

1 Q. **Reference: Application, Replace Diesel Genset 1 (2023-2024) – Ebbegunbaeg**

2 Could a battery bank provide a reasonable source of backup power for this control structure?
3 Would a battery bank have reduced environmental emissions and be more consistent with
4 government zero-carbon initiatives? What is the likelihood that diesel generators, even those
5 used only for backup purposes, become stranded as a result of government zero-carbon
6 initiatives?

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9 A. The diesel genset in Ebbegunbaeg serves as an emergency backup in the event the structure's
10 main power becomes interrupted. When the diesel genset was initially installed in 1967, the
11 generator served as a primary power source for the structure; however, since the
12 commissioning of the structure, a new 25 kV line was connected for main power and the diesel
13 genset was kept in place as an emergency backup. Newfoundland and Labrador Hydro ("Hydro")
14 uses battery banks in various situations, such as for backup station service supply for terminal
15 stations; however, remote sites with critical operations, such as the case for the Ebbegunbaeg
16 location, still have diesel gensets in place due to their reliability and well-established service and
17 maintenance history. Backup power solutions for critical remote sites must be able to operate
18 reliably for extended periods of time, which is not feasible for a battery storage system supplied
19 by renewable energy sources such as solar panels that cannot be relied upon in all weather
20 conditions.

21 New diesel gensets are required to meet strict government regulations for emissions. Strict
22 environmental regulations are in place to reduce emissions from diesel gensets. Hydro
23 continues to ensure compliance with these regulations. Hydro views its emergency diesel
24 gensets as necessary support critical operations as necessary to fulfill its mandate to provide the
25 least-cost, reliable service to its customers. As such, Hydro does not expect capital investments
26 in its emergency diesel gensets to become stranded.