

NLH-LAB-001

Q: RE: Pre-Filed Testimony of the Helios Centre (Mr. Raphals), page 2, section 1.2.

"Media reports reveal that data centers are being established in Labrador for bitcoin mining, one of which has received \$1 million of federal and provincial support. It is unclear, however, whether the existing fibre optic network could support the data center expansion described in the load forecasts."

Please confirm that fibre optic capacity is a defining requirement for the location of a data centre, specifically the data centres requesting service in Labrador. Further, please provide the support for such a statement.

A. The following is the response of Mr Phil Raphals:

Based on the documents cited in my report¹, it would appear that Hydro forecasts substantial new data centre loads, but provided no details as to the nature of those loads.

Insofar as a data center's business model involves transmission of large amounts of data between Labrador and other locations, as would obviously be necessary for servers providing on-line real-time internet services – such as those provided by Google, Apple or Amazon, for example – robust and redundant data connections would clearly be essential.

To the best of my knowledge, Hydro has not provided any information as to the nature of the data centers that have contacted it and/or signed service agreements with it, though the media reports quoted in my report suggest that at least some of them are involved in blockchain processing. To the best of my knowledge, these types of installation are dedicated more to computation than communication, and so may well have lower connectivity requirements than other types of data centers. I have no specific information regarding the communications requirements of a blockchain facility.

¹ PUB-NLH-035 and IOC-NLH-033, cited on pages 10 and 11 of my report.