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Request IR-1:

For this outage report, using December 3, 2025, 00:00 to December 3, 2025, 20:00 as the time axis, please provide the following for each of the eight regions mentioned on PDF page 4

(a) A plot of hourly wind speed forecast plot alongside actual speeds;

(b) A plot of hourly wind gusts forecast plot alongside actual gusts;

(c) A plot of hourly precipitation forecast plot alongside actual precipitation; and

(d) A plot of hourly temperature forecast plot alongside actual temperature.

Response IR-1:

(a-d) Please refer to Attachment 1 for the comparison between forecast and actual weather conditions for Wind Speed, Wind Gusts, Temperature, and Precipitation. Forecast data from NS Power's weather forecasting vendor RWDI is provided in three-hour blocks, not hourly, so there is a mismatch in the granularity that will be visible in the data as duplication of forecast values for Wind Speed, Wind Gusts, and Temperature as well as an even split of precipitation totals across the three hours. Furthermore, precipitation data is not collected uniformly at all representative stations and is generally limited to daily totals and observations collected at staffed stations in Yarmouth, Greenwood, Halifax, Port Hawkesbury, and Sydney. For other regions, no hourly precipitation observation data is available. No daily precipitation values are available for the Eastern Shore region.

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Confidential Attachment 1 has been filed electronically.

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Request IR-2:

For all outages attributed to tree contact, please provide a detailed breakdown, including:

- (a) The number and percentage of incidents involving trees located within the maintained right-of-way;**
- (b) The number and percentage involving hazard or “danger” trees located outside the right-of-way;**
- (c) The number and percentage attributable to customer-owned trees;**
- (d) A comparison of impacts to service lines versus primary distribution lines;**
- (e) A classification of affected feeders by urban versus rural designation;**
- (f) The date of the most recent vegetation management work performed on each affected line segment;**
- (g) Any prior patrol records, inspections, or hazard notifications associated with those segments; and**
- (h) The total number of unique customer impacts from this storm attributable specifically to tree-related outages.**

Response IR-2:

- (a-b) In its outage event data, NS Power does not specifically attribute tree contact events with reference to right-of-way location of the tree. Consequently, specific percentages of events attributable to in-ROW versus out-of-ROW trees for the December 3 event are not available.**

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- 1
- 2 (c-d) As detailed above in (a-b), NS Power does not record the exact tree outage fault location
- 3 for distribution events in its outage event data, and therefore, cannot summarize the outage
- 4 data by primary, service, or property ownership.
- 5
- 6 (e) See Attachment 1 for affected feeders with urban, suburban, and rural classifications.
- 7
- 8 (f-g) Please refer to IR-02 Attachment 2 for a list of feeders affected by vegetation-related
- 9 outages during the December 3 storm event. Columns c and d of the table in the attachment
- 10 display each feeder's most recent intervention year and its average vegetation condition.
- 11 As outages are not tracked at the span level, the table identifies impacted feeders along
- 12 with their last recorded intervention year. Vegetation condition is a key indicator used to
- 13 assess risk from a vegetation management perspective and is scored on a scale of 1 to 5,
- 14 where 1 represents the lowest level of concern and 5 the highest. Any imminent threats
- 15 from vegetation identified through routine patrols are addressed immediately.
- 16
- 17 (h) Based on outage events coded as tree-contacts, 31,384 unique customers were impacted by
- 18 these events. Should a percentage of adverse weather-related outages be considered, this
- 19 impact would be higher.

