

1 **Q. Reference: “2020 Capital Budget Application,” Newfoundland Power, July 5, 2019,**
2 **Report 2.1 “2020 Substation Refurbishment and Modernization,” sec. 3.3, at p. 12.**
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4 **The existing 35-year-old control building at GBS Substation has insufficient space**
5 **to accommodate the new protection and communication panels required to**
6 **complete the protection upgrades. A new control building will be constructed to**
7 **permit installation of the new protection and communications panels, with**
8 **minimum disruption to the existing protections scheme and minimal impact to the**
9 **integrity of the electrical system during construction.**

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11 **Please provide the alternatives that were considered to address this issue and the**
12 **costs associated with each alternative.**
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14 **A.** Typically, there are 2 reasonable alternatives to address insufficient space in an existing
15 building: (i) refurbish and expand the existing building; or (ii) construct a new building of
16 adequate size to replace the existing building.
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18 The existing 35-year-old control building at Grand Bay Substation is a prefabricated
19 structure. Structural complexities associated with expanding the prefabricated building
20 make it a non-viable alternative.
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22 Constructing a new building is therefore the only viable alternative for Grand Bay
23 Substation. The new building will be constructed at a separate location within the
24 substation yard than the existing building. This will allow the existing building and
25 associated protection and control equipment to remain in service while construction is
26 ongoing, which will reduce the risk of customer outages.¹

¹ The alternatives to maintaining the existing building in service during construction would involve either installing temporary protection and control equipment or temporarily reconfiguring the transmission and distribution systems to bypass the substation. These alternatives would increase the risk of customer outages.