3.393568	1.32	8.94	138	2024NSP24	9/6/2024	76.31519	-62.385825	45.598799	Encroachment	11.8872	5.434828
L6511	Span from L6511-033 to L6511-034	53_7594	Blowout	Fall-In	3.393987	8.29	13.08	138	2024NSP24	9/6/2024	64.964473	-62.570659	45.613625	Encroachment	32.0046	22.57649
L6511	Span from L6511-104 to L6511-105	32_21413	Blowout	Fall-In	3.394468	5.09	9.13	138	2024NSP24	9/6/2024	70.068066	-62.403135	45.589516	Encroachment	21.0312	13.378038
L6511	Span from L6511-148 to L6511-149	31_23624	Blowout	Fall-In	3.401866	16.04	20	138	2024NSP24	9/6/2024	82.057162	-62.301761	45.629384	Encroachment	57.6078	67.936902
L6511	Span from L6511-137 to L6511-138	31_15574	Blowout	Fall-In	3.40209	6.36	12.65	138	2024NSP24	9/6/2024	97.379009	-62.326614	45.618801	Encroachment	21.0312	16.931579
L6511	Span from L6511-036 to L6511-037	38_31672	Blowout	Fall-In	3.403733	5.9	14.7	138	2024NSP24	9/6/2024	56.43556	-62.563215	45.612475	Encroachment	37.4904	39.507018
L6511	Span from L6511-112 to L6511-113	31_1111	Blowout	Fall-In	3.404367	8.28	10.34	138	2024NSP24	9/6/2024	69.901895	-62.386894	45.598653	Encroachment	32.004	40.761209
L6511	Span from L6511-031 to L6511-032	53_6178	Blowout	Fall-In	3.404445	6.62	9.71	138	2024NSP24	9/6/2024	72.859677	-62.576388	45.614408	Encroachment	38.4052	39.716232
L6511	Span from L6511-110 to L6511-111	32_25685	Blowout	Fall-In	3.405748	4.21	5.49	138	2024NSP24	9/6/2024	76.51072	-62.390391	45.596402	Encroachment	26.5176	22.575439
L6511	Span from L6511-108 to L6511-109	32_23983	Blowout	Fall-In	3.408419	7.77	10.53	138	2024NSP24	9/6/2024	75.552605	-62.396372	45.593493	Encroachment	33.833	41.180004
L6511	Span from L6511-022 to L6511-023	29_12445	Blowout	Fall-In	3.410086	9.19	12.49	138	2024NSP24	9/6/2024	91.692696	-62.59846	45.61881	Encroachment	35.6616	42.224432
L6511	Span from L6511-062 to L6511-063	53_33292	Blowout	Fall-In	3.410898	3.25	5.2	138	2024NSP24	9/6/2024	15.349302	-62.50364	45.592487	Encroachment	24.6888	19.858025
L6511	Span from L6511-036 to L6511-037	53_9103	Blowout	Fall-In	3.414273	6.94	10.81	138	2024NSP24	9/6/2024	57.263133	-62.563701	45.612559	Encroachment	29.2608	24.456725
L6511	Span from L6511-118 to L6511-119	31_4540	Blowout	Fall-In	3.418135	2.37	2.93	138	2024NSP24	9/6/2024	89.486301	-62.371255	45.605026	Encroachment	21.0312	15.259324
L6511	Span from L6511-120 to L6511-121	31_6098	Blowout	Fall-In	3.418229	9.68	13.69	138	2024NSP24	9/6/2024	90.619142	-62.367248	45.607115	Encroachment	27.432	28.637362
L6511	Span from L6511-118 to L6511-119	31_4306	Blowout	Fall-In	3.419279	3.01	4.3	138	2024NSP24	9/6/2024	91.798911	-62.370639	45.605348	Encroachment	19.2024	12.959974

L6511	Span from L6511-023 to L6511-024	29_13028	Blowout	Fall-In	3.42245	3.12	5.08	138	2024NSP24	9/6/2024	93.265061	-62.596058	45.618561	Encroachment	42.0624	44.941846
L6511	Span from L6511-156 to L6511-157	31_28444	Blowout	Fall-In	3.423563	3.02	6.07	138	2024NSP24	9/6/2024	124.178611	-62.28346	45.636378	Encroachment	22.86	14.005133
L6511	Span from L6511-117 to L6511-118	31_3171	Blowout	Fall-In	3.424203	9.61	14.94	138	2024NSP24	9/6/2024	99.325644	-62.374168	45.60409	Encroachment	40.2336	44.941846
L6511	Span from L6511-118 to L6511-119	31_4245	Blowout	Fall-In	3.424215	3.12	4.7	138	2024NSP24	9/6/2024	92.972741	-62.370488	45.605432	Encroachment	19.2024	13.169006
L6511	Span from L6511-035 to L6511-036	53_8925	Blowout	Fall-In	3.426028	10.09	17.65	138	2024NSP24	9/6/2024	65.451658	-62.565517	45.612817	Encroachment	41.1482	48.495844
L6511	Span from L6511-103 to L6511-104	32_20272	Blowout	Fall-In	3.426067	16.17	19.46	138	2024NSP24	9/6/2024	65.211873	-62.404544	45.589326	Encroachment	33.8328	46.823132
L6511	Span from L6511-118 to L6511-119	31_4509	Blowout	Fall-In	3.426093	2.76	2.76	138	2024NSP24	9/6/2024	89.573519	-62.371196	45.605049	Encroachment	1.8288	0.209032
L6511	Span from L6511-032 to L6511-033	38_28763	Blowout	Fall-In	3.429819	16.74	19.21	138	2024NSP24	9/6/2024	69.419847	-62.574807	45.614046	Encroachment	41.148	66.681157
L6511	Span from L6511-102 to L6511-103	63_1141	Blowout	Fall-In	3.432863	3.69	5.04	138	2024NSP24	9/6/2024	71.588014	-62.408487	45.588061	Encroachment	24.6888	24.665757
L6511	Span from L6511-062 to L6511-063	53_33161	Blowout	Fall-In	3.434254	5	7.34	138	2024NSP24	9/6/2024	20.282544	-62.504015	45.59284	Encroachment	27.432	25.083821
L6511	Span from L6511-106 to L6511-107	32_22501	Blowout	Fall-In	3.444321	7.06	15.48	138	2024NSP24	9/6/2024	70.421604	-62.398841	45.591753	Encroachment	26.5176	22.784471
L6511	Span from L6511-119 to L6511-120	31_5425	Blowout	Fall-In	3.445531	1.83	3.37	138	2024NSP24	9/6/2024	88.948945	-62.368297	45.606376	Encroachment	18.2882	11.078825
L6511	Span from L6511-030 to L6511-031	53_5354	Blowout	Fall-In	3.448002	8.66	12.39	138	2024NSP24	9/6/2024	74.814082	-62.580101	45.615057	Encroachment	34.7472	39.71605
L6511	Span from L6511-036 to L6511-037	53_9951	Blowout	Fall-In	3.448309	7.29	11.62	138	2024NSP24	9/6/2024	57.932908	-62.562432	45.612419	Encroachment	36.576	49.749578
L6511	Span from L6511-117 to L6511-118	31_3819	Blowout	Fall-In	3.44846	3.34	5.17	138	2024NSP24	9/6/2024	96.408343	-62.375686	45.603036	Encroachment	22.86	19.021897
L6511	Span from L6511-118 to L6511-119	31_4347	Blowout	Fall-In	3.448546	1.9	3.78	138	2024NSP24	9/6/2024	91.620796	-62.370648	45.605284	Encroachment	22.8602	16.304575
L6511	Span from L6511-117 to L6511-118	31_3304	Blowout	Fall-In	3.45059	11.07	12.93	138	2024NSP24	9/6/2024	101.742431	-62.373634	45.603871	Encroachment	38.4048	49.749578
L6511	Span from L6511-119 to L6511-120	31_5204	Blowout	Fall-In	3.452987	6.7	10.74	138	2024NSP24	9/6/2024	89.493285	-62.368229	45.606678	Encroachment	29.2608	23.202534
L6511	Span from L6511-041 to L6511-042	53_13989	Blowout	Fall-In	3.453637	5.26	6.6	138	2024NSP24	9/6/2024	57.869343	-62.551722	45.611011	Encroachment	32.004	36.162508
L6511	Span from L6511-025 to L6511-026	62_45486	Blowout	Fall-In	3.456545	8.43	12.46	138	2024NSP24	9/6/2024	94.898415	-62.591859	45.61812	Encroachment	26.5176	24.665757
L6511	Span from L6511-062 to L6511-063	53_33395	Blowout	Fall-In	3.457283	2.25	3.37	138	2024NSP24	9/6/2024	13.441231	-62.503176	45.592162	Encroachment	25.6032	19.021897
L6511	Span from L6511-103 to L6511-104	32_19872	Blowout	Fall-In	3.458114	16.19	20.62	138	2024NSP24	9/6/2024	64.924274	-62.407516	45.58816	Encroachment	53.9498	82.568583
L6511	Span from L6511-119 to L6511-120	31_5636	Blowout	Fall-In	3.459699	3.03	4.85	138	2024NSP24	9/6/2024	91.933186	-62.369404	45.605915	Encroachment	18.2882	12.124121
L6511	Span from L6511-137 to L6511-138	31_14769	Blowout	Fall-In	3.464732	4.16	8.98	138	2024NSP24	9/6/2024	96.828035	-62.327818	45.618339	Encroachment	22.8602	15.886557
L6511	Span from L6511-062 to L6511-063	53_33288	Blowout	Fall-In	3.466529	3.93	9.46	138	2024NSP24	9/6/2024	16.18602	-62.503771	45.592496	Encroachment	21.0312	15.259324
L6511	Span from L6511-107 to L6511-108	32_22986	Blowout	Fall-In	3.469847	2.31	3.36	138	2024NSP24	9/6/2024	76.538309	-62.396944	45.592961	Encroachment	17.3736	12.332879
L6511	Span from L6511-122 to L6511-123	31_7468	Blowout	Fall-In	3.470873	8.42	12.24	138	2024NSP24	9/6/2024	96.489345	-62.361784	45.609143	Encroachment	33.8328	34.07219
L6511	Span from L6511-037 to L6511-038	53_10342	Blowout	Fall-In	3.472301	7.14	10.3	138	2024NSP24	9/6/2024	64.601579	-62.560034	45.612109	Encroachment	26.5176	29.473489
L6511	Span from L6511-118 to L6511-119	31_4734	Blowout	Fall-In	3.474146	10.91	14.55	138	2024NSP24	9/6/2024	89.808565	-62.371593	45.604689	Encroachment	39.3192	54.766342
L6511	Span from L6511-102 to L6511-103	63_1153	Blowout	Fall-In	3.474943	3.97	4.91	138	2024NSP24	9/6/2024	69.906012	-62.408265	45.587989	Encroachment	26.5176	23.202534
L6511	Span from L6511-118 to L6511-119	31_4786	Blowout	Fall-In	3.475251	16.3	19.4	138	2024NSP24	9/6/2024	97.093865	-62.373092	45.60458	Encroachment	48.4634	63.963926
L6511	Span from L6511-122 to L6511-123	31_7652	Blowout	Fall-In	3.476695	1.16	5.22	138	2024NSP24	9/6/2024	95.892378	-62.362617	45.608855	Encroachment	11.8872	5.434828
L6511	Span from L6511-108 to L6511-109	32_23548	Blowout	Fall-In	3.478126	5.64	11.05	138	2024NSP24	9/6/2024	73.681695	-62.395188	45.594057	Encroachment	21.0314	14.214394
L6511	Span from L6511-118 to L6511-119	31_4803	Blowout	Fall-In	3.479768	7.84	12.19	138	2024NSP24	9/6/2024	96.674323	-62.372932	45.604531	Encroachment	33.8328	39.71605
L6511	Span from L6511-105 to L6511-106	32_21574	Blowout	Fall-In	3.480263	6.39	10.68	138	2024NSP24	9/6/2024	70.561537	-62.400727	45.590833	Encroachment	25.6034	27.592569
L6511	Span from L6511-119 to L6511-120	31_5421	Blowout	Fall-In	3.481089	2.18	3.51	138	2024NSP24	9/6/2024	89.048998	-62.368235	45.606382	Encroachment	21.0314	17.350008
L6511	Span from L6511-022 to L6511-023	29_11884	Blowout	Fall-In	3.481967	6.04	13.02	138	2024NSP24	9/6/2024	88.728785	-62.600812	45.619199	Encroachment	24.6888	21.739311
L6511	Span from L6511-025 to L6511-026	38_22330	Blowout	Fall-In	3.485525	9.42	13.55	138	2024NSP24	9/6/2024	91.085012	-62.590324	45.617491	Encroachment	35.6616	42.0154
L6511	Span from L6511-136 to L6511-137	31_14969	Blowout	Fall-In	3.486446	4.63	11.76	138	2024NSP24	9/6/2024	98.308237	-62.328808	45.617993	Encroachment	28.3464	22.784471
L6511	Span from L6511-136 to L6511-137	31_14763	Blowout	Fall-In	3.487466	7.86	11.68	138	2024NSP24	9/6/2024	98.107184	-62.328451	45.618375	Encroachment	28.3464	29.891553
L6511	Span from L6511-118 to L6511-119	31_4475	Blowout	Fall-In	3.487975	2.77	3.64	138	2024NSP24	9/6/2024	89.848299	-62.371078	45.605116	Encroachment	15.5448	8.779337
L6511	Span from L6511-121 to L6511-122	31_5801	Blowout	Fall-In	3.490466	13.74	17.1	138	2024NSP24	9/6/2024	92.633398	-62.365963	45.607683	Encroachment	43.8912	55.393438
L6511	Span from L6511-103 to L6511-104	32_20364	Blowout	Fall-In	3.492577	14.05	17.48	138	2024NSP24	9/6/2024	69.153595	-62.403876	45.589076	Encroachment	45.72	74.206303
L6511	Span from L6511-021 to L6511-022	29_10816	Blowout	Fall-In	3.493252	2.58	3.69	138	2024NSP24	9/6/2024	88.289802	-62.602374	45.619703	Encroachment	19.2024	13.796101
L6511	Span from L6511-108 to L6511-109	32_23866	Blowout	Fall-In	3.493916	3.81	7.32	138	2024NSP24	9/6/2024	73.044688	-62.395468	45.593628	Encroachment	50.292	47.032164
L6511	Span from L6511-121 to L6511-122	31_6488	Blowout	Fall-In	3.493994	9.83	14.02	138	2024NSP24	9/6/2024	95.068887	-62.364083	45.608536	Encroachment	32.004	31.145744
L6511	Span from L6511-149 to L6511-150	31_25344	Blowout	Fall-In	3.494495	5.91	14.4	138	2024NSP24	9/6/2024	72.678531	-62.301102	45.629547	Encroachment	21.9462	14.00527
L6511	Span from L6511-124 to L6511-125	31_9087	Blowout	Fall-In	3.49541	5.66	10.65	138	2024NSP24	9/6/2024	95.94936	-62.357761	45.610248	Encroachment	23.7744	21.53028
L6511	Span from L6511-118 to L6511-119	31_3139	Blowout	Fall-In	3.496813	10.76	13.6	138	2024NSP24	9/6/2024	100.635541	-62.373021	45.604131	Encroachment	42.977	45.987096
L6511	Span from L6511-037 to L6511-038	53_10024	Blowout	Fall-In	3.498193	9.19	15.42	138	2024NSP24	9/6/2024	62.71382	-62.561445	45.612275	Encroachment	34.7474	41.597656
L6511	Span from L6511-119 to L6511-120	31_5370	Blowout	Fall-In	3.498831	2.33	4.14	138	2024NSP24	9/6/2024	89.398156	-62.368105	45.606447	Encroachment	18.2882	11.079008
L6511	Span from L6511-120 to L6511-121	31_5846	Blowout	Fall-In	3.499389	8.5	12.83	138	2024NSP24	9/6/2024	91.844623	-62.366129	45.607566	Encroachment	35.662	36.999001
L6511	Span from L6511-031 to L6511-032	53_6015	Blowout	Fall-In	3.503748	9.58	12.73	138	2024NSP24	9/6/2024	71.785558	-62.577451	45.614496	Encroachment	32.9184	40.970241
L6511	Span from L6511-118 to L6511-119	31_4462	Blowout	Fall-In	3.504925	2.16	3.2	138	2024NSP24	9/6/2024	90.240392	-62.370934	45.605144	Encroachment	22.86	14.005133
L6511	Span from L6511-006 to L6511-007	29_2446	Blowout	Fall-In	3.504957	8.51	11.26	138	2024NSP24	9/6/2024	15.745268	-62.635104	45.624723	Encroachment	36.576	45.359909