Feeder Source	Classification
102W-311	rural
104S-311	suburban
104S-312	rural
104S-313	rural
11S-301	rural
11S-411	rural
11S-412	suburban
141H-401	Urban
15N-401	suburban
18V-411	rural
1N-402	suburban
1V-443	rural
20V-311	rural
22C-402	rural
22C-403	rural
22N-402	rural
22N-404	rural
2C-402	rural
30N-411	rural
30N-412	rural
36V-303	rural
37N-411	rural
37N-412	rural
37N-413	rural
3N-411	rural
3N-412	rural
3S-403	rural
46W-303	rural
4C-424	rural
4C-430	rural
4C-441	rural
50N-410	rural
50V-402	suburban
50W-412	suburban
51V-301	suburban
55V-314	rural
57S-401	rural
57S-402	rural
59C-402	rural
62N-413	rural
63V-313	rural
64V-301	suburban
65V-301	rural
65V-302	suburban
65V-303	suburban
67C-412	rural
70V-312	rural
73W-411	rural

Feeder Source	Classification
74N-411	rural
74N-412	rural
79V-401	rural
79V-403	rural
81N-412	rural
81S-302	suburban
81S-303	suburban
82V-423	rural
83V-303	rural
84S-302	rural
85S-401	rural
87H-313	rural
87W-312	rural
88H-402	rural
92H-334	rural
99V-312	suburban
99V-314	rural
9C-301	rural
9C-303	rural

Feeder Source	Classification	TRIMYEAR	AVGVEGCONDITION
102W-311	rural	2026	2.64
104S-311	suburban	2025	3.12
104S-312	rural	2023	1.86
104S-313	rural	2026	2.86
11S-301	rural	2023	3.16
11S-411	rural	2025	2.83
11S-412	suburban	2023	2.30
141H-401	Urban	#N/A	0.46
15N-401	suburban	2025	2.10
18V-411	rural	2023	2.77
1N-402	suburban	2025	2.15
1V-443	rural	2025	3.16
20V-311	rural	2025	2.49
22C-402	rural	2025	2.60
22C-403	rural	2017	2.73
22N-402	rural	2025	1.77
22N-404	rural	2025	1.16
2C-402	rural	2025	2.34
30N-411	rural	2025	1.69
30N-412	rural	2025	1.70
36V-303	rural	2025	3.04
37N-411	rural	2025	2.17
37N-412	rural	2023	1.78
37N-413	rural	2024	2.39
3N-411	rural	2024	1.76
3N-412	rural	2025	2.38
3S-403	rural	2026	2.92
46W-303	rural	2024	3.53
4C-424	rural	2025	2.37
4C-430	rural	2026	2.41
4C-441	rural	2025	2.32
50N-410	rural	2025	2.52
50V-402	suburban	2022	2.36
50W-412	suburban	2026	3.17
51V-301	suburban	2017	2.90
55V-314	rural	2025	2.66
57S-401	rural	2024	2.41
57S-402	rural	2020	3.08
59C-402	rural	2025	2.41
62N-413	rural	2026	2.42
63V-313	rural	2025	2.82
64V-301	suburban	2018	3.24
65V-301	rural	2025	2.67

Feeder Source	Classification	TRIMYEAR	AVGVEGCONDITION
65V-302	suburban	2026	3.31
65V-303	suburban	2019	2.50
67C-412	rural	2024	2.82
70V-312	rural	2025	2.47
73W-411	rural	2026	3.29
74N-411	rural	2024	2.07
74N-412	rural	2026	2.39
79V-401	rural	2025	2.82
79V-403	rural	2025	2.35
81N-412	rural	2025	2.63
81S-302	suburban	2025	1.56
81S-303	suburban	2019	1.49
82V-423	rural	2021	2.71
83V-303	rural	2025	3.05
84S-302	rural	2019	1.79
85S-401	rural	2025	2.57
87H-313	rural	2023	3.17
87W-312	rural	2025	3.23
88H-402	rural	2024	2.80
92H-334	rural	2025	3.67
99V-312	suburban	2025	2.40
99V-314	rural	2025	3.25
9C-301	rural	2021	2.17
9C-303	rural	2021	2.87

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Request IR-3:

Please provide a comprehensive summary of vegetation management performance over the past five years, including an assessment of how maintenance practices align with observed outage patterns. The summary should include:

