Q. In its response to NLH-NP-046, Newfoundland Power provided the forecast domestic energy charges for the period 2021 to 2023 forecast, indicating a domestic service energy charge of 12.876 ¢/kWh in 2022 and 13.189 ¢/kWh in 2023.

Given that the load forecast used in Newfoundland Power's filing was developed using the forecast domestic energy charges noted above, and not on further increases in cost (i.e. assuming cost increases based on the recovery of costs associated with the Muskrat Falls project), please explain the primary drivers of the decrease in forecast energy and demand requirements observed in Newfoundland Power's Energy and Demand Forecast.

A. Newfoundland Power's energy sales have declined each year since 2015.[1] The Company is forecasting continued declines in energy sales in 2021, 2022, and 2023.[2]

A number of factors are contributing to Newfoundland Power's declining energy sales. These include changes in customer end uses, including the increased adoption of heat pumps by the Company's Domestic customers, weak economic conditions, customer conservation and demand management ("CDM") activities, and higher electricity prices. These factors are expected to continue to influence Newfoundland Power's energy sales through the forecast period.

Changes in customer end uses have contributed to the Company's declining energy sales. This includes the adoption of heat pumps to offset electric baseboard heating by the Company's Domestic customers.[3] Customers installing heat pumps experience annual energy savings of approximately 15%.[4] Newfoundland Power's forecast includes the continued adoption of heat pumps by the Company's Domestic customers to offset electric baseboard heating costs.[5] This is forecast to result in further decreases in Newfoundland Power's energy sales.

Weakening economic conditions are also a factor affecting Newfoundland Power's energy sales. One example is the decline in housing starts in Newfoundland and Labrador. For the period 2011 to 2015, robust housing starts in the province supported increases in the Company's energy sales.[6] Between 2016 and 2020, housing starts

1 For the period 2016 to 2020, Newfoundland Power's energy sales have declined by -0.1%, -0.5%, -0.8%, -0.5%, and -2.0%, respectively.

2 For the period 2021 to 2023, Newfoundland Power's energy sales are forecast to decline by -0.2%, -0.3%, and -0.6%, respectively.

3 The penetration of heat pumps among Newfoundland Power's Domestic customers increased from approximately 4% in 2014 to approximately 18% in 2020. This represents an increase from approximately 9,000 customers in 2014 to approximately 43,300 customers in 2020.

4 See response to Request for Information NLH-NP-063.

5 In 2020, Newfoundland Power estimates that approximately 43,300 Domestic customers had a heat pump installed. For the period 2021 to 2023 the number of Domestic customers forecast to have a heat pump installed is 48,400, 53,400, and 58,500, respectively.

6 Housing starts for the 2011 to 2015 period were 3,488, 3,885, 2,862, 2,119, and 1,697, respectively. Energy sales grew during this period by 2.5%, 1.8%, 2.0%, 2.3%, and 1.0%, respectively.

declined substantially and the Company's energy sales also started to decline.[7] Housing starts in 2022 and 2023 are forecast to be the lowest on record and over 80% lower than annual peak housing starts reached in 2012.[8] As a result, housing starts are not expected to support energy sales growth similar to what was experienced in the 2011 to 2015 period.

Customer participation in Newfoundland Power's CDM programs has contributed to lower energy sales for Newfoundland Power.[9] The Company's most recent 5-year plan continues longstanding customer CDM programs and supporting initiatives.[10] Continued customer conservation efforts, including those supported by the Company's CDM programs, is expected to reduce Newfoundland Power's energy sales over the forecast period.[11]

Increases in electricity rates reduce the amount of electricity being consumed by Newfoundland Power's customers. During the recent period of declining energy sales from 2016 to 2020, the cost of electricity increased by approximately 15%.[12] Higher electricity rates in the future are forecast to contribute to a reduction in energy sales in the forecast period. The energy forecast currently reflects increases in customer electricity rates associated with: (i) the October 1, 2019 rate increase;[13] (ii) the July 1, 2021 customer rate increase; and (iii) customer rate increase information regarding Muskrat Falls rate mitigation that was available at the time the *2022/2023 General Rate Application* was filed with the Board.[14] Updated information provided by the Provincial Government indicates that electricity rates will increase by approximately 9% compared

[7] Housing starts for the 2016 to 2020 period were 1,398, 1,400, 1096, 945, and 763, respectively.

[8] Newfoundland Power has housing starts information dating back to 1977. The Conference Board of Canada forecast of Newfoundland and Labrador housing starts in 2022 and 2023 is 692 and 665, respectively. (692 ÷ 3,885 = 17.8%, 665 ÷ 3,885 = 17.1%).

[9] In 2020, annualized energy savings related to takeCHARGE programming were estimated to be 205 GWh for Newfoundland Power. Cumulative energy savings totaled 973 GWh over the 2009 to 2020 period. Customer CDM programs also achieved peak demand savings of approximately 45 MW by between 2009 and 2020. See *2022/2023 General Rate Application, Volume 1, Application, Company Evidence and Exhibits, Section 2.2.4 Customer Conservation and Electrification*, Page 2-14.

[10] The *Electrification, Conservation and Demand Management Plan: 2021-2025* was completed in 2020 and is the 4th consecutive plan implemented by Newfoundland Power and Hydro under the takeCHARGE partnership.

[11] Newfoundland Power filed its *2021 Electrification, Conservation and Demand Management Application* with the Board on December 16, 2020.

[12] The Domestic Energy Charge applicable on January 1, 2016 was 10.573 ¢/kWh. The Domestic Energy Charge effective July 1, 2020 was 12.203 ¢/kWh (12.203 ¢/kWh ÷ 10.573 ¢/kWh - 1 = 15.4%).

[13] Given the lag effect that price changes have on consumption, the elasticity impact is larger in the second year of a rate change. The October 1, 2019 average customer rate increase was 6.4%.

[14] In its April 2019 release *Protecting You from the cost Impacts of Muskrat Falls*, the Provincial Government indicated an all-in Domestic rate of 13.5 ¢/kWh upon the commissioning of the Muskrat Falls Project, followed by annual rate increases of 2.25% thereafter.

to what is included in Newfoundland Power's forecast.[15] This can be expected to reduce Newfoundland Power's energy sales beyond what is included in the forecast.[16]

The primary driver of the decline in Newfoundland Power's peak demand forecast is the forecast decline in the Company's energy sales.[17]

[15] See response to Request for Information PUB-NP-056.

[16] Newfoundland Power's *Customer, Energy and Demand Forecast* and forecast purchased power costs do not reflect the rate mitigation announcement. For an example of how the announcement could impact the Company's energy sales and customer rates, see response to Request for Information PUB-NP-056.

[17] See the responses to Requests for Information PUB-NP-053 and PUB-NP-109 for information regarding Newfoundland Power's demand forecasting methodology.