

1 **Q. (Reference Application) What is the overall improvement in productivity**  
 2 **stemming from the projects included in the 2023 Capital Budget Application?**  
 3 **Please identify the expected cost savings and provide an estimate of the impact**  
 4 **on rates.**

5  
 6 **A. A. Productivity Improvements**  
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8 Newfoundland Power's *2023 Capital Budget Application* includes: (i) projects that will  
 9 maintain the productivity of its operations; and (ii) projects that will improve the  
 10 productivity of its operations. These include:

- 11  
 12 (i) The *LED Street Lighting Replacement* project. The replacement of High Pressure  
 13 Sodium ("HPS") street lights with more reliable Light Emitting Diode ("LED")  
 14 street lights commenced in 2021 and is proposed to continue in 2023. The  
 15 replacement of HPS street lights with LED street lights reduces energy and  
 16 maintenance costs for street lighting customers and results in lower customer  
 17 rates.<sup>1</sup>  
 18  
 19 (ii) The *2023 Application Enhancements* project. This project includes items that will  
 20 improve the productivity of Newfoundland Power's operations through the  
 21 reduction or elimination of manual processes, as well as reductions in annual  
 22 licensing costs for third-party software.<sup>2</sup>  
 23  
 24 (iii) The *Distribution Feeder Automation* project. This project will increase  
 25 automation in the Company's distribution system through the addition of  
 26 automated downline reclosers and fault indicators.<sup>3</sup> The deployment of  
 27 automated distribution equipment will enhance the Company's response to  
 28 customer outages in all operating conditions, including local and system-wide  
 29 outages. For example, the operation of 12 downline reclosers during Hurricane  
 30 Larry in September 2021 avoided approximately 3.8 million customer outage  
 31 minutes without the assistance of field crews. This allowed field crews to  
 32 maintain their productivity in restoring service to customers.  
 33  
 34 (iv) The *Workforce Management System Replacement* project. Replacement of  
 35 Newfoundland Power's Workforce Management System will allow the Company  
 36 to maintain current levels of productivity for dispatching and monitoring field  
 37 crews. A net present value ("NPV") analysis determined that replacing the  
 38 system would reduce costs to customers by approximately \$499,000 over seven  
 39 years in comparison to implementing manual workforce management processes.<sup>4</sup>  
 40 The expenditures proposed for 2023 represent the second year of executing this  
 41 multi-year project, which was previously approved by the Board.

<sup>1</sup> See the *2023 Capital Budget Application, Schedule B*, pages 2 to 4, and response to Request for Information PUB-NP-007.

<sup>2</sup> See the *2023 Capital Budget Application*, report 5.1 *2023 Application Enhancements*.

<sup>3</sup> See the *2023 Capital Budget Application, Schedule B*, pages 12 to 16.

<sup>4</sup> See the *2022 Capital Budget Application*, report 7.3 *Workforce Management System Replacement*, Appendix A, page 9.

1 (v) The *Customer Service System Replacement* project. Over the last two decades,  
 2 Newfoundland Power reduced its customer service costs by over 40%, while  
 3 serving more customers and responding to nearly triple the number of customer  
 4 enquiries. Replacement of the Company's Customer Service System was  
 5 approved to commence in 2021 and will continue throughout 2023. This project  
 6 will enable the Company to maintain the productivity of its customer service  
 7 delivery.<sup>5</sup>

8  
 9 (vi) Over 50% of proposed 2023 capital expenditures are driven by the  
 10 refurbishment or replacement of existing assets.<sup>6</sup> These expenditures are  
 11 required to maintain the condition of the electrical system and to provide reliable  
 12 service to customers. Failure to maintain the Company's electrical system would  
 13 result in increased equipment failures and customer outages. This would  
 14 increase operational expenditures required to restore service to customers and  
 15 would be detrimental to the productivity of Newfoundland Power's operations.

## 16 **B. *Pro Forma* Customer Rate Impacts**

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 18  
 19 Due to the complex nature of how capital expenditures impact customer rates,  
 20 Newfoundland Power does not assess the customer rate impact of individual capital  
 21 projects or programs. The Provisional Guidelines require a proposed budget impact  
 22 summary that assesses the revenue requirement impact and indicative electricity rates  
 23 assuming that the proposed capital budget is approved in full.<sup>7</sup>

24  
 25 On a *pro forma* basis, the Company estimates that approximately \$4 million of the 2023  
 26 revenue requirement approved by the Board in Order No. P.U. 3 (2022) associated with  
 27 Newfoundland Power's *2022/2023 General Rate Application* reflects the capital  
 28 expenditures proposed for 2023. This estimate includes approximately \$3 million in  
 29 reduced operating costs and avoided electricity costs associated with the *LED Street*  
 30 *Lighting Replacement* and *Application Enhancements* projects. This \$3 million operating  
 31 cost savings estimate translates to a customer rate benefit of approximately 0.4%.<sup>8</sup>

32  
 33 The proposed refurbishment of the Company's Mobile and Sandy Brook hydro plants  
 34 included in the *2023 Capital Budget Application* will result in the continued provision of  
 35 low-cost energy to customers, thereby avoiding the need to purchase more expensive  
 36 replacement production. The *pro forma* estimate outlined above does not include the  
 37 customer benefit associated with the continued provision of low-cost energy from these  
 38 plants. The customer benefit associated with the continued operation of the Mobile and  
 39 the Sandy Brook hydro plants is estimated to be approximately \$2.5 million in lower

<sup>5</sup> See the *2021 Capital Budget Application, Volume 1, Customer Service Continuity Plan*, pages 3 to 4.

<sup>6</sup> See the *2023 Capital Budget Application, 2023 Capital Budget Overview*, page 1.

<sup>7</sup> See *Section I.C. Rate Impact Summary* of the Provisional Guidelines.

<sup>8</sup> Based on a \$3 million reduction from current customer billings of approximately \$734 million as outlined in Newfoundland Power's *Application for July 1, 2022 Customer Rates* filed with the Board on June 14, 2022.

1 annual revenue requirement.<sup>9</sup> This \$2.5 million estimate translates to a customer rate  
2 benefit of approximately 0.3%.<sup>10</sup>

3  
4 For further discussion on the relationship between the Company's capital investments,  
5 revenue requirements and customer rates, see the *2023 Capital Budget Application*,  
6 *2023 Capital Budget Overview, Section 2.3.3 Customer Rates*.

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<sup>9</sup> See the responses to Requests for Information CA-NP-114 and CA-NP-120.

<sup>10</sup> Based on a \$2.5 million reduction from current customer billings of approximately \$734 million as outlined in Newfoundland Power's *Application for July 1, 2022 Customer Rates* filed with the Board on June 14, 2022.