

1 **Q. Reference: “2020 Capital Budget Application,” Newfoundland Power, July 5, 2019,**  
 2 **Report 2.1 “2020 Substation Refurbishment and Modernization,” sec. 2, at p. 2.**  
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4 **For 2020, Substation Refurbishment and Modernization Projects include planned**  
 5 **refurbishment and modernization of 3 substations. This substation work is**  
 6 **estimated to cost a total of \$10,856,000, comprising approximately 96% of the total**  
 7 **2020 project cost. The remaining project cost includes \$180,000 associated with**  
 8 **Substation Monitoring Upgrades to upgrade substation communication systems.**  
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10 **Please provide a breakdown of the estimated cost of refurbishment for the**  
 11 **Marystown, Bonavista, and Grand Bay Substations in the following categories:**  
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- 13 **a) Replacement of existing infrastructure (i.e., like for like);**  
 14 **b) Equipment upgrades (e.g., circuit breakers versus high-speed ground switches); and**  
 15 **c) Installation of new infrastructure (e.g., control buildings).**  
 16

17 **A.** This question implies that the 3 cost categories (replacement of existing infrastructure,  
 18 equipment upgrades and installation of new infrastructure) are mutually exclusive. This  
 19 is not correct.  
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21 First, as standards and technology evolve over time, the replacement of existing  
 22 infrastructure typically involves some level of equipment upgrade. For example, all  
 23 equipment in the Marystown, Bonavista and Grand Bay substations are currently  
 24 protected using obsolete electromechanical relays. These relays will necessarily be  
 25 replaced by digital relays, which provide additional functionality. This cost could  
 26 therefore be considered both the replacement of existing infrastructure and an equipment  
 27 upgrade.  
 28

29 Second, *Substation Refurbishment and Modernization* projects include common costs  
 30 such as engineering, project management and the deployment of portable substations.  
 31 These costs are required for execution of the project, but are not related to any particular  
 32 asset for allocation as categorized in this Request for Information.  
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34 For these reasons, providing the cost of refurbishment and modernization for the  
 35 Marystown, Bonavista, and Grand Bay substations using the categories identified is not  
 36 feasible. However, the only planned installation of new infrastructure at these locations  
 37 relates to the construction of new control buildings in Marystown and Bonavista  
 38 substations. The estimated cost of a new control building is \$180,000.<sup>1</sup> All remaining  
 39 expenditures relate to the refurbishment and modernization of existing equipment and  
 40 infrastructure.

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<sup>1</sup> The estimated cost of a new control building includes foundations, AC distribution, DC distribution, battery bank, battery charger, cable tray, heat and light.