

1 **Q. (Reference CA-NP-079) Please provide a breakdown of the 69% reliability**
2 **improvement showing SAIDI and SAIFI data pre- and post-project for each**
3 **feeder included in the Distribution Reliability Initiative during this time frame.**
4 **Further, please provide a dollar measure relating to the improvement; e.g., the**
5 **reduction in the frequency of customer interruptions per dollar spent.**
6

7 A. The 69% reliability improvement quoted was calculated on the basis of the difference in
8 SAIDI pre- and post-project for each individual feeder.
9

10 Newfoundland Power is not aware of any recognized reliability improvement per dollar
11 spent metric within the industry. As a result, Newfoundland Power is unable to provide
12 the requested figure at this time. Midgard Consulting Incorporated ("Midgard") noted
13 that the metric of reliability improvement per dollar spent *"is not currently reported by*
14 *any of the Canadian utilities reviewed by Midgard."*¹
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16 Newfoundland Power's *Distribution Reliability Initiative* project addresses worst
17 performing feeders where customers are experiencing reliability that is below the
18 corporate average on recognized metrics of SAIDI and SAIFI, and more recently
19 Customer Hours of Interruption per Kilometre ("CHIKM") and Customers Interrupted per
20 Kilometre ("CIKM"). Performing capital upgrades on these poor performing feeders
21 ensures all customers have adequate and equitable service reliability at the lowest
22 possible cost.
23

24 Table 1 below provides the five-year average data for SAIDI and SAIFI, before and after
25 project execution, for each Distribution Reliability Initiative ("DRI") feeder for the period
26 1999 to 2017. Excluded from the table are DRI feeders that were justified on improving
27 the CHIKM and CIKM metrics.
28

29 The percentage improvement for each individual feeder's SAIDI value before and after
30 the DRI project was averaged across all projects to determine an average SAIDI
31 improvement of 69%. The percentage improvement for each individual feeder's SAIFI
32 value before and after the DRI project was averaged across all projects to determine an
33 average SAIFI improvement of 57%.

¹ See Midgard Consulting Incorporated, "Utility Management Responsibility Report", September 21, 2023, page 31.

Table 1
Reliability Improvements in DRI Feeders
(1999 to 2017)

Capital Budget Year	DRI Feeder	Average SAIDI		Average SAIFI	
		5 Years Before	5 Years After	5 Years Before	5 Years After
1999	DUN-01	19.00	4.22	12.42	2.22
1999	FRN-01	3.66	0.33	1.74	0.14
1999	FRN-02	9.84	2.36	5.73	1.60
1999	OPL-01	31.80	1.51	9.83	0.70
1999	RVH-01	10.78	0.75	6.12	0.83
2000	ABC-02	5.04	3.73	5.16	2.36
2000	BLA-01	12.91	1.21	4.83	0.61
2000	BLK-02	16.02	0.82	11.19	0.75
2000	DOY-01	3.16	3.15	1.76	2.26
2000	LAU-02	23.69	3.41	9.48	2.27
2000	OPL-02	15.26	1.06	6.72	0.94
2000	ROB-01	13.56	7.51	8.35	4.92
2001	HOL-01	8.35	3.41	1.82	2.51
2001	TRP-01	2.93	2.59	2.35	2.82
2002	VIC-02	3.25	0.67	2.93	0.74
2003	LGL-02	5.29	2.26	3.51	1.67
2004	BRB-04	5.50	0.49	1.50	0.28
2004	PUL-01	4.64	0.60	2.42	0.58
2004	WES-02	6.98	0.56	3.58	0.92
2005	GBY-02	5.94	2.07	2.13	1.71
2006	BCV-02	7.65	1.21	4.91	0.79
2006	BOT-01	7.90	3.85	3.15	1.76
2006	GLV-02	5.73	2.72	2.54	1.66
2006	GPD-01	14.88	2.05	2.26	1.40
2006	LEW-02	6.58	2.78	3.39	1.24
2006	SMV-01	8.01	4.54	3.75	1.46
2009	NWB-02	6.58	1.76	3.04	1.96
2017	RVH-02	9.10	1.81	5.12	0.80