IN THE MATTER OF the
Electrical Power Control Act
1994, SNL 1994 Chapter E-5.1
and the *Public Utilities Act*
RSNL 1990 Chapter P-46; and

IN THE MATTER OF an Application
by Newfoundland and Labrador Hydro
("Hydro") for approval of a rate for
Non-Firm Service in Labrador, and other
associated matters ("Application")

TO: The Board of Commissioners of Public Utilities
NL Hydro

SECOND REQUESTS FOR INFORMATION OF BLOCKCHAIN LABRADOR CORPORATION

63. Please confirm the amount of non-firm power now available.

    a. Does the 50 MW include the 10MW of power provided to IOC and Tacora?
    b. Is this 10 MW being sold as firm power to IOC and Tacora?
    c. At what price is the 10MW of power being sold to IOC and Tacora? Will it be sold at the non-firm rate if approved by the PUB? If not, please provide details on how the price will be calculated.
    d. How was the 50 MW of power availability determined? What is the methodology and how much redundancy built in?

64. What was the basis on which Hydro determined that it had the right to discriminate against other applicants for firm power in favour of IOC and Tacora? Did it apply to the PUB for such approval? If not, why not? If it did apply, did it disclose that it had other applicants for such power, including Blocklab, which was a current customer of NL Hydro?

65. Why was 20 MW of power from the 50MW not provided to Blockchain Labrador Inc. ("Blocklab") as per its 2017 application for firm power?

66. Why was 7.75MW of power from the 50MW not provided to Blocklab reflecting its current usage?

67. Why is Hydro now proposing to amend its application to include a floor price?

    a. Does NL Hydro propose to calculate and refund the revenues realized from local customers as a result of the price floor?
    b. How much lower were prices when Hydro lost money on export sales?
    c. At what price would export sales have to reach to trigger a local price floor?

d. What is the rationale for NL Hydro seeking a price floor from local customers but not sharing the benefits when prices decrease in export markets?
e. Did NL Hydro consider repaying the revenue paid by customers as a result of the price floor when prices increase beyond the floor.

68. Did Hydro consider an interruptible tariff in which it would be able to curtail local non-firm rate customers when prices exceeded certain levels and share the excess revenue with those customers?

69. Did Hydro consider any model other that fixing the price of non-firm rate power based on the published forecast market pricing for the subsequent month and publishing it on the 21st day of the month prior? If so, what were the models and economic results?

70. What would be the effects of implementing an hourly, daily or weekly pricing for non-firm power? How often does Hydro now evaluate and contract for export power sales?

71. Provide current information on:

a. the gross sales of export power with quantity and pricing figures;
b. net profit derived therefrom; and
c. where it was sold with a breakdown as to quantities, pricing and gross and net profits in each jurisdiction for the period from January 1, 2020 to May 15, 2023.

72. Provide a breakdown of the gross and net revenue realized from the sale of 96% of the Recapture Energy to New York, New England, Ontario and the Maritimes referred to in the answer to BKL-NLH-015(g).

73. The response to BLK-NLH-021(f) was that "historical exports of Recapture Energy have primarily been to the New York wholesale market". How does the illustration in Table 3 of 2.3.6 on page 11 of "**Schedule 1 - Evidence**" compare with actual sales in New York and New England from January 1, 2020 – April 30, 2023?

74. Why did Hydro propose that the non-firm rate reflect its exports to the New York and New England markets in the prior month? Why did it not include sales to Ontario, the Maritimes and Quebec? What would the price of non-firm power be if established on the basis of all export markets rather than the two named?

75. Does this application have the potential to affect NL Hydro's statutory obligation to supply power at rates that are "reasonable and not unjustly discriminatory"? Does Hydro have the ability to withhold sale of export power on any given time?

76. How will charging a rate for non-firm power that is likely to be substantially higher that the existing firm rate affect Hydro's statutory obligation to supply power at a rate that will "promote the development of industrial activity in Labrador".

77. What is the actual incurred incremental cost of supply of the non-firm 50 MW in Labrador based on current available power in Labrador?

78. Why does Hydro propose a monthly customer charge for non-firm rate power customers when it would have to perform the same tasks with respect to export customers? Has Hydro analyzed how much, if any, differences there are in such costing? If so, what are they?

79. With respect to your response to BKL-NLH-026(b), please provide a comparison of prices charged by Manitoba Power, BC Hydro, Hydro-Quebec and New Brunswick Power for surplus power sold to customers within the province compared with the prices for firm power sold to customers within the provinces and the prices for which surplus power was sold outside the provinces in the period from January 1, 2020 to May 15, 2023.

80. With respect to your response to BKL-NLH-026(d), if not previously answered, please provide a comparison of the lower annual bills to Manitoba SEP customers compared to service under the respective General Service Firm rate in the period from January 1, 2020, to May 15, 2023.

