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

How are the economics of the project and the financial analysis impacted if Phase 2 and Phase 3 do not proceed?

A. For the purposes of this response, Newfoundland and Labrador Hydro ("Hydro") has assumed that Phase 1[1] proceeds as proposed and Phase 2[2] and Phase 3[3] for the interconnection of Mary's Harbour and St. Lewis, respectively, do not proceed. In the event that Phase 2 and 3 did not proceed, significant capital investments would still be required in Mary's Harbour and St. Lewis. Hydro has assumed that the existing diesel generating stations in Mary's Harbour and St. Lewis would remain in operation and be replaced with new diesel generating stations in 2030 and 2045, respectively. Table 1 summarizes the results of the cumulative present worth ("CPW") analysis with this modified Alternative 3a scenario included.

Table 1: CPW Analysis – Modified Alternative 3a Scenario ($)

Alternative	CPW	CPW Difference between Alternative and the Least-Cost Alternative
Alternative 3b: Full Interconnection	152,500,000	0
Alternative 1: Mobile Option	172,400,000	19,900,000
Alternative 2: New Charlottetown Diesel Generating Station	179,700,000	27,200,000
Alternative 3a: Phase 1 Only	195,100,000	43,300,000

In this scenario, Alternative 3a would become the least favorable option since the majority of the up-front costs associated with a phased approach to interconnection are incurred in Phase 1 and the majority of the fuel, operating, and overhaul costs which make phased interconnection

[1] Phase 1 is the construction of a regional diesel generating station in Port Hope Simpson and the interconnection of the Charlottetown distribution system to Port Hope Simpson.
[2] Phase 2 is the interconnection of Mary's Harbour and associated modifications to the regional diesel generating station.
[3] Phase 2 is the interconnection of St. Lewis and associated modifications to the regional diesel generating station.

the least-cost alternative would not be achieved if Hydro continued to maintain three diesel generating stations.[4]

Hydro notes that in the scenario presented in this question, Alternative 3b (full interconnection) becomes the least-cost alternative by a wide material margin. Despite the higher up-front capital investment associated with full interconnection, the reduced fuel, operating and overhaul costs associated with maintaining only one diesel generating station result in it being more attractive than continued operation of individual community-based isolated diesel generating stations.

Based on what is known and reasonably foreseeable at the present time, the best approach for Hydro to minimize costs for ratepayers is to proceed with the phased interconnection of the southern Labrador communities. Hydro has evaluated and proposed Phase 1 of the southern Labrador interconnection on the basis that it would proceed with Phase 2 and Phase 3 to interconnect Mary's Harbour and St. Lewis. However, taking a phased approach to interconnection affords Hydro the opportunity to evaluate each phase taking into account whatever additional information may be available at that time. Consistent with its legislated mandate, Hydro will pursue the lowest-cost option which is consistent with the provision of reliable service at each phase.

[4] The scenario proposed in the question would require Hydro to maintain the diesel generating station constructed in Port Hope Simpson as part of Phase 1, as well as the Mary's Harbour and St. Lewis diesel generating stations.