

1 **Q. Re: CBA, Rev. 1, vol. II, Labrador City L22 Voltage Conversion, page 1 (p. 609 pdf)**

2 Citation:

3 The Cooper Hill Substation, located in Labrador City, supplies 4.16 kV power via
4 distribution line 22 (“L22”) which services the Labrador Mall and approximately
5 35 residential customers. L22 is the only distribution line originating from the
6 Cooper Hill Substation, where the voltage is stepped down through transformer
7 T1 from 46 kV to 4.16 kV. In the event of a failure of Cooper Hill T1 it is
8 estimated that restoration of L22 would take approximately one week.

9 **a.** Please situate this project in the context of the Labrador City voltage conversion works
10 undertaken over the last 15 years.

11 **i.** Is Cooper Hill the only substation that remains at 4.16 kV? If not, please describe
12 what portions of the Labrador City distribution system have been converted, and which
13 have not.

14 **ii.** Why was Cooper Hill not converted as part of the Labrador City Distribution Upgrade?
15
16

17 **A.**

18 **a.**

19 **i.** Cooper Hill is the only substation that remains 4.16 kV; however, there are three
20 feeders that are supplied from Vanier and Quartzite substations that operate at 4.16 kV.
21 This includes feeders QZ27, VA9, and VA28. Feeders QZ27 and VA9 are both customer-
22 owned feeders and are served by aerial banks of 3 x 167 kVA transformers connected to
23 feeders QZ11 and VA9. Feeder VA28 is served by a single 100 kVA transformer
24 connected to feeder VA5. These feeders were not included in the scope of the Labrador
25 City Distribution Upgrade (voltage conversion project) as upgrades were not necessary
26 on these feeders to meet the electricity needs at the time.

