

NEWFOUNDLAND AND LABRADOR BOARD OF COMMISSIONERS OF PUBLIC UTILITIES 120 Torbay Road, P.O. Box 21040, St. John's, Newfoundland and Labrador, Canada, A1A 5B2

E-mail: khopkins@newfoundlandpower.com

2019-03-15

Kelly Hopkins Corporate Counsel Newfoundland Power Inc. P. O. Box 8910 St. John's, NL A1B 3P6

Dear Ms. Hopkins:

Re: Rate Mitigation Options and Impacts Reference - Information Requests

Attached are Information Requests PUB-NP-001 to PUB-NP-029 issued by the Board in relation to the above subject matter. Responses to these requests must be filed by 3:00 p.m. on **Friday, March 29, 2019**.

If you have any questions or require any clarification, please do not hesitate to contact the undersigned.

Sincerely,

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Cheryl Blundon Board Secretary

CB/cj

Enclosure

cc Gregory J. Connors, Nalcor Energy, E-mail: greg.connors@mcinnescooper.com Peter Hickman, Nalcor Energy, E-mail: phickman@nalcorenergy.com Rob Hull, Nalcor Energy, E-mail: robhull@nalcorenergy.com Geoff Young, Newfoundland and Labrador Hydro, E-mail: gyoung@nlh.nl.ca Dennis Browne, Q.C., Consumer Advocate, E-mail: dbrowne@bfma-law.com Paul Coxworthy, Island Industrial Customer Group, E-mail: pcoxworthy@stewartmckelvey.com Denis J. Fleming, Island Industrial Customer Group, E-mail: dfleming@coxandpalmer.com Dean A. Porter, Island Industrial Customer Group, E-mail: dporter@poolealthouse.ca Senwung Luk, Labrador Interconnected Customer Group, E-mail: sluk@oktlaw.com

Reference from the Lieutenant-Governor in Council On the Rate Mitigation Options and Impacts Relating to the Muskrat Falls Project

INFORMATION REQUESTS

1 2 3 4 5	PUB-NP-001	Please provide in Excel file format, Newfoundland Power's monthly load (GWh) and peak demand (MW) for its load on the Island Interconnected System broken down by rate class for the period 2008 to 2018 and forecast for 2019 to 2030, inclusive.
5 6 7 8 9	PUB-NP-002	Further to PUB-NP-001, please provide in Excel file format, a breakdown between Newfoundland Power's sales and Newfoundland Power's system losses for GWh load and MW peak demand by month.
10 11 12 13 14 15	PUB-NP-003	Please provide in Excel file format, any Newfoundland Power load forecast estimates reflecting changes in load due to different future retail price projections (i.e., estimation of underlying elasticity effects) and any explanations for the underlying rationale for such projections. Please provide any supporting data or analyses.
16 17 18 19 20	PUB-NP-004	Please provide in Excel file format, Newfoundland Power's number of customers, at least by sector (residential, commercial, industrial) or by rate class level if available. Provide this information on an annual basis for both historical (2008-2018) and forecast (2019-2030) periods.
21 22 23 24 25 26 27 28 29 30	PUB-NP-005	 Please provide the details of all econometric and other models used to develop the two most recent load forecasts. Please include the following in Excel file format, where applicable. a. Model specifications, statistical measures and all source data. b. Clearly identify and document the source of all the model data. c. All reports associated with those forecasts. d. Clearly indicate the extent to which energy efficiency improvements through Conservation Demand Management (CDM) programs or "naturally occurring" equipment turnover, or related customer response is incorporated into the load forecasts.
31 32 33 34 35	PUB-NP-006	Please describe the nature of Newfoundland Power's commercial and industrial load, the current existence of any interruptible loads (commercial or industrial), and the potential for additional interruptible load or demand response, for the commercial or industrial sector.

1 2 3 4	PUB-NP-007	Please provide in Excel file format, Newfoundland Power's system actual hourly load profile (8760 or 8784 hours) for 2018, 2017 and 2016, and if available 2019 to-date.
4 5 6 7 8	PUB-NP-008	Further to PUB-NP-007, please provide in Excel file format, an estimated (or actual, as applicable) breakdown for hourly profiles for the residential, commercial, and industrial sector aggregate loads.
8 9 10 11 12 13 14 15	PUB-NP-009	Further to PUB-NP-007, please provide in Excel file format, Newfoundland Power's current estimated winter peak day, winter average day, and other season(s) daily load profiles (24 hour) associated with each of Newfoundland Power's main customer sectors or rate classes, at whatever level of sectoral or rate class aggregation is available (e.g., residential electric heat; residential non-electric heat; commercial; etc.).
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 	PUB-NP-010	 Please provide in Excel file format, where applicable, the following information regarding historical energy efficiency and conservation programs broken out by program and by year, where applicable, for the period 2009 to 2018, or provide or reference published reports, or evaluation studies that provide this information: a. Budgets and expenditures; b. Savings (peak demand, first year and lifetime savings for electricity; first year and lifetime savings for other fuels); c. Average measure life (years); d. Number of customers eligible for the program; e. Number of customers participating in the program; f. Cost effectiveness results, assumptions, and methodology, including avoided cost information; and g. A description of the cost recovery mechanism in these programs, and what costs are recovered.
 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 	PUB-NP-011	 Please provide in Excel file format, if applicable, the following information regarding current and future energy efficiency and conservation programs broken out by program and by year, where applicable/if available, for the period 2019 to 2030, or provide or reference published reports that provide this information: a. Budgets; b. Savings (peak demand, first year, and lifetime savings for electricity; first year and lifetime savings for other fuels); c. Average measure life (years); d. Number of customers eligible for the program; e. Number of customers participating in the program; f. Cost effectiveness results, assumptions, and methodology, including avoided cost information; g. A description of the cost recovery mechanism in these programs, and what costs are recovered.