L6511	Span from L6511-156 to L6511-157	31_28504	Blowout	Fall-In	3.507795	9.09	12.23	138	2024NSP24	9/6/2024	124.38058	-62.284018	45.636252	Encroachment	34.7472	39.925081
L6511	Span from L6511-121 to L6511-122	31_6996	Blowout	Fall-In	3.515432	6.57	11.11	138	2024NSP24	9/6/2024	90.471835	-62.365472	45.60784	Encroachment	27.432	23.411566
L6511	Span from L6511-019 to L6511-020	29_9199	Blowout	Fall-In	3.515568	4.2	5.76	138	2024NSP24	9/6/2024	82.817678	-62.605921	45.620262	Encroachment	21.9458	18.186182
L6511	Span from L6511-062 to L6511-063	53_33315	Blowout	Fall-In	3.517139	2.91	4.01	138	2024NSP24	9/6/2024	14.684898	-62.503538	45.592398	Encroachment	14.6304	7.734178
L6511	Span from L6511-023 to L6511-024	29_12843	Blowout	Fall-In	3.517994	3.84	5.17	138	2024NSP24	9/6/2024	91.3258	-62.596517	45.618729	Encroachment	25.6032	21.739311
L6511	Span from L6511-108 to L6511-109	32_24074	Blowout	Fall-In	3.521643	2.27	3.75	138	2024NSP24	9/6/2024	75.524141	-62.396181	45.59333	Encroachment	24.6888	17.349643
L6511	Span from L6511-031 to L6511-032	53_6024	Blowout	Fall-In	3.523001	7.61	9.55	138	2024NSP24	9/6/2024	71.416922	-62.577035	45.614474	Encroachment	30.1754	34.908546
L6511	Span from L6511-148 to L6511-149	31_23794	Blowout	Fall-In	3.533948	8.71	11.52	138	2024NSP24	9/6/2024	82.318848	-62.301478	45.629059	Encroachment	33.8328	45.568941
L6511	Span from L6511-118 to L6511-119	31_4598	Blowout	Fall-In	3.534541	3.88	3.88	138	2024NSP24	9/6/2024	89.410576	-62.371379	45.604918	Encroachment	1.8288	0.209032
L6511	Span from L6511-033 to L6511-034	53_7591	Blowout	Fall-In	3.535426	5.61	12	138	2024NSP24	9/6/2024	64.825285	-62.570779	45.613627	Encroachment	23.7746	17.559223
L6511	Span from L6511-031 to L6511-032	53_6029	Blowout	Fall-In	3.535843	7.05	10.5	138	2024NSP24	9/6/2024	71.495737	-62.576871	45.614455	Encroachment	35.6616	37.625731
L6511	Span from L6511-118 to L6511-119	31_4169	Blowout	Fall-In	3.53608	3.33	7.34	138	2024NSP24	9/6/2024	93.515722	-62.37049	45.605541	Encroachment	20.1168	11.914815
L6511	Span from L6511-118 to L6511-119	31_4321	Blowout	Fall-In	3.536781	2.91	4.28	138	2024NSP24	9/6/2024	91.590658	-62.37066	45.605326	Encroachment	19.2026	13.378221
L6511	Span from L6511-021 to L6511-022	29_10820	Blowout	Fall-In	3.538184	2.73	3.79	138	2024NSP24	9/6/2024	88.296543	-62.602462	45.619695	Encroachment	20.1168	16.304484
L6511	Span from L6511-062 to L6511-063	53_33208	Blowout	Fall-In	3.539458	3.93	6.39	138	2024NSP24	9/6/2024	18.210393	-62.503843	45.592722	Encroachment	23.7744	22.366407
L6511	Span from L6511-117 to L6511-118	31_3760	Blowout	Fall-In	3.540384	1.05	2.98	138	2024NSP24	9/6/2024	95.265248	-62.375415	45.60316	Encroachment	11.8872	4.5987
L6511	Span from L6511-117 to L6511-118	31_3696	Blowout	Fall-In	3.540771	4.53	10.38	138	2024NSP24	9/6/2024	94.619769	-62.374839	45.60327	Encroachment	26.5178	22.366773
L6511	Span from L6511-108 to L6511-109	32_24051	Blowout	Fall-In	3.542541	2.47	3.83	138	2024NSP24	9/6/2024	75.31441	-62.396175	45.593369	Encroachment	19.2024	13.378038
L6511	Span from L6511-023 to L6511-024	29_12990	Blowout	Fall-In	3.542948	4.15	5.47	138	2024NSP24	9/6/2024	94.103118	-62.59592	45.618593	Encroachment	27.432	24.665757
L6511	Span from L6511-119 to L6511-120	31_5136	Blowout	Fall-In	3.543367	6.42	11.34	138	2024NSP24	9/6/2024	90.36262	-62.368014	45.606772	Encroachment	22.86	18.603834
L6511	Span from L6511-118 to L6511-119	31_4559	Blowout	Fall-In	3.544041	2.34	3.56	138	2024NSP24	9/6/2024	89.440092	-62.371349	45.605	Encroachment	26.5178	19.022217
L6511	Span from L6511-033 to L6511-034	53_7630	Blowout	Fall-In	3.544408	13.73	17.44	138	2024NSP24	9/6/2024	65.592959	-62.570437	45.613517	Encroachment	43.8912	62.50052
L6511	Span from L6511-107 to L6511-108	32_23115	Blowout	Fall-In	3.544821	15.78	22.21	138	2024NSP24	9/6/2024	74.83787	-62.397892	45.592812	Encroachment	41.148	66.054061
L6511	Span from L6511-121 to L6511-122	31_6742	Blowout	Fall-In	3.545828	10.03	13.26	138	2024NSP24	9/6/2024	90.479337	-62.364893	45.608172	Encroachment	33.8332	44.525245
L6511	Span from L6511-118 to L6511-119	31_4660	Blowout	Fall-In	3.545834	7	12.91	138	2024NSP24	9/6/2024	89.411414	-62.371301	45.604844	Encroachment	32.0042	32.818548
L6511	Span from L6511-106 to L6511-107	32_22484	Blowout	Fall-In	3.547807	3.04	13.04	138	2024NSP24	9/6/2024	70.312263	-62.398885	45.591776	Encroachment	21.9456	15.050292
L6511	Span from L6511-036 to L6511-037	53_9999	Blowout	Fall-In	3.550284	10.09	14.61	138	2024NSP24	9/6/2024	61.122754	-62.561908	45.612326	Encroachment	27.432	25.710916
L6511	Span from L6511-105 to L6511-106	32_21626	Blowout	Fall-In	3.551302	3.77	6.51	138	2024NSP24	9/6/2024	70.158396	-62.40095	45.590758	Encroachment	30.1754	17.350008
L6511	Span from L6511-120 to L6511-121	31_5035	Blowout	Fall-In	3.553375	6.2	11.05	138	2024NSP24	9/6/2024	92.035493	-62.367552	45.606934	Encroachment	30.1752	26.756076
L6511	Span from L6511-021 to L6511-022	29_11066	Blowout	Fall-In	3.554412	10.53	15.44	138	2024NSP24	9/6/2024	88.810648	-62.602951	45.619489	Encroachment	32.004	37.834763
L6511	Span from L6511-119 to L6511-120	31_5396	Blowout	Fall-In	3.55507	3.44	3.44	138	2024NSP24	9/6/2024	89.06589	-62.368244	45.606403	Encroachment	1.8288	0.209032
L6511	Span from L6511-022 to L6511-023	29_12384	Blowout	Fall-In	3.555967	6.22	12.62	138	2024NSP24	9/6/2024	91.027822	-62.598492	45.618847	Encroachment	22.86	16.095452
L6511	Span from L6511-022 to L6511-023	29_12091	Blowout	Fall-In	3.559978	4.01	5.34	138	2024NSP24	9/6/2024	87.133976	-62.599233	45.619039	Encroachment	24.6888	26.12898
L6511	Span from L6511-117 to L6511-118	31_3715	Blowout	Fall-In	3.561306	3.54	3.57	138	2024NSP24	9/6/2024	94.797551	-62.3752	45.603219	Encroachment	2.7432	0.418064
L6511	Span from L6511-104 to L6511-105	32_21377	Blowout	Fall-In	3.561848	3.91	9.67	138	2024NSP24	9/6/2024	70.844801	-62.403556	45.589627	Encroachment	22.8604	11.288131
L6511	Span from L6511-120 to L6511-121	31_6182	Blowout	Fall-In	3.562956	2.74	4.58	138	2024NSP24	9/6/2024	90.303456	-62.367	45.606949	Encroachment	23.7744	17.140611
L6511	Span from L6511-023 to L6511-024	29_12865	Blowout	Fall-In	3.564737	6.44	9.94	138	2024NSP24	9/6/2024	91.360146	-62.597672	45.618713	Encroachment	32.004	32.608967
L6511	Span from L6511-006 to L6511-007	29_2272	Blowout	Fall-In	3.564812	6.23	10.98	138	2024NSP24	9/6/2024	14.011675	-62.636812	45.624963	Encroachment	24.6888	21.948343
L6511	Span from L6511-120 to L6511-121	31_5001	Blowout	Fall-In	3.565174	7.42	11.03	138	2024NSP24	9/6/2024	91.367336	-62.367401	45.607011	Encroachment	37.4904	36.998636
L6511	Span from L6511-021 to L6511-022	29_11095	Blowout	Fall-In	3.566181	9.15	15.24	138	2024NSP24	9/6/2024	88.403089	-62.602743	45.619459	Encroachment	32.004	39.71605
L6511	Span from L6511-021 to L6511-022	29_10819	Blowout	Fall-In	3.566675	3.49	3.69	138	2024NSP24	9/6/2024	88.30179	-62.602495	45.619682	Encroachment	3.6576	0.627096
L6511	Span from L6511-104 to L6511-105	32_21295	Blowout	Fall-In	3.56811	7.85	10.76	138	2024NSP24	9/6/2024	69.826741	-62.403272	45.58983	Encroachment	47.5488	58.110852
L6511	Span from L6511-021 to L6511-022	29_10900	Blowout	Fall-In	3.568794	3.15	4.39	138	2024NSP24	9/6/2024	88.308552	-62.602352	45.619624	Encroachment	18.288	14.423197
L6511	Span from L6511-107 to L6511-108	32_22929	Blowout	Fall-In	3.570758	2.53	3.73	138	2024NSP24	9/6/2024	77.342617	-62.396835	45.593039	Encroachment	24.689	15.05075
L6511	Span from L6511-119 to L6511-120	31_5408	Blowout	Fall-In	3.570893	1.91	3.43	138	2024NSP24	9/6/2024	89.062718	-62.368285	45.606403	Encroachment	23.7746	14.841489
L6511	Span from L6511-030 to L6511-031	53_5359	Blowout	Fall-In	3.575049	2.3	10.74	138	2024NSP24	9/6/2024	75.457123	-62.579755	45.615008	Encroachment	18.2882	8.361456
L6511	Span from L6511-119 to L6511-120	31_5458	Blowout	Fall-In	3.577216	1.92	3.36	138	2024NSP24	9/6/2024	88.89278	-62.368327	45.606315	Encroachment	20.1168	13.169006
L6511	Span from L6511-108 to L6511-109	32_23977	Blowout	Fall-In	3.578423	2.9	4.16	138	2024NSP24	9/6/2024	74.107615	-62.395948	45.593481	Encroachment	18.2882	12.751308
L6511	Span from L6511-024 to L6511-025	62_45444	Blowout	Fall-In	3.579078	9.98	13.49	138	2024NSP24	9/6/2024	96.407628	-62.592829	45.618262	Encroachment	28.3464	30.518649
L6511	Span from L6511-117 to L6511-118	31_2854	Blowout	Fall-In	3.579618	10.45	16.2	138	2024NSP24	9/6/2024	101.859009	-62.37639	45.602719	Encroachment	29.2608	30.72768
L6511	Span from L6511-021 to L6511-022	29_10877	Blowout	Fall-In	3.581381	3.55	4.71	138	2024NSP24	9/6/2024	88.311193	-62.602516	45.619652	Encroachment	29.2608	24.456725
L6511	Span from L6511-118 to L6511-119	31_3183	Blowout	Fall-In	3.584676	9.97	13.28	138	2024NSP24	9/6/2024	103.738582	-62.373265	45.604072	Encroachment	36.5762	45.778796
L6511	Span from L6511-114 to L6511-115	31_2102	Blowout	Fall-In	3.587518	8.14	12.38	138	2024NSP24	9/6/2024	95.521299	-62.379947	45.60158	Encroachment	34.7472	36.162508
L6511	Span from L6511-118 to L6511-119	31_4145	Blowout	Fall-In	3.587585	5.28	7.49	138	2024NSP24	9/6/2024	93.586275	-62.370455	45.605582	Encroachment	27.432	23.202534
L6511	Span from L6511-022 to L6511-023	29_12458	Blowout	Fall-In	3.58959	10.29	17.92	138	2024NSP24	9/6/2024	90.543596	-62.598616	45.618782	Encroachment	19.2024	15.259324

L6511	Span from L6511-149 to L6511-150	31_25472	Blowout	Fall-In	3.596189	14.35	17.43	138	2024NSP24	9/6/2024	73.747395	-62.300905	45.629159	Encroachment	44.8056	60.410202
L6511	Span from L6511-121 to L6511-122	31_6898	Blowout	Fall-In	3.599002	5.61	15.84	138	2024NSP24	9/6/2024	91.996064	-62.364224	45.607992	Encroachment	25.6034	21.530737
L6511	Span from L6511-108 to L6511-109	32_24059	Blowout	Fall-In	3.59998	6.68	9.75	138	2024NSP24	9/6/2024	74.129607	-62.395864	45.593363	Encroachment	45.7202	52.049248
L6511	Span from L6511-118 to L6511-119	31_4234	Blowout	Fall-In	3.604813	3.73	4.98	138	2024NSP24	9/6/2024	93.210874	-62.370456	45.605456	Encroachment	23.7744	24.456725
L6511	Span from L6511-117 to L6511-118	31_3444	Blowout	Fall-In	3.610499	8.06	11.93	138	2024NSP24	9/6/2024	94.58027	-62.375013	45.603689	Encroachment	28.3464	27.383171
L6511	Span from L6511-033 to L6511-034	53_7616	Blowout	Fall-In	3.614426	9.17	15.09	138	2024NSP24	9/6/2024	65.462765	-62.570445	45.613579	Encroachment	42.0624	34.07219
L6511	Span from L6511-041 to L6511-042	38_37947	Blowout	Fall-In	3.614444	13.65	18.32	138	2024NSP24	9/6/2024	57.216983	-62.551434	45.610742	Encroachment	57.6074	83.40471
L6511	Span from L6511-117 to L6511-118	31_3613	Blowout	Fall-In	3.614942	10.3	15.62	138	2024NSP24	9/6/2024	95.359829	-62.374483	45.603419	Encroachment	46.6346	57.27477
L6511	Span from L6511-116 to L6511-117	31_2917	Blowout	Fall-In	3.616802	12.05	17.87	138	2024NSP24	9/6/2024	101.395705	-62.376697	45.602513	Encroachment	34.7472	39.088954
L6511	Span from L6511-119 to L6511-120	31_5394	Blowout	Fall-In	3.616965	2.52	4.46	138	2024NSP24	9/6/2024	89.329926	-62.368079	45.60642	Encroachment	23.7746	18.604062
L6511	Span from L6511-118 to L6511-119	31_4401	Blowout	Fall-In	3.620428	2.49	3.3	138	2024NSP24	9/6/2024	90.552582	-62.370854	45.605218	Encroachment	21.0312	14.632229
L6511	Span from L6511-118 to L6511-119	31_4256	Blowout	Fall-In	3.625298	2.3	4.01	138	2024NSP24	9/6/2024	93.279406	-62.37043	45.605419	Encroachment	21.9456	15.259324
L6511	Span from L6511-107 to L6511-108	32_23008	Blowout	Fall-In	3.6253	1.99	3.14	138	2024NSP24	9/6/2024	76.358353	-62.396962	45.592928	Encroachment	20.1168	14.005133
L6511	Span from L6511-114 to L6511-115	31_2078	Blowout	Fall-In	3.625783	7.87	13.82	138	2024NSP24	9/6/2024	97.504783	-62.379791	45.601629	Encroachment	25.6032	22.157375
L6511	Span from L6511-029 to L6511-030	53_3834	Blowout	Fall-In	3.629992	10.22	13.82	138	2024NSP24	9/6/2024	79.727781	-62.58253	45.615694	Encroachment	33.8328	43.269591
L6511	Span from L6511-123 to L6511-124	31_7449	Blowout	Fall-In	3.630002	11.02	16.65	138	2024NSP24	9/6/2024	97.280441	-62.36154	45.609183	Encroachment	59.436	84.0308
L6511	Span from L6511-021 to L6511-022	29_10837	Blowout	Fall-In	3.630131	3.01	3.59	138	2024NSP24	9/6/2024	88.295562	-62.602495	45.61967	Encroachment	7.3152	1.881287
L6511	Span from L6511-117 to L6511-118	31_3723	Blowout	Fall-In	3.631882	2.31	2.31	138	2024NSP24	9/6/2024	94.926547	-62.375291	45.603211	Encroachment	1.8288	0.209032
L6511	Span from L6511-043 to L6511-044	53_16128	Blowout	Fall-In	3.632677	7.36	13.06	138	2024NSP24	9/6/2024	57.795559	-62.547099	45.609797	Encroachment	55.7784	68.353412
L6511	Span from L6511-119 to L6511-120	31_5655	Blowout	Fall-In	3.63323	2.63	4.69	138	2024NSP24	9/6/2024	92.235349	-62.369402	45.605874	Encroachment	17.3738	11.497071
L6511	Span from L6511-118 to L6511-119	31_4451	Blowout	Fall-In	3.633887	2	3.51	138	2024NSP24	9/6/2024	90.356862	-62.370887	45.605154	Encroachment	21.9456	13.58707
L6511	Span from L6511-021 to L6511-022	29_10807	Blowout	Fall-In	3.633998	2.8	4.07	138	2024NSP24	9/6/2024	88.304117	-62.602512	45.619715	Encroachment	19.2024	13.796101
L6511	Span from L6511-112 to L6511-113	31_1163	Blowout	Fall-In	3.63518	2.67	4.65	138	2024NSP24	9/6/2024	69.424282	-62.386927	45.598515	Encroachment	17.3736	11.078688
L6511	Span from L6511-006 to L6511-007	29_2572	Blowout	Fall-In	3.639051	6.8	18.96	138	2024NSP24	9/6/2024	23.897991	-62.634281	45.624593	Encroachment	29.2608	16.095452
L6511	Span from L6511-108 to L6511-109	32_22771	Blowout	Fall-In	3.642781	9.7	14.87	138	2024NSP24	9/6/2024	77.944734	-62.396711	45.593338	Encroachment	31.0896	36.998636
L6511	Span from L6511-118 to L6511-119	31_4461	Blowout	Fall-In	3.642792	2.7	3.59	138	2024NSP24	9/6/2024	90.062214	-62.371007	45.605149	Encroachment	20.1168	14.005133
L6511	Span from L6511-032 to L6511-033	53_6213	Blowout	Fall-In	3.645182	13.68	17.27	138	2024NSP24	9/6/2024	74.008079	-62.575316	45.614177	Encroachment	43.8912	62.082456
L6511	Span from L6511-022 to L6511-023	29_11750	Blowout	Fall-In	3.646971	3.76	5.66	138	2024NSP24	9/6/2024	86.23027	-62.600076	45.619297	Encroachment	30.1752	26.12898
L6511	Span from L6511-117 to L6511-118	31_3560	Blowout	Fall-In	3.650212	1.83	5.06	138	2024NSP24	9/6/2024	94.697436	-62.374805	45.603484	Encroachment	14.6304	6.898051
L6511	Span from L6511-041 to L6511-042	53_14004	Blowout	Fall-In	3.651639	4.56	6.89	138	2024NSP24	9/6/2024	57.761755	-62.551722	45.610962	Encroachment	26.5176	24.456725
L6511	Span from L6511-021 to L6511-022	29_10921	Blowout	Fall-In	3.652047	2.95	3.92	138	2024NSP24	9/6/2024	88.815988	-62.601988	45.619607	Encroachment	21.0314	17.558995
L6511	Span from L6511-108 to L6511-109	32_24113	Blowout	Fall-In	3.65441	6.43	8.37	138	2024NSP24	9/6/2024	75.742379	-62.396138	45.59322	Encroachment	39.3192	40.970241
L6511	Span from L6511-041 to L6511-042	53_13995	Blowout	Fall-In	3.656616	4.38	6.28	138	2024NSP24	9/6/2024	57.716847	-62.551658	45.610992	Encroachment	19.2024	11.496751
L6511	Span from L6511-041 to L6511-042	53_13998	Blowout	Fall-In	3.658067	5.26	7.09	138	2024NSP24	9/6/2024	58.125781	-62.551801	45.610987	Encroachment	31.0896	31.563808
L6511	Span from L6511-102 to L6511-103	63_1147	Blowout	Fall-In	3.658673	3.84	4.88	138	2024NSP24	9/6/2024	70.404514	-62.408297	45.588025	Encroachment	22.86	19.648993
L6511	Span from L6511-027 to L6511-028	53_1856	Blowout	Fall-In	3.65951	6.56	15.65	138	2024NSP24	9/6/2024	93.135363	-62.586964	45.616771	Encroachment	45.72	52.466992
L6511	Span from L6511-039 to L6511-040	53_12158	Blowout	Fall-In	3.659538	2.94	5.15	138	2024NSP24	9/6/2024	56.471059	-62.556285	45.611611	Encroachment	21.0312	16.304484
L6511	Span from L6511-107 to L6511-108	32_23185	Blowout	Fall-In	3.662856	7.57	13.67	138	2024NSP24	9/6/2024	75.104175	-62.397946	45.592674	Encroachment	30.1752	31.145744
L6511	Span from L6511-118 to L6511-119	31_4419	Blowout	Fall-In	3.662878	2.56	3.35	138	2024NSP24	9/6/2024	90.441509	-62.370904	45.605199	Encroachment	21.0312	15.259324
L6511	Span from L6511-117 to L6511-118	31_2765	Blowout	Fall-In	3.665664	10.64	14.68	138	2024NSP24	9/6/2024	100.468689	-62.376396	45.602999	Encroachment	32.9184	36.998636
L6511	Span from L6511-117 to L6511-118	31_3464	Blowout	Fall-In	3.668825	9.01	11.12	138	2024NSP24	9/6/2024	97.402326	-62.374079	45.603651	Encroachment	32.9184	40.134113
L6511	Span from L6511-104 to L6511-105	32_21237	Blowout	Fall-In	3.670757	7.37	11.21	138	2024NSP24	9/6/2024	69.693311	-62.403113	45.58993	Encroachment	32.9186	35.954162
L6511	Span from L6511-103 to L6511-104	63_1199	Blowout	Fall-In	3.670791	15.76	19.05	138	2024NSP24	9/6/2024	66.863191	-62.407441	45.587794	Encroachment	51.2066	79.01463
L6511	Span from L6511-107 to L6511-108	32_22958	Blowout	Fall-In	3.673964	2.44	3.42	138	2024NSP24	9/6/2024	76.899219	-62.3969	45.592996	Encroachment	20.1168	12.750942
L6511	Span from L6511-023 to L6511-024	29_12856	Blowout	Fall-In	3.674781	3.68	5.12	138	2024NSP24	9/6/2024	91.638083	-62.596359	45.61871	Encroachment	29.2608	22.575439
L6511	Span from L6511-118 to L6511-119	31_4400	Blowout	Fall-In	3.677928	2.31	3.29	138	2024NSP24	9/6/2024	90.797645	-62.370807	45.605224	Encroachment	25.6032	17.140611
L6511	Span from L6511-006 to L6511-007	29_2475	Blowout	Fall-In	3.679604	7.75	11.46	138	2024NSP24	9/6/2024	16.524357	-62.635028	45.624694	Encroachment	32.004	40.970241
L6511	Span from L6511-027 to L6511-028	38_23337	Blowout	Fall-In	3.682702	5.48	17.62	138	2024NSP24	9/6/2024	92.473578	-62.586838	45.616699	Encroachment	26.5176	21.948343
L6511	Span from L6511-118 to L6511-119	31_4533	Blowout	Fall-In	3.687986	3.21	3.21	138	2024NSP24	9/6/2024	89.580853	-62.371156	45.605011	Encroachment	1.8288	0.209032
L6511	Span from L6511-118 to L6511-119	31_4831	Blowout	Fall-In	3.688419	10.07	14.37	138	2024NSP24	9/6/2024	99.357752	-62.373243	45.60448	Encroachment	50.2922	63.546365
L6511	Span from L6511-107 to L6511-108	32_22979	Blowout	Fall-In	3.692158	2.24	3.16	138	2024NSP24	9/6/2024	76.92063	-62.396865	45.592973	Encroachment	19.2024	12.54191
L6511	Span from L6511-029 to L6511-030	53_3819	Blowout	Fall-In	3.693001	10.62	15.67	138	2024NSP24	9/6/2024	81.032879	-62.582755	45.615727	Encroachment	32.004	39.507018
L6511	Span from L6511-117 to L6511-118	31_3504	Blowout	Fall-In	3.693761	2.46	5.47	138	2024NSP24	9/6/2024	95.334504	-62.374596	45.603565	Encroachment	17.3736	13.378038
L6511	Span from L6511-136 to L6511-137	31_14951	Blowout	Fall-In	3.693857	6.57	12.13	138	2024NSP24	9/6/2024	97.99253	-62.328503	45.618024	Encroachment	32.9184	29.264458
L6511	Span from L6511-037 to L6511-038	53_10045	Blowout	Fall-In	3.69511	6.75	16.61	138	2024NSP24	9/6/2024	62.262897	-62.561229	45.612196	Encroachment	32.004	28.42833

