

1 **Q. (CA-NP-014; CA-NP-044; PUB-NP-008 to PUB-NP-012; NLH-NP-003; NLH-NP-**
2 **012) Newfoundland Power proposes four transformer replacements costing**
3 **\$2.334 million to \$3.285 million. All scored 16, none had a major-component**
4 **failure in 2015-2025, and their NDI values range from 0.29 to 0.65.**

5 **a) Provide one working table for the four units showing age; NDI and**
6 **abnormal indices; latest oil-test results; material physical findings;**
7 **customers served; spare and portable compatibility; last major**
8 **maintenance; risk score; proposed dates; and cost.**

9 **b) Identify the rule, weighting or documented process used to select each**
10 **unit over the other 111 transformers aged 50 or older, and file the**
11 **decision record.**

12 **c) File the current five-year candidate list, including the four proposed**
13 **units and next six candidates, with the part (a) fields, proposed year**
14 **and selection or deferral reason. Explain LBK-T1's priority despite its**
15 **0.29 NDI and no directly served customers. State if no ranking exists.**

16
17 **A. a) See Attachment A.**

18
19 b) Newfoundland Power does not select or defer transformer replacements based
20 on any single condition indicator, risk factor, or assessment result. Rather,
21 replacement priorities are established through a comprehensive engineering and
22 risk assessment that considers transformer condition, PTX results, oil analysis,
23 electrical testing, physical condition assessments, maintenance history, system
24 requirements, customer impact, spare and portable transformer compatibility,
25 operational considerations, and the economic consequences of failure. See the
26 response to Request for Information PUB-NP-015, part a) for additional
27 information.

28
29 c) The current candidate list is only comprised of the four power transformers
30 proposed for replacement in the *2027 Capital Budget Application* as provided in
31 Attachment A. Newfoundland Power has not yet identified the specific units that
32 may be replaced in future capital budget applications ahead of the Company's
33 annual, comprehensive capital planning process. Power transformer condition
34 can rapidly deteriorate over the course of a year, particularly following exposure
35 to an electrical fault.¹ The Company will analyze the 2026 substation inspection
36 and test results in early 2027 before finalizing the transformer replacements to
37 be included in the *2028 Capital Budget Application*.

38
39 Newfoundland Power does not rank transformers solely on the basis of Normal
40 Degradation Index ("NDI") values. Rather, PTX results are considered together
41 with other conditions, operational factors, and risk information as part of an
42 overall engineering assessment. While LBK-T1 has an NDI of 0.29 and does not
43 directly serve customers, Newfoundland Power's engineering assessment
44 identified condition concerns that determined replacement is required. The

¹ See the responses to Requests for Information PUB-NP-015 and PUB-NP-017.

1 prioritization of LBK-T1 reflects Newfoundland Power's assessment of both the
2 condition of the transformer and the economic and operational consequences of
3 failure, rather than any single condition indicator.



ATTACHMENT A:

Power Transformer Assessment Data

Transformer	Age	Normal Degradation Index	Abnormal Thermal Index	Abnormal Electrical Index	Abnormal Core Index	DGA TCA Assessment	DGA TASA Assessment	Material Physical Findings	Customers Served	Spare Compatibility	Portable Compatibility	Last Major Maintenance	Risk Score	Proposed Dates	Cost
LAU-T1	50	0.58	0	0	0	1	1	-Metal box welded to main tank to contain valve leak -Corrosion and rust present in many areas -LTC inoperable and unable to be repaired	700	200219 200220 200385	P1 P3 P4 P5	2025	16	2027-2028	\$ 3,285,000
LBK-T1	64	0.29	0.1	0	0	1	N/A	-Radiators have advanced corrosion and repairs are unable to provide long term solution to leaks, radiators require complex replacement -Corrosion and rust present in many areas -Evidence of oil leakage at bushing base and main tank -Mechanical damage to high and low voltage bushings	Hydro Plant	-	P1	2009	16	2027-2029	\$ 2,334,000
HAR-T1	57	0.65	0.32	0	0	2	N/A	- No notable corrosion or physical damage identified	1,400	200220 2000385	P3 P4 P5	2023	16	2027-2029	\$ 2,904,000
RRD-T3	51	0.57	0	0	0	1	N/A	-Corrosion and rust present in many areas	4,400 (Shared)	200385	P3 P4 P5	2020	16	2027-2029	\$ 2,695,000