

1 **Q. (Reference Application, Schedule B, Appendix C, page 1)**
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3 **It is stated "We would expect to see higher levels of these carbon gases for**
4 **this vintage equipment but the results are somewhat skewed because the load**
5 **has been well below capacity." Why has the load been well below capacity and**
6 **is it expected to remain low going forward?**
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8 A. It is typical for power transformers to operate below their rated capacity. The lower
9 load carried by MUN-T2 in recent years reflects the construction of Long Pond ("LPD")
10 Substation.
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12 LPD Substation was constructed in 2019 as a second supply point to provide redundancy
13 and operational flexibility to Memorial University.¹ The university can transfer a portion
14 of their customer-owned distribution system loads between Memorial ("MUN")
15 Substation and LPD Substation.
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17 Since the construction of LPD Substation, Memorial University has been normally
18 operating with approximately half the campus load on MUN Substation and the other
19 half of campus load on LPD Substation. This reduces the loading on MUN Substation
20 power transformers MUN-T1 and MUN-T2 by approximately half of what they were prior
21 to the completion of LPD Substation.
22

23 The additional capacity provided by LPD Substation provides a source of redundant
24 supply to the university campus and surrounding buildings, including the Health Sciences
25 Centre and the Janeway Children's Hospital. This redundancy only exists if MUN-T2,
26 which serves as the original supply point for the university, is in service.
27

28 MUN-T2 is expected to remain below its rated capacity over the next several years.
29 However, whether this expectation materializes will depend on a number of factors,
30 including any changes in load at Memorial University and how the university chooses to
31 share loads between LPD and MUN substations.²

¹ For more information, see the response to Request for Information NLH-NP-001.

² See the response to Request for Information CA-NP-008 for the load forecast for the power transformers at MUN and LPD substations.