- (a) An analysis comparing vegetation management and trimming cycles with the incidence of vegetation-related outages;**
- (b) Identification of circuits or line segments experiencing recurring, high-impact outages attributable to vegetation;**
- (c) A description of the criteria and methodology used to prioritize vegetation management activities; and**
- (d) An explanation of any material variances between planned and completed vegetation management work, including underlying causes.**

Response IR-3:

Over the past five years, NS Power has continued to invest in and refine its vegetation management program with the objective of reducing vegetation-related reliability risks. Consistent with this approach, vegetation-related outage performance improved in 2025, with tree-related outage hours declining by approximately 19 per cent compared to 2024. As illustrated in Figure 29 of the Company's 2025 Annual Performance Standards Report (M12784), a sustained reduction in tree-related outages has been evident since 2021. Vegetation management activities are planned and prioritized using a risk-based framework informed by factors such as outage history, vegetation condition, system characteristics, and current field conditions, and are adjusted as needed to address emerging reliability risks.

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1 (a) NS Power's vegetation management program and its alignment with reliability
2 performance are described in the Company's Five-Year Reliability Plan 2025–2029 and
3 the 2026–2027 General Rate Application (M12451), including Appendix 3C. As outlined
4 in those filings, NS Power manages vegetation along approximately 32,000 km of overhead
5 distribution and transmission lines using a risk-based prioritization framework that
6 considers vegetation condition, historical outage performance, and system criticality.

7
8 Consistent with increased investment and targeted prioritization, vegetation-related outage
9 performance has improved in recent years. Vegetation management investment increased
10 from approximately \$32 million in 2023 to \$45 million in 2024 and 2025, enabling
11 expanded line clearance and hazard tree removal. Tree contact outages nonetheless remain
12 highly weather-dependent, with year-to-year variability driven largely by storm conditions
13 rather than routine trimming cycles alone.

14
15 (b) NS Power's asset management framework incorporates vegetation condition as a core input
16 to feeder and line segment risk assessments. Feeders and segments with elevated
17 vegetation-related risk are identified through a combination of ground patrol inspections,
18 satellite and aerial imagery analysis, and historical outage performance. Circuits
19 experiencing recurring or high-impact outages attributable to vegetation are identified
20 through this process and prioritized for targeted mitigation measures, including enhanced
21 hazard tree removal, increased trimming frequency, right-of-way expansion, or roadway
22 relocation where feasible.

23
24 In 2025, the Company implemented an enhanced vegetation inventory system that
25 integrates span-level vegetation condition data with reliability performance and asset
26 criticality metrics, further improving the identification and prioritization of higher-risk line
27 segments for vegetation management intervention.

28
29 (c) NS Power employs a risk-based approach to prioritize vegetation management activities
30 across its system. Areas exhibiting increased vegetation growth or a higher potential for

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1 tree contact are assigned elevated risk and targeted for vegetation management activities,
2 as well as complementary capital investments such as build-to-roadside line relocation
3 where appropriate. Prioritization criteria include vegetation condition within the
4 right-of-way, historical outage performance, asset criticality, and inspection findings,
5 including hazard tree identification. The Company undertakes routine vegetation
6 management through scheduled cycles, supplemented by targeted interventions on
7 higher-risk feeders using measures such as manual trimming, hazard tree removal, and
8 right-of-way expansion where feasible.

- 9
- 10 (d) NS Power has maintained its vegetation management program investment and execution
11 in alignment with planned levels over the past five years. The Company increased spending
12 from approximately \$32 million in 2023 to \$45 million in 2024 and 2025 as planned. While
13 periodic adjustments to work scheduling occur due to weather conditions, storm response
14 requirements, and seasonal access constraints, these have not resulted in material variances
15 to the overall vegetation management program.

