Q. **Reference: Application**

With respect to alternatives considered in the Application:

a) What criteria has Hydro used to determine if an alternative is "relevant"? Are environmental impacts one such criterion?

b) How has Hydro incorporated future trends in its assessments? Specifically, has Hydro considered sensitivity studies relating to shorter asset lifespans in the event that new environmentally sensitive options become available in, for example, the next 5 years?

c) Are rooftop solar and wind viable alternatives in NL?

A. **a)** Newfoundland and Labrador Hydro ("Hydro") reviews all proposed scopes of work to ensure the least-cost reliable solution is selected. High-level analysis is used to determine if options are technically viable or within a reasonable cost range to further advance detailed engineering design and estimates. In the event that multiple viable alternatives are identified, this could require the completion of a cost-benefit analysis to identify the least-cost option. In undertaking the evaluation of all technically viable alternatives, environmental responsibility is one of the factors evaluated, as required per the amendments to the *Electrical Power Control Act, 1994*.[1]

b) Hydro considers new trends and technologies on a case-by-case basis. Hydro is not aware of any emerging trends or technologies that would have a material impact on its planned capital works proposed in its 2024 Capital Budget Application. Regarding the example specified, Hydro would not retire an asset prematurely unless required to do so by law or by order of the Board of Commissioners of Public Utilities ("Board"). Hydro is not aware of any such legislative changes or Board Orders that would necessitate asset stranding in the next five years.

[1] *Electrical Power Control Act, 1994*, SNL 1994, c E-5.1.

c) The viability of rooftop solar and wind depends on the specific context or application. Rooftop solar and wind are viable for small-scale deployment by customers; however, in the absence of a suitable energy storage system, large-scale, non-dispatchable resources such as these have limited viability on Hydro's bulk electrical system.[2]

[2] Further discussion regarding the viability of solar, wind, and energy storage systems can be found throughout the *Reliability and Resource Adequacy Study Review* proceeding. <http://www.pub.nl.ca/applications/NLH2018ReliabilityAdequacy/index.php>.