L6511	Span from L6511-031 to L6511-032	53_6023	Blowout	Fall-In	3.69767	4.7	7.31	138	2024NSP24	9/6/2024	71.939831	-62.576628	45.614466	Encroachment	26.5176	28.637362
L6511	Span from L6511-115 to L6511-116	31_2549	Blowout	Fall-In	3.699468	12.44	16.97	138	2024NSP24	9/6/2024	97.993361	-62.379092	45.601975	Encroachment	35.6626	43.479354
L6511	Span from L6511-024 to L6511-025	62_45442	Blowout	Fall-In	3.699554	14.65	17.65	138	2024NSP24	9/6/2024	98.174858	-62.592527	45.618281	Encroachment	48.4632	63.336648
L6511	Span from L6511-118 to L6511-119	31_4381	Blowout	Fall-In	3.700325	3.68	8.82	138	2024NSP24	9/6/2024	89.251219	-62.371311	45.605243	Encroachment	21.0314	16.72305
L6511	Span from L6511-117 to L6511-118	31_3005	Blowout	Fall-In	3.701744	2.92	5.48	138	2024NSP24	9/6/2024	96.667519	-62.374405	45.60384	Encroachment	12.8016	6.479987
L6511	Span from L6511-118 to L6511-119	31_4790	Blowout	Fall-In	3.708158	4.13	8.69	138	2024NSP24	9/6/2024	94.958847	-62.372764	45.604557	Encroachment	32.9184	22.575439
L6511	Span from L6511-118 to L6511-119	31_3151	Blowout	Fall-In	3.708177	10.2	11.98	138	2024NSP24	9/6/2024	101.810785	-62.373132	45.604103	Encroachment	32.004	36.998636
L6511	Span from L6511-122 to L6511-123	31_7279	Blowout	Fall-In	3.709183	13.01	15.36	138	2024NSP24	9/6/2024	96.104834	-62.362027	45.609434	Encroachment	42.0624	50.794737
L6511	Span from L6511-027 to L6511-028	53_1930	Blowout	Fall-In	3.710082	4	7.39	138	2024NSP24	9/6/2024	91.585457	-62.58631	45.616724	Encroachment	44.8056	50.167642
L6511	Span from L6511-037 to L6511-038	53_10050	Blowout	Fall-In	3.711069	7.74	13.01	138	2024NSP24	9/6/2024	62.190216	-62.560787	45.612178	Encroachment	33.8328	40.134113
L6511	Span from L6511-120 to L6511-121	31_6052	Blowout	Fall-In	3.711489	4.11	7.47	138	2024NSP24	9/6/2024	89.947705	-62.366901	45.6072	Encroachment	21.9456	18.812866
L6511	Span from L6511-118 to L6511-119	31_4500	Blowout	Fall-In	3.71209	2.35	3.92	138	2024NSP24	9/6/2024	89.975311	-62.370991	45.605085	Encroachment	21.9456	16.304484
L6511	Span from L6511-118 to L6511-119	31_4308	Blowout	Fall-In	3.712598	2.19	3.18	138	2024NSP24	9/6/2024	92.360065	-62.370536	45.605348	Encroachment	22.86	15.677388
L6511	Span from L6511-025 to L6511-026	38_22261	Blowout	Fall-In	3.712751	7.5	11.63	138	2024NSP24	9/6/2024	90.732255	-62.590602	45.617575	Encroachment	31.0896	36.998636
L6511	Span from L6511-021 to L6511-022	29_10863	Blowout	Fall-In	3.714291	2.75	3.11	138	2024NSP24	9/6/2024	88.479495	-62.602161	45.619646	Encroachment	11.8872	3.135478
L6511	Span from L6511-117 to L6511-118	31_3803	Blowout	Fall-In	3.717842	11.48	14.43	138	2024NSP24	9/6/2024	94.922792	-62.375172	45.603095	Encroachment	36.5762	43.061382
L6511	Span from L6511-019 to L6511-020	29_9193	Blowout	Fall-In	3.719395	2.47	4.33	138	2024NSP24	9/6/2024	82.226252	-62.606094	45.620261	Encroachment	19.2024	12.332879
L6511	Span from L6511-118 to L6511-119	31_4219	Blowout	Fall-In	3.723068	3.8	4.85	138	2024NSP24	9/6/2024	94.055552	-62.370344	45.605476	Encroachment	26.5178	21.530508
L6511	Span from L6511-025 to L6511-026	53_1094	Blowout	Fall-In	3.723991	7.24	10.39	138	2024NSP24	9/6/2024	92.631723	-62.589782	45.617475	Encroachment	30.1752	30.518649
L6511	Span from L6511-041 to L6511-042	53_14577	Blowout	Fall-In	3.725126	4.01	5.73	138	2024NSP24	9/6/2024	57.251328	-62.551116	45.610856	Encroachment	22.8602	22.366864
L6511	Span from L6511-062 to L6511-063	53_33455	Blowout	Fall-In	3.725145	3.9	5.87	138	2024NSP24	9/6/2024	13.806429	-62.502877	45.591932	Encroachment	27.4322	27.174596
L6511	Span from L6511-021 to L6511-022	29_10856	Blowout	Fall-In	3.725823	3.57	5.08	138	2024NSP24	9/6/2024	88.344457	-62.602586	45.61967	Encroachment	29.2608	25.292853
L6511	Span from L6511-023 to L6511-024	29_12686	Blowout	Fall-In	3.726401	7.35	12.73	138	2024NSP24	9/6/2024	90.525734	-62.596785	45.618942	Encroachment	35.6616	40.134113
L6511	Span from L6511-119 to L6511-120	31_5397	Blowout	Fall-In	3.727952	1.07	3.3	138	2024NSP24	9/6/2024	88.701805	-62.368507	45.606415	Encroachment	12.8016	5.434828
L6511	Span from L6511-120 to L6511-121	31_5187	Blowout	Fall-In	3.728171	10.72	16.53	138	2024NSP24	9/6/2024	91.372528	-62.367158	45.606695	Encroachment	32.004	35.535413
L6511	Span from L6511-029 to L6511-030	53_3820	Blowout	Fall-In	3.730036	13.12	16.92	138	2024NSP24	9/6/2024	81.342018	-62.582831	45.615728	Encroachment	32.0042	40.134845
L6511	Span from L6511-024 to L6511-025	62_45457	Blowout	Fall-In	3.731409	9.35	13.82	138	2024NSP24	9/6/2024	97.696167	-62.592606	45.618224	Encroachment	31.0898	34.281816
L6511	Span from L6511-117 to L6511-118	31_3267	Blowout	Fall-In	3.73263	3.57	6.51	138	2024NSP24	9/6/2024	97.973012	-62.374205	45.603919	Encroachment	29.2608	20.067057
L6511	Span from L6511-036 to L6511-037	38_31687	Blowout	Fall-In	3.73476	17.46	22.56	138	2024NSP24	9/6/2024	58.418759	-62.564033	45.61247	Encroachment	37.4904	53.930215
L6511	Span from L6511-041 to L6511-042	53_14544	Blowout	Fall-In	3.735268	2.9	4.58	138	2024NSP24	9/6/2024	57.234872	-62.551157	45.610924	Encroachment	18.288	13.58707
L6511	Span from L6511-149 to L6511-150	31_23610	Blowout	Fall-In	3.736554	1.26	9.28	138	2024NSP24	9/6/2024	77.097697	-62.301301	45.629386	Encroachment	8.2296	1.881287
L6511	Span from L6511-104 to L6511-105	32_21456	Blowout	Fall-In	3.737192	10.48	16	138	2024NSP24	9/6/2024	71.040786	-62.403339	45.589322	Encroachment	35.6616	47.032164
L6511	Span from L6511-118 to L6511-119	31_4802	Blowout	Fall-In	3.740276	5.27	10.05	138	2024NSP24	9/6/2024	95.637634	-62.372849	45.604535	Encroachment	41.148	46.196037
L6511	Span from L6511-108 to L6511-109	32_23593	Blowout	Fall-In	3.743185	7.18	15.41	138	2024NSP24	9/6/2024	73.083581	-62.395496	45.594003	Encroachment	29.2608	25.710916
L6511	Span from L6511-155 to L6511-156	31_27144	Blowout	Fall-In	3.74361	9.34	11.92	138	2024NSP24	9/6/2024	112.047637	-62.286595	45.6352	Encroachment	31.0896	33.654126
L6511	Span from L6511-117 to L6511-118	31_3128	Blowout	Fall-In	3.746381	11.67	14.53	138	2024NSP24	9/6/2024	100.695525	-62.374006	45.604157	Encroachment	31.0898	35.954071
L6511	Span from L6511-103 to L6511-104	32_20232	Blowout	Fall-In	3.74705	10.55	13.69	138	2024NSP24	9/6/2024	71.298706	-62.404044	45.589441	Encroachment	33.8328	36.998636
L6511	Span from L6511-108 to L6511-109	32_24017	Blowout	Fall-In	3.751035	1.96	3.3	138	2024NSP24	9/6/2024	74.582036	-62.396042	45.593426	Encroachment	21.0312	12.54191
L6511	Span from L6511-118 to L6511-119	31_4265	Blowout	Fall-In	3.751744	2.39	3.9	138	2024NSP24	9/6/2024	92.73724	-62.370486	45.605397	Encroachment	15.5448	10.033528
L6511	Span from L6511-108 to L6511-109	32_22837	Blowout	Fall-In	3.75354	4.23	7.08	138	2024NSP24	9/6/2024	76.986805	-62.396329	45.593186	Encroachment	26.5176	20.276088
L6511	Span from L6511-112 to L6511-113	31_648	Blowout	Fall-In	3.753781	1.83	9.32	138	2024NSP24	9/6/2024	78.118448	-62.385695	45.598868	Encroachment	15.5448	8.779337
L6511	Span from L6511-106 to L6511-107	32_22394	Blowout	Fall-In	3.753883	7.7	13.34	138	2024NSP24	9/6/2024	69.672475	-62.399326	45.591912	Encroachment	25.6032	21.948343
L6511	Span from L6511-034 to L6511-035	53_8348	Blowout	Fall-In	3.755244	14.8	18.16	138	2024NSP24	9/6/2024	67.143634	-62.569714	45.613387	Encroachment	41.148	54.975374
L6511	Span from L6511-116 to L6511-117	31_2798	Blowout	Fall-In	3.755592	9.18	14.06	138	2024NSP24	9/6/2024	102.392212	-62.376676	45.602885	Encroachment	53.0352	63.545679
L6511	Span from L6511-118 to L6511-119	31_4422	Blowout	Fall-In	3.755981	2.11	2.81	138	2024NSP24	9/6/2024	90.425338	-62.370858	45.605187	Encroachment	21.9456	13.58707
L6511	Span from L6511-108 to L6511-109	32_23935	Blowout	Fall-In	3.756471	2.26	5.48	138	2024NSP24	9/6/2024	73.346504	-62.395704	45.593537	Encroachment	19.2024	14.423197
L6511	Span from L6511-118 to L6511-119	31_4097	Blowout	Fall-In	3.759857	9.32	15.59	138	2024NSP24	9/6/2024	93.592788	-62.370544	45.605656	Encroachment	36.576	49.95861
L6511	Span from L6511-025 to L6511-026	53_1121	Blowout	Fall-In	3.760902	8.23	10.88	138	2024NSP24	9/6/2024	95.260143	-62.589369	45.617418	Encroachment	31.0896	34.281222
L6511	Span from L6511-038 to L6511-039	53_10806	Blowout	Fall-In	3.761086	2.75	6.22	138	2024NSP24	9/6/2024	61.744808	-62.558806	45.611989	Encroachment	38.4048	40.552177
L6511	Span from L6511-027 to L6511-028	53_1928	Blowout	Fall-In	3.76196	4.09	10.64	138	2024NSP24	9/6/2024	91.603173	-62.586369	45.616716	Encroachment	26.5176	25.501884
L6511	Span from L6511-036 to L6511-037	38_31724	Blowout	Fall-In	3.762057	10.29	17.22	138	2024NSP24	9/6/2024	56.510964	-62.563016	45.612421	Encroachment	32.0042	33.654446
L6511	Span from L6511-023 to L6511-024	29_12878	Blowout	Fall-In	3.76324	4.05	5.86	138	2024NSP24	9/6/2024	92.620868	-62.596142	45.618689	Encroachment	22.8602	19.231386
L6511	Span from L6511-023 to L6511-024	29_13005	Blowout	Fall-In	3.763256	2.68	4.54	138	2024NSP24	9/6/2024	92.500849	-62.596213	45.618566	Encroachment	16.4592	11.078688
L6511	Span from L6511-119 to L6511-120	31_4009	Blowout	Fall-In	3.763708	3.18	11.24	138	2024NSP24	9/6/2024	96.735158	-62.37003	45.605767	Encroachment	23.7746	15.25969
L6511	Span from L6511-123 to L6511-124	31_8520	Blowout	Fall-In	3.765377	2.67	6.84	138	2024NSP24	9/6/2024	94.076448	-62.361097	45.609419	Encroachment	23.7744	15.677388

L6511	Span from L6511-105 to L6511-106	32_21666	Blowout	Fall-In	3.766494	6.76	10.56	138	2024NSP24	9/6/2024	70.132327	-62.400945	45.59069	Encroachment	24.689	22.784836
L6511	Span from L6511-027 to L6511-028	53_1931	Blowout	Fall-In	3.770932	6.7	12.56	138	2024NSP24	9/6/2024	91.842704	-62.586539	45.616708	Encroachment	30.1752	33.027031
L6511	Span from L6511-025 to L6511-026	29_14270	Blowout	Fall-In	3.771685	12.53	14.82	138	2024NSP24	9/6/2024	95.334686	-62.592017	45.617742	Encroachment	59.4362	86.121895
L6511	Span from L6511-031 to L6511-032	53_6002	Blowout	Fall-In	3.773397	3.01	6.75	138	2024NSP24	9/6/2024	71.417471	-62.576982	45.614515	Encroachment	22.86	15.050292
L6511	Span from L6511-035 to L6511-036	53_8845	Blowout	Fall-In	3.774291	3.85	10.07	138	2024NSP24	9/6/2024	63.82459	-62.566799	45.613059	Encroachment	21.0314	12.12403
L6511	Span from L6511-023 to L6511-024	29_12848	Blowout	Fall-In	3.774636	3.45	4.66	138	2024NSP24	9/6/2024	90.860873	-62.596637	45.618724	Encroachment	23.7744	20.48512
L6511	Span from L6511-119 to L6511-120	31_5171	Blowout	Fall-In	3.774856	3.04	5.35	138	2024NSP24	9/6/2024	90.880886	-62.367865	45.606707	Encroachment	21.0312	16.095452
L6511	Span from L6511-118 to L6511-119	31_4467	Blowout	Fall-In	3.779196	3.03	3.68	138	2024NSP24	9/6/2024	89.880885	-62.371046	45.605134	Encroachment	17.3736	11.078688
L6511	Span from L6511-119 to L6511-120	31_5314	Blowout	Fall-In	3.780418	1.93	3.73	138	2024NSP24	9/6/2024	89.037378	-62.368298	45.606516	Encroachment	21.0312	11.914815
L6511	Span from L6511-103 to L6511-104	63_1676	Blowout	Fall-In	3.786905	9.98	14.52	138	2024NSP24	9/6/2024	66.192098	-62.407405	45.587884	Encroachment	21.0314	12.751308
L6511	Span from L6511-117 to L6511-118	31_3509	Blowout	Fall-In	3.787856	1.1	2.2	138	2024NSP24	9/6/2024	94.478471	-62.375088	45.60356	Encroachment	14.6304	6.270955
L6511	Span from L6511-022 to L6511-023	29_11794	Blowout	Fall-In	3.788284	4.18	5.83	138	2024NSP24	9/6/2024	85.98941	-62.5998	45.61926	Encroachment	27.432	21.112216
L6511	Span from L6511-033 to L6511-034	38_29667	Blowout	Fall-In	3.794169	16.01	17.83	138	2024NSP24	9/6/2024	64.833549	-62.570833	45.613521	Encroachment	39.3192	59.156011

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Request IR-43:

Regarding Figure 8: New Rights-of-Way for Distribution Feeders on page 21 of the Reliability Plan and the New Rights-of-Way for Distribution Feeders:

- (a) In Excel, please provide the Feeder IDs shown that correspond to this map and align with the Feeder IDs provided in response to question 17.**
- (b) Please explain and provide all quantitative support for why these feeders were targeted in 2025. Please use data provided in response to question 17 as part of this response, and provide any other data or calculations as needed in Excel.**
- (c) Please indicate the feeder IDs for which work was completed in 2025.**
 - (i) Please provide the total cost of each program for each feeder where work was accomplished.**
 - (ii) For feeders where work was not accomplished, please explain why this was the case.**
 - (iii) Please provide a list of feeder IDs that were not prioritized in the Reliability Plan but were targeted for reliability investment in 2025.**
 - (iv) Why did NS Power implement programs on feeders it had not originally planned on targeting? Please provide all qualitative and quantitative analysis in support of this response.**

Five Year Reliability Plan 2025-2029 (M12558)
NSPI Responses to Synapse Energy Economics Information Requests

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1 Response IR-43:

2
3 (a) Please refer to Attachment 1 for feeders and general geographical location from map Figure
4 8 on page 21 of the Five-Year Reliability Plan. To align with Synapse IR-17, this work
5 would be pro-active to prevent tree contacts with power lines in these regions.
6

7 (b) Please refer to matter M12619 NSEB-IR-188(a), which is reproduced as Attachment 2, for
8 an explanation of qualitative factors that influenced the 2025 vegetation management
9 planning. In addition to the qualitative factors, quantitative factors such as vegetation
10 condition ratings will also influence risk-based decisions when selecting feeders for
11 treatment. Please refer to Attachment 1 for the vegetation condition rating for the feeders
12 listed.
13

14 (c) (i) Please refer to Attachment 3 for contract dollars per feeder. NS Power does not
15 track other costs such as labour, materials, and administrative overhead at the feeder
16 level. "Other" denotes work within small miscellaneous projects that are not
17 tracked at the feeder level.
18

19 (ii) Please refer to Synapse IR-41 (c) (ii).
20

21 (iii) Please refer to Attachment 4 for a summary of feeders that had work completed in
22 2025 that were not included in the original plan but added due to reprioritization.
23

24 (iv) As noted in part (c)(ii) and part (b) above, reliability performance and other risk
25 factors are continuously reassessed. Conversely to feeders being deprioritized and
26 removed from the plan, these same factors may necessitate the addition of feeders
27 to the plan to address emerging or heightened reliability concerns Please refer to
28 Synapse IR-41 (c) (iv).

2025 New Rights-of-Way for Distribution Feeders

Feeder	Geographic Location	Feeder Condition	Feeder Cri	Vegetation Risk	Adjusted Project Risk	Key Risk Factors
100C-421	Havre Boucher	5	4	5	20	20
103W-312	Borgols Point	4	4	5	16	20
113H-433	Upper Lawrencetown	4	5	5	20	25
11S-302	Blacketts Lake	3	3	5	9	15
11S-411	Eskasoni	4	5	5	20	25
16N-301	Stewiacke	4	4	3	16	16
16W-301	Hebron	4	5	5	20	25
16W-302	Lake George	4	5	5	20	25
1V-443	Vaughn	4	5	5	20	25
1W-411	River Road, Lake Rossignol	3	3	5	9	15
24C-442	Canso	5	5	5	25	25
25W-301	Upper Ohio	5	4	5	20	20
25W-302	Roseway (XC)	4	4	5	16	20
30N-412	River Hebert	4	5	3	20	20
37N-411	Economy	3	4	5	12	20
37N-412	Dilligent River, Parrsboro	4	4	5	16	20
3S-403	Boularderie/Pt. Aconi	4	4	5	16	20
46W-303	White Point	4	3	5	12	15
4C-430	Cape George	5	5	5	25	25
50N-410	French River	4	4	5	16	20
55V-314	Alyesford Mountain	4	4	5	16	20
56N-414	Scotsburn	4	5	3	20	20
57S-401	Little Lorraine	5	5	5	25	25
57S-402	Trout Brook	5	5	5	25	25
57W-401	South Brookfield	5	5	5	25	25
57W-402	Caledonia	4	5	3	20	20
58C-403	Inverness	4	4	5	16	20
59C-402	Lake Uist	4	5	5	20	25
62N-413	Sherbrooke	5	4	5	20	20
70V-311	Bridgetown	3	4	5	12	20
70W-311	Conquerall Mills	5	3	5	15	15
70W-313	Highway 332	4	5	5	20	25
73W-411	Stanburne	6	5	5	30	30
76V-301	Maitland Bridge	6	5	3	30	30
77V-401	Gulliver's Cove (512V-311)	5	4	5	20	20
80W-301	Feltzen South	4	5	5	20	25
82V-401	Shubenacadie/Milford	3	4	5	12	20
85S-401	Red River	5	5	5	25	25
87W-312	Fox Point (Hwy 329)	4	3	3	12	12
88H-401	Musquodobit	4	5	5	20	25
88H-402	Caribou Mines	5	4	4	20	20
91W-411	Molega Lake	5	5	5	25	25
93V-312	Saunierville	3	4	2	12	12
93V-313	Meteghan Station/Mavillette	5	4	3	20	20
96H-411	Sheet Harbour	4	5	5	20	25
96H-412	Sheet Harbour/Liscomb	5	4	3	20	20

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1 **Request IR-188:**

2
3 **Appendix G 5 Year Reliability Plan pages 703 to 773**

4
5 **Page 716 highlights that trees have been cleared from about 617km of distribution line and**
6 **about 105kms of transmission line rights-of-way.**

7
8 **(a) Please describe the planned maintenance schedule for right-of-way widening.**

9
10 **(b) Please describe how the planned maintenance schedule accounts for local vegetation,**
11 **weather and other geographical attributes.**

12
13 **Response IR-188:**

14
15 (a) The planned maintenance schedule for right-of-way widening is determined through the
16 analysis of satellite imagery (proximity of vegetation to conductors) and performance data
17 such as CKAIID / CKAIIF and historical tree outage data. Ground observations are then
18 conducted to ensure the targeted locations are accurate and the proposed work is
19 achievable. Many of the locations identified will be limited to rural areas and not urban
20 centers. Widening is often not obtainable in urban centers due to a variety of reasons
21 including aesthetics/shade tree benefits, overall customer acceptance, and municipal
22 restrictions.

