

1 Q. Page 46, *“Utilizing a short run of 230 kV buried power cable the end of the existing*  
2 *B1L18 circuit breaker bay that once connected TL-218 is connected to one end of the*  
3 *buried power cable and the opposite end connected to the newly established 230 kV*  
4 *bus B6.”*

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6 Please describe the type of buried cable to be employed, including any known  
7 history of the use of this cable, any operational benefits and drawbacks of using this  
8 type of buried cable (e.g. required spares, in-house or external maintenance), and  
9 any available information on the estimated impact on Newfoundland and Labrador  
10 Hydro’s Operating and Maintenance costs of the use of this type of cable (i.e. a cost  
11 benefit analysis that compares the use of this type of buried cable with other  
12 alternatives).

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15 A. Hydro is proposing to use single phase 230 kV cross linked polyethylene (XLPE)  
16 insulated cables installed in a buried concrete bus duct. While Hydro has positive  
17 experience with this cable, installed on the Labrador Interconnected System in  
18 2009, a spare cable will be installed as part of the project. Hydro understands that  
19 this type of cable is widely used in the electricity industry and requires relatively  
20 little maintenance, but has no data on the maintenance costs impact.

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22 A detailed cost benefit analysis comparing the use of the buried cable with other  
23 alternatives was not completed as the issue at Oxen Pond is one of limited space  
24 and the buried cable alternative required less civil works and eliminates the need  
25 for a substantial expansion to the rear of the station if Hydro was to proceed with a  
26 standard open bus air insulated alternative.