

1 **Q. What environmental benefits could result from these proposed capital budget**  
 2 **expenditures?**  
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4 A. The following *2024 Capital Budget Application* projects have direct environmental  
 5 benefits resulting from execution in 2024.<sup>1</sup> For additional examples of projects that are  
 6 required to supply customers in an environmentally responsible manner, see the  
 7 responses to Requests for Information CA-NP-085, 089, 096, 106, and 107.

8  
 9 *LED Street Lighting Replacement*

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 11 This project replaces high pressure sodium (“HPS”) street lights with Light Emitting  
 12 Diode (“LED”) equivalents. There is an energy efficiency improvement associated with  
 13 this project of approximately 60% for each fixture replaced over the legacy HPS  
 14 lighting.<sup>2</sup> This will reduce the amount of energy required from Newfoundland and  
 15 Labrador Hydro’s (“Hydro”) Holyrood Thermal Generating Station.

16  
 17 *Rebuild Distribution Lines and Reconstruction*

18  
 19 These programs form the preventative and corrective maintenance programs of  
 20 Newfoundland Power’s distribution system. Distribution lines are inspected on a seven-  
 21 year cycle in accordance with the Company’s *Distribution Inspection and Maintenance*  
 22 *Practices*. High-priority deficiencies are addressed under the *Reconstruction* program,  
 23 while other deficiencies are addressed in a planned manner under the *Rebuild*  
 24 *Distribution Lines* program. Inspections identify deteriorated equipment such as rusty  
 25 distribution transformers, and vegetation which could come into contact with energized  
 26 lines.<sup>3</sup> Addressing these deficiencies mitigates risks to the environment resulting from  
 27 deteriorated equipment such as the release of oil into the environment and potential  
 28 wildfires.

29  
 30 *PCB Removal*

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 32 This project removes polychlorinated biphenyls (“PCBs”) with concentrations greater  
 33 than 50 parts per million from substation equipment. PCBs pose a long-term  
 34 environmental risk and removal of PCBs from service reduces the potential for  
 35 environmental incidents at the Company’s substations.

36  
 37 *Substation Replacements Due to In-Service Failures*

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 39 This program addresses equipment at substations that fails in service or is at imminent  
 40 risk of failure. Equipment addressed under this program can include oil filled circuit  
 41 breakers, reclosers, and regulators. Also included under this program are SF6 circuit

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<sup>1</sup> See the response to Request for Information CA-NP-014 for additional details on how Newfoundland Power considers environmental responsibility in its operations.

<sup>2</sup> See Newfoundland Power’s *2024 Capital Budget Application, Schedule B*, page 3.

<sup>3</sup> See the response to Request for Information CA-NP-084.

1 breakers.<sup>4</sup> Replacing these circuit breakers with vacuum breakers mitigates risks to the  
2 environment resulting from harmful materials contained within this equipment.  
3

4 *Gander Building Renovation*  
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6 The Gander office building currently has a heating, ventilation and air conditioning  
7 system that uses R-22 refrigerant. R-22 is considered to be an ozone depleting chemical  
8 under the Montreal Protocol and is currently being phased out of service in Canada.  
9 Additionally, LED lighting installed in the building under this project will improve the  
10 energy efficiency of the building and reduce electricity consumption.

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<sup>4</sup> SF6 is known as an extremely strong greenhouse gas, with a global warming potential of over 23,000 times that of carbon dioxide.