23
24 (b) NS Power field staff will conduct surveys of the identified work and protect vegetation that
25 is compatible with utility overhead infrastructure. Contractors work closely with NS Power
26 field staff and are trained to identify compatible species. For example, low growing species
27 such as alder is a preferred species that are encouraged to grow in the right-of-way.
28 Weather does not play a significant role in identifying locations for planned work. Much
29 of the province has similar exposure to all types of weather events so the perceived outage
30 risks are similar throughout the province. However, post weather event analysis has

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1 influenced the vegetation management plan in the past to address tree damage and hazard
2 trees and likely will influence the plan in the future. Other geographical attributes such as
3 slope, exposure to wind and hydrology is taken into consideration when selecting locations
4 to complete work.

Feeder	Contract \$
100C-421	\$951,821
100C-422	\$461,036
103W-312	\$7,251
104S-313	\$701,884
11S-411	\$211,758
126H-311/313	\$529,097
16N-301	\$17,755
16V-314	\$29,735
16V-315	\$966,196
16W-302	\$1,089,760
1N-402	\$3,577
1V-443	\$1,069,096
1W-411	\$64,347
22C-402	\$191,547
22N-403	\$122,026
23W-301/302	\$2,368
24C-443	\$124,814
25W-301	\$1,378,522
25W-302	\$333,239
30N-412	\$648,477
37N-411	\$1,167,369
3S-403	\$994,991
46W-301	\$65,162
4C-424	\$98,276
4C-430	\$1,718,038
4C-432	\$47,945
50N-410	\$456,714
50N-410/415	\$436,719
50W-412	\$753,622
55V-314	\$25,030
56N-414	\$768,054
58C-403	\$231,929
58C-405	\$397,511
62N-413	\$692,096
62N-415	\$271,867
63V-312	\$110,863
70V-312	\$350,005
70W-311	\$3,806
73W-411	\$1,039,144
74N-412	\$178,136
77V-301	\$89,583
77V-302	\$216,142
78W-301	\$94,534
79V-401/402	\$22,391
81N-412	\$1,113,013
81S-302	\$261,188
82V-402	\$524,685
85S-401	\$376,807
91W-411	\$36,818
92H-331	\$1,425,558
Other	\$372,457
Total	\$23,244,756

Feeder

100C-422
101W-411
104S-311
104S-313
126H-311
126H-313
126H-314
16V-314
1N-402
20V-311
22C-402
22N-403
24C-443
30N-411
3S-301
46W-301
4C-432
50W-412
57C-422
58C-405
63V-312
74N-412
77V-301
77V-302
77V-303
78W-321
81N-411
81N-412
82V-402

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Request IR-44:

For each feeder listed in Figure 10: 2025 Trip Saver Installations on page 5 of the Reliability Plan, please explain and provide all quantitative support for why these feeders were targeted in 2025. Please reference the data provided in question 17 as part of this response, and provide any other data or calculations as needed in Excel.

(a) Please provide the reliability improvements from trip saver installations for each feeder and the derivation of the estimate.

(b) Please provide the total cost of the program for each feeder where work was accomplished.

(c) For feeders where work was not accomplished, please explain why this was

(d) Please provide a list of feeder IDs that were not prioritized in the Reliability Plan, but were targeted for reliability investment in 2025.

(e) Why did NS Power implement programs on feeders it had not originally planned on targeting? Please provide all qualitative and quantitative analysis in support of this response.

Response IR-44:

These projects are selected based on NS Power's asset management mechanism which includes an assessment of feeder risk (condition and criticality). Condition is assessed through a combination of inspection results (including identified protection performance gaps), history of past faults and outages, and SME input on other conditions impacting feeder performance. This is combined with the criticality of the feeders, including consideration for the number of customers and overall loading. Specifically, for TripSaver installations, there is also consideration for the ability to

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1 improve fault isolation, reduce outage duration, and enhance restoration times through the
2 application of automated protection devices. The specific feeders, their risk scores, and narrative
3 on the specific drivers for their inclusion are included in Attachment 1.

4
5 (a) At a feeder level, the primary reliability benefits are derived from the ability of TripSavers
6 to quickly detect and isolate faults on lateral or downstream sections that would
7 traditionally be protected by fuses. This targeted isolation limits the extent of outages,
8 allowing upstream customers to remain energized while only the faulted section is
9 interrupted. NS Power maintains that the actual reliability benefits that are realized as a
10 result of each installation of a TripSaver are highly dependant on both the specific
11 configuration and topography of a feeder as well as the various factors driving outage
12 frequency and duration in the targeted area. Due to this variability subject to numerous
13 factors, NS Power does not consider that it is possible to accurately project the potential
14 improvements at the individual installation-level.

15
16 (b) In 2025 NS Power invested \$300 thousand into TripSaver installations. NS Power is
17 unable to allocate actual spend by trip saver as this level of cost granularity is not available.
18 Specifically, detailed site-level actual unit hours and unit labour costs cannot be isolated
19 for comparison. This is primarily due to several labour categories such as: Engineering and
20 Project Management being performed concurrently across multiple sites rather than
21 sequentially on a site-by-site basis. For material costs, each TripSaver is approximately
22 \$6,000.

23
24 (c) All TripSaver installations outlined in Figure 10 of the Five-Year Reliability Plan were
25 completed in 2025.

26
27 (d-e) There were no additional trip savers prioritized or installed in 2025 that were not already
28 included in the Five-Year Reliability Plan.

2025 Trip Saver Installations

Feeder	Feeder Risk	Feeder Condition	Feeder Criticality	Comments
56N-414	20	4	5	
81S-301	12	4	3	
6N-301	12	3	4	
57W-401	25	5	5	
78W-301	15	3	5	These locations are selected based on Regional Engineering assessments, which consider feeder protection performance, fault exposure, and system reliability in identifying priority areas for distribution protection improvements.
57S-401	25	5	5	
85S-401	25	5	5	
4N-313	16	4	4	
70W-311	15	5	3	
113H-433	20	4	5	
80W-301	20	4	5	
91W-411	25	5	5	

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Request IR-45:

Regarding page 25, lines 11-19, and page 26, lines 1-7 of the Reliability Plan, discussing new equipment and infrastructure projects meant to serve significant demand growth:

(a) Please describe why these investments belong in the 5-year reliability plan, as opposed to a different proceeding or filing.

(b) Please provide the cost of these activities on an annual basis and across all years. Please provide all supporting workpapers in Excel related to these cost estimates.

Response IR-45:

(a) Investments meant to serve significant demand growth are generally substation addition or distribution line conversion projects. While projects such as new substations are described as supporting new and evolving demand, they are also intended to relieve loading, improve contingency, and correct reliability limitations on existing distribution feeders, rather than to extend service to new customers through new distribution line construction. In this context, the substation investments function as system reinforcement and risk-mitigation measures, directly contributing to improving the reliability and resilience of the existing network, which is consistent with the scope and intent of the Five-Year Reliability Plan.

(b) 99H Feeder addition had the associated distribution line work completed in 2025 and has additional work planned in 2026. The feeder addition project is estimated at a total cost of \$188,842. Prospect Rd is expected to be completed in 2026 and is estimated at a total cost of \$840,281.

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Request IR-46:

Regarding Figure 11: 2025 Bring-to-Roadside Projects on page 27 of the Reliability Plan and the Distribution Build-to-Roadside Program:

(a) Please explain and provide all quantitative support for why the feeders listed were targeted in 2025. Please use data provided in response to question 17 as part of this response, and provide any other data or calculations as needed in Excel.

(b) For each feeder listed in Figure 11:

(i) Please provide the reliability improvements from conductor upgrades for each feeder and the derivation of the estimate. Please provide supporting workpapers and calculations in Excel.

(ii) Please provide the total cost of each program for each feeder where work was accomplished. Please provide supporting workpapers and calculations in Excel.

(iii) For feeders where work was not accomplished, please explain why this was the case.

(iv) Please provide a list of feeder IDs that were not prioritized in the Reliability Plan, but were targeted for reliability investment in 2025.

(v) Why did NS Power implement programs on feeders it had not originally planned on targeting? Please provide all qualitative and quantitative analysis in support of this response.

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1 Response IR-46:

2
3 (a) These projects are selected by adhering to the principles and guidelines within NS Power's
4 Asset Management Mechanism. Build to Roadside Projects targeted high-risk feeders,
5 including consideration for performance feeders and historical reliability. Consistent with
6 this approach, specific segments were selected where rebuilding to roadside offered the
7 most effective mitigating measure to reduce outage impacts, improve accessibility for field
8 resources, and deliver the greatest overall improvement in reliability and value to
9 customers. The risk ratings and key risk factors for each of these feeders are provided in
10 Attachment 1.

11
12 (b)

13 (i) Conductor upgrades were not a driving factor in choosing these projects. Please
14 refer to part (a).

15
16 (ii) For the projects listed in Figure 11 that are now completed, the costs are as follows:
17 512W-311 Lake Torment Rebuild - \$731,836
18 19C-204 Durrells Island Conversion - \$370,711

19
20 (iii) 100C-421 – This work is currently in progress.
21 85S-401 – This work is awaiting approval from Parks Canada.
22 103C-314 – This work has been deferred until 2027.
23 126H-312 – This work and schedule is driven by Department of Public Works and
24 has been delayed at their request until 2027.
25 131H-422 – This work is being combined with future upgrades associated with the
26 new Mt. Uniacke substation and is planned for 2027.
27 33N-201 – This work is scheduled to take place in 2026.

28
29 (iv) Additional feeders that had some build to roadside work completed outside of the
30 initial scope identified in Figure 11 are:

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- 1C-411,
- 16W-301,
- 82V-403,
- 57W-401, and
- 4C-441

(v) The additional projects that NS Power undertook but were not initially targeted were prioritized first using the asset management mechanism based on feeder risk drivers, including those detailed in part (a). Additionally, NS Power project teams assessed project readiness and those projects that did not require Grade 1 assessments, which require significant additional design and permitting. NS Power then optimized the resource plan to target other high priority work not originally included in the plan to optimize resource efficiency.

Risk Rankings for Build to Roadside Projects

Feeder Source	Feeder Section	Feeder Criticality	Feeder Condition	Feeder Risk	Adjusted Condition	Adjusted Project Risk	Key Risk Factors
100C-421	100C-421	4	5	20	5	20	This project has some deteriorated poles and wire that will be brought to roadside.
103C-314	103C-314	4	4	16	5	20	This project has some deteriorated poles and wire that will be brought to roadside.
126H-312	126H-312	4	5	20	5	20	This project work is driven by the department of public works and as part of the realignment the poles will be brought to roadside.
131H-422	131H-422	5	4	20	5	25	This project has some deteriorated poles and wire that will be brought to roadside.
19C-204	19C-204	3	3	9	5	15	This project involves a conversion as well as moving the deteriorated poles and wire to roadside.
37N-413	33N-201	5	3	15	5	25	This project will removes a PCB potential stepdown while also bringing a deteriorated section of line to roadside.
73W-411	512W-311	5	5	25	5	25	This project is to improve the loading on the 512W-311 feeder section. The phases on 512W-311 are overloaded making it difficult to maintain voltages within the standard range. Through the execution of this work there is an off-road section that will was moved to roadside.
85S-401	85S-401	5	5	25	5	25	The targeted off-road sections of 85S-401 are deteriorated and at risk of failure due to its age and condition. The reduced accessibility of the existing off-road sections limits Nova Scotia Power’s ability to maintain it and respond to outages in a timely manner.

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Request IR-47:

Regarding Figure 12: 2025 Conductor Upgrades by Region on page 28 of the Reliability Plan and the Distribution System Conductor Upgrades program:

(a) Please explain and provide all quantitative support for why the feeders listed were targeted in 2025. Please use data provided in response to question 17 as part of this response, and provide any other data or calculations as needed in Excel.

(b) For each feeder listed in Figure 12:

(i) Please provide the reliability improvements from conductor upgrades for each and the derivation of the estimate. Please provide supporting workpapers and calculations in Excel.

(ii) Please provide the total cost of each program for each feeder where work was accomplished. Please provide supporting workpapers and calculations in Excel.

(iii) For feeders where work was not accomplished, please explain why.

(iv) Please provide a list of feeder IDs that were not prioritized in the Reliability Plan, but were targeted for reliability investment in 2025.

(v) Why did NS Power implement programs on feeders it had not originally planned on targeting? Please provide all qualitative and quantitative analysis in support of this response.

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Response IR-47:

(a) These projects are selected based on NS Power's asset management mechanism which includes an assessment of feeder risk (condition and criticality). Condition is assessed through a combination of inspection results (e.g. identified conductor deficiencies), history of past failures, and SME input on other conditions impacting the conductor. This is combined with the criticality of the feeders, including consideration for the number of customers and overall loading. Specifically for conductor assets, there is also consideration for the ability for NS Power powerline technicians to work with live line methods on the conductor based on sizing and type. The specific feeders, their risk scores, and narrative on the specific drivers for their inclusion are included in Attachment 1.

(b)

(i) Consistent with the asset management mechanism, specific sections were selected for intervention where undertaking conductor upgrades offered the most effective mitigating measure to reduce outage impacts, improve loading capabilities, and enable the ability to work using live line methods in the future. Reliability improvement estimates are averaged across the program and are not available on a per project basis. Please refer to Synapse IR-38 for derivation.

(ii) The actual work completed was as follows:

Region	Feeders Reconductored	km Reconductored
Cape Breton	4	17.1
West	9	28.4
Metro	10	15.0
Northeast	7	13.2

Reconductoring was performed on a subset of feeders; however, in numerous cases this work constituted a secondary outcome of the project. As such, the attributable costs are not indicative of the full scope or cost of the overall program.

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Work completed at the feeder level is as follows:

Region	Feeder	km Reconductored
Cape Breton	1C-411	3.2
Cape Breton	35C-211	6.8
Cape Breton	58C-405	1.3
Cape Breton	15C-211	5.9
West	663V-211	1.8
West	16W-301	13.4
West	55V-313	0.1
West	55V-314	5.3
West	652V-212	1.8
West	78W-301	0.5
West	559W-331	3.1
West	57W-401	0.3
West	50W-412	2.1
Metro	9H-224	3.3
Metro	82V-403	2.6
Metro	87H-312	0.4
Metro	48H-301	0.8
Metro	665V-311	1.0
Metro	99H-312	2.5
Metro	2H-411	0.8
Metro	618V-311	1.0
Metro	131H-422	0.6
Metro	9H-223	2.0
Northeast	637N-311	1.1
Northeast	5N-301	0.1
Northeast	1N-405	0.7

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Region	Feeder	km Reconductored
Northeast	4C-430	1.5
Northeast	19C-204	3.3
Northeast	96H-411	3.2
Northeast	57C-426	3.3

(iii) For feeders not completed as originally planned, the level of project readiness was the biggest driver. Timelines associated with easements, permits, and grade 1 assessments required to undertake this work were the major contributors to project delays.

(iv) Work that was completed but not initially identified is as follows:

Region	Feeder	km Reconductored
Cape Breton	1C-411	3.2
Cape Breton	58C-405	1.3
West	663V-211	1.8
West	16W-301	13.4
West	55V-313	0.1
West	78W-301	0.5
West	57W-401	0.3
Metro	9H-224	3.3
Metro	82V-403	2.6
Metro	2H-411	0.8
Metro	131H-422	0.6
Northeast	5N-301	0.1
Northeast	1N-405	0.7
Northeast	4C-430	1.5

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- 1 (v) The additional projects that NS Power undertook but were selected on feeders that
2 were not initially targeted, were prioritized first using the asset management
3 mechanism based on feeder risk drivers, including those factors detailed in part (a).
4 Additionally, NS Power project teams assessed project readiness and those projects
5 that did not require Grade 1 assessments, which require significant additional
6 design and permitting.

Distribution Conductor Upgrades

Region	Feeder	Feeder Section	km Reconductored	Feeder Condition	Feeder Criticality	Risk	Key Risk Factors
Cape Breton	1C-411	1C-411	3.2	3	4	12	The selection of these locations was informed by conductor condition assessments, identified high-priority defects, service continuity risk inspection findings, and recent operational issues reflected in trouble call records.
Cape Breton	2C-402	35C-211	6.8	4	5	20	
Cape Breton	58C-405	58C-405	1.3	4	4	16	
Cape Breton	58C-403	15C-211	5.9	4	4	16	
West	50V-402	663V-211	1.8	3	4	12	
West	16W-301	16W-301	13.4	4	5	20	
West	55V-313	55V-313	0.1	3	4	12	
West	55V-314	55V-314	5.3	4	4	16	
West	50V-401	652V-212	1.8	3	3	9	
West	78W-301	78W-301	0.5	3	5	15	
West	73W-411	559W-331	3.1	5	5	25	
West	57W-401	57W-401	0.3	5	5	25	
West	50W-412	50W-412	2.1	4	5	20	
Metro	104H-411	9H-224	3.3	5	4	20	
Metro	82V-403	82V-403	2.6	2	4	8	
Metro	87H-312	87H-312	0.4	5	3	15	
Metro	48H-301	48H-301	0.8	3	4	12	
Metro	82V-422	665V-311	1	4	5	20	
Metro	99H-312	99H-312	2.5	3	3	9	
Metro	2H-411	2H-411	0.8	4	4	16	
Metro	131H-422	618V-311	1	4	5	20	
Metro	131H-422	131H-422	0.6	4	5	20	
Metro	9H-223	9H-223	2	3	2	6	
Northeast	1N-402	637N-311	1.1	3	4	12	
Northeast	81N-411	5N-301	0.1	3	5	15	
Northeast	1N-405	1N-405	0.7	3	5	15	
Northeast	4C-430	4C-430	1.5	5	5	25	
Northeast	19C-204	19C-204	3.3	3	3	9	
Northeast	96H-411	96H-411	3.2	5	4	20	
Northeast	57C-426	57C-426	3.3	5	4	20	

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Request IR-48:

Regarding the Distribution System Underground Upgrades Program described on pages 28-29 of the Reliability Plan:

(a) Please provide a comparison of overhead versus underground reliability basis for 2020-2025 or recent years available. Please provide supporting workpapers and calculations in Excel.

(b) Does NS Power consider underground and overhead infrastructure to have similar levels of reliability issues? Please explain and provide supporting analyses.

(c) For 2020-2025, please provide the number of outages and customer minutes of outage on for distribution overhead and distribution underground miles. Please provide on a per total overhead and per total underground miles or other normalized basis to compare these statistics. Please provide supporting workpapers and calculations in Excel.

(d) In Excel, please provide the feeders and Feeder IDs that correspond to each underground upgrade project that is described.

(e) Please explain and provide all quantitative support for why these feeders were targeted in 2025. Please use data provided in response to question 17 as part of this response, and provide any other data or calculations as needed in Excel.

(i) Please provide the total cost of each program for each feeder where work was accomplished.

(ii) Please provide the reliability improvements from underground upgrades for each and the derivation of the estimate.

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1
2 **(iii) For feeders where work was not accomplished, please explain why this was the**
3 **case.**

4
5 **(iv) Please provide a list of feeder IDs that were not prioritized in the Reliability**
6 **Plan, but were targeted for reliability investment in 2025.**

7
8 **(v) Why did NS Power implement programs on feeders it had not originally**
9 **planned on targeting? Please provide all qualitative and quantitative analysis**
10 **in support of this response.**

11
12 Response IR-48:

13
14 (a) NS Power does not track outage events or reliability metrics by underground or overhead
15 classification.

16
17 (b) NS Power does not consider underground and overhead to have similar reliability issues.
18 The Company is required to deliver power at the lowest cost for customers and
19 underground infrastructure is selected only when it provides power service at the lowest
20 cost for customers. For new installations, NS Power works with customers to identify
21 options for power service. In some situations, where a customer and/or developer chooses
22 underground power infrastructure, the customer will offset any incremental costs as
23 compared to an equivalent overhead system.

24
25 (c) NS Power does not track outage events or reliability metrics by underground or overhead
26 classification.

27
28 (d) Please refer to Attachment 1.
29

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(e) These projects are selected by adhering to the principles and guidelines within NS Power's Asset Management Mechanism. Underground Projects included consideration for historical reliability. Consistent with this approach, specific segments were selected where projects offered the most effective mitigating measure maintain the system and address issues that have been identified through various inspections.

(i) Spend as of March 31, 2026 is as follows:

CI #	Project Title	Spend as of March 31, 2026 (\$)
C0008638	D-Cogswell HRM Redevelopment Program	7,156,658
C0022662	22C-404GA Lennox Passage Rebuild	2,737,859
C0068786	2025 Padmount Replacement Program	1,011,187
C0060749	2024 Padmount Replacement	1,323,231
C0011189	D-2H-411-Cowie Hill UG system replacement	72,858
C0060750	2024 Vault Replacement	214,812
C0033507	Underground Switch Replacements	74,647
C0060751	2024 Manhole Automatic Pumps	226,576

(ii) Please refer to part (a).

