Α.

- Q. (Reference CA-NP-088) Regarding the Replacement Street Lighting program, the expenditure estimate for 2024 is based on a three-year average and entails a 12% increase over 2023.
 - a) Other than for the high spending of \$937 thousand in 2022 and modest inflation, does Newfoundland Power have any other justification for this 12% increase in expenditure in 2024?
 - b) Newfoundland Power indicates that it unable to track trouble calls leading to expenditure under the Street Light Replacement program but states "trouble calls related to street light outages are most commonly received for "street light out" situations, and not specifically for issues with poles, brackets and wires. Please provide the number of calls for "street light out" for 2023 to date and each of the past 5 years.
 - c) Newfoundland Power (Application Schedule B page 56) states "Street light maintenance is conducted upon receiving trouble calls from customers." Is every task under the Replacement Street Lighting program initiated by a street light trouble call?
 - d) According to Newfoundland Power (Application Schedule B, page 3) LED street lights are more reliable that HPS street lights and states "On average, LED street lights experience an outage every 20 or more years. By comparison, HPS street lights experience an outage every six years on average."
 - (i) In light of its rapid installation of more reliable LED street lights and any associated hardware, poles and related repairs in that process, would it be reasonable to expect street light trouble calls to decrease as more LED street lights and related hardware are installed?
 - (ii) Would not the expenditure on the Replacement Street Lighting go down as consequence?
 - e) Newfoundland Power (Application Schedule B page 3) intends to have all street and area lights replaced by LED lights by 2026. Figure 1 in the response to CA-NL-088 shows no decline in real expenditures on the Street Light Replacement program in 2026 to 2028.
 - (i) With the replacement of all LED lights by 2026 as well replacement/repair of the related failed street light poles and hardware as associated with that replacement process, what is Newfoundland Power's forecast of street light trouble calls in 2026, 2027 and 2028?
 - (ii) Assuming Newfoundland Power succeeds in having all street and area lights in its service area converted to LED lights by 2026, how much does Newfoundland Power expect to spend on its LED Street Light Replacement program in 2026, 2027 and 2028?
 - a) The 12% increase in expenditures in 2024 is attributed to modest inflation of 2.25% with the remainder attributed to the difference between the historical average and the 2023 forecast. See the response to Request for Information CA-NP-088, part c).

b) Table 1 provides the number of calls for "street light out" for the past five years and 2023 year to date.

Table 1 "Street Light Out" Trouble Calls						
	2018	2019	2020	2021	2022	2023 ¹
Quantity	12,861	11,961	11,783	11,354	10,878	7,236

- c) Street light trouble calls can create tasks under both the *Replacement Street Lighting* program and the *LED Street Light Replacement* project. If the trouble call is related to a High Pressure Sodium ("HPS") luminaire, a new Light Emitting Diode ("LED") street light will be installed and the cost will be charged to the *LED Street Lighting Replacement* project. If the trouble call is related to failed street light poles or hardware, including overhead and underground wiring and pole mounting brackets, the cost will be charged to the *Replacement Street Lighting* program.
- d) (i) The LED Street Light Replacement Plan ("the Plan") filed with the Company's 2021 Capital Budget Application established that approximately 10,000 HPS street lights would be replaced annually based on the average service life of 24,000 hours or an outage every six years for HPS street lights.²

When Newfoundland Power completes its six-year plan to replace all HPS street lights with new LED street lights, the Company expects the number of "street light out" trouble calls to be lower than the approximate 10,000 to 11,000 "street light out" trouble calls that have been experienced since 2021. This is because all of the HPS street light lamps that are currently in service would have reached the end of their approximate six-year service life.

While there will be a lower number of "street light out" trouble calls due to less street light outages when the Plan concludes, Newfoundland Power expects that maintenance associated with street light equipment or hardware that is not included in the Plan will still be required.

(ii) The number of failed street light poles and hardware, including overhead and underground wiring and pole mounting brackets, is not expected to change upon conclusion of the Plan.³ These expenditures are not related to the street light luminaire or photocell and are independent of the *LED Street Lighting Replacement Plan*. Therefore, expenditures associated with the *Replacement Street Lighting* program are not expected to decline.

¹ Street light trouble calls as of September 29, 2023.

See Newfoundland Power's 2021 Capital Budget Application, LED Street Lighting Replacement Plan, pages 4 to 7

³ Newfoundland Power has approximately 65,000 street lights across its service territory.

- e) (i) Newfoundland Power does not forecast the number of street light trouble calls. As a result, the information requested cannot be provided.
 - (ii) Newfoundland Power forecasts expenditures of \$5,738,000 in 2026 related to the *LED Street Lighting Replacement* project.⁴ Upon completion of the *LED Street Lighting Replacement Plan* in 2026, there will be no expenditures associated with replacing HPS street light fixtures with LED fixtures in 2027 and 2028.

The *Replacement Street Lighting* program will continue to be required in 2026 which is the final year of the Plan, and in 2027 and 2028 upon the conclusion of the Plan. This is to address street light poles and hardware, including overhead and underground wiring and pole mounting brackets.⁵ The budget estimate is expected to continue using an inflation-adjusted historical average consistent with Newfoundland Power's practice for other programs.⁶

⁴ See Newfoundland Power's 2024 Capital Budget Application, 2024-2028 Capital Plan, Appendix A, page A-2.

Prior to adopting the *LED Street Lighting Replacement Plan* in 2021, Newfoundland Power maintained a single annual capital project to install new and replacement street lighting in response to customer requests. Under the Provisional Guidelines, installation of new street lighting and replacement of existing street lighting align with different investment classifications and, as such, require separate programs to comply with the Provisional Guidelines.

See Newfoundland Power's 2021 Capital Budget Application, LED Street Lighting Replacement Plan, Appendix B, page B-3. Street lights can also require replacement due to external factors such as acts of vandalism, extreme weather, and poles damaged in motor vehicle accidents.