Q. Re: Section 3.1.2 of Schedule 3, please indicate the degree of subsidy and the uptake expected under the following scenarios:

1) TRC and mTRC are ignored, Hydro pursues the program at a scale and to the extent PACT remains in the range that is beneficial to the utility, and heating fuels remain carbon levy exempt.

2) TRC and mTRC are ignored, Hydro pursues the program at a scale and to the extent PACT remains in the range that is beneficial to the utility, and heating fuels face a carbon levy at $170/tonne.

A. Section 3.1.2 of Schedule 3 of the application refers to space and water heating electrification.

1) As noted in Dunsky Energy Consulting's Conservation Potential Study:

> With a large incentive – 70% of incremental costs – along with enabling strategies that help reduce or remove customer barriers to adoption, approximately 5% of households and 3.5% commercial floor space adopts some form of heat pump heating system to displace oil-fired heating, while only marginal amounts of customers adopt heat pump domestic water heaters over oil-fired heating systems. At lower incentive levels, only a small number of customers with oil-fired heating systems make the switch, and with no incentives, almost no customers adopt heat pumps.[1]

Given that the potential study has already considered incentive levels up to 70% for space and water heating, and still encountered limited potential, Newfoundland and Labrador Hydro ("Hydro") does not believe that a re-examination under the proposed scenarios would result in a materially different outcome. Please refer to Hydro's response to PUB-NLH-012 for more information regarding the Custom Electrification Program.

[1] "Application for Approvals Required to Execute Programming Identified in the Electrification, Conservation and Demand Management Plan 2021–2025," Newfoundland and Labrador Hydro, rev. 1, July 8, 2021 (originally filed June 16, 2021), sch. 3, sch. C, p. 128 of 325.

2) The potential study has already considered the impact of increased cost of carbon on the electrification of space and water heating. As noted in Dunsky Energy Consulting's Conservation Potential Study:

> Overall, the sensitivity analysis did not produce surprising results. When oil rates increase due to a carbon levy, there is a greater incentive to switch from oil to electric-based technologies. A larger carbon levy drives significantly greater fuel switching, but even a modest carbon levy increases fuel switching.
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> Conversely, when electricity rates are higher, there is less incentive to move away from oil-fired heating, but there is more incentive to add a DMSHP in electric baseboard households. This can be seen by the significant reduction in net energy and demand impacts under the High-rates case with a relatively smaller impact on average annual incentive payments.
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> When TRC screening is applied, only measures for domestic heat pump water heaters pass the cost-effectiveness screen to be included in the analysis. All measures for space heating fuel switching from oil are screened out. This is primarily due to the costs associated with increasing peak demand.[2]

[2] "Application for Approvals Required to Execute Programming Identified in the Electrification, Conservation and Demand Management Plan 2021–2025," Newfoundland and Labrador Hydro, rev. 1, July 8, 2021 (originally filed June 16, 2021), sch. 3, sch. C, p. 127 of 325.