

1 B-43, Upgrade Frequency Brook Frequency

2 Q. What impact will a failure of the frequency converter have on NLH, on Deer
3 Lake Power, or on the Corner Brook paper mill?

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6 A. The immediate impact of a failure or outage of the Corner Brook frequency
7 converter is a reduced ability of Corner Brook Pulp and Paper Limited
8 ("CBPP") to utilize the 50 Hz generation from its Deer Lake Power facility.
9 Usually, CBPP has more 50 Hz power available from its 50 Hz generation
10 than 50 Hz load. CBPP relies upon the frequency converter to convert some
11 of its 50 Hz power into 60 Hz power. The contractual effect of this is that
12 CBPP will require additional 60 Hz power from Hydro. When this happens,
13 CBPP receives replacement 60 Hz power from Hydro with no demand
14 charge and pays the Firm Energy rate for any energy consumed associated
15 with that power.

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17 Aside from the contractual effects, frequency converter outages can also
18 cause some minor power stability problems with the CBPP 50 Hz system, as
19 it no longer has the stabilizing effect of a connection with the main electrical
20 grid. As well, depending upon the Deer Lake Power hydraulic conditions at
21 the time, a prolonged frequency converter outage could result in a spill from
22 the Deer Lake Power reservoir.