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Request IR-4:

Please provide a detailed explanation for why the Valley region experienced significantly higher Customer Hours of Interruption (CHI) relative to other regions during this event. In your response, please address the following:

- (a) Whether vegetation management practices, standards, and prioritization in the Valley differ in any material way from those applied in other regions;**
- (b) Whether the level of impact observed is consistent with the known or previously assessed vegetation-related risk profile for the region;**
- (c) The number of crews deployed in the Valley during the event, and how this allocation compared to other affected regions; and**
- (d) Whether response times and overall restoration performance in the Valley were consistent with established expectations, given the scale and severity of the impact.**

Response IR-4:

- (a) Vegetation management practices, standards, and prioritization do not differ between regions.**
- (b) The Valley experienced heavy wet snow and mixed precipitation, receiving some of the highest accumulation of snow in the province, which brought trees into contact with power lines. All regions of the province were impacted with heavy wet snow, and the risks were modelled and discussed as part of the storm planning process documented in the Emergency Services Restoration Plan (ESRP).**
- (c) As part of the ESRP, NS Power conducted storm planning calls leading up to and during the weather events. NS Power had crews staged across the four operating regions of the**

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1 province (West, Metro, Northeast, Cape Breton) based on the forecasted impact. NS Power
2 had 23 internal crews and 8 external Powerline Technician Crews between the Valley and
3 South Shore, along with 34 forestry workers. NS Power considers that staffing levels were
4 appropriate across all regions based on the forecasted and actual impact, as evidenced by
5 Performance Standards restoration targets met across the province.

6
7 (d) Provincially, NS Power achieved the Performance Standards metrics for December 3 with
8 100 percent of customers restored within 48 hours. The Valley region saw 95.56 percent
9 of customers restored within 24 hours of storm onset.

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Request IR-5:

What specific pre-emptive actions were taken specifically for this event under the high-case scenario?

Response IR-5:

In all storm planning processes documented within the Emergency Services Restoration Plan (ESRP), NS Power considers a range of potential scenarios depending on the event, including Low, Expected, and High cases. Pre-staging crews, the number of external crews to secure and potential transmission impact were all discussed. For this event, there were more external contractor crews brought into the Northeast based on the forecasts for the potential for more heavy, wet snow.

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Request IR-6:

Please provide a system wide assessment of distribution automation and circuit segmentation. The response should include:

- (a) The percentage of feeders equipped with automated sectionalizing capability; and**
- (b) A comparison of restoration times between automated and non-automated circuits, including any observed performance differences.**

Response IR-6:

- (a) NS Power has deployed automated sectionalizing capabilities (FLISR – Fault Location, Isolation, and Service Restoration) on seven distribution feeders at the Dartmouth East 113H substation. At the time of this response, roughly 2 percent of NS Power’s distribution feeders are equipped with automated sectionalizing capabilities. The Company recently received Board approval (M12417) to expand FLISR deployment to seven additional feeders across four locations.
- (b) During the December 3, 2025 weather event, there were no outages on the feeders from 113H substation; therefore, no analysis of a comparison of restoration times is possible. Performance data from the Dartmouth East FLISR pilot (November 2023 - November 2024) shows the system automatically restored service to an average of 61 percent of impacted customers during fault events, avoiding 14,484 customer interruptions and 35,643 customer hours of interruption (M12185, NSPI (NSEB) RIR 1-36, page 24).

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Request IR-7:

Please provide a detailed breakdown of outages attributable to equipment failure. The response should include:

(a) Failure rates by asset class;

(b) The age profile of failed assets at the time of failure; and

(c) The preventative maintenance history for the affected components, including any relevant inspection or servicing records.

Response IR-7:

Outage events coded as failed equipment are provided in Attachment 1.

(a) It is not possible to provide a failure rate for a specific storm as this would simply represent failed equipment linked to outage events during the storm rather than a rate over a given time period, as is typical for failure rates. Without an equivalent reference point, no comparison would be possible for such a rate.