1**PUB-NP-012**Please provide any recent reports or analyses conducted by Newfoundland22Power assessing electrification possibilities for its service territories, or for
the Province.

5 PUB-NP-013 6 Further to PUB-NP-012 please provide any further documentation Newfoundland Power may have on the prospects for, or implications of, increased electrification of end uses (transport, buildings, industry) in their service territory.

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- 10**PUB-NP-014**Please provide in Excel file format, if applicable, any summary and detailed1111data Newfoundland Power has on the percentage of customers that use12electric heat as the primary heating system, and the proportion of other fuels13used for heating, for each of the major sectors and with further14disaggregation if available (residential, small commercial, large15commercial, industrial, institutional, etc.)
- PUB-NP-015 Further to PUB-NP-014 please provide the same information for domestic hot water end uses.
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- 20PUB-NP-016Please provide in Excel format, if applicable, any summary data21Newfoundland Power has on the proportion of electric heating systems that22use heat pumps in addition to or in lieu of electric resistance heating. Please23provide breakdowns by sector (e.g., at least residential and small24commercial) if or as applicable.
- 26 **PUB-NP-017** Please provide in Excel file format, if applicable, summary data and 27 information Newfoundland Power has in its possession concerning the adoption rates of heat pumps in their service territory over the past five 28 29 years. If or as available, please provide indication of the type of heat pump, 30 the monthly or seasonal or annual pattern of increases in adoption of heat pumps, and any other information Newfoundland Power has that would 31 assist in determining an overall estimation of heat pump adoption over the 32 33 next five years. As available, please indicate if the adoption rates apply to 34 those customers with existing electric heat, oil heat, or other fuel.
- 36 **PUB-NP-018** Further to the response to PUB-Nalcor-071 does Newfoundland Power 37 know when (if at all) Memorial University will be converting their oil 38 boilers to electric resistance boilers, and how much of their oil capacity will 39 be converted? If so, please provide any detailed information Newfoundland 40 Power has on the planned timeline, extent of conversion, consideration of continuing use of oil as backup fuel, and planning for avoidance of use of 41 electric heat (fully or partially) during winter peak periods. If so, please 42 provide explicit information on the planned duration of use of electric heat 43 44 during the coldest days of the winter heating season.

1 2 3 4 5	PUB-NP-019	Further to the response to PUB-Nalcor-071 does Newfoundland Power know of the timelines of possible conversion from oil to electric heat for any other large institutional or commercial facility or facilities? If so, please provide such information.
6 7 8 9 10	PUB-NP-020	Please provide in Excel file format, if applicable, any other data or information Newfoundland Power may have that will assist the Board in assessing which industries and/or end uses are best position to convert from oil (or other non-electric fuel) to electricity, using either electric resistance or heat pumps.
11 12 13 14 15 16	PUB-NP-021	Please provide in Excel format, if applicable, any data, estimates, projections, or insights Newfoundland Power has on the potential adoption rate of electric vehicles in their service territory over the next approximately ten years.
17 18	PUB-NP-022	Please provide any information Newfoundland Power has on the charging profiles for existing light duty electric vehicles in Newfoundland.
19 20 21 22 23 24	PUB-NP-023	Does Newfoundland Power have any information, or insight, on the extent to which other medium duty vehicles should be included in the electrification analysis besides delivery trucks, school buses, transit buses, and intercity buses?
25 26 27 28	PUB-NP-024	Does Newfoundland Power have data or information concerning hourly charging and load profiles available for the newly electrified St. John's port? If not, does Newfoundland Power know what fraction of docking happens at each hour of the day (winter and summer separately)?
29 30 31 32	PUB-NP-025	Does Newfoundland Power know of the planned annual electrification of the port out to 2030? (in terms of number of berths or percentage of annual docking)?
33 34 35 36 37 28	PUB-NP-026	Please provide any information Newfoundland Power has on the potential costs associated with building out an infrastructure to allow Level 2 and/or Level 3 public charging stations for electric vehicles in and around its service territory.
38 39 40 41 42 43	PUB-NP-027	Please provide any information Newfoundland Power has on the potential costs associated with possible increases to Transmission & Distribution investment to allow for implementation of Level 2 and/or Level 3 public charging station infrastructure.
43 44 45 46	PUB-NP-028	Have there been any time-of-use rates pilots or studies completed by Newfoundland Power? If so, please describe, and indicate what hours are considered peak, mid-peak, and off-peak.

1	PUB-NP-029	Please provide in Excel format, if applicable, any information, data,
2		analyses, projections, evaluations, or other insights into Newfoundland
3		Power's assessment of the potential role and implementation details
4		concerning possible time-of-use rate structures in their service territory.

DATED at St. John's, Newfoundland this 15th day of March, 2019.

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

Per <u>Anden</u> Qheryl Blundon Board Secretary