

1 **2025 Capital Budget Overview**
2

3 **Q. Appendix D: List of Worst Performing Feeders. Does Newfoundland Power**
4 **intend to start tracking the performance of its feeders to enable it to collect**
5 **the required data to report?**
6

7 A. Newfoundland Power completes an annual assessment of its worst performing feeders.
8 Each distribution feeder is assessed on its performance over the most recent five-year
9 period based on industry standard reliability performance measures. This timeframe is
10 consistent with standard utility practice, as assessments of worst performing feeders
11 typically use three to seven-year time horizons.
12

13 Newfoundland Power's annual assessment of its worst performing feeders applies five
14 performance measures: (i) customer minutes of interruption; (ii) System Average
15 Interruption Frequency Index ("SAIFI"); (iii) System Average Interruption Duration
16 Index ("SAIDI"); (iv) Customer Hours of Interruption per Kilometre ("CHIKM"); and
17 (v) Customers Interrupted per Kilometre ("CIKM")¹. For current results of these five
18 performance measures See Newfoundland Power's *2025 Capital Budget Application*,
19 *2025 Capital Budget Overview*, Appendix D, pages 2-6.
20

21 The Company's assessments as described above have historically excluded the
22 following:
23

- 24 i. Planned outages – Planned outages are not generally reflective of system
25 condition and performance, occurring due to construction activities and
26 operational considerations.
27 ii. Outages due to loss of supply – These outages are caused by assets owned
28 by outside suppliers, generally Newfoundland and Labrador Hydro. These
29 outages are beyond Newfoundland Power's control and are also not reflective
30 of system performance.
31 iii. Major events – Major event outages occur because the electrical system is
32 subjected to weather or other loads beyond the design limits of the system.
33 These events also can result in an outsized impact on reliability measures².
34 iv. Outages due to upstream equipment – Outages from transmission or
35 substation causes usually affect multiple feeders, and are often the result of
36 a single isolated event or equipment failure. It would therefore not be
37 appropriate to include these outages in a comparative list of feeders.
38

39 The Company's current form of reliability reporting is more accurately representative of
40 system performance than an all-inclusive approach. The Company does report holistic
41 reliability data for one and five-year horizons, including splits by major event, area, and
42 cause in its *Quarterly Regulatory Reports*.

¹ For detailed discussion on how Newfoundland Power uses this data to inform its capital planning, please see the response to Request for Information PUB-NP-018.

² For example, in 2021 Hurricane Larry was classified as a major event. This single event resulted in a SAIDI contribution of 3.01 hours. Newfoundland Power's overall SAIDI for 2021, excluding major events and loss of supply, was only 2.48 hours.

1 The ability to provide worst performing feeder lists including and excluding major events
 2 is limited by the source database. Data is available starting from the year 2020, the first
 3 year the current Outage Management System became operational. Tables showing the
 4 worst performing feeder lists including and excluding major events as requested from
 5 2020 to 2023 are included below.

Table 1: Unscheduled Distribution-Related Outages (Excluding Major Events) Four-Year Average (2020-2023) Sorted by Customer Minutes of Interruption				
Feeder	Annual Customer Interruptions	Annual Customer Minutes of Interruption	Annual Distribution SAIFI	Annual Distribution SAIDI
SUM-01	7,256	1,153,932	3.99	10.58
GLV-02	10,203	957,756	6.64	10.40
BVS-04	6,761	927,645	4.15	9.43
ROB-01	4,165	876,222	3.85	13.52
DUN-01	5,770	731,729	5.45	11.52
DOY-01	5,439	649,293	3.07	6.10
SMV-01	8,764	518,225	7.86	7.72
DLK-03	6,825	500,853	4.71	5.75
WAL-02	7,515	485,626	5.28	5.69
KEN-01	5,546	457,655	2.86	3.94
Company Average	1,390	114,822	1.63	2.24

Table 1b: Unscheduled Distribution-Related Outages (Including Major Events) Four-Year Average (2020-2023) Sorted by Customer Minutes of Interruption				
Feeder	Annual Customer Interruptions	Annual Customer Minutes of Interruption	Annual Distribution SAIFI	Annual Distribution SAIDI
DOY-01	7,560	1,872,023	4.26	17.60
BVS-04	8,249	1,627,400	5.05	16.48
SUM-01	8,796	1,321,577	4.84	12.12
GLV-02	12,542	1,202,754	8.16	13.05
DUN-01	6,171	1,111,147	5.82	17.47
BCV-02	3,440	1,015,645	2.20	10.82
SMV-01	11,234	982,730	10.09	14.69
ROB-01	4,310	940,613	3.98	14.51
SCT-01	4,802	789,520	6.43	17.57
HOL-03	4,770	785,609	4.47	12.34
Company Average	1,771	206,945	2.09	4.07

Table 2:
Unscheduled Distribution-Related Outages (Excluding Major Events)
Four-Year Average
(2020-2023)
Sorted by Distribution SAIFI