(b) NS Power does not maintain age profiles for the vast majority of its distribution equipment, so no age information is available for the specific failed equipment during this event. NS Power uses a variety of factors to determine the specific assets targeted for replacement and generally, targeted assets have experienced degradation in performance manifesting in decreased reliability, increased maintenance frequency and cost, or reduced functionality. These effects are largely identified through reliability tracking and field inspections of the impacted assets rather than simply the age of the assets.

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1 Asset age is a concern when the frequency of required maintenance is increased, the
2 availability of replacement parts or critical spares is limited, or performance is negatively
3 impacted. This information can be used to inform project prioritization. However, age
4 would only be used in concert with asset condition, performance, and legislated
5 requirements; it is never the single determining element in risk-based decision-making.
6

- 7 (c) NS Power’s distribution inspection program collects data on an exception-only basis; t
8 inspection records are created only when defects are identified by line inspectors.
9 Consequently, not all individual assets have an inspection record created following an
10 inspection. Additionally, even when a record is created, it may capture a range of defects
11 and/or conditions, with only a minority requiring short-term action. A large majority of the
12 defects or conditions do not present an immediate reliability concern and can be addressed
13 with a planned capital project in a future year and are prioritized accordingly. Furthermore,
14 in general, NS Power’s outage data only includes the type of asset failed (insulator, pole,
15 etc..) but does not include the facility ID of the asset which failed. Nor does NS Power
16 re-evaluate equipment failures associated with weather-related outages unless new
17 evidence warrants further review. Further investigation may be undertaken where
18 anomalies are identified during restoration or where equipment performance results in
19 unexpected or material customer impact.

Date	Source	Incident	CI	CH	Duration (Hrs)	CEA Description	Sub-Cause	Device Failed
2025-12-03	70V-312	INC 47005056		7 112.3418	16.04883333	Defective Equipment	Mechanical Failure	Automatic Splice
2025-12-03	81S-303	INC 47005109		1 1.72	1.72	Defective Equipment	Mechanical Failure	Secondary Aerial Conductor
2025-12-03	81S-303	INC 47005125		12 19.734	1.6445	Defective Equipment	Mechanical Failure	Secondary Aerial Conductor
2025-12-03	58H-431	INC 47005598		4 27.73333	6.933333333	Defective Equipment	Mechanical Failure	Recloser
2025-12-03	58H-421	INC 47005598	2308	16002.13	6.933333333	Defective Equipment	Mechanical Failure	Recloser
2025-12-03	18V-413	INC 47005283		5 35.19	7.038	Defective Equipment	Mechanical Failure	Fuse Link
2025-12-03	18V-413	INC 47005288		17 112.4323	6.613666667	Defective Equipment	Mechanical Failure	Primary Aerial Conductor
2025-12-03	57C-426	INC 47005506		1 4.435	4.435	Defective Equipment	Mechanical Failure	Neutral Aerial Conductor
2025-12-03	50N-410	INC 47005650		1 3.5705	3.5705	Defective Equipment	Mechanical Failure	Hot Tap
2025-12-03	37N-414	INC 47005722	218	551.104	2.528	Defective Equipment	Mechanical Failure	Jumper
2025-12-03	79V-402	INC 47005962		8 33.08267	4.135333333	Defective Equipment	Mechanical Failure	Fuse Link
2025-12-03	11S-301	INC 47006019		1 20.88033	20.88033333	Defective Equipment	Mechanical Failure	Service
2025-12-03	99V-314	INC 47006145		8 171.584	21.448	Defective Equipment	Mechanical Failure	Lead
2025-12-03	15S-301	INC 47006153	1832	6615.657	3.611166667	Defective Equipment	Electrical Failure	Other Structure / Pole

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Request IR-8:

Please provide an evaluation of restoration prioritization practices, including an assessment of the impacts of the “largest first” restoration approach. The response should address:

The comparative impact on rural versus urban customers;

(a) The extent to which this approach influences exposure to long-duration outages; and

(b) A quantification, by region, of customers who experienced outages exceeding 24 hours.