(iii) For work not completed as originally planned, timelines associated with necessary equipment delivery, easements/permits, and resource availability contributed to delays.

(iv) Additional underground-related work, not originally identified for execution 2025 occurred on the following feeders:

4S-323
111S-312
15S-303
22N-404
129H-412
104H-442
108H-413
113H-434

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50V-401
652V-212

- 1
- 2 (v) The additional projects that NS Power undertook on the feeders listed in part (e)
- 3 (iv) above that were not initially targeted for 2025 were prioritized either as
- 4 replacement projects for projects delayed as outlined in part (e) (iii) or as a result
- 5 of emerging feeder risk drivers. In both cases, risk-based decision-making would
- 6 be driven by NS Power's understanding of the condition and criticality of the circuit
- 7 or specific asset.

Feeder	Project
104H-422	D-Cogswell HRM Redevelopment Program
104H-442	
1H-403	
1H-452	
22C-404	22C-404GA Lennox Passage Rebuild
1H-419	1H-419 Targeted Underground Device Replacements
2H-411	2H-411 - Cowie Hill UG System Replacements Part 3
1H-403	2025 1H-403 Targeted Underground Device Replacements
103H-431	2025 Padmount Replacement
104H-421	2025 Padmount Replacement
104H-442	2025 Padmount Replacement
108H-413	2025 Padmount Replacement
111S-312	2025 Padmount Replacement
111S-313	2025 Padmount Replacement
111S-314	2025 Padmount Replacement
113H-434	2025 Padmount Replacement
113H-442	2025 Padmount Replacement
124H-301	2025 Padmount Replacement
124H-302	2025 Padmount Replacement
126H-314	2025 Padmount Replacement
127H-411	2025 Padmount Replacement
129H-411	2025 Padmount Replacement
129H-412	2025 Padmount Replacement
12V-304	2025 Padmount Replacement
137H-413	2025 Padmount Replacement
15S-302	2025 Padmount Replacement
15S-303	2025 Padmount Replacement
22N-404	2025 Padmount Replacement
22V-321	2025 Padmount Replacement
22V-322	2025 Padmount Replacement
22W-311	2025 Padmount Replacement
23W-302	2025 Padmount Replacement
25W-303	2025 Padmount Replacement
40H-305	2025 Padmount Replacement
48H-304	2025 Padmount Replacement
48W-201	2025 Padmount Replacement
4S-323	2025 Padmount Replacement
50N-411	2025 Padmount Replacement
50V-401	2025 Padmount Replacement
50V-402	2025 Padmount Replacement
54H-303	2025 Padmount Replacement
570C-311	2025 Padmount Replacement

57C-426	2025 Padmount Replacement
58H-431	2025 Padmount Replacement
62H-301	2025 Padmount Replacement
62N-411	2025 Padmount Replacement
62N-413	2025 Padmount Replacement
652V-212	2025 Padmount Replacement
660V-201	2025 Padmount Replacement
70W-314	2025 Padmount Replacement
70W-321	2025 Padmount Replacement
70W-322	2025 Padmount Replacement
73W-411	2025 Padmount Replacement
87H-311	2025 Padmount Replacement
96H-411	2025 Padmount Replacement
99H-311	2025 Padmount Replacement
99V-311	2025 Padmount Replacement

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Request IR-49:

Regarding Section 5.2 (Transmission System Upgrades and Replacements) on page 29 of the Reliability Plan:

(a) Please describe the projects that comprise the \$33 million in investments in 2025 in more detail.

(b) For each initiative described (traditional replacements and upgrades, site-specific unique projects, key programs aimed at ongoing maintenance and asset life extension), please break out proposed projects in more detail.

(i) Please provide the total cost of each initiative subcomponent.

(ii) Please provide the reliability improvements of each initiative subcomponent.

(iii) For each initiative subcomponent where work was not accomplished, please explain why this was the case.

(iv) Please provide a list of projects that were not prioritized in the Reliability Plan, but were targeted for investment in 2025.

(v) Why did NS Power implement programs on projects it had not originally planned on targeting? Please provide all qualitative and quantitative analysis in support of this response.

(c) Beyond the budgeted amounts for the initiatives described (\$14.7 million for traditional replacements and upgrades, \$3.6 million for site-specific unique projects, \$4.8 million for key programs aimed at ongoing maintenance and asset life extension),

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which projects did the remainder of the \$33 million in 2025 spending for this program go toward?

Response IR-49:

(a) Please refer to the table below.

CI#	Project Title	5 YR 2025 Forecast Total	Reliability Improvements	Reason for work not completed
23118	PROVINCIAL - PLANNED TRANS LINE REPLACEMENTS	\$6,055,258	Routine - Structure Replacements and Upgrades	Work Completed
C0041788	L6516 Replacements and Upgrades Phase 2	\$1,928,774	Structure Replacement and Upgrades	Work Completed
C0061545	L6006 Replacements and Upgrades	\$1,113,189	Structure Replacement and Upgrades	Work Completed
C0061550	L5031 Replacements and Upgrades - Hubbards to East Chester	\$1,274,730	Transmission Line Rebuild	Work Completed
23115	PROVINCIAL TRANSMISSION LINE REPLACEMENTS	\$3,274,053	Routine - Structure Replacements and Upgrades	Work Completed
C0069232	L6021 Replacements and Upgrades Phase 1	\$1,080,940	Structure Replacement and Upgrades	Work Completed
C0061551	L7009 Replacements and Upgrades	\$1,389,539	Structure Replacement and Upgrades	Work Completed
C0069227	L6516 Replacements and Upgrades Phase 3	\$478,214	Structure Replacement and Upgrades	Work Completed
C0069231	L8002 Replacements and Upgrades Phase 1	\$798,306	Structure Replacement and Upgrades	Work Completed
C0061525	ECC Facility Ratings	169649	ECC Facility Ratings	Work Completed
C0064583	NERC Standards Implementation Project	500339	NERC Compliance	Work Completed
C0070048	L5027B Replacements and Upgrades Phase 1	\$1,184,984	Structure Replacement and Upgrades	Work Completed
C0031122	L6539 Replacements and Upgrades	\$1,529,843	Structure Replacement and Upgrades	Work Completed
C0061403	2024 2025 Sacrificial Anode Installation Program	\$788,891	Transmission Steel Life Extension (Anodes)	Work Completed
C0053295	L5004 Kearney Lake Structure Replacement	\$1,101,784	Transmission Water Crossing Upgrades	Work Completed

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CI#	Project Title	5 YR 2025 Forecast Total	Reliability Improvements	Reason for work not completed
C0069238	2025/2026 Steel Tower Refurbishment	\$715,698	Transmission Steel Refurbishment	Project has been cancelled and work was completed on 2024/2025 Steel Tower Refurb Project
C0052299	2023/2024 Steel Tower Life Extension	\$898,085	Transmission Steel Life Extension (Tower Painting)	Work Completed
C0061547	L7022 Replacements and Upgrades	\$1,015,899	Structure Replacement and Upgrades	Work Completed
C0041791	L6551 Replacements and Upgrades	\$808,668	Structure Replacement and Upgrades	Work Completed
C0050835	2023/2024 Steel Tower Refurbishment	\$875,812	Transmission Steel Refurbishment	Work Completed
C0061546	L6514 Replacements and Upgrades	\$800,114	Structure Replacement and Upgrades	Work Completed
C0041807	L5534 Replacements and Upgrades	\$277,404	Structure Replacement and Upgrades	Work Completed
C0061552	L6043 Replacements and Upgrades	\$796,677	Structure Replacement and Upgrades	Waiting on engineering
C0041804	2022 Line Retirement Program	\$910,874	Transmission Line Retirement	Work Completed
C0061387	2024 2025 Wood Pole Retreatment Program	\$511,730	Transmission Wood Pole Retreatment	New contract year and was established through formal RFP process. Remaining work will be executed in 2026.
C0067112	L5012 Replacements and Upgrades	\$112,598	Structure Replacement and Upgrades	Work Completed
C0052654	L5541 Water Crossing Upgrades	\$599,013	Transmission Water Crossing Upgrades	Delays in Mersey Wind project. This project coincides with the new L6554 Mersey Wind line.
C0061544	L6536 Replacements and Upgrades	\$892,924	Structure Replacement and Upgrades	Waiting on engineering

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CI#	Project Title	5 YR 2025 Forecast Total	Reliability Improvements	Reason for work not completed
C0061743	L6038 Realignment	\$468,823	Transmission Line Re-Alignment	Work Completed
C0067111	L5023 Rebuild	\$147,876	Transmission Line Rebuild	Work Completed
C0041812	L6040 Replacements and Upgrades	\$445,437	Structure Replacement and Upgrades	Waiting on outage availability and engineering
C0043010	2022/2023 Wood Pole Retreatment Program	\$79,470	Transmission Wood Pole Retreatment	New contract year and was established through formal RFP process. Remaining work will be executed in 2026.

(b) (i-iii) Please refer to part (a) above.

(iv) Please refer to the table below for the list of projects that were completed but not in the initial Five-Year Reliability Plan 2025 Forecast.

CI#	Project Title	Initial 5 YR 2025 Forecast Total	Actual 2025 Spend
C0023802	L6515 Replacements and Upgrades	\$0	\$166,046
C0044172	L7005 Canso Crossing Vibration Mitigation	\$0	\$2,105,998
C0055696	L5031 Replacement & Upgrade R.C Tap	\$0	\$392,299
C0063275	L5033 Replacements and Upgrades	\$0	\$59,972

(v) NS Power completed work on the projects in part (iv) when it was unable to complete the projects outlined in part (a) above. These new projects in part (iv) were selected based on review of risk profiles and criticality in combination with outage and resource availability.

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1
2 (c) The remainder of the 2025 forecasted spending went towards routines “T011 – Provincial
3 Planned Transmission Line Replacements - \$6,055,257” and “T001 – Provincial
4 Transmission Line Replacements - \$3,274,053”. There was also \$700,000 in projects
5 supporting the ECC Facility Ratings and NERC compliance.

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Request IR-50:

Regarding Section 5.3 (Substation Upgrades and Replacements) on pages 29 and 30 of the Reliability Plan:

- (a) What is the expected reliability improvement for these projects? Please explain and provide quantitative support and analysis in Excel.**
- (b) In Excel, please provide the Substation IDs for all projects described that correspond to the map that was provided as part of the response to question 17.**
- (c) Please describe the projects that comprise the \$33 million in investments in 2025 in more detail.**
- (d) For each substation transformer replacement described, as well as for the spare transformer purchase:**
 - (i) Please provide the total cost of each project.**
 - (ii) Please provide the reliability improvements from each project.**
 - (iii) For each project where work was not accomplished, please explain why this was the case.**
 - (iv) Please provide a list of projects that were not prioritized in the reliability plan but were targeted for investment in 2025.**
 - (v) Why did NS Power implement programs on projects it had not originally planned on targeting? Please provide all qualitative and quantitative analysis in support of this response.**

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(e) **Beyond the budgeted amounts for the initiatives described (\$14.7 million for traditional replacements and upgrades, \$3.6 million for site-specific unique projects, \$4.8 million for key programs aimed at ongoing maintenance and asset life extension), which projects did the remainder of the \$33 million in 2025 spending for this program go toward? Please explain and provide supporting workpapers in Excel.**

Response IR-50:

(a) Please refer to IR-38.

(b) The substation IDs for the projects listed in section 5.3 are as follows:

- Nictaux: Transformer Replacement at 10V
- Springhill: Spare transformer purchase to replace spare used for failure at 6N
- Mahone Bay: Transformer Replacement at 76W
- Dartmouth: Transformer Replacement at 91H
- Middlefield Substation: 91W

(c) The \$33 million referenced in the question was from section 5.2 and not section 5.3. No specific number was provided for substation for spend in 2025. The substation capital budget for the Five-Year Reliability Plan in 2025 was approximately \$39 million as filed in the 2025 ACE Plan. That budget comprised of the following programs and projects.

- Routines (T003, T004, T016, T018): \$5.6 million
- Transformer Projects: \$13 million
- New/Rebuild Substations: \$12 million
- Switch and Breaker Projects: \$3.7 million
- PCB Substation Replacements: \$4.7 million

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(d)

- (i) The table below details the budget and total spend up to the end of 2025 for each project.

Project	ACE Budget	Actuals
10V-T1 Transformer Replacement	\$ 2,113,337	\$ 1,621,390
Spare Replacement (Springhill Failure)	\$ 2,286,389	\$ 2,041,602
76W-T1 Transformer Replacement	\$ 2,818,855	\$ 2,077,283
91H-T11 Transformer Replacement	\$ 6,914,622	\$ 4,550,157
Spare Power Production Unit Transformer	\$ 1,264,622	\$ 1,257,331

- (ii) The purchase of the two spare units would provide coverage for transformer failures across the province. Having these spares in place ensures that if there is a transformer failure then NS Power has an available unit to put in its place, thus reducing the length of the potential outage.

The transformers being replaced at 10V, 91H and 76W are all approaching end of life and have an increased risk of failure. The reliability improvement in each of these cases would be the mitigation of the failure and the lengthy outage that would accompany the removal of the failed unit and the installation of a system spare or new transformer. For the three substations listed above, both 10V and 91H are generation sites and failure of those units would have broader system reliability impacts. The 76W transformer is the only unit for the Town of Mahone Bay Utility; failure of this unit would result in an outage to the town until a replacement is installed.

- (iii) The 76W-T1 replacement and 91H-T11 transformer replacements were not completed in 2025. These were reprioritized due to resource availability within the year. The workplan and schedule are constantly refined to address emerging

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1 risks or failures that happen each year. Due to these changes, several other
2 transformers were replaced in their place due to increased risk or failures.

3
4 (iv) The program submitted as part of the Five-Year Reliability Plan and eventually
5 filed in the 2025 ACE Plan was all the substation capital work targeted for 2025.
6 As stated in part (iii) above, emerging risks and failures throughout the year
7 necessitate changes to the plan, but the work completed would still be
8 considered part of the overall five-year plan. Please refer to Appendix G of the
9 2026 ACE Plan for a summary of work completed.

10
11 (v) Please refer to (iv).

12
13 (e) The numbers listed in this question do not align with section 5.3 but instead are the numbers
14 from section 5.2. Please refer to part (c) for a breakdown of the substation plan. Please
15 refer to Appendix G of the 2026 ACE Plan for details on the work completed in 2025.

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Request IR-51:

Regarding page 30, lines 9-13 of the Reliability Plan, regarding new substations meant to serve new customers and evolving demand growth, please explain and cite applicable Board Orders for why these investments belong in the 5-year reliability plan, as opposed to a different proceeding.

Response IR-51:

Please refer to Synapse IR-45 for the reasoning on why these investments are included in the Five-Year Reliability Plan.

It is important to note that a project's inclusion in the Five-Year Reliability Plan does not exclude it from the standard regulatory review process. The Five-Year Reliability Plan is intended to provide an overarching, detailed view of all the reliability investments that NS Power is undertaking or planning to undertake. NS Power is still required to receive the necessary capital project approvals from the NSEB for all capital projects included in the Five-Year Reliability Plan that fall under the NSEB's purview.

All projects that are greater than \$1 million (inclusive of the new substation submission projects) still require standalone approval from the NSEB either through the Annual Capital Expenditure Plan filing or an individual capital filing throughout the year. This process is not changed with the introduction of the Five-Year Reliability Plan, nor does NS Power expect that acceptance of the overall Five-Year Reliability Plan would in any way replace the NSEB approval of individual projects as dictated by the *Public Utilities Act*.

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Request IR-52:

Regarding the Advanced Grid Modernization Programs program discussed starting on page 31 of the Reliability Plan:

- (a) Please provide the derivation of the total cost, including all supporting data and calculations in Excel.**
- (b) Please provide the derivation of the SAIDI reduction, including all supporting data and calculations in Excel.**
- (c) Please provide the mitigation effectiveness (i.e. percent reliability improvement) for each of the listed subprograms, separately (Connected Assets and Fault Isolation and Service Restoration). Please provide the derivation of these estimates including all supporting data and calculations and a narrative explanation.**
- (d) Please describe the existing grid visibility and monitoring capabilities being used today.**
 - (i) What level of control and visibility currently exists regarding Distributed Energy Resources (DERs)?**
 - (ii) Please describe and quantify, if possible, the increased level of visibility and control the programs described in this chapter will allow the Company. Please provide all supporting workpapers.**
- (e) Regarding part (d), please explain whether and how the reliability plan goes beyond these existing requirements.**

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1 **(f) Please describe how grid modernization interacts with the other categories of**
2 **investment proposed in the reliability plan. For example, will increased automation**
3 **and monitoring of grid conditions allow the Company to more effectively conduct**
4 **vegetation management or equipment replacement programs?**

5
6 Response IR-52:

7
8 (a – b) The forecast five-year \$78 million investment for the Advanced Grid Modernization
9 Program was developed using a risk-based planning approach aligned with NS Power’s
10 Risk Management and Asset Management Framework. The objective is an overall SAIDI
11 reduction of approximately 20 percent to meet and sustain Performance Standards SAIDI
12 through 2029 and beyond. Each investment stream, including Advanced Grid
13 Modernization Programs, is evaluated using a baseline cost-per-SAIDI assessment, with
14 considerations for operational resources, execution, and scalability constraints by NS
15 Power SMEs. As detailed in Synapse IR-38, cost and SAIDI reduction projections are
16 informed by historical outage performance and historical cost data and therefore represent
17 planning-level projections rather than project-specific commitments. The estimated SAIDI
18 reduction range of 0.70 to 1.25 hours by 2029 was derived using the total proposed
19 investment level rather than deterministic project-level attribution. Please refer to Synapse
20 IR-38 Attachment 2.

21
22 Ultimately, the specific projects for a given year are reviewed and assessed annually
23 through NS Power’s Annual Capital Expenditure proceedings based on updated risk
24 assessments, asset condition, and system performance. The cost forecast and projected
25 SAIDI reduction over the five-year planning horizon inform annual investment levels,
26 which are subject to an iterative optimization process that balances achievable reliability
27 improvements with operational constraints considerations such as the ability to ramp up
28 necessary resources. As per NS Power’s Asset Management framework, proposed projects
29 are expected to prioritize the highest-risk assets and greatest potential customer impacts,
30 resulting in the most effective reductions in SAIDI.

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1
2 (c) NS Power does not assess mitigation effectiveness at the level of each individual
3 Connected Asset intervention. For Fault Isolation and Service Restoration projects, please
4 see IR-58 for more details. As noted, actual FLISR performance is inherently dependent
5 on the specifics of each installation, including geographic location, feeder topology,
6 weather conditions, and dynamic system configurations due to unrelated operational
7 factors. Accordingly, while case studies inform expected ranges of benefit, the actual
8 outcomes achieved in practice will vary and are subject to the operating environment and
9 other location-specific factors.

10
11 (d) NS Power's existing grid visibility and monitoring capabilities include:

- 12
13 • **Substation-Level SCADA:** Many substations have SCADA connectivity
14 providing real-time monitoring of voltage, current, breaker status, and alarms.
15
- 16 • **Downline Visibility:** Most distribution feeders beyond the substation have limited
17 or no real-time monitoring. Fault location relies primarily on customer outage calls
18 and crew patrols and data collection is limited. Additionally, data from Advanced
19 Metering Infrastructure (AMI) can validate the status of end points / meters, which
20 can provide visibility and indication of grid status in an area.
21
- 22 • **Manual Switching:** Most recloser and sectionalizing switch operations require
23 manual crew intervention.
24
- 25 • **Asset Management Systems:** Historical outage data, inspection records, and work
26 order systems inform planning but do not provide real-time operational visibility.
27

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1 (i) **DER Control and Visibility:**

2
3 Currently, NS Power has limited control and visibility regarding Distributed
4 Energy Resources:

5
6 • **Visibility:** NS Power is aware of interconnected DER through
7 interconnection applications and net metering enrollment. Telemetry may
8 exist per interconnection requirements, but generally real-time visibility
9 into DER generation, status, or grid impacts at the distribution feeder level
10 is limited. Pilot project assets may have some additional level of visibility.

11
12 • **Control:** NS Power does not have operational control of customer-owned
13 DER outside of protection devices able to disconnect DERs, as required by
14 interconnection rules and regulations. Limited control capabilities exist
15 only for a small number of utility-owned or pilot project assets where NS
16 Power maintains ownership (for example, per Smart Grid NS Asset
17 Disposition, under M12178).

18
19 • **Monitoring:** No comprehensive DER monitoring system is yet deployed
20 system-wide.

21
22 (ii) **Increased Visibility and Control from Reliability Plan Programs:**

23
24 The Advanced Grid Modernization Programs will significantly increase visibility
25 and control:

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Quantitative Improvements:

- **RTU Deployment:** Up to 58 additional substations will have enhanced SCADA visibility.
- **Downline Connectivity:** Up to 28 downline reclosers will have remote monitoring and control capability, enabling real-time fault detection and automatic/remote operation.
- **FLISR:** Automated switching and restoration capabilities on selected feeders, reducing customer interruption.

Qualitative Improvements:

- Real-time awareness of grid conditions beyond substations
- Faster fault location and isolation
- Remote operation reducing crew travel time and improving safety
- Enhanced data for asset management and predictive maintenance
- Foundation for future DER visibility and control through potential DERMS deployment

(e) Outside of NERC requirements, specific requirements do not currently exist for grid visibility and monitoring capabilities.