Feeder	Annual Customer Interruptions	Annual Customer Minutes of Interruption	Annual Distribution SAIFI	Annual Distribution SAIDI
SMV-01	8,764	518,225	7.86	7.72
GLV-02	10,203	957,756	6.64	10.40
DUN-01	5,770	731,729	5.45	11.52
WAL-02	7,515	485,626	5.28	5.69
SCT-01	3,839	297,711	5.14	6.64
DLK-03	6,825	500,853	4.71	5.75
LGL-02	2,638	251,495	4.39	6.97
BIG-01	9	2,054	4.38	17.12
TRN-01	881	168,522	4.27	13.67
BVS-04	6,761	927,645	4.15	9.43
Company Average	1,390	114,822	1.63	2.24

Table 2b:
 Unscheduled Distribution-Related Outages (Including Major Events)
 Four-Year Average
 (2020-2023)
 Sorted by Distribution SAIFI

Feeder	Annual Customer Interruptions	Annual Customer Minutes of Interruption	Annual Distribution SAIFI	Annual Distribution SAIDI
SMV-01	11,234	982,730	10.09	14.69
GLV-02	12,542	1,202,754	8.16	13.05
SCT-01	4,802	789,520	6.43	17.57
NCH-03	8	687	6.17	5.99
LGL-02	3,519	536,466	5.86	14.97
DUN-01	6,171	1,111,147	5.82	17.47
OPL-01	2,397	326,956	5.31	12.08
WAL-02	7,515	485,717	5.28	5.69
BVS-04	8,249	1,627,400	5.05	16.48
DLK-03	7,298	544,439	5.03	6.25
Company Average	1,771	206,945	2.09	4.07

Table 3:
 Unscheduled Distribution-Related Outages (Excluding Major Events)
 Four-Year Average
 (2020-2023)
 Sorted by Distribution SAIDI

Feeder	Annual Customer Interruptions	Annual Customer Minutes of Interruption	Annual Distribution SAIFI	Annual Distribution SAIDI
SBK-01	11	7,209	3.79	47.38
BIG-01	9	2,054	4.38	17.12
ROB-02	646	183,908	3.15	14.92
TRN-01	881	168,522	4.27	13.67
ROB-01	4,165	876,222	3.85	13.52
TRN-02	2,178	435,825	4.03	13.51
BUC-02	444	110,515	2.78	11.55
DUN-01	5,770	731,729	5.45	11.52
LGL-01	883	233,152	2.51	11.08
SUM-01	7,256	1,153,932	3.99	10.58
Company Average	1,390	114,822	1.63	2.24

Table 3b:
 Unscheduled Distribution-Related Outages (Including Major Events)
 Four-Year Average
 (2020-2023)
 Sorted by Distribution SAIDI

Feeder	Annual Customer Interruptions	Annual Customer Minutes of Interruption	Annual Distribution SAIFI	Annual Distribution SAIDI
SBK-01	12	7,796	4.21	50.63
RVH-02	407	222,232	2.58	23.53
ROB-02	796	223,854	3.89	18.20
DOY-01	7,560	1,872,023	4.26	17.60
SCT-01	4,802	789,520	6.43	17.57
DUN-01	6,171	1,111,147	5.82	17.47
BIG-01	9	2,054	4.38	17.12
BVS-04	8,249	1,627,400	5.05	16.48
LGL-01	1,192	346,027	3.38	16.42
SCT-02	952	234,864	3.66	15.03
Company Average	1,771	206,945	2.09	4.07

Table 4:
Unscheduled Distribution-Related Outages
(Excluding Major Events)
Four-Year Average
(2020-2023)
Sorted by Distribution CHIKM

Feeder	Annual Distribution CHIKM
WAL-01	681
TRN-02	384
SJM-06	344
PAB-05	339
KEN-01	335
KBR-13	332
SJM-04	325
CLK-03	316
TRN-01	313
CLK-02	307
Company Average	63

Table 4b: Unscheduled Distribution-Related Outages (Including Major Events) Four-Year Average (2020-2023) Sorted by Distribution CHIKM	
Feeder	Annual Distribution CHIKM
KBR-10	1,090
SLA-11	897
KBR-09	848
SLA-06	738
MOL-02	735
SLA-13	698
WAL-01	681
KBR-15	605
PEP-04	586
SLA-08	575
Company Average	114

Table 5:
Unscheduled Distribution-Related Outages
(Excluding Major Events)
Four-Year Average
(2020-2023)
Sorted by Distribution CIKM

Feeder	Annual Distribution CIKM
WAL-05	444
KBR-10	342
PAB-03	282
WAL-01	271
KBR-13	263
SLA-06	259
WAL-02	251
KEN-01	243
KEN-03	239
MOL-04	224
Company Average	46

Table 5b:
Unscheduled Distribution-Related Outages
(Including Major Events)
Four-Year Average
(2020-2023)
Sorted by Distribution CIKM

Feeder	Annual Distribution CIKM
KBR-10	691
WAL-05	472
SLA-06	461
SLA-13	396
SLA-11	336
SLA-09	334
KBR-13	313
PAB-03	308
KEN-01	305
SLA-10	304
Company Average	59