Response IR-8:

(a) NS Power has a documented restoration practice as filed in its Emergency Service Restoration Plan (ESRP) that is filed with and approved by the NSEB. The guiding principles are to ensure public and electrical safety by working down from major outages and critical infrastructure to individual customer premises. As a result, long-duration outages are typically found at the individual customer or single distribution transformer level where there may be access issues and/or extensive, localized vegetation work and damage.

(b) Of the 56,114 customer interruptions experienced over the December 3 Major Event Day, a breakdown of the customers that experienced outages lasting more than 24 hours is below:

Region	Customer Count of 24hr+ Outages
Cape Breton	182
Metro	0
Northeast	0
West	652
Total	834

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Request IR-9:

Please provide a detailed evaluation of field resource utilization during the event. Specifically, include:

- (a) How crew deployment across regions aligned with the geographic distribution and density of outages;**
- (b) The average and range of time intervals between outage detection and crew dispatch; and**
- (c) Key productivity indicators, including the rate of outages restored per crew-hour, and any factors influencing these outcomes.**

Response IR-9:

- (a) For the December 3, 2025 winter storm, field resources were mobilized across the province based on pre-event forecasts and the expectation that outage activity would occur in multiple regions. As the event unfolded, actual storm conditions differed from those anticipated, and outage activity was ultimately more concentrated than anticipated in certain areas, with the Valley, Metro, and Northern regions experiencing the highest volume and concentration of outages due primarily to heavy, wet snow and associated tree contacts. Restoration efforts therefore progressed in line with where outages ultimately materialized, consistent with NS Power's Emergency Services Restoration Plan (ESRP).
- (b) NS Power does not maintain structured, event-wide data capturing the elapsed time between outage detection and individual crew dispatch during large weather events. During major storms, operational focus is appropriately placed on system assessment, crew safety, and restoration activities rather than detailed real-time tracking of dispatch intervals, which can be highly variable as event conditions evolve. In addition, crews may be dispatched to

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1 multiple outage locations within a given area simultaneously or provided with grouped
2 assignments to support situational awareness, travel planning, and safe access, rather than
3 being dispatched on a strictly one-outage-at-a-time basis. As a result, detection-to-dispatch
4 timing during large-scale events is not consistently recorded and, even where available, is
5 not considered reliable or meaningful for formal analysis.

- 6
- 7 (c) NS Power does not track “outages restored per crew-hour,” or similar crew-level
8 productivity ratios, during storm events. As previously stated in the Company’s response to
9 Consumer Advocate IR-3 in Matter No. M12188, NS Power does not maintain quantitative
10 standards for granular crew productivity due to the highly variable nature of storm events
11 and the differing characteristics and complexity of individual outages. During storms, crews
12 may operate within regional pod structures and are assigned grouped work activities across
13 defined geographic areas, rather than being dispatched or evaluated on a
14 one-crew-to-one-outage basis. This operational model is designed to maximize overall
15 restoration effectiveness, safety, and span of control, but does not support meaningful or
16 reliable calculation of crew-hour-based productivity metrics.

17

18 While crew-level productivity ratios are not tracked, as evidenced by its storm reporting
19 submissions to the NSEB, NS Power does compile and report post-event performance
20 information using customer-focused and event-level measures, including customers restored
21 within defined time intervals from storm onset, regional average restoration times, customer
22 hours of interruption, total customer interruptions, and overall restoration completion
23 percentages. Resource information such as crew deployment levels, crew work hours, and
24 contractor mobilization is tracked for cost recovery and planning purposes, not for
25 productivity benchmarking. Restoration outcomes during storm events are influenced by
26 factors including weather and travel conditions, outage type and complexity, accessibility of
27 damage locations, and adherence to NS Power’s ESRP. Post-event critiques are conducted
28 following major storms to assess restoration performance and inform continuous
29 improvement, rather than to evaluate individual crew productivity through quantitative
30 efficiency ratios.
