

1 Q. Provide the most recent risk assessments from Hydro's rural service areas identifying assets
2 (transmission lines, feeders, stations, diesel plants and protection and control assets) that have
3 been categorized as high risk. For each high-risk asset, please provide the following:

- 4 a) asset name;
- 5 b) asset type and location;
- 6 c) predominant mode of failure;
- 7 d) probability of failure (Low, Medium, High);
- 8 e) consequences of failure (Low, Medium, High, with specified impact);
- 9 f) recent outage experience (Number of outages in the past 5 years);
- 10 g) present condition/risk assessment rating;
- 11 h) status of present mitigation; and
- 12 i) any plans for replacement, refurbishment, or other remediation.

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15 A. Newfoundland and Labrador Hydro ("Hydro") performs risk assessments as part of capital
16 projects, capital programs, and capital work requests. Please refer to PUB-NLH-120,
17 Attachment 1, which outlines the most recent risk assessments for assets that have been
18 categorized as high risk from Hydro's rural service areas.

Table 1: Risk Assessments for High-Risk Assets – Hydro Rural

	Asset name	Transmission	Distribution					Terminal Stations	P&C	Diesel Plants
			Burgoe Transformer T1 ("BURT1")	Glenburnie Substation ("GLBSUBSTN")	Fogo Island Substation ("FGOSUBSTN")	Bottom Waters Voltage Regulator ("BWT T1B1-VR1C")	Rocky Harbour Voltage Regulator ("RHR T1B1-VR1A")			
a)		Transmission Line 241 ("TL241")						N/A	N/A	Charlottetown Diesel Generating Plant
b)	Asset type and location	138 kV radial transmission line from Peter's Barren to Plum Point	Distribution Padmount Power Transformer located in Burgeo Substation	Substation located in the Glenburnie Terminal Station	Substation located on Fogo Island	Voltage Regulator located adjacent to Bottom Waters Terminal Station	Voltage Regulator adjacent to Rocky Harbour Terminal Station	N/A	N/A	Diesel Generating Plant located in Charlottetown, Labrador
c)	Predominant mode of failure	Insulator hardware failure	Metal corrosion with existing leak in conservator tank	Wood Decay	Protection trip on restoration due to station bus imbalance	Internal Electrical Failure	Internal Electrical Failure	N/A	N/A	Loss of prime power diesel unit
d)	Probability of failure (Low, Medium, High)	High	Very High (with leak) High (once leak patched)	High	High	Very High	Very High	N/A	N/A	High
e)	Consequences of failure (Low, Medium, High, with specified impact)	High: non-redundant line serving industrial customers on the Great Northern Peninsula)	Very High: Outage >36Hrs to three feeders, with mobile generation required to restore. Possible environmental damage due to oil leak.	High: Outage >36Hrs to two feeders.	High: Extended outage duration for three feeders.	High: Substandard power quality delivery to four feeders.	High: Substandard power quality delivery to two feeders.	N/A	N/A	High: loss of a prime power diesel unit.
f)	Recent outage experience (Number of outages in the past 5 years)	5 outages	0	0	3 ¹	0	0	N/A	N/A	Unknown
g)	Present condition/risk assessment rating	(20) High	(25) Very High reduced to (20) High once leak patched.	(16) High	(16) High	(20) High	(16) High	N/A	N/A	(20) High
h)	Status of present mitigation	Climbing inspection ongoing, with plans to replace worn hardware in Q4 2026.	Repairs to address leak are ongoing with completion in 2026.	Increased detailed inspections ongoing.	Station protection and control equipment was upgraded in 2024.	None	Manual setting of delivery voltage ongoing.	N/A	N/A	- Use of N-2 planning criteria ² - Modified site layout so the loss of a single diesel genset, should not affect other diesel units. - Unit winterization has been implemented to minimize the impact of snow and water on the reliability of the installed units. - Remote radiators and exhausts silencers have been installed to minimize the potential for unit overheating and potential sources of equipment fires.
	Plans for replacement, refurbishment, or other remediation	Full climbing inspection of the line is ongoing, with approximately 60% complete as of July 31, 2026. Replacement of all worn hardware with a high probability of failure in Q4 2026	Leak repair in to be addressed 2026, with the transformer replacement proposed for 2027-2029 as part of Hydro's 2027 CBA.	Capital application to address wood pole decay to be included in Hydro's 2028 CBA.	Station bus rebalancing to occur in Q4 2026. ³	Replacement planned for Q3 2026.	Replacement planned for Q3 2026	N/A	N/A	Evaluation of alternatives to address regional power requirements is ongoing. ⁴ Hydro plans to execute sustaining capital as per the Long-Term Asset Planning Criteria.

¹ In which restoration was delayed.

² Newfoundland and Labrador Hydro ("Hydro") began using N-2 planning criteria vs the standard N-1 planning criteria for remote diesel communities due to the use of containerized diesel gensets. Containerized diesel gensets have historically been less reliable and have experienced a higher failure rate than Hydro's typical powerhouse genset setup.

³ Bus rebalancing was completed during equipment upgrades in 2024; however, recent outages involving cold load pick-up issues have determined that protection settings require modifications.

⁴ "Newfoundland and Labrador Hydro's – 2021 Capital Budget Supplemental Application Approval of the Construction of Hydro's Long-Term Supply Plan for Southern Labrador – Additional Update," Newfoundland and Labrador Hydro, August 21, 2025.