Q. Reference: "2022/2023 General Rate Application," Newfoundland Power, May 27, 2021, Volume 2, Section 3.

Has Newfoundland Power considered an alternate means for forecasting changes in peak demand usage (e.g., the quantitative relationship between heat pump performance and weather) as a result of increased usage of heat pumps? If yes, please explain.

A. In 2021, Newfoundland Power adopted a 5-year average load factor methodology to forecast peak demand. This replaced the 15-year average load factor methodology that was previously used by the Company. Adopting the shorter 5-year period will better reflect the impact on demand of the increased penetration of heat pumps in Newfoundland Power's service territory in recent years.

Newfoundland Power is currently completing a heat pump load research study for heat pumps installed within its service territory to understand potential impacts of heat pumps on peak demand. So far, load research data has been compiled during the 2019-2020 and 2020-2021 winter seasons.³ Each of these winter seasons have been relatively mild and did not include extended periods of cold winter conditions that can often occur in Newfoundland. As a result, Newfoundland Power, in consultation with Newfoundland and Labrador Hydro, is considering extending the load research study into future winter seasons to better understand heat pump load behaviour during extended cold periods.

Since definitive conclusions regarding the effects of heat pumps on Newfoundland Power's peak demand have not been reached, the Company considers any quantitative adjustments to its peak demand forecast as a result of heat pumps to be premature.

See the 2022/2023 General Rate Application, Volume 2, Tab 3, Customer, Energy and Demand Forecast, Section 2.5: Peak Demand. See also response to Request for Information NLH-NP-078 for further information on why Newfoundland Power adopted a 5-year average load factor methodology.

The penetration of heat pumps among Newfoundland Power's customers increased from approximately 4% in 2014 to approximately 18% in 2020. Maintaining a longer-term 15-year average load factor methodology to forecast peak demand would result in less consideration being given to recent heat pump installations.

See response to Request for Information PUB-NP-055 for an update on Newfoundland Power's load research study.