

- 1 **Q.** (Reference 2022 Capital Expenditure Report, Appendix A, Transmission Line
 2 **Extension – 35L (2021 Project), page 2 of 8)** With respect to the 65% cost
 3 **overrun, it is stated “***The budget estimate for the Transmission Line Extension*
 4 **– 35L project was based on engineering cost estimates. Original cost estimates**
 5 **were based on building six kilometres of transmission line and construction**
 6 **using wood poles. Due to land and right-of-way issues, the new line extension**
 7 **was ultimately routed closer to Winsor Lake, a public water supply. This change**
 8 **in location resulted in a requirement to construct eight kilometres of**
 9 **transmission line using steel poles rather than treated wood poles, which**
 10 **increased the cost of materials and contract labour for the project.”**
 11 **a) What portion of the overage was due to material and labour costs?**
 12 **b) Please elaborate further on the land and right-of-way issues. Why were**
 13 **these issues not anticipated?**
 14 **c) Who provided the engineering cost estimate? Did the person who prepared**
 15 **the engineering cost estimate visit the project site, or rely only on a desk**
 16 **study?**
 17 **d) Please provide a detailed comparison of the budget estimate to actual costs**
 18 **incurred for this project.**
 19 **e) Did NP undertake any environmental or regulatory and/or field studies or**
 20 **likewise to mitigate unanticipated terrain/environmental issues?**
 21 **f) Was this alternative considered in the economic evaluation included in the**
 22 **Capital Budget Application? Would NP have proceeded with this alternative**
 23 **had it known the true cost of the alternative?**
 24 **g) What amount of money was included in the budget to cover contingencies?**
 25 **h) Does a 65% cost overrun show that NP needs to change its estimating**
 26 **technique? Does it show that NP can no longer rely on its methodology for**
 27 **developing engineering cost estimates?**

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 29 **A.** a) Approximately 90% of the overage was due to material and labour costs.
 30
 31 b) The original route planned for the *Transmission Line Extension – 35L* project
 32 travelled across a section of unoccupied land that was a former training area and
 33 tower site in the Parker’s Pond Road area of St. John’s owned by the Department of
 34 National Defence (“DND”). Preliminary discussions were held with DND at the local
 35 level in July 2019 regarding the use of a portion of this land for the project. Based
 36 on initial discussion, no issues acquiring the necessary easement were anticipated
 37 and the project moved forward on that basis.
 38

39 Following approval of the *Transmission Line Extension – 35L* project in Order No.
 40 P.U. 37 (2020), a formal process to acquire the easement for the extension of
 41 Transmission Line 35L commenced with DND. As the process moved forward,
 42 approvals were required from authorities within DND which were located outside of
 43 the Province of Newfoundland and Labrador. The DND response in June 2021 set
 44 forth a number of conditions which would have to be followed by Newfoundland

- 1 Power in order to obtain the easement.¹ These conditions were deemed
 2 unacceptable to Newfoundland Power resulting in the search for another route for
 3 this transmission line extension.
 4
- 5 The selected route involved travelling around the western side of the DND property,
 6 connecting to Parker's Pond Road and continuing to the new Airport Substation.
 7 This route required approximately an additional 2 km of transmission line to be
 8 constructed compared to the original route. This route runs close to the Windsor
 9 Lake water supply requiring a change in construction materials and work execution.
 10
- 11 c) The engineering cost estimate was developed by engineers and engineering
 12 technologists from Newfoundland Power's Transmission Engineering group in the
 13 St. John's Region. Site visits to the project location were conducted as a part of
 14 preparing the estimate.
 15
- 16 d) The original budget for the *Transmission Line Extension – 35L* project was
 17 \$1,343,000. The actual expenditure to complete the project was \$2,222,000. The
 18 project was over budget by \$879,000. Table 1 identifies the additional expenditures
 19 above the budget estimate that were incurred for this project.

Table 1 35L Transmission Line Extension Additional Expenditures Above Budget (\$000s)	
Item	Expenditure
Additional 2 km Contract Labour	228
Additional 2 km Material	130
Steel Poles Incremental Cost	315
Steel Poles Additional Labour	73
Easements and Environment Consultant	18
Other	115
TOTAL	879

- 20 e) No, Newfoundland Power does not prepare environmental, regulatory or field studies
 21 in advance of seeking project approval.² The Company completed an engineering
 22 assessment of field conditions which informed the budget estimate for the project.³

¹ These included the requirement for barbed wire fences to be constructed around each structure on the easement, as well as the acknowledgment that due to previous DND use of the area, potential unexploded ordnances could still be present at the site.

² Based on the cause of the cost overruns on this project it is not anticipated that the completion of such studies would have yielded additional information that could have mitigated these cost overruns.

³ An example of work completed as part of the engineering assessment included the selection of the right-of-way.

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- 2 f) Yes, the selected alternative to build new transmission lines in order to connect the
- 3 new Airport Substation to the existing electrical system was considered in the
- 4 economic evaluation included in the *2021 Capital Budget Application*.⁴ Many of the
- 5 factors which contributed to the increase in material and labour costs experienced in
- 6 2022 would have had similar effects to all of the alternatives reviewed in the
- 7 *St. John's North – Portugal Cove System Planning Study*.⁵ The route adjustment to
- 8 the selected alternative was the only feasible option to complete the necessary work.
- 9
- 10 g) Newfoundland Power included a \$228,000 cost contingency amount for this project.
- 11
- 12 h) See the response to Request for Information CA-NP-120.

⁴ The *Transmission Line Extension – 35L* project was justified as a part of the *St. John's North – Portugal Cove System Planning Study* submitted with Newfoundland Power's *2021 Capital Budget Application*. This study evaluated three options in order to determine the least-cost alternative available to address the increased electrical system growth experienced by the St. John's North – Portugal Cove Area.

⁵ The three alternatives included with the *St. John's North – Portugal Cove System Planning Study* included transformer purchases, transmission line construction and distribution system upgrades. Cost increases above prior years were experienced for each of these types of equipment.