(f) Grid modernization interacts with and enhances the effectiveness of other reliability program categories as follows:

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Vegetation Management:

- Enhanced Monitoring: Satellite imagery analysis being deployed in 2025 for vegetation condition assessment relies on data integration and analysis capabilities enabled by grid modernization investments.
- Predictive Analytics: Real-time outage data from connected assets can identify tree contact patterns and prioritize vegetation management work more effectively.
- Performance Tracking: SCADA data enables more precise measurement of vegetation management effectiveness.

Equipment Replacement and Upgrades:

- Condition-Based Replacement: Enhanced asset management data from RTUs and connected devices enables more targeted equipment replacement based on actual condition rather than age alone.
- Prioritization: Real-time performance data improves identification of highest-risk assets.
- New Device Integration: Modern reclosers, trip savers, and other protective devices being installed under the equipment replacement program are "connectivity-ready" and integrate with SCADA systems.

Storm Response and Restoration:

- Faster Damage Assessment: Real-time monitoring enables immediate identification of affected areas.
- Optimized Crew Dispatch: Precise fault location data enables more efficient resource deployment.
- Automated Restoration: FLISR capabilities, where deployed, reduce restoration time for customers on unaffected portions of feeders where redundancy exists.

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Request IR-53:

For each of the listed areas of focus on page 31, lines 18-19 of the Reliability Plan and discussed in Section 5, please provide the following (in Excel with all calculations, where applicable):

- (a) Assumed or estimated unit cost (e.g. \$/circuit mile or other unit where applicable).**
- (b) The most granular unit cost available (i.e. by asset or activity).**
- (c) Derivation of total cost estimate.**
- (d) Estimated reliability improvement in total and all support for the derivation of this estimated reliability improvement, including all calculations in Excel.**

Response IR-53:

(a) Unit costs are inherently dependent on the scope, scale, and characteristics of individual projects. Program planning is undertaken at an aggregate level and is aligned with established reliability objectives, rather than being developed on a feeder-specific or cost-per-kilometer basis. Accordingly, the overall program is not designed or optimized based on assumed unit costs.

Cost estimates are developed at the individual project level, reflecting project-specific scope, complexity, and execution considerations. Detailed cost development is embedded within the ACE Plan process, which provides project-level cost detail and, where appropriate, cost breakdowns by compatible units.

For routine activities, forecast estimates reference historical average costs for planning purposes; however, these averages are neither allocated to specific feeders nor used to

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1 determine the level of investment. The methodologies used for routine forecasting and
2 project cost build-up are documented annually in the ACE Plan.

3
4 (b) Projects are developed in accordance with established planning and estimating practices,
5 including labour considerations such as overtime, with project applications providing
6 standardized documentation for scope definition, resource requirements, and cost
7 development. Cost estimates are prepared using Compatible Units (CUs), which represent
8 standardized labour and associated material requirements for defined tasks and are applied
9 consistently across all distribution and transmission work. Estimates also incorporate
10 established contractor rates (including but not limited to easements, tree trimming, and
11 traffic control), along with materials, engineering labour, and applicable overheads, all
12 embedded within project applications to ensure consistent, repeatable, and auditable
13 project cost development.

14
15 (c) The projects comprising the Five-Year Reliability Plan are submitted for approval through
16 either the ACE Plan process, or individually throughout the year, and are reviewed in
17 accordance with applicable regulatory requirements. Approval of these projects follows
18 the established regulatory review and decision-making process of the Nova Scotia Energy
19 Board (NSEB).

20
21 (d) Please refer to Synapse IR-38.

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Request IR-54:

Regarding Section 6.1 (Connected Assets) on pages 31 to 33 of the Reliability Plan:

- (a) Please explain and provide examples, at the substation (and associated feeder level), the current level of SCADA deployment.
- (b) What are the upgrades necessary to implement SCADA, and how will the programs in the reliability plan allow NS Power to implement it? Please be as specific as possible.
- (c) Please use data provided in response to question 17 as part of this response, and provide any other data or calculations as needed in Excel.

Response IR-54:

(a) Substation SCADA:

The current level of SCADA deployment at NS Power is at most transmission substations (i.e. 69kV and above), at generation plants (i.e. thermal, hydro, windfarms, etc.), and at some larger distribution substations. NS Power has an existing capital project C0021109 2020 RTU Deployment Project to add RTUs to 23 distribution substations to implement SCADA at these sites. NS Power has also submitted another capital item in the 2026 ACE Plan C0080111 2026 RTU Deployment project to add RTUs to an additional 21 distribution substations to implement SCADA at those sites.

Feeder-Level SCADA:

There are limited deployments of feeder-level SCADA or D-SCADA connectivity outside of substations to date; this currently occurs where assets are connected directly to ADMS.

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1 The devices identified in the Five-Year Reliability Plan in Section 6.1 mark initial steps to
2 develop a sustained deployment process.

- 3
- 4 • **Substation Reclosers:** Monitored and controllable via SCADA where substation
- 5 RTUs exists.
- 6 • **Downline Reclosers:** The majority of distribution reclosers currently do not have
- 7 SCADA connectivity. Crews must travel to individual devices to verify status,
- 8 perform switching, or investigate faults.
- 9 • **Sectionalizing Switches:** Generally, these devices are equipped with manual-only
- 10 operation.
- 11

12 (b) In order to implement SCADA at a substation, a telecommunication link is built to provide
13 a SCADA circuit from the substation to the Energy Control Centre (ECC) via NS Power's
14 telecom network. Typically, in the distribution substations, a pole is installed in the
15 substation yard for the antenna and the outdoor mounted RTU cabinet. Civil work is
16 required to install conduits from the RTU to the field devices for wiring and fibre cabling.
17 Once installation and wiring are complete, the RTU is commissioned with SCADA to
18 ensure that indication and control functions are operating as expected. The previously
19 mentioned RTU Deployment projects will allow NS Power to implement SCADA at these
20 substations.

21

22 In downline applications, devices are typically connected through radio communications
23 as described above, or via a cellular link, connecting directly to the ADMS D-SCADA
24 environment. Required upgrades and work include:

- 25
 - 26 • **Communications Path:** Establishment of telecommunications connectivity from
 - 27 downline recloser location to ADMS environment (Advanced Distribution
 - 28 Management System).
 - 29 • **Recloser Modernization:** Some older reclosers may require replacement or retrofit
 - 30 with communication-capable controls.
-

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- 1 • **Data Integration:** Integration of downline device data into SCADA/ADMS
2 platform for monitoring and control.
3
4 (c) N/A.

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Request IR-55:

Regarding Figure 13: Remote Terminal Units Proposed for 2025 on page 32 of the Reliability Plan and the Remote Terminal Units (RTUs) program:

(a) Please explain and provide all quantitative support for why these substations were targeted in 2025. Please use data provided in response to question 17 as part of this response, and provide any other data or calculations as needed in Excel.

(b) Please explain how Remote Terminal Units improve reliability.

(c) Please provide the feeders and Feeder IDs associated with the substations listed.

(d) For each listed substation in the figure:

(i) Please provide the reliability improvements from RTU upgrades for each substation (and feeder, if available) and the derivation of the estimate.

(ii) Please provide the total cost of the program for each substation (and feeder, if available) where work was accomplished.

(iii) For substations where work was not accomplished, please explain why this was the case.

(iv) Please provide a list of substations that were not prioritized in the Reliability Plan. but were targeted for reliability investment in 2025.

(v) Why did NS Power implement programs on substations it had not originally planned on targeting? Please provide all qualitative and quantitative analysis in support of this response.

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Response IR-55:

(a) The RTU Deployment project (C0021109 New RTU Deployment Project, approved as part of the 2020 Annual Capital Expenditure (ACE) Plan) included the installation of 23 RTUs. Prior to 2025, 12 of the identified 23 RTUs had been installed and commissioned. In alignment with NS Power's asset management mechanism, the selected locations correspond with feeder risk profiles that indicate where targeted communications and automation will deliver effective risk mitigation, including reliability improvements. The substations identified in Figure 13 were selected using NS Power's feeder risk profiles and associated condition and criticality inputs, including historical reliability performance and customer count. The quantitative support for that prioritization, including the data referenced in question 17 (IR-28), the relevant project risk scores, and the supporting calculations, is provided in Attachment 1 and the accompanying Excel attachment. Enhancing situational awareness and fault response in these areas is expected to reduce outage impact and restoration time on affected feeders, particularly where customer counts and feeder criticality are higher. Both the past performance as well as the volume of customers on a given feeder were key condition and criticality factors used to identify specific locations. The specific project risk scores, and narrative on the specific drivers for their inclusion are included in Attachment 1.

In addition to feeder risk, the remaining 11 of 23 RTUs identified for completion in 2025 under C0021109 were prioritized based on the following constraints:

- Resource capacity: availability of resources
- Maintenance and outage coordination: ability to align RTU installations with other system maintenance activities and outage windows
- Design and procurement readiness: impacts of design completion and procurement lead times
- Project dependencies: interdependencies with other projects

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(b) Remote Terminal Units support reliability by providing real-time telemetry, status indication, and remote control capability for substation equipment through NS Power's SCADA system. This improves outage awareness, expedites fault location, and enables operators to remotely monitor conditions and operate connected devices where system configuration permits. By reducing the time required to identify affected equipment and carry out switching or restoration actions, RTUs help reduce outage duration and customer impact. RTUs are a foundational connected-assets technology, and their reliability benefits are realized through integration with communications, protection devices, and broader grid management functionality.

(c) Feeders associated with the listed substations are as follows:

Region	Area/Community	Substation	Feeders
Cape Breton	Southwest Margaree	58C	58C-403
			58C-405
Cape Breton	Cleveland	22C	22C-401
			22C-402
			22C-403
			22C-404
Northeast	Tatamagouche	4N	4N-311
			4N-312
			4N-313
West	Hebron	16W	16W-301
			16W-302
West	Bridgewater East	89W	89W-301
			89W-302
			89W-303
			89W-304
West	Bridgetown Rural	70V	70V-311
			70V-312
West	Kingston	63V	63V-311
			63V-312
			63V-313
West	Ohio Road	25W	25W-301
			25W-302

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Region	Area/Community	Substation	Feeders
			25W-303
West	Central Argyle	19W	19W-311
			19W-312
West	Wolfville Ridge	83V	83V-301
			83V-302
			83V-303
West	Indian Path	80W	80W-301
			80W-302
			80W-303

(d)

- (i) The RTUs that were commissioned in 2025 were implemented throughout the year. Reliability improvement estimates are averaged across the program and are not available per device upgrade. The specific quantitative impacts of each investment are not possible to estimate due to the variability of factors such as system configuration and weather conditions. Please see IR-38 for derivation.
- (ii) In 2025, NS Power invested approximately \$893,000 on the RTU Deployment Project (C0021109). Actual project costs were recorded on a project basis rather than by individual substation or feeder. This reflects the manner in which the work was planned and executed across multiple RTU sites concurrently. As a result, there is no actual substation- or feeder-specific cost record for this project.
- (iii) Six of the eleven RTUs planned for 2025 were fully commissioned by year-end. At the remaining five sites, the RTUs had been installed, but final commissioning was delayed due to limited resource availability resulting from storm response impacts, and because the required equipment outages could not be scheduled during winter loading constraints.
- (iv-v) No additional RTU program deployments were prioritized in addition to the planned 2025 deployment list.

RTU Connectivity

Substation	Description	Substation Criticality	Substation Customers	Feeder Criticality
58C	58C Southwest Margaree	5	3128	4
22C	22C Cleveland	3	4291	5
4N	4N Tatamagouche	5	4811	5
16W	16W Hebron	5	3452	5
89W	89W Bridgewater East	4	3629	4
70V	70V Bridgetown Rural	5	2841	4
63V	63V Kingston	5	4774	5
25W	25W Ohio Road	4	3072	4
19W	19W Central Argyle	5	1578	4
83V	83V Wolfville Ridge	5	4157	4
80W	80W Indian Path	4	758	5

Feeder Condition	Highest Feeder Risk	Longest Feeder (km)	Project Criticality Adjusted
4	16	223.3	5
4	20	233.6	4
3	15	259.8	5
4	20	198.8	5
5	20	121.3	4
4	16	163.0	5
4	20	114.5	5
5	20	158.4	4
3	12	61.1	5
3	12	137.1	5
4	20	65.8	5

Project Risk Adjusted	Additional Risk Factors
20	Long feeders and high customer count
16	Long feeders and high customer count
15	Long feeders and high customer count
20	Long feeders and high customer count
20	Long feeders and high customer count
20	Long feeders and high customer count
20	Long feeders and high customer count
20	Long feeders and high customer count
15	High customer count
15	Long feeders and high customer count
20	2025 Problem Feeder

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1 **Request IR-56:**

2
3 **Regarding Section 6.1.2 (Downline Connectivity), where NS Power discusses “learnings in**
4 **field deployment and Control Center integration” on page 33, line 10 of the Reliability Plan,**
5 **please describe the lessons learned from previously executed projects and how they will lead**
6 **to improved reliability benefits in the Downline Connectivity program proposed in the**
7 **reliability plan.**

8
9 **Response IR-56:**

10
11 The quoted section references a deployment that has not yet occurred. Lessons learned will support
12 the development and scaling of a sustained deployment process. These projects are ongoing as
13 outlined in Section 6.1.2 of Appendix G of the 2026 ACE Plan.

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Request IR-57:

Regarding Figure 14: Downline Reclosers Planned for 2025-2026 on page 33 of the Reliability Plan:

(a) Please explain and provide all quantitative support for why the substation-feeder connections listed in Figure 14 were targeted in 2025-2026. Please use data provided in response to question 17 as part of this response, and provide any other data or calculations as needed in Excel.

(b) For each feeder-substation connection listed:

(i) Please provide the reliability improvements from substation-feeder connectivity for each upgrade and the derivation of the estimate.

(ii) Please provide the total cost of each project for each substation-feeder pair where work was accomplished.

(iii) For feeders where work was not accomplished, please explain why this was the case.

(iv) Please provide a list of feeder-substation pairs that were not prioritized in the Reliability Plan, but were targeted for reliability investment in 2025.

(v) Why did NS Power implement programs on connections it had not originally planned on targeting? Please provide all qualitative and quantitative analysis in support of this response.

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1 Response IR-57:

2
3 (a) These locations were selected based on NS Power's asset management framework which
4 includes an assessment of feeder risk (condition and criticality) as well as the following
5 factors, alongside subject matter experts, and operational knowledge:

6
7 • **Historical Reliability Performance:**

- 8 ○ Feeders with above-average SAIDI and/or SAIFI
- 9 ○ High frequency of sustained outages requiring multiple crew switching
10 operations
- 11 ○ Customer Hours of Interruption (CHI) concentration

12 • **Geographic and Operational Factors:**

- 13 ○ Long crew travel distances to reach downline reclosers for manual operation
- 14 ○ Multiple reclosers on feeder enabling effective sectionalizing and
15 restoration
- 16 ○ Rural or geographically dispersed customer base

17 • **Feeder Criticality:**

- 18 ○ Customer count served by each recloser zone
- 19 ○ Presence of critical facilities
- 20 ○ Load served

21
22 The specific project risk scores, and narrative on the specific drivers for their inclusion are
23 included in Attachment 1.

24
25 (b)

26 (i) Reliability improvement estimates are averaged across the program and are not
27 available per device upgrade. Please refer to Synapse IR-38.

28
29 (ii) In 2025, NS Power invested approximately \$132K on Downline Recloser
30 Connectivity. NS Power is unable to allocate actual spend by site because detailed

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1 site-level actual unit hours and unit labour costs cannot be isolated for comparison.
2 This is primarily due to several labour categories such as Engineering & Design,
3 Drafting, and Project Management being performed concurrently across multiple
4 sites rather than sequentially on a site-by-site basis
5

6 (iii) In part, this work was limited in 2025 due to key telecom systems and tools rendered
7 temporarily unavailable for much of the year by the cyber incident.
8

9 (iv-v) No additional downline recloser connectivity deployments were prioritized in
10 addition to the planned 2025 deployment list.

Downline Connectivity

Region	Area / Community	Feeder / Substation (part of)	Feeders	Condition	Criticality Risk		Key Risk Factors
West	Three Mile Plains	79V-401	79V-401		4	4	16 Long, rural feeder in area with small crew compliment, resulting in extended reponse times. High average customer count.
Metro	Musquodoboit Harbour	87H-313	87H-313		5	5	25 Long, rural feeder in area with small crew compliment, resulting in extended reponse times. High average customer count.
Metro	Musquodoboit Harbour	87H-313	87H-313		5	5	25 Long, rural feeder in area with small crew compliment, resulting in extended reponse times. High average customer count.
Northeast	Dickie Brook	24C-442	24C-442		5	5	25 Historically a problem feeder. Long, rural feeder in area with small crew compliment, resulting in extended reponse times.
Northeast	Ruth Falls	96H-412	96H-412		5	4	20 Historical reliability performance issues. Long, rural feeder in area with small crew compliment, resulting in extended reponse times. High average customer count.
Northeast	Ruth Falls	96H-412	96H-412		5	4	20 Historical reliability performance issues. Long, rural feeder in area with small crew compliment, resulting in extended reponse times. High average customer count.
Northeast	Ruth Falls	96H-412	96H-412		5	4	20 Historical reliability performance issues. Long, rural feeder in area with small crew compliment, resulting in extended reponse times. High average customer count.
West	Waterville	55V-313	55V-313		4	4	16 Long, rural feeder resulting in extended response times. High average customer count.
Metro	Lucasville	131H-422	131H-422		4	5	20 Historical feeder reliability performance issues. Elevated feeder loading. High customer density.
Cape Breton	Ingonish & Cape North	85S-401	85S-401		5	5	25 Long, remote rural radial feeder with challenging terrain, persistent vegetation and weather-related exposure, and historically poor reliability performance (elevated CKAIFI/CKAIDI).
Cape Breton	Coxheath & Eskasoni	11S-411	11S-411		4	5	20 Remote rural radial feeder with no alternate supply, recurring vegetation and equipment-related fault drivers, and documented reliability performance challenges under geographic and operational constraints.
Metro	Lakeside	103H	103H-433		2	4	8 Critical backbone feeder with high customer count and complex network topology, where faults result in significant service impact and operational complexity.
Metro	Kearney Lake	129H	129H-412		4	4	16 High-growth, high-density feeder exposed to motor vehicle and construction incidents, with traffic congestion limiting crew response despite access to alternative supply sources.
Metro	Hammonds Plains	137H	137H-414		3	5	15 Feeder serving a rapidly growing, increasingly dense area with historical reliability performance concerns (CKAIFI), where interruptions carry higher customer impact despite multiple available feeder ties.
Metro	Armdale	2H	2H-411		4	4	16 High-density urban backbone feeder with a large and growing customer base, limited redundancy, and constrained sectionalization capability, resulting in elevated outage consequence as loading increases.
Metro	Armdale	2H	2H-421		4	4	16 Complex urban feeder serving a dense customer area where outages have high impact; proximity to adjacent feeders provides some operational flexibility but does not materially reduce consequence of failure.
Metro	Kempt Rd	104H	104H-423		4	4	16 Urban feeder exposed to congestion and frequent construction activity, increasing disturbance and fault risk despite availability of alternative power flow sources.
Metro	Kempt Rd	104H	104H-433		3	4	12 High-density urban backbone feeder with complex topology and elevated third-party damage risk, resulting in high outage consequence and operational complexity.

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Request IR-58:

Regarding Section 6.2 (Fault Location Isolation and Service Restoration) starting on page 34 of the Reliability Plan:

(a) Please provide the industry case studies and statistics mentioned on page 34, lines 17-18, showing that investment in Centralized and De-centralized self-healing grid projects can improve reliability.

(b) Please explain and provide all studies and quantitative support for the 61 percent reduction in CHI discussed on page 34, line 24. Please provide the percentage reduction expected from Reliability Plan projects with supporting workpapers and analyses.

(c) Regarding individual feeder-level installations:

(i) Please provide the expected reliability improvements from substation and/or feeder-level projects and the derivation of the estimate. Please provide each unique feeder ID.

(ii) Please provide the total cost of each potential program at each substation and/or feeder where work will be accomplished.

Response IR-58:

(a) Supporting industry case studies showing reliability improvement for self-healing grid projects was provided in M12417 IR-4 Attachment 1, which is reproduced in Attachment 1.

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1 (b) Supporting documentation for the 61 percent reduction in CHI was provided in M12185
2 IR-12, which is reproduced in Attachment 2. In reference to FLISR specifically, the
3 percentage reduction in CHI expected was provided in M12417 IR-11, M12417 IR-12, and
4 M12417 IR-4 Attachment 1, which are reproduced in Attachment 1.

5 Actual FLISR performance is inherently dependent on the specifics of each installation,
6 including geographic location, feeder topology, weather conditions, and dynamic system
7 configurations due to unrelated operational factors. Accordingly, while case studies inform
8 expected ranges of benefit, the actual outcomes achieved in practice will vary and are
9 subject to the operating environment and other location-specific factors.

10
11 (c)
12 (i) The expected reliability improvements at scheme level were provided in M12417
13 IR-3(b), which is reproduced in Attachment 1.

