Q. **Reference: CBA, Rev. 1, vol. II, Wabush Substation Upgrades, Attachment 1 (Labrador West 46 kV System Expansion, Wabush Substation Recommended Upgrade), page 4 (p. 563 pdf)**

Preamble:

> The P50 Wabush load forecast for 2043-44 has decreased by about 800 kW, and the P90 forecast by 1500 kW, since the 2018 Labrador Transmission Expansion Study (Appendix C, page 6).

a. Please elaborate on the causes underlying the reduction in the Wabush load forecast since the 2018 TES.

b. For each year, please distinguish between:

i. residential loads,

ii. existing cryptocurrency (or data centre) loads,

iii. additional cryptocurrency (or data centre) loads,

iv. other loads.

A.

a. Changes in the forecast peak demand for Wabush Substation from the completion of the load forecast included for the Labrador Interconnected Transmission Expansion Study ("2018 TES")[1] to the completion of the load forecast for the current Capital Budget Application reflect the following:

- In spring 2019, the addition of data centre/cryptocurrency load resulted in an increased peak demand forecast for Wabush Substation through the medium term.

[1] Labrador Interconnected Transmission Expansion Study," Newfoundland and Labrador Hydro, rev 2, April 3, 2019 (originally filed October 31, 2018).

- In spring 2019, a modest reduction in the projected trend of annual energy sales growth was forecast for the longer term for the Labrador west region. The change in trend growth resulted in a modest reduction in forecast peak demand for Wabush substation through the longer term.

- In spring 2019, Newfoundland and Labrador Hydro adjusted the P90 peak demand increment to reflect the results of the analysis prepared by Daymark Energy Advisors. This reduced the estimated P90 demand increment for Wabush substation to 480 kW from 1,200 kW.

  Please refer to part b of Hydro's response to LAB-NLH-008 of this proceeding.

b. Table 1 provides the available breakdown of the year-by-year P50 peak demand forecast for the Wabush substation. Note that the additional data centre/cryptocurrency loads identified reflect forecasted increased load of existing customers whose loads had been approved for service.

**Table 1: Town of Wabush (Wabush Substation P50 Peak Demand Forecast (kW)
Spring 2019 Forecast (2021 Capital Budget Application)**

Year	Residential and Other Loads	Existing Cryptocurrency/ Data Centre Loads	Additional Cryptocurrency/ Data Centre Loads
2020–2021	21,513	275	535
2021–2022	21,587	275	535
2022–2023	21,663	275	535
2023–2024	21,785	275	535
2024–2025	21,907	275	535
2025–2026	21,955	275	535
2026–2027	22,005	275	535
2027–2028	22,055	275	535
2028–2029	22,106	275	535
2029–2030	22,156	275	535
2030–2031	22,190	275	535
2031–2032	22,220	275	535
2032–2033	22,249	275	535
2033–2034	22,278	275	535
2034–2035	22,308	275	535
2035–2036	22,337	275	535
2036–2037	22,367	275	535
2037–2038	22,396	275	535
2038–2039	22,426	275	535
2039–2040	22,456	275	535
2040–2041	22,485	275	535
2041–2042	22,515	275	535
2042–2043	22,545	275	535
2043–2044	22,575	275	535
2044–2045	22,605	275	535
2045–2046	22,635	275	535