81. With respect to your response to BKL-NLH-026(f), if not previously answered, at what price has surplus power been sold to customers in New Brunswick compared with the prices for firm power sold to customers within the provinces and the prices for which surplus power was sold outside the provinces in the period from January 1, 2020, to May 15, 2023.

82. With respect to your response to BKL-NLH-026(m), if not previously answered, which, if any, Canadian utilities have sold power to provincial customers at a rate equal to or based on the price that could have been realized from sales of surplus power outside the province in the period from January 1, 2020, to May 15, 2023.

83. How does power flow into the NYISO and NEISO from NL Hydro?

84. When you export into NYISO and the NEISO, what are the physical injection points into each market? What zones does NL Hydro have access to? What is the ultimate point of sale? Does NL Hydro have the right and/or option to sell to any export customer or it is preclude from doing so by any of the transmission line owners? Is the discretion of the delivery location controlled by Hydro Quebec or NL Hydro? What is breakdown of the total cost to get the export power to each market, injection point, zone, point of sale and/or delivery location?

85. What was the process for determining what zones to price power on?

86. If not answered in response to a prior question, what was the percentage of exports to each zone in the previous years from January 1, 2020 to May 15, 2023?

87. What is the basis for the statement that "Hydro has historically used the New York Zone A market in setting the market block rate for Labrador Industrial customers"?

88. Why did NL Hydro select Zone A instead of Zone D for price setting?

    a. What would be the pricing difference if Zone D were selected instead of Zone A and net revenue. What are the cost differentials?
    b. What path and cost are associated with selling into Zone A vs. Zone D?
    c. What are the line losses in Zone A and D?
    d. What loss costs does NL Hydro consider acceptable to wheel power into NYSIO through Zone A instead of Zone D?
    e. What physical location or injection points can NL Hydro physically sell into for the New York market?

89. What tie line capacities are available to NL Hydro to sell into NYISO and NEISO? Has NL Hydro been unable to sell export power into NYISO or NEISO because of the non-availability of capacity. What capacity has been available on those lines to NL Hydro from January 1, 2020 to May 15, 2023? Have there been any periods when NL Hydro has been unable to export into NYISO or NEISO because of lack of tie line capacity or network congestion?

90. Has NL Hydro evaluated the effect of supplying export power on the proposed pricing model?

    a. Does the price of surplus power in the export markets decrease as the available amount increases?
    b. Has Hydro evaluated the extent to which the diminishment of supply to its export markets as a result of supplying that surplus power to local rather than to export markets will increase costs in those markets resulting in increased costs to local users?

91. Is Hydro proposing to use historical instead of forward pricing? Provide details on Hydro's export sales contracts including quantities of power with forward pricing and delivery dates.

92. What types of load control response measures does NL Hydro currently utilize within its grid operations?

93. What are NL Hydro's sources of Controllable Load Resource and Non-Load Controllable Resources?

94. What does NL Hydro do with excess energy that is no longer needed from the export market?

    a. Is it "dump loaded" at the generation point or at the export point?

b. Does "dump loading" add a cost of generation/transport that receives no revenue?
c. How often does NL Hydro dump load excess energy within Labrador? How many kwh of unsold power does this represent per year?

95. How often does NL Hydro export less than total available transmission capacity and/or total available generation capacity? How many MW hours has NL Hydro been unable to sell because of lack of export market demand? What has been the value of revenues lost because of this in the period form January 1, 2020 to May 15, 2023?

96. How often does NL Hydro divert water out of the Smallwood reservoir due to reduced load demand? Provide particulars as to dates, quantities and values for the period from January 1, 2020 to May 15, 2023.

97. Has NL Hydro evaluated whether it would be more economically beneficial for a local load user to be able to take and pay for this power at a guaranteed fully utilized load? If so, provide details of the dates and results of such studies as well as copies of any associated reports.

98. Has NL Hydro studied or hired others to study Demand Response programs in other energy jurisdictions? If so, which ones and what were the results?

99. Has NL Hydro evaluated the economic benefits of bitcoin mining as load/demand resource/spinning reserve?

100. Has NL Hydro considered the implementation of an incentivized demand response program which would allow NL Hydro to pay bitcoin miners to reduce their loads when surplus energy demand is high enough to warrant exporting power?

101. Has NL Hydro considered and evaluated the potential revenue losses from a scenario in which users of non-firm power do not purchase monthly power due to a high price and NL Hydro is unable to export some or all of its power? What are the potential financial consequences to NL Hydro in such a scenario?

102. What would have been the MW price for local customer for February through May, 2023, using the proposed pricing mechanism? Was the 50MW of available power or any portion sold in an export market during this period? If so, where was it sold, at what price and what was the net revenue realized therefrom? Were there any export locations that were not available during this time? If so, what were the locations and the reasons?

103. Has the addition of data centre load in Labrador reduced the industrial rate on the LIG in the past?

DATED at St. John's Newfoundland and Labrador, this 12th day of May, 2023.

Benson Buffett PLC Inc.

Per: _____
Paul D. Dicks, K.C.

Per: _____
Megan Reynolds