Q. (Reference CA-NP-113)

For Tables 1a and 1b, please add columns identifying the year the refurbishment and modernization took place, the capital spend, and reliability averaged over the years prior to refurbishment and modernization and reliability averaged over the years following refurbishment and modernization. For the average calculation, please omit the year that refurbishment and modernization took place.

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A. See Attachment A for the combined reliability statistics and Substation Refurbishment and Modernization spend from 2014 to 2023<sup>1</sup>.

Reliability indices, as requested in this question, are lagging indicators that encompass historical issues. Waiting for reliability on a substation to degrade before undertaking capital investment would result in poor quality of service being experienced by a large number of customers for an extended period. There are long lead times for the procurement of electrical equipment which would compound this issue. Substation Refurbishment and Modernization projects are not justified based on historical reliability statistics, but on the condition of core infrastructure and equipment.

## **ATTACHMENT A:**

Substation Refurbishment and Modernization Reliability Statistics and Spend (2014 – 2023)

Table 1a: Substation Refurbishment and Modernization Reliability Statistics <sup>1</sup> and Project Spend														
(All Events Excluding Loss of Supply)														
SAIDI											Substatial	Capital	Average	Average
Substation	2014	2015	2016	2017	2018	2019 <sup>4</sup>	2020	2021	2022	2023	Completion Year	Spend (\$000s)	SAIDI Before R&M <sup>2</sup>	SAIDI After R&M <sup>3</sup>
BRB	0.78	1.23	1.00	4.79	0.93	0.98	2.41	2.70	1.02	1.92	2014	2,146	-	1.89
BVA	2.06	0.91	3.28	8.63	35.45	4.01	27.20	2.72	7.12	4.50	2020	2,307	9.06	4.78
BVS	1.86	1.50	4.86	2.95	12.74	5.62	6.43	1.67	5.82	18.90	2018	3,251	2.79	7.69
CAR	2.97	0.29	0.20	2.69	0.24	0.27	0.70	6.77	2.52	1.09	2014	2,168	-	1.64
CAT	1.17	0.83	6.58	3.84	2.25	0.11	10.53	0.75	1.71	2.41	2017	3,129	2.86	2.96
CHA	1.91	0.57	1.18	4.81	2.70	1.53	6.22	6.53	1.21	1.67	2017	1,264	1.22	3.31
CLV	2.37	5.24	0.95	1.35	1.95	0.56	2.07	0.49	0.90	1.58	2015	1,869	2.37	1.23
COL	6.57	2.51	0.59	1.94	2.80	6.19	0.39	3.53	1.67	0.50	2015	1,665	6.57	2.20
DUN	12.24	3.73	4.61	24.03	12.42	6.12	14.52	40.73	2.64	12.93	2021	1,972	11.1	7.79
GAN	1.12	1.21	0.57	0.33	0.32	0.37	1.10	0.54	0.28	3.63	2015	2,866	1.12	0.89
GBS	6.28	6.66	27.24	5.98	2.63	5.51	6.40	1.30	14.33	7.75	2020	4,820	9.05	7.79
GFS	1.24	0.62	3.99	1.32	4.02	1.21	3.34	1.15	1.47	3.22	2016	480	0.93	2.25
GLV	1.95	2.01	1.31	10.03	17.60	1.54	4.06	5.84	29.69	11.04	2022	3,154	5.54	11.04
HGR	0.49	0.78	0.19	2.23	0.62	1.27	0.43	5.95	0.89	3.11	2018	3,592	0.92	2.33

<sup>&</sup>lt;sup>1</sup> MAS and TCV substations are excluded from reliability statistics since there are no Newfoundland Power customers associated with these substations.

Average reliability data prior to 2014 is not included in the average SAIDI calculation.

<sup>&</sup>lt;sup>3</sup> Average reliability data after 2023 is not included in the average SAIDI calculation.

Reliability data for 2019 may be subject to inaccuracies due to the transition of outage management systems.

Table 1b: Substation Refurbishment and Modernization Reliability Statistics and Project Spend														
(All Events Excluding Loss of Supply)														
SAIDI											Substatial	Capital	Average	Average
Substation	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Completion Year	Spend (\$000s)	SAIDI Before R&M	SAIDI After R&M
HOL	2.81	3.11	1.89	16.00	4.86	0.60	3.87	16.93	3.94	2.15	2014	756	-	5.93
HUM	5.34	1.54	1.21	1.61	6.73	4.45	1.62	2.29	4.82	1.24	2022	3,835	3.10	1.24
KBR	3.86	5.42	1.05	7.89	1.33	1.01	4.10	14.72	1.82	1.65	2016	980	4.64	4.65
LEW	2.47	3.77	18.29	3.68	9.30	4.28	2.32	3.72	2.47	3.63	2019	4,144	7.50	3.04
MOL	1.69	0.60	1.93	10.20	2.30	0.85	0.92	7.92	2.40	2.41	2023	4,325	3.20	-
MSY	2.31	2.33	3.14	2.22	3.51	1.60	2.55	2.58	1.04	2.21	2020	2,683	2.52	1.94
PEP	0.71	2.11	2.93	8.05	4.47	0.36	3.29	10.76	0.61	2.04	2019	2,474	3.65	4.18
RBK	9.93	4.83	0.16	5.47	1.35	0.45	1.09	2.69	1.71	4.63	2021	3,554	3.33	3.17
RRD	0.36	2.91	0.93	5.89	0.30	0.20	2.77	6.42	0.65	0.59	2015	977	0.36	2.22
SPF	4.20	1.68	0.43	1.99	7.99	0.38	1.07	5.92	1.73	1.49	2015	1,446	4.20	2.63
SPO	0.98	1.75	2.16	3.47	5.06	1.76	2.62	3.79	1.79	2.92	2017	3,264	1.63	2.99
SPR	11.50	0.18	0.56	1.14	9.86	0.16	0.21	1.57	1.78	0.63	2014	1,107	-	1.79
VIC	2.46	0.90	0.25	14.73	2.43	0.03	14.16	4.51	2.73	1.57	2016	1,819	1.68	5.74
VIR	1.39	1.23	3.03	2.46	0.45	0.76	4.81	6.06	1.36	1.66	2016	1,973	1.31	2.51
WAL	2.82	0.35	0.72	1.08	1.55	0.61	5.99	5.60	1.92	1.25	2023	4,836	2.29	-