

1 **Q. (Reference Application, St. John's Teleprotection System Replacement, Page 2,**
2 **Footnote 9) It is stated "In the years prior to the study, 2 separate incidents involving**
3 **faults of extended duration on the St. John's 66 kV transmission network resulted in**
4 **the loss of generation at the HTGS." How much unsupplied energy resulted from**
5 **these faults? Where does this project stand in terms of the NLSO's priority list of**
6 **projects?**

7
8 A. The *Eastern System Critical Clearing Time Study– Island Interconnected Transmission*
9 *System* jointly prepared by Newfoundland and Labrador Hydro ("Hydro") and
10 Newfoundland Power identified 2 separate incidents involving faults of extended
11 duration on the St. John's 66 kV transmission network that resulted in the loss of
12 generation at the Holyrood Thermal Generating Station ("HTGS"). The 2 faults occurred
13 in 1988 and 1990 resulting in the loss of 207 MW and 229 MW of unsupplied energy,
14 respectively, which resulted in under frequency load shedding on the Island
15 Interconnected System. These events prompted the joint study of the under frequency
16 events and the subsequent development of the under frequency load shedding scheme and
17 the critical clearing time report.

18
19 While the St. John's teleprotection system was originally installed to address issues at the
20 HTGS, a recent study confirmed the need to maintain the critical clearing times for the
21 St. John's 66 kV transmission system.¹

22
23 Newfoundland Power is unaware of any NLSO priority list that may include this project.
24 This project is required to meet Hydro's Transmission Planning Criteria for the Island
25 Interconnected bulk power system.² Newfoundland Power is responsible for maintaining
26 its system to meet the requirements Hydro sets for Newfoundland Power in order for
27 Hydro to meet its Transmission Planning Criteria requirements for the bulk power
28 system.³

¹ The study completed by TransGrid Solutions Inc. on behalf of Hydro was filed with the Board in March 2021.

² See response to Request for Information CA-NP-048, Attachment A.

³ For more information on the relationships between Hydro, the NLSO and Newfoundland Power see responses to Requests for Information CA-NP-048 and CA-NP-064.