Q. In response to MHI-Nalcor-24, Nalcor states: *"The HVDC interconnection is designed to obtain the required level of reliability via the HVDC link from Labrador in conjunction with island generation facilities."*

With the proposed shutdown of the Holyrood Thermal Generating Station in 2021, how will Nalcor respond to the loss of up to 800 MW of generation during a prolonged bipole outage which could potentially last for weeks or even months?

A. Nalcor has considered the possibility of a prolonged bipole outage and has addressed these issues in the design to date. The component of the Project with the greatest probability of an extended outage is the Strait of Belle Isle Crossing. Nalcor has included approaches in the design to address reliability concerns for the Strait of Belle Isle Crossing, including:

a. a spare HVdc cable in the basis of design to permit full capacity operation in the unlikely event of a cable cut
b. use of horizontal drilling techniques to protect the cables out to deep water where the probability of iceberg damage is low (confidential exhibit CE-41 Feasibility Study of HDD for the Strait of Belle Isle)
c. Completing models to identify a suitable depth at which to place cables on the sea floor (Exhibit 35 Iceberg Risk to Subsea Cables in SOBI)

The HVdc converters are designed to a high standard of reliability with system and component redundancy and diversity to avoid an extended outage. Critical spares will be available for both converters.

With respect to the overhead transmission line, Hydro's operational experience is that transmission line outages can be restored within reasonable periods of time, and the worst case restoration time is comparable to the restoration time on the Island system today. In order to minimize restoration time, Nalcor expects to maintain appropriate spares inventories and resources to expedite repairs in the unlikely event of a structural failure.

In Exhibit 106, "Labrador – Island HVdc Link & Island Interconnected System Reliability", Nalcor has compared the expected reliability of the existing Island system to the Interconnected scenario, and the study indicates that the Island system with the Labrador Island Transmission Link offers equivalent reliability over the existing Island system, and that similar level of reliability is further improved with the construction of the Maritime Link.

With these mitigation approaches in mind, Nalcor is of the view that the probability of an event that would see unserved energy for customers extending for many weeks or months is extremely remote.