Q. **Reference: Application, Attachment 1, Page 26, Line 9**

On Page 26 at Line 9, Hydro states:

> The engine hall would have adequate space to accommodate six 2,000 kW class diesel units.

Table 6 on Page 25 identifies unit sizes of 800 kW, 1,000 kW, 1,500 kW (2) and 1,800 kW. Why is the regional diesel generating station at Port Hope Simpson being sized for six 2,000 kW units?

A. The regional diesel generation station at Port Hope Simpson is being sized with six engine bays that could house a total of six diesel generation units. After the completion of Phase 2 of the southern Labrador interconnection, there will be five engines installed in the diesel generating station leaving one spare engine bay in case an additional diesel engine is require for future load growth above Newfoundland and Labrador Hydro's ("Hydro") existing operating load forecast. It is unlikely that each engine bay will be occupied by 2,000 kW units. Having a variety of engine sizes allows Hydro to operate smaller engines when possible to reduce future overhaul and replacement costs as smaller units tend to be less expensive to overhaul or replace. A variety of engine sizes also allows Hydro more flexibility to operate the engines at load levels in which they operate more efficiently and better manage the minimum diesel engine load limits that can impact the amount of renewable energy generation which Hydro can inject into the system at any particular time. Designing the diesel generation station with uniformly sized engine bays allows future flexibility so that if, for example, a 1,000 kW unit is being replaced, and the optimum replacement size is 2,000 kW, then Hydro can simply install a 2,000 kW unit in the same engine bay without having to rearrange diesel units or limit the size of the replacement to that of the engine bay of the previous unit.

The cost associated with including one additional engine bay in the engine hall is estimated to be $350,000, which is materially less than the cost of a diesel generating station extension, which could cost approximately $10 million if required. It is Hydro's belief that the benefits of having the extra engine bay warrant the expenditure.