14
15 The list of feeder IDs included in the FLISR project are as follows:

- 16
17 • 85S-401
18 • 11S-411
19 • 103H-433
20 • 104H-433
21 • 104H-423
22 • 2H-411
23 • 2H- 421
24 • 129H-412
25 • 137H-414

26
27 (ii) The total cost of each scheme was provided in M12417 IR-5(b), which is
28 reproduced in Attachment 1.

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Request IR-3:

- (a) Starting in 2020, please provide the SAIDI and SAIFI for each of the feeders.
- (b) Please provided the expected SAIDI and SAIFI improvements for each of the feeders following the implementation of this project.
- (c) Please provide the expected percentage decrease in the outage reasons noted above, following the implementation of this project.
- (d) How the performance of this project will be tracked. Please explain the process.

Response IR-3:

- (a) SAIFI and SAIDI are system-level reliability metrics normalized to the total customer base of the grid and includes all feeders and customers in the data. Circuit Average Interruption Frequency Index (CKAIFI) is used for frequency of outages on individual circuits (feeders) and Circuit Average Interruption Duration Index (CKAIDI) is used for duration of outages on individual feeders. Feeder-level metrics such as CKAIFI and CKAIDI provide targeted insights into reliability and customer impact at the circuit level. Compared to system-wide averages like SAIFI and SAIDI, these metrics are better suited for evaluating reliability performance and customer experience at the feeder level. In alignment with NS Power's Performance Standards reporting, CKAIFI and CKAIDI metrics are reported with major events and planned outages removed from the data. The data for all FLISR feeders is provided below.

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Feeder	Year	CKAIFI	CKAIDI
103H-433	2020	2.08	1.62
	2021	1.93	3.68
	2022	0.98	1.96
	2023	0.02	0.06
	2024	1.00	2.12
	2025 – July YTD	0.06	0.10
104H-423	2020	1.12	1.00
	2021	1.00	0.95
	2022	0.12	0.30
	2023	0.15	0.35
	2024	1.05	1.13
	2025 – July YTD	0.15	0.49
104H-433	2020	1.07	0.66
	2021	0.07	0.15
	2022	1.39	0.73
	2023	1.03	1.09
	2024	0.23	0.97
	2025 – July YTD	0.45	0.80
11S-411	2020	3.70	13.74
	2021	7.64	22.70
	2022	5.91	23.19
	2023	5.32	16.87
	2024	1.86	6.53
	2025 – July YTD	4.77	8.80
129H-412	2020	1.08	1.33
	2021	2.01	6.24
	2022	1.17	0.73
	2023	0.92	0.57
	2024	1.19	1.89
	2025 – July YTD	1.04	2.53
137H-414	2020	0.12	0.16
	2021	0.91	3.23
	2022	1.12	0.55
	2023	1.10	2.96
	2024	5.32	14.63
	2025 – July YTD	0.01	0.01
2H-411	2020	2.03	2.82
	2021	2.40	3.38
	2022	0.83	1.30

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Feeder	Year	CKAIFI	CKAIDI
	2023	0.84	4.63
	2024	4.48	6.42
	2025 – July YTD	0.07	0.12
2H-421	2020	0.13	0.57
	2021	0.15	0.43
	2022	0.05	0.19
	2023	0.05	0.17
	2024	3.16	5.86
	2025 – July YTD	0.02	0.02
85S-401	2020	4.85	14.30
	2021	3.79	16.87
	2022	7.98	13.83
	2023	7.50	22.54
	2024	4.90	18.42
	2025 – July YTD	3.79	15.25

(b) While the impact of a FLISR implementation does not necessarily reduce an event’s likelihood of occurring in the first place, it is expected to improve overall circuit-level performance (CKAIFI and CKAIDI) by isolating faults more efficiently, reducing the number of customers affected per event, and improving fault location prediction and response times. The cumulative impact of a FLISR project results in fewer overall customers being impacted by each outage and the outage duration being reduced. The relative improvements in CKAIFI and CKAIDI will vary depending on the feeder configuration, other ongoing reliability investments, weather conditions, and the type of FLISR solution applied in each case.

In consideration of these factors, particularly those outside NS Power’s control, the exact expected reduction in CKAIFI and CKAIDI cannot be easily or accurately estimated. However, case studies of previous FLISR implementations indicate reductions in CHI - please refer to NSEB IR-4 Attachment 1. Furthermore, the proposed solutions are expected to reduce the overall risk to targeted feeders, as identified through NS Power’s asset management framework, by limiting customer impact and outage duration, and strengthening feeder resilience through automated segmentation and added redundancy.

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- 1 (c) As noted in part (b), the project is not designed or intended to prevent outage events from
2 occurring, but improvements in reliability performance will be reflected in overall circuit
3 performance (CKAIDI and CKAIPI), primarily through reduced customer impact and
4 faster restoration. Reducing the occurrence of a fault is not the objective of this initiative.
5
- 6 (d) Project performance will be evaluated using NS Power’s asset management framework and
7 risk-based assessments. Key areas of focus include improved feeder criticality and asset
8 condition, measured by reductions in total customer outage hours and overall impact. As
9 outlined in NSEB IR-1, all outage events will be recorded in NS Power’s ADMS, which
10 will confirm device operations and the sequence of events for each FLISR solution.
11 Additionally, AMI data will be used to validate customer-level impact and support post-
12 event analysis.

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Request IR-4:

(a) For each feeder, please elaborate, compared to Fault Location, Isolation and Service Restoration (FLISR) technology, whether any technical and cost-benefit analysis has been conducted to reduce the propagation of outages using similar technologies such as sectionalizers, automatic reclosers, or other suitable devices.

(i) If yes, please share the analysis including cost benefit analysis?

(ii) If not, why not?

(b) Please explain the process used to select FLISR technologies over other similar options. Additionally, provide a document summarizing the analysis of the benefits of this technology compared to others considered, including cost.

Response IR-4:

(a-b) Please refer to Attachment 1 which provides a compilation of technical assessment and jurisdictional research of the FLISR technology conducted by NS Power. This analysis was based on the ability of a FLISR solution to augment existing reliability strategies to reduce the impacts of outages for customers, improve operational efficiency through more precise fault location and automation, and provide greater situational awareness to Distribution Operators to inform restoration planning, in addition to other asset management and reliability investments planned for these feeders.

A formal analysis related to comparative cost effectiveness was not completed for this project, in part because the FLISR technology provides unique functionality not found in other similar technologies; FLISR is a complementary technology to the system's existing protection systems, as opposed to a strict alternative or replacement. Please refer to Attachment 1 Benefits Section for more details. Notwithstanding, NS Power secured

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- 1 federal funding for the FLISR project, offsetting the overall capital costs, in order to
2 achieve cost effectiveness of the project overall.
3
4 Please also refer to NSEB IR-2 (d) for more information regarding alternatives.



Fault Location, Isolation, and Service Restoration

NS POWER ASSESSMENT
2025

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1.0 Executive Summary

Fault Location, Isolation, and Service Restoration (FLISR) provides advanced fault location and automated service restoration capabilities that reduce the impact and duration of power outages on customers. FLISR deployments are prevalent across many utilities in North America as a fundamental capability of distribution automation and grid-modernization programs.

A jurisdictional review illustrates the prevalence and outcomes of FLISR deployments in utilities in North America, and the technology's ability to provide reliability improvements for customers. These improvements are not achievable through the traditional capabilities and configurations deployed across most of the NS Power distribution system.

There are three primary types of FLISR deployments that should be considered in this project, to bring reliability benefits to NS Power. These types are based on the grid configuration that exists in the specific location – Centralized FLISR, Decentralized FLISR, and Automated & Increased Segmentation.

FLISR capabilities are identified in the NS Power 5 Year Reliability Plan as an advanced grid modernization initiative. These grid modernization investments are key to achieving the goals set out in the 5 Year Reliability Plan. NS Power will evaluate locations and use cases where FLISR can be deployed to enable increased visibility and control to Distribution System Operators, automate restoration, and reduce the impact of outages for customers.

2.0 Technical Overview

2.1 FLISR Technology

FLISR is a system of distribution protection devices sited to allow automatic and remote re-configuration of the distribution grid. Its purpose is to improve feeder reliability by minimizing the number of customers affected by outages, such as those caused by tree contacts or other foreign interference (e.g. motor vehicle accidents), until the cause for the outage is addressed. Various approaches, as described below, can be used in FLISR deployments to achieve these outcomes.

Automated & Increased Segmentation employs intelligent distribution protection devices such as reclosers to increase the number of segmentation points on a feeder and isolate the fault to the fewest number of customers using built-in low energy test pulse sensing technology. This application is well suited for use on long, radial feeders.

Decentralized FLISR employs intelligent distribution protection devices to make autonomous decisions to reconfigure the grid during outage conditions. The devices are placed at strategic locations to segment pockets of customers and at tie points between feeders. This application is well suited for use on feeders with multiple ties between them, and pre-defined switching schemes.

Centralized FLISR leverages a utility's Advanced Distribution Management System (ADMS) for visibility and control of connected distribution protection devices. Centralized FLISR uses specialized software application logic to make autonomous decisions or suggestions for operators to reconfigure the grid during outage conditions. It can consider the broader distribution network in its analysis, evaluating not only the immediate feeder conditions but also the impacts of switching on adjacent feeders and substations. This allows it to optimize restoration actions across a wide area, balancing system constraints such as loading, voltage, and protection coordination. This application is well suited for use on feeders with ties between them, in congested and complex areas of the grid.

2.2 Technology Comparative Analysis

The primary goal of FLISR is to reduce the impact and duration of outages. The following table demonstrates how FLISR augments traditional technologies to provide the most benefits to customers.

Method	Customers Impacted	Speed to Restoration
Manual Restoration	High – All customers on the feeder are impacted until crews arrive and restoration is performed.	Slowest – Fault must be physically located and resolved before power can be restored to all customers on the feeder.
Automated Sectionalizers & Reclosers	Moderate – Limited number of devices per feeder, as more devices are added, complexity increases, reducing the likelihood of optimal isolation.	Better - Fault must be located and resolved downstream of the device before service can be restored to all customers on the feeder. Faster than manual restoration, but less optimized than automated FLISR.
FLISR	Low – Only customers on isolated section impacted with an extended outage.	Fastest – Most customers are restored quickly through automated fault isolation and feeder reconfiguration. Customers in isolated sections are restored faster due to the fault being more precisely located.

The majority of the distribution devices (reclosers, sectionalizers) installed on the NS Power grid today leverage conventional Protection & Control (P&C) Time-Current Coordination (TCC). In a conventional coordination scheme, protective devices are set with intentional time delays to ensure downstream devices can operate before upstream devices clear the fault. While this achieves coordination, it introduces a delay in fault clearing that lengthens fault duration for customers and subjects upstream equipment to unnecessary stress. Additionally, the scalability of TCC is limited to a finite number of devices on a circuit.

The ability to configure and maintain the TCC configuration on distribution devices will become increasingly complex to manage as the grid continues to accommodate distributed energy resources and associated bidirectional power flows.

More advanced technology is available to circumvent the limitations of TCC by using low-energy test pulses rather than relying solely on fault current magnitude and timing. This allows the system to rapidly identify the faulted section without depending on the inherent time delay of TCC. The result is quicker isolation, reduced outage duration, and more precise restoration.

2.3 Benefits

2.3.1 Reliability and Resilience Improvements

- FLISR reduces the frequency, impact, duration of outage events improving reliability indices.
- Devices make real time autonomous decisions to reconfigure the grid during outage conditions, reducing outage durations.
- Less human switching intervention leads to a faster and safer fault response.

2.3.2 System Visibility and Flexibility

- Visibility and remote-control enablement of devices provides higher situational awareness for Distribution System Operators.
- Robust integrations with the ADMS enhances distribution system flexibility and coordination.
- Operational and Engineering troubleshooting tools benefit from increased real time data and information.

2.3.3 Operational Efficiency

- FLISR Schemes improve cost effectiveness by reducing manual switching and fault patrols, lowering field technician hours, truck rolls, vehicle maintenance, and GHG emissions.
- When fault location data is available and outages are minimized, utilities can optimize crew deployment and prioritize restoration efforts more effectively and efficiently.

2.4 Risks & Challenges

The deployment of FLISR presents a few key technical and operational challenges that must be managed as described in the table below:

Risk / Challenge	Mitigation
Communications infrastructure must be robust for some FLISR technologies to be effective.	FLISR projects must include telecom design and planning to ensure the appropriate communications infrastructure is available to support a FLISR deployment.
ADMS grid model must be accurate and complete for ADMS to provide insight and automation to support FLISR.	FLISR projects validate grid model data for completeness and accuracy. This could include a field survey of in-scope feeders to validate data.
Distribution grid operators need to be trained on how to use FLISR solutions to support situational awareness and restoration decision-making.	FLISR projects must include an Organization Change Management (OCM) Plan for grid operators and other key resource groups. OCM plans should include training and operating procedures for front-line resources as well as awareness and other support material for other stakeholders.
FLISR is one of a number of reliability initiatives that require investment support.	FLISR projects should evaluate government programs for opportunities to identify funding that can offset FLISR deployment costs.

2.5 Industry Perspective

2.5.1 EPRI

The Electric Power Research Institute, Inc (EPRI) is an independent, nonprofit organization that conducts research and development relating to the generation, delivery, and use of electricity for the benefit of the public. EPRI's members represent more than 90% of the electricity generated and delivered in the United States, and international participation extends to 40 countries.¹

EPRI Research on FLISR identifies that the deployment of this technology at electric utilities can be used to improve reliability and operational efficiency. In EPRI's Grid Modernization Playbook², they provide a sample template of their capability maturity model for distribution grid modernization. FLISR is highlighted as a sub capability in the Distribution Automation business capability under the Operations domain. This maturity matrix demonstrates how

¹ <https://ourmembers.nctech.org/directory/Details/electric-power-research-institute-1668295>

² <https://www.epri.com/research/products/000000003002021393>

FLISR evolves within a utility, beginning with small scale deployments, and growing to a wide scale rollout with fully autonomous decision making enabled.

2.5.2 US Department of Energy

The United State Department of Energy (DOE), through its Smart Grid Investment Grant (SGIG), highlights that widespread FLISR deployments can help utilities improve grid performance as measured by standardized metrics associated with outage average duration and frequency. A 2016 report issued by the DOE contains results from 62 Smart Grid Investment Grant projects implementing distribution automation technologies. Five utilities reported on reliability improvement over one year.³

In 2023 the Grid Deployment Office administered a \$10.5 billion Grid Resilience and Innovation Partnerships (GRIP) Program to enhance grid flexibility and improve the resilience of the power system against extreme weather. These programs were aimed to accelerate the deployment of projects that would help to ensure the reliability of the power sector's infrastructure. FLISR is one of the specific technologies identified as a "technical approach of interest and priority investment" in the GRIP Program.⁴

2.5.3 NRCan

National Resources Canada (NRCan) is investing in Smart Grids to support the modernization of the safe and secure delivery of electricity. Since 2012, NRCan has confirmed funding to demonstration projects that work towards smarter grids across Canada.⁵ The NRCan Energy Innovation Program supports projects, including FLISR, that have the objective of enhancing grid reliability, resiliency, and flexibility.⁶ In 2025 NRCan approved of NS Power's application which jointly requested funding for three Distribution projects that work towards improved reliability, resilience, and grid modernization. The three projects approved were FLISR, Distributed Energy Resource Management System (DERMS), and Distribution Intelligence Applications (DI Apps).

³ [US DOE - Smart Grid System Report](#)

⁴ [US DOE - GRIP Presentation](#)

⁵ [Current Investments - Natural Resources Canada](#)

⁶ [Energy Innovation Program – Smart Grids - Natural Resources Canada](#)

3.0 Jurisdictional Scan

FLISR technology is being deployed and expanded across North America. The primary goals across these utilities are improving reliability, minimizing outage durations, and increasing operational efficiency through FLISR capabilities. The utilities highlighted in this section have shared publicly available results, including specific metrics demonstrating improvements in reliability performance. These outcomes are referenced in the footnoted reports.

3.1 US FLISR Deployments

3.1.1 Pacific Gas & Electric⁷

Background: PG&E has one of the largest deployments of FLISR in North America with coverage on over 1000 feeders and millions of customers. PG&E's FLISR projects started in 2011 with grants under the US Department of Energy Smart Grid Investment Grant (SGIG).

Approach: PG&E initially deployed a standalone FLISR application to manage its FLISR control schemes. This legacy system lacked grid awareness and required manual configuration. In 2023, PG&E launched a Schneider Electric ADMS-integrated FLISR solution, enabling real-time visibility and control to its devices and improving the effectiveness of its device deployments.

3.1.2 Electric Power Board Chattanooga^{8,9}

Background: EPB Chattanooga leveraged US Department of Energy SGIG funding to rollout a service territory-wide FLISR deployment.

Approach: EPB deployed 1100 S&C Electric's IntelliRupter® PulseCloser® Fault Interrupter and IntelliTeam® SG Automation Restoration System across its 600-square-mile distribution territory.

3.1.3 Georgia Power¹⁰

Background: Georgia Power installed FLISR distribution technology on circuits serving more than 1.2 million customers across the state.

Approach: Georgia Power implemented self-healing FLISR schemes on over 700 circuits.

⁷ [PG&E 2020 Smart Grid Annual Report](#)

⁸ [S&C Electric EPB Case Study](#)

⁹ [ICE Calculator - EPB Case Study](#)

¹⁰ [Key Trends - Edison Foundation Report](#)

3.2 Canada FLISR Deployments

3.2.1 Hydro One¹¹

Background: Hydro One's 2023–2027 Distribution System Plan (DSP) highlights a significant push to modernize grid operations through Advanced Distribution Management Systems (ADMS), where FLISR plays a pivotal role in both improving reliability and increasing resiliency by facilitating faster restoration.

Approach: Deployment of FLISR on distribution circuits in several high-priority areas and automate fault detection and isolation through smart switches and sectionalizers.

3.2.2 Oshawa Power¹²

Background: Oshawa Power initiated the deployment of its FLISR system in December 2021. As of year-end 2023, more than 40% of their grid is now connected to the FLISR system. This implementation represents a component of the utility's broader grid automation strategy, aimed at modernizing distribution operations, enhancing system reliability, and improving customer service.

Approach: Oshawa Power's FLISR implementation employs a two-layer automation approach. This strategy integrates centralized software applications with decentralized hardware to facilitate the detection, isolation, and restoration of service following fault events. The system is designed to support improved grid segmentation, increase the availability of grid assets for automated restoration, and contribute to the minimization of outage durations and frequencies.

3.2.3 Enova¹³

Background: Enova, and its two legacy utilities, leverage the Advanced Distribution Management System (ADMS) and FLISR deployments to lower the frequency and severity of unplanned power outages across its service territory.

Approach: Enova implemented Survalent's FLISR software application that, combined with Supervisory Control and Data Acquisition (SCADA) and other grid modernization devices, reroutes power in the event of a fault to restore power to as many customers as possible, as quickly as possible. These technologies provide automatic self-healing on the portions of the system unaffected by the fault, ultimately improving restoration times.

¹¹[Hydro One Distribution System Plan](#)

¹² <https://www.oshawapower.ca/flisr/>

¹³ <https://enovapower.com/corporate-information/innovation-at-work/>

4.0 Conclusion & Recommendations

FLISR capability is fundamental to grid management and is identified in the NS Power Five Year Reliability Plan as a subprogram of advanced grid modernization. The prevalence and experience of FLISR deployments in utilities in North America illustrates its ability to provide reliability improvements for customers. These improvements are not achievable through the traditional capabilities and configurations currently deployed on the NS Power distribution system.

Centralized FLISR, Decentralized FLISR, or Automated & Increased Segmentation could be deployed to improve reliability and/or inform the planning for scaling FLISR across more of the grid.

For example, Centralized FLISR could be deployed on feeders in areas of grid complexity and good telecommunications capability. Decentralized FLISR could be deployed on feeders with alternate power sources and dense population. Automated & Increased Segmentation could be deployed on feeders without a secondary power source, such as rural radial lines.

This approach would entrench FLISR as a core capability for NS Power, a capability that is considered fundamental by peer utilities in North America.

Additionally, government programs, such as NRCan Smart Renewables Energy Pathway and US DOE Smart Grid Investment Grants, are designed to advance and accelerate grid modernization initiatives, indicating policy objectives in support of the adoption of the technology. Furthermore, FLISR and other smart grid deployments may be able leverage these programs for funding.

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Request IR-5:

The application notes implementation of three versions of FLISR technologies and equipment in four geographic areas within Nova Scotia.

(a) Keeping the reasons for outages noted above in mind, please list the rationale behind selecting different versions of FLISR for different feeders.

(b) Please provide cost breakdown of FLISR technologies for each feeder mentioned in the application.

(c) What is the operational cost impact of this project on the rate base over the years?

Response IR-5:

(a) The FLISR selection rationale for each feeder is described below.

Automated and increased segmentation

As 85S-401 and 11S-401 are radial feeders, without opportunities for alternative power flow sources, the option chosen is to deploy devices enabling enhanced fault locations, resulting in quicker response to outages, as well as tighter segmentation, resulting in more customers being automatically restored when an unplanned outage occurs. Please refer to NSEB IR-4 Attachment 1 for additional details.

Decentralized

Feeders 129H-412 and 137H-414 serve areas experiencing significant growth and density and are located in areas of the grid with alternative power flow sources for deployment. The automated, de-centralized FLISR scheme can provide rapid response to sectionalize and potentially partially restore outages, automatically maintaining service to the maximum extent possible during a service interruption on the feeder.

