Q. (Reference Application) In the June 26, 2024 transcript relating to the 2025-2026 GRA (page 135-136) Mr. Chubbs states with respect to smart meters "*So we've studied it a number of times, right, to see whether it's least cost or not and what came out of the Dunsky study was that it could become least cost within the next decade, right, and with a big shift in technology like that and a five-year implementation, so we're talking now it could be five years from implementing, right, so we're continually looking and evaluating*."

a) Please provide NP's most recent evaluation of the costs and benefits of smart meters referenced by Mr. Chubbs in the above statement that shows smart meters are not consistent with the provision of least cost service.

b) Please identify utilities that are replacing their current metering technology with AMR technology.

c) The unit cost of smart meters installed by New Brunswick Power is about $350 ($122 million / 350,000 homes province-wide) (https://globalnews.ca/news/4012023/smart-meter-program-nb/). Would NP expect a similar unit cost to install smart meters for its customers?

d) What would be the average monthly customer bill impact if a $350 smart meter were recovered over the life of the meter? Please provide all assumptions used in the calculation.

e) What is NP's current average cost for an AMR meter, including installation?

f) What is the average monthly customer bill impact over the life of the meter when NP installs an AMR meter at a new customer site? Please provide all assumptions used in the calculation.

g) Are any of the street lights replaced under the LED street lighting replacement program being replaced before the end of their useful life?

h) Please file a copy of the Energy Solutions Potential Study undertaken by the Posterity Group.

A. a) There are no capital expenditures associated with Advanced Metering Infrastructure ("AMI") included in Newfoundland Power's *2025 Capital Budget Application*. The most recent detailed studies undertaken by Newfoundland Power in relation to AMI were filed as Attachments A and B of the Company's response to Request for Information CA-NP-034 in relation to the Company's *2025/2026 General Rate Application*.

b) Advanced Meter Reading ("AMR") technology continues to be used by electric utilities and continues to be supported by meter vendors. For example, in Canada AMR technology is still being used by Manitoba Hydro, Newfoundland and Labrador Hydro and Northland Utilities in the City of Yellowknife.[1,2,3] As of 2022, over 20

[1] See Manitoba Hydro's *2023/2024 & 2024/2025 General Rate Application*, *Energy Demand & Supply Assumptions*, page 43.

[2] See Newfoundland and Labrador Hydro's *2022 Capital Budget Application, Replace Metering System* project.

[3] See Northland Utilities. Reading Your Own Meter. Retrieved February 23, 2024 from https://www.northlandutilities.com/en-ca/customer-billing-rates/reading-your-own-meter.html.

million AMR meters and 15.7 million standard (non-AMI/AMR) electricity meters were in use in the United States.[4]

c) There are no capital expenditures associated with AMI included in Newfoundland Power's *2025 Capital Budget Application*. As a result, the Company is unable to determine whether $350, which was derived by simply dividing New Brunswick Power's total project budget by the total number of customers from a 2018 news article, is an appropriate unit cost to install smart meters for customers in this province.

Reasons why the unit cost of a smart meter project in Newfoundland may differ from the New Brunswick Power example include (i) inflationary increases in the cost of smart meters and related, communication infrastructure and software technology that have occurred since 2018, (ii) differences in labour costs to install meters across Newfoundland Power's service territory, (iii) differences in communication infrastructure costs to provide sufficient coverage across Newfoundland Power's service territory, and (iv) any differences in features and functionality that may be required as part of each utilities smart meter program.

d) There are no capital expenditures associated with AMI included in Newfoundland Power's *2025 Capital Budget Application*. As a result of the studies referenced in part a) of this response, Newfoundland Power is aware that system cost savings resulting from the demand response potential of AMI technologies are not sufficient to offset implementation costs at this time. As a result, the Company has not conducted a more detailed assessment of various AMI technology options or their individual expected useful service lives. The Company is therefore unable to provide the requested information.

e) The forecasted per unit cost for meters including installation in 2024 is approximately $197.

f) Newfoundland Power does not calculate customer bill impacts on a per asset basis, therefore the information cannot be provided as requested. For information on the savings resulting from the Company's use of AMR technology, see CA-NP-045.

g) Newfoundland Power's *LED Street Lighting Replacement Plan* (the "Plan") was approved by the Board as part of the Company's *2021 Capital Budget Application*. The Plan was demonstrated to be consistent with the provision of least cost service to customers.[5] The purpose of the Plan is to accelerate the installation of LED street lights so that customers realize the full economic benefit of the LED street lighting service option. The economic benefits associated with LED street lights include lower

[4] See U.S. Energy Information Administration. *Advanced Metering Count by Technology Type*. Retrieved February 23, 2024 from https://www.eia.gov/electricity/annual/html/epa_10_05.html.

[5] See Order No. P.U. 36 (2021), page 28, lines 17-20. The Board found that the proposed expenditures for the LED street lighting replacement program were appropriate and necessary to ensure the delivery of power to customers at the lowest possible cost consistent with reliable service.

overall costs, improved service reliability and better quality lighting.[6] The Plan includes the suspension of the maintenance program for high-pressure sodium ("HPS") street lights. HPS lights are replaced with an LED fixture during any required maintenance visit. As a result, customers realize the full economic benefit of LED street lights sooner than they otherwise would.

h) The *Energy Solutions Potential Study* being undertaken by the Posterity Group is still ongoing. A copy of the study will be filed with the next *Conservation, Demand Management and Electrification Plan*, expected in 2025.

[6] See Newfoundland Power's *2021 Capital Budget Application, LED Street Lighting Replacement Plan*.