

1 Q. **Reference: Application Rev. 1, Volume 2, Diesel Genset Replacements**

2 What is the probability that the project will become stranded before the useful life of the diesel
3 gensets is reached?

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6 A. It is unlikely that the genset which replaces Unit 574 in Nain will become stranded before the
7 useful life of the diesel genset is reached. As per Newfoundland and Labrador Hydro's ("Hydro")
8 Asset Management Program, 1,200 rpm diesel gensets are typically replaced when they incur
9 120,000 hours of operation. For this genset to become stranded it would have to be replaced
10 with another genset before it incurs 120,000 hour of operation and be unable to be used
11 elsewhere. Early replacement of diesel gensets is sometimes required if additional capacity is
12 required and the replacement of an existing genset is determined as the alternative with the
13 lowest cumulative net present value.

14 Following the replacement of Unit 574, the installed and firm capacity in Nain will be 3,925 kW
15 and 2,650 kW, respectively. Based on the Labrador Isolated Load Forecast - Spring 2019,
16 additional firm capacity is not expected to be required until the winter of 2031–2032. If Unit
17 576¹ or Unit 591² are not replaced prior to the year 2031, Hydro may consider replacing one of
18 these two units or the units alternators to increase firm capacity.

¹ Nain Unit 576 is rated for 865 kW, was installed in 2002, and is currently expected to be replaced in 2034

² Nain Unit 591 is rated for 860 kW and was installed in 2014, and is currently expected to be replaced in 2031