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Centralized

Feeders 2H-411, 2H-421, 104H-433, 104H-423, and 103H-433 form an important part of the distribution network serving the Halifax Peninsula, increasing the potential impact of unplanned outages due to the high density of customers. The close proximity of many of these feeders to each other in this area means that alternative power flow sources are available for deployment. The density and complex network of feeders in this area is an ideal candidate for the flexibility and network analysis functionality of centralized FLISR, leveraging capabilities of ADMS to optimize restoration actions across a wider area, balancing system constraints such as loading, voltage, and protection coordination and other operational considerations.

(b) Please refer to the table below:

	Automated and Increased segmentation (\$)	Automated and Increased segmentation (\$)	Decentralized FLISR Solution (\$)		Centralized FLISR Solution (\$)		
Feeder	85S-401	11S-411	137H-414	129H-412	2H-411, 421	104H-433	103H-433
Material	830,111	405,631	79,400	223,101	192,670	42,575	42,575
Consulting Services	41,460	34,460	9,888	29,063	600		
Contract	384,916	242,707	30,535	91,606	102,228	25,557	25,557
Labour	261,871	132,536	47,472	96,105	112,702	39,754	39,754
Travel	17,957	17,957	8,978	8,978	5,986	5,986	5,986
Total	1,536,315	833,291	625,127		641,929		

Centralized/decentralized schemes are not applied at the feeder level, rather the design involves multiple feeders in a given area. All feeders outlined in the project are required to complete this scheme. This does not include AFUDC, AO, or NRCan Contributions.

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- 1 The cost varies by scheme due to the difference in design, influenced by length of feeder,
2 customer density, and complexity. Please refer to NSEB IR-7 Attachment 1 for map design.
3
4 (c) Operational costs will have no impact to rate base.

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Request IR-11:

In response to IR-3(a), NS Power stated that the relative improvements in CKAIPI and CKAIPI will vary depending on the feeder configuration, other ongoing reliability investments, weather conditions, and the type of FLISR solution applied in each case.

In response to IR-1, Starting in 2020, NS Power provided a list all activities along with their investment dollar values that were undertaken to improve the reliability of each feeder. For example, the utility has spent approximately \$3.7 million on feeder 11S-411 from 2020 through 2025 to improve reliability.

In response to IR-1, NS Power provided outage causes categorized by Customer Hours of Interruption (CHI), including defective equipment and tree contacts. These causes, which remain under the utility's control, still constitute a significant portion of the total CHI hours. Attachment 1, which was provided to highlight the benefits of FLISR technology in other jurisdictions, did not specify the extent of control other utilities had over the outage causes prior to the implementation of FLISR.

(a) Please explain how the Board can have confidence that this investment will deliver value if the other outage causes under the utility's control remain unresolved or unmanaged.

(b) Please provide outage causes categorized by CHI for each year since 2020, for any other jurisdiction noted in the Attachment 1.

Response IR-11:

(a) The proposed FLISR solutions are effective risk mitigation strategies regardless of the initial cause of an outage (excluding loss of supply events) and complement NS Power's ongoing mitigation efforts on targeted feeders. These investments in advanced protection

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1 schemes support the overall improvement of reliability for customers in concert with other
2 risk mitigation strategies such as targeted asset replacements or vegetation management.

3
4 No single risk mitigation strategy can fully address all outage causes, including equipment
5 defects or vegetation encroachments, so investments such as FLISR provide an additional
6 layer of reliability improvement. In the cases of vehicle accidents, off-ROW tree contacts,
7 lightning strikes, animal contacts, equipment manufacturing defects, adverse weather, and
8 other outage causes where many risk mitigation strategies are less effective, FLISR can
9 provide reliability improvements for customers through faster switching, increased
10 segmentation, and/or fault detection.

11
12 NS Power evaluates reliability initiatives through its Asset Management framework,
13 ensuring an appropriate mitigation approach is applied to identified risks on targeted
14 feeders. As outlined in IR-10, the proposed solution has demonstrated industry-wide value,
15 remains effective regardless of the outage cause, and is cost-effective.

16
17 (b) NS Power does not have access to this level of data granularity as the information is not
18 publicly available.

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Request IR-12:

Page 6 of Attachment 1 lists the benefits. Among other advantages, under operational efficiency, it notes that FLISR schemes improve cost-effectiveness by reducing manual switching and fault patrols, lowering field technician hours, truck rolls, vehicle maintenance, and GHG emissions. When fault location data is available and outages are minimized, utilities can optimize crew deployment and prioritize restoration efforts more effectively and efficiently.

(a) Please estimate the five-year benefits following the implementation of this project, in terms of time and cost savings as noted above, for each of the feeders selected in the application.

Response IR-12:

(a) FLISR benefits are well established and demonstrated in comparable utility implementations, as described in IR-4 Attachment 1. High-level avoided time and operational costs can be estimated as presented below. These potential avoided operational costs have been developed using average historical data for the selected feeders. While past outage data can help frame an order of magnitude of potential benefits, historical reliability performance may not be a reliable predictor of future benefits. Additionally, as noted in IR-11, FLISR is one layer of additional reliability protection; no single risk mitigation strategy can fully address all outage causes, including motor vehicle accidents, equipment defects or vegetation encroachments. Therefore, results specifically with respect to the FLISR technology should be considered directional rather than prescriptive.

Historical data for the selected feeders, as provided in IR-1(a), was analyzed to identify the annualized average number and duration of outages, for outages greater than 100 customers (set as the *approximate* minimum for a FLISR operation), for each project, as presented in the table below.

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Feeder Circuit or FLISR Type	Count of Outages (>100 cust) [outages per year]	Average Outage Duration (> 100 cust) [hrs]
85S-401	25.9	4.6
11S-411	13.2	3.6
Centralized 103H-433, 104H-433, 104H-423, 2H-411, 2H- 421	19.7	2.7
Decentralized 129H-412, 137H-414	13.5	2.3

Evidenced by the jurisdictional scan and experience, as described in IR-4 Attachment 1, the expected reduction in impacted customers during outage conditions ranges from 40-60 percent.

Feeder Circuit or FLISR Type	Total Customers	40% of Customers	60% of Customers
85S-401	2,256	902	1,354
11S-411	3,315	1,326	1,989
Centralized 103H-433, 104H-433, 104H- 423, 2H-411, 2H-421	10,954	4,382	6,572
Decentralized 129H-412, 137H-414	4,182	1,673	2,509

As further described in IR-4 Attachment 1, the estimated directional reduction in duration of outages conservatively ranges from 12-25 percent. Using the average avoided outage duration, PLT Labour, and Administrative and Vehicle Overheads, the resulting potential avoided operational costs from this FLISR installation are estimated at approximately \$16,500 annually.

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Feeder Circuit or FLISR Type	Average Outage Duration (> 100 cust) [hrs]	FLISR Restoration Time (min)	Average FLISR (10-25%) Reduced Outage Duration [hrs]
85S-401	4.6	1	3.8
11S-411	3.6	1	3.0
Centralized	2.7	10	2.3
Decentralized	2.3	1	1.9

Feeder Circuit or FLISR Type	85S-401	11S-411	Centralized	Decentralized
PLT hourly Rate	\$91.11	\$91.11	\$91.11	\$91.11
PLT Per Trip	2	2	2	2
Average Reduced Time (hour)	0.8	0.6	0.5	0.4
Labour \$ Saved per Outage	\$146.06	\$115.16	\$87.67	\$73.57
Average Outages per year	25.9	13.2	19.7	13.5
PLT Labour Avoided per year	\$3,783.03	\$1,520.05	\$1,727.05	\$993.16
Labour Overhead Rate	0.56626	0.56626	0.56626	0.56626
Labour Overhead	\$2,142.18	\$860.74	\$977.96	\$562.39
Vehicle Overhead Rate	0.49888	0.49888	0.49888	0.49888
Vehicle Overhead	\$1,887.28	\$758.32	\$861.59	\$495.47
Total Potential Avoided Operational Costs	\$7,812.49	\$3,139.12	\$3,566.59	\$2,051.02

Potential Avoided Labour	\$8,023.29
Potential Avoided Labour-related Overhead	\$4,543.27
Potential Avoided Vehicle Overhead	\$4,002.66
Total Potential Avoided Operational Costs	\$16,569.22
5 Year Potential Avoided Operational Costs	\$82,846.10

These potential avoided operational costs may offset the overall costs of the project over time, providing an additional benefit to customers in addition to the primary justification related to improving feeder reliability.

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Request IR-12:

Another aspect of the reliability plan is a forecast expenditure of \$13 million related to fault location, isolation, and service restoration (FLISR). On page 34 of 40 of the reliability plan document NS Power stated: “Industry case studies and statistics show that investment in Centralized and De-centralized self-healing grid projects can impact reliability by reducing Customer Interruptions (CI) and Customers Hours of Interruption (CHI).”

(a) Please provide a copy of a case study that describes the functionality and operation of a self-healing grid project similar to one proposed for Nova Scotia.

(b) If NS Power has such a project currently in service, please explain the installation and elaborate on the benefits accrued.

Response IR-12:

(a) A case study outlining the implementation of a self-healing grid project at EPB of Chattanooga (the electric utility) in Chattanooga, Tennessee is provided here: <https://www.sandc.com/globalassets/sac-electric/documents/public---documents/sales-manual-library---external-view/case-study-766-1001.pdf>

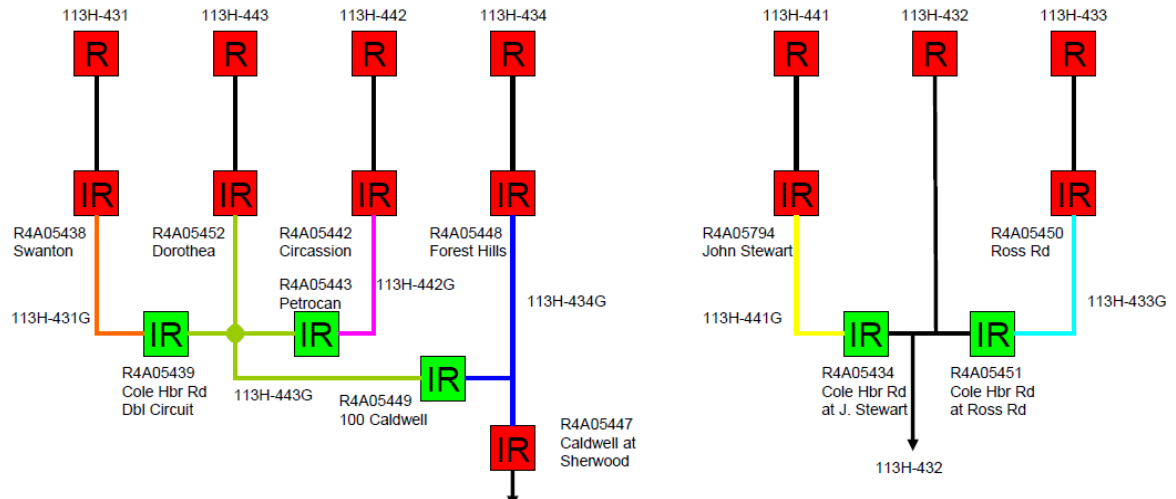
(b) The following diagram depicts the IntelliTeam (FLISR) installation on 113H Dartmouth East feeders using this technology. Twelve (12) IntelliRupter devices are installed across seven feeders originating from the 113H substation. The segment between IntelliRupter devices, as indicated by the coloured segments in the diagram, forms a “Team”. When a fault occurs on the distribution system and triggers protection to operate, seven “Teams” on different feeder segments can autonomously communicate the Fault Location to the others, Isolate the fault by opening protective devices on both sides, and complete Service Restoration by closing in normally open devices between other feeders to create an

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alternate feed to customers. This restores the maximum number of impacted customers, typically within a minute.

Operating Schematic – 113H Downlines



The following table identifies events that triggered the IntelliTeam FLISR scheme since its final commissioning on November 2, 2023. On average, the IntelliTeam can restore service to approximately 61 percent of impacted customers when configured in its normal/default state. Data since November 2, 2024 shows a total of six interruptions that triggered the FLISR scheme, with 14,484 customer interruptions and 35,643 customer hours avoided. The system, which communicates status back to the Advanced Distribution Management System (ADMS) at NS Powers Distribution Control Centre, provides situational awareness for Distribution Operators of the current state automatic switching at any time.

	Duration (hrs)	Count of Premise ID	% Restored	Customer Hours Avoided	Count of Customer Interruptions Saved
INC 116280214		4853			0
Momentary	<1min	2392	49%	4042.48	2392
Sustained	1.69	2461	51%		0
INC 116281029		4279			0
Momentary	<1min	3805	89%	9322.25	3805
Sustained	2.45	473	11%		0

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	Duration (hrs)	Count of Premise ID	% Restored	Customer Hours Avoided	Count of Customer Interruptions Saved
INC 116281045		6076			0
Momentary	<1min	3619	60%	7744.66	3619
Sustained	1.23	1			0
Sustained	2.14	2455	40%		0
Sustained	3.83	1			0
INC 116285001		4856			0
Momentary	<1min	2392	49%	8706.88	2392
Sustained	3.64	2464	51%		0
INC 116285002		1888			0
Momentary	<1min	1416	75%	5182.56	1416
Sustained	3.66	472	25%		0
INC 116298979		2046			0
Momentary	<1min	860	42%	645	860
Sustained	0.75	1186	58%		0
Total		23998	61%	35643.83	14484

1

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Request IR-59:

Regarding Section 6.2.1 (Distributed Energy Resources (DERs) on page 35, lines 7-8 of the Reliability Plan, where it says

“Following on the successes of the Intelligent Feeder and Smart Grid Nova Scotia projects, NS Power is evaluating its approach to best integrate DER into the Nova Scotia grid”:

(a) Please describe how this evaluation of the approach to integrating DERs will be conducted, and what the proposed budget will be.

(b) Please describe the lessons learned from the Intelligent Feeder and Smart Grid Nova Scotia projects, and how these will be incorporated into the DER evaluation.

Response IR-59:

(a) NS Power notes that the reference to “evaluation” was intended to describe high-level, ongoing evaluation of NS Power’s approach to integrating Distributed Energy Resources (DERs) into the Nova Scotia Grid, rather than a discrete evaluation.

Given the evolving nature of DER technologies, customer adoption, system requirements, and the ongoing transition of roles and responsibilities within Nova Scotia’s energy sector, NS Power’s approach to integrating Distributed Energy Resources is expected to continue to evolve over time. Accordingly, evaluation and assessment activities occur on an ongoing basis, with learnings incorporated into planning, operational and interconnection practices as appropriate.

NS Power is currently developing a Distributed Energy Resource Integration Roadmap (DER IR) in consultation with stakeholders. The purpose of the DER IR is to provide a

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1 holistic view of DER integration considerations and identify potential opportunities to
2 optimize DER grid-interconnection and system-integration in Nova Scotia.

3
4 NS Power has provided periodic updates on the development of the DER Integration
5 Roadmap through M12177, outlining progress on stakeholder engagement and roadmap
6 development. NS Power is scheduled to file the DER IR by June 30, 2026.

7
8 In parallel with the development of the DER IR, NS Power continues to advance projects
9 which will support integration of DERs, such as the DERMS project which was included
10 in the 2026 ACE Plan as a project for subsequent submittal.

11
12 Because the evaluation of NS Power's approach to DER integration is not a discrete
13 program or project with a defined scope, schedule or deliverables, it does not have a
14 standalone budget. Activities that support the ongoing evaluation are undertaken as part
15 of NS Power's normal course of business and are funded through NS Power's capital and
16 operating budgets, as appropriate. Accordingly, no incremental or separately identifiable
17 budget is proposed specifically for the "evaluation" referenced in Section 6.2.1.

18
19 (b) The Intelligent Feeder and Smart Grid Nova Scotia projects provided practical experience
20 related to the integration of DERs. The lessons learned from these projects have informed,
21 and will continue to be considered within NS Power's ongoing approach to DER
22 Integration. Please refer to the project final reports for M07981 and M11621 for project
23 results and detailed lessons learned. Additional relevant matter numbers and references
24 are provided below.

25
26 **Intelligent Feeder Project:**

- 27 • Application (M07981)
28 • 2018 Annual Report (M08512)
29 • 2019 Annual Report (M09061)
30 • 2020 Annual Report (M09578)

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1 2021 Annual Report (M09984)

2
3 **Smart Grid Nova Scotia Project:**

- 4 • Application (M09519)
- 5 • Semi-Annual Reports 1-7 (M09985)
- 6 • Final Report (M11621)
- 7 ○ **Section 5.0:** Outcomes by DER Asset Class
- 8 ○ **Section 12.0:** Key Findings
- 9 ○ **Appendix A:** Impact Analysis Report (detailed technical analysis by asset
- 10 class, validated by third-party)
- 11 ○ **Appendix B:** Economic Analysis Model

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1 **Request IR-60:**

2
3 **When will the results of the Residential and Commercial jurisdiction-specific studies on**
4 **dollar benefits associated with the Value of Lost Load (VoLL) be available?**

5
6 **Response IR-60:**

7
8 NS Power plans to file the results of both the Residential and Commercial/Industrial Value of Lost
9 Load surveys and analysis as part of its submission for the 2027 ACE Plan.

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Request IR-61:

Is NS Power planning to incorporate dollar benefits associated with VoLL into its cost-effectiveness evaluation, based on the jurisdiction-specific studies that are currently in process?

(a) If so, when and how?

(b) If not, why not?

Response IR-61:

No decision has yet been made by NS Power on the suitability of VoLL in its risk rating methodology. Without the final results from the analysis, it would be premature to speculate on the appropriateness of its use at this time. However, NS Power anticipates that if used, VoLL would be included as part of the criticality portion of risk rating as a potential complement to customer and/or usage factors.

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1 **Request IR-62:**

2
3 **What other benefits should be considered in a cost-effectiveness evaluation of Reliability**
4 **Plan investments?**

5
6 Response IR-62:

7
8 The primary benefits targeted by the investments included in the Five-Year Reliability Plan are
9 the improvement of reliability, specifically Performance Standards SAIDI, and the achievement
10 of adverse weather restoration standards. In developing the specific programs and their scale
11 within the plan, NS Power did consider the effectiveness with respect to the size of investment as
12 well as other factors detailed in Synapse IR-38. While there are certainly additional benefits
13 beyond reliability that are likely to be accrued as a result of these investments, such benefits were
14 not necessarily directly considered in the development of the Five-Year Reliability Plan.

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1 **Request IR-63:**

2
3 **Is NS Power planning to incorporate dollar values associated with any other types of benefits**
4 **(other than VoLL) into evaluation of cost-effectiveness for reliability planning?**

5
6 **If so, which values, when, and how?**

7
8 Response IR-63:

9
10 No, NS Power does not have plans at this time to adjust its current approach to risk-based decision-
11 making to include items other than those already outlined.

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Request IR-64:

Does NS Power think that some investments in its Reliability Plan may not be cost effective?

(a) If so, which investments and why would they not be cost-effective?

(b) If so, why were these investments included in the Reliability Plan?

Response IR-64:

(a-b) NS Power believes all investments in the Five-Year Reliability Plan are necessary and justified to achieve the Plan's overarching goals of meeting Performance Standards and strengthening grid resilience in the face of climate change across the three main investment categories of:

- Targeted Equipment Replacement and Upgrades;
- Vegetation Management; and
- Advanced Grid Modernization.

Investments outlined and prioritized in the Five-Year Reliability Plan are recommended based on the Company's established Asset Management Mechanism and selected based on their impact on the overall duration and frequency of outages with the goal of meeting the established Performance Standards. Once an area or asset is prioritized in the reliability plan, the Company will ensure that the work is designed, planned and executed in the most efficient manner for customers with safety always at the forefront.

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1 **Request IR-65:**

2
3 **Please discuss how NS Power considered affordability in its Reliability Plan.**

4
5 **(a) What metric(s) did NS Power use to evaluate affordability?**

6
7 **(b) How did NS Power evaluate affordability?**

8
9 **(c) Did NS Power evaluate affordability for different types of customers or overall?**

10
11 **(d) Did NS Power evaluate the affordability relative to other types of investments or as**
12 **compared to other investment plans?**

13
14 **(e) Did NS Power evaluate any affordability benefits associated with avoiding potential**
15 **future costs? If so, please identify those costs and explain how.**

16
17 **(f) How does NS Power ensure that its Reliability Plan investments are not duplicative**
18 **and do not overlap with its other investment plans?**

19
20 **Response IR-65:**

21
22 (a-d) NS Power's Five-Year Reliability Plan (Plan) is not driven by a standalone affordability
23 metric or comparison against alternative portfolios. The Plan is developed through
24 established asset management practices to identify and address system risks to meet the
25 utility's obligation to provide service that is reasonably safe and adequate and meet
26 performance standards related to reliability. The required investments must proceed to
27 achieve those outcomes; however, affordability is a key consideration in determining the
28 pace at which the Plan is implemented to mitigate upward rate pressure on NS Power
29 customers.

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- 1 (e) The Plan is expected to reduce future costs associated with outages, emergency response,
2 and unplanned repairs; however, given the number of variables impacting the reduction of
3 future costs, NS Power did not use this expectation as the basis for a specific quantification
4 of affordability benefits.
5
- 6 (f) The Plan is coordinated through centralized asset management processes and a centralized
7 capital planning team to ensure there is no duplication with other capital programs.