

1 **Q. (Reference PUB-NP-007) What would be the impacts from 2023 to 2055 of**
 2 **each of the two LED Street Lighting Replacement alternatives on**
 3 **Newfoundland and Labrador Hydro’s revenue due to the reduced electricity**
 4 **consumption on the island integrated system?**

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 6 A. Continued execution of the six-year *LED Street Lighting Replacement Plan* (the “Plan”) will result in less energy and capacity requirements from Newfoundland and Labrador Hydro (“Hydro”) compared to the alternative of using less efficient HPS street lights until the end of their service lives. It will also result in lower costs for customers and fewer street lighting outages. Providing Street and Area Lighting customers with service that is efficient, least cost and reliable is consistent with the requirements of the *Electrical Power Control Act, 1994*.¹

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 14 Hydro’s revenue from Newfoundland Power is determined through periodic general rate applications. During such rate setting processes, the revenue required from Newfoundland Power is set to reflect the cost of providing service to Newfoundland Power’s customers. As a result of the Plan, Hydro’s costs of providing service to Newfoundland Power will decrease. The magnitude of the decrease will be reflective of the difference in avoided costs between the alternatives considered in the Plan’s NPV analysis.² A comparison of alternatives in the Plan shows that Hydro will experience approximately \$17 million in reduced costs, and therefore reduced revenue, from Newfoundland Power between 2023 and 2055.³ A reduction in electricity consumption attributable to Newfoundland Power’s Street and Area Lighting service increases the amount of electricity available for other purposes, including Hydro’s energy exports

¹ See Section 3(b) of the *Electrical Power Control Act, 1994*.

² Hydro’s marginal costs include the opportunity cost associated with export energy sales and Hydro’s avoided capacity cost. Hydro’s avoided capacity cost is the avoided cost of not having to provide the additional generation capacity required to supply the less efficient HPS street lights.

³ See the response to Request for Information PUB-NP-007, Table 1.