

1 Q. **Reference: Schedule 1 – Long-Term Supply for Southern Labrador – Phase 1**

2 Is any infrastructure (e.g., generation and/or transformation capability, breakers, etc.) planned
3 for Phase 1 that would not be necessary in the event that Hydro decided against proceeding
4 with the subsequent phases? If so, please identify the infrastructure that would be extraneous
5 or oversized from a load perspective and outline the measures Hydro has undertaken to lessen
6 or avoid any extraneous or oversized infrastructure in the event that Phase 2 and Phase 3 do not
7 proceed.

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10 A. The infrastructure that would be oversized should Phase 2 and Phase 3 not proceed would
11 generally be the size of the diesel generating station engine hall, and, to ensure future
12 compatibility and reduce the need for long outages, the 4.16 kV switchgear would be supplied in
13 Phase 1 with full capacity bus, additional unwired control cabinets and breakers for the future
14 phases. If the future phases do not proceed, the breakers can be used as in-place critical spares.

15 Newfoundland and Labrador Hydro (“Hydro”) has taken measures to avoid extraneous or
16 oversized infrastructure primarily by making provision of space and/or expandability for future
17 infrastructure, but deferring the installation of the infrastructure until it is needed. Examples
18 include:

- 19 ● Delaying the installation of a fifth diesel generation unit and associated 5 kV power
20 cable until Phase 2;
- 21 ● The substation transformers are sized for the initial requirements, but will have the
22 capability for the addition of fans to increase capacity as required;
- 23 ● Fuel storage capacity is sized for the initial requirements. Additional fuel storage tanks
24 will be added when Phase 2 and Phase 3 proceed;

- 1 ● Protection and control panels only have equipment installed to accommodate the Phase
2 1 requirements, but there will be sufficient space in the panels to add equipment in the
3 future for Phases 2 and 3;
- 4 ● Space has been allocated in the sub-station for the future distribution line
5 interconnections but no equipment will be installed at this time; and
- 6 ● Diesel generating station engine hall will only have the required ventilation equipment
7 and associated cables installed for Phase 1. Additional ventilation equipment will be
8 installed when Phase 2 and Phase 3 proceed.

9 It is Hydro's intention to complete all three phases of the southern Labrador interconnection as
10 outlined in Hydro's analysis; however, part of Hydro's rationale for choosing a phased approach
11 instead of full interconnection is to afford it the opportunity to revise its economic analysis
12 following completion of Phase 1 and assess changes in load forecasts in its evaluation of the
13 timing and scope of future phases, as required. Additionally, the phased approach was chosen
14 as it balances the short-term revenue requirement impacts with the long-term reduction of
15 revenue requirements expected from interconnection of the southern Labrador communities.
16 Hydro believes that the proposed design balances the requirement to accommodate and plan
17 for future phases without incurring costs which can reasonably be deferred until such time as
18 the future phases proceed.