

3.2 Transmission Line 94L Rebuild

- Q. Page 4. Newfoundland Power states that the primary reason for the cost increase is the depth of bogs requiring more access trails and bog mats.**
- a) Are there other reasons for the significant increase in costs? If so, please provide.**
- b) In determining the original budget for the project, did Newfoundland Power review the route looking for particular areas such as bog that could and most likely would put pressure on the budget? If not, why?**
- c) Please detail Newfoundland Power's approach to ensuring environmental requirements are adequately reflected in project cost estimates.**
- d) What would be the advantages and disadvantages of having environmental approvals of capital projects completed prior to submitting capital projects for approval by the Board? How is this managed in other Canadian jurisdictions?**

- a) Yes, besides the cost increases related to the depths of bogs requiring more access trails and bog mats, there are other reasons for the increase in costs on the Project.

Since the development of the original Project budget in 2021, baseline contract labour and materials costs have increased due to inflation. Table 1 below shows the per kilometer contract labour and material costs from a transmission line rebuild project in 2020 against the costs experienced on a different project in 2022.

Cost Category	2020 ¹	2022 ²	Percent Increase
Contract Labour	84,401	123,667	47%
Materials	61,971	105,543	70%

As demonstrated in Table 1, baseline contract labour and materials costs had increased by 47% and 70% between the time of budget development in 2021 and the start of the *Transmission Line 94L Rebuild* project at the beginning of 2023.

These inflationary increases indicate that contract labour and materials costs have increased independent of the specific challenges encountered on the *Transmission*

¹ These costs come from the *Transmission Line 363L Rebuild* project completed by Newfoundland Power in 2020.

² These costs come from the *Transmission Line 124L Rebuild* project completed by Newfoundland Power in 2022.

1 *Line 94L Rebuild* project, which partially contribute to the overall project cost
2 increases.
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4 Additionally, beyond the depth of the bogs encountered, the general soil conditions
5 found along the project route were relatively poor. This meant the native material
6 was often unable to provide sufficient support to the new pole installations, or be
7 used as adequate fill. This had an effect on the project budget as more timber crib
8 structures were required than originally anticipated, increasing the overall cost of the
9 Project.
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- 11 b) During the development of the *Transmission Line 94L Rebuild* project budget, the
12 proposed route was visited and discussions were held between the transmission
13 engineering department, project supervisors and T&D planners regarding the field
14 conditions within the proposed project footprint. Based on the information gathered
15 from these discussions, as well as costs experienced on recent transmission line
16 rebuild projects, the Company developed a budgetary estimate for the required
17 contract labour on the Project. While Newfoundland Power was aware of the
18 presence of bogs in the area, the particular depth of these bogs, and the otherwise
19 poor soil conditions along the route, were not known. As a result, Newfoundland
20 Power did not increase its contract labour estimates for the Project above what it
21 would typically expect to see in inflationary increases from previous transmission line
22 rebuild projects.
23

24 In order to have detailed information regarding these field conditions that could be
25 used as an input into the original project budget, a field level geotechnical program
26 would need to have been completed. Historically, Newfoundland Power has not
27 conducted field level geotechnical testing to aid in the development of budgetary
28 estimates for transmission line rebuild projects, as the estimation process had
29 generally yielded sufficient results without them.
30

- 31 c) Newfoundland Power's environmental requirements for transmission line rebuild
32 projects are typically outlined in the project Environmental Assessment ("EA")
33 release conditions. While not every condition that will be imposed on the project is
34 known at the time of budget development, Newfoundland Power uses the release
35 conditions from previous projects to anticipate the requirements that will be set
36 during future EA releases.
37

38 The scope of individual EA release conditions imposed on a project vary in nature,
39 but broadly can be sorted into three categories: (i) general health, safety and
40 environment requirements; (ii) standard permitting requirements; and (iii) project
41 specific requirements, as more fully described below.

1 (i) General health, safety and environment requirements typically include high level
2 conditions such as ensuring adherence to the occupational health and safety
3 regulations, ensuring waste associated with the project is disposed of properly, and
4 ensure guidelines around fuel and oil storage are followed. These conditions are
5 considered part of Newfoundland Power and their contractor's day to day business,
6 and the costs associated with adhering to them do not directly affect project costs.
7 As such, Newfoundland Power does not include any additional costs for these items
8 in their budget estimates.
9

10 (ii) Standard permitting requirements include EA release conditions that outline
11 provincial or federal permits which need to be acquired prior to completing the
12 project. These typically include items such as fording permits, protected road
13 permits, or municipal development permits. There are two types of costs associated
14 with these requirements: a) Permit application fees; and b) Costs related to adhering
15 to the conditions outlined in these permits. These conditions usually include the need
16 for environmental mitigations during construction, such as ensuring proper erosion
17 and sedimentation control are implemented when fording watercourses. The
18 mitigations needed to adhere to these permitting requirements are outlined in
19 Newfoundland Powers standard work procedures. The costs of following these
20 procedures are included in the unit rates contractors submit when bidding on these
21 Projects. As such, Newfoundland Power accounts for the costs associated with these
22 environmental requirements in its overall Project budget estimate.
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24 (iii) The last category is related to project specific requirements. These are specific
25 conditions to the project that are driven by its geographic location and the local
26 environment in which the project is to be executed. These conditions can often
27 include items such as the requirement for site specific surveys to determine the
28 presence of known species at risk in the area of the project. As such, Newfoundland
29 Power accounts for the costs associated with the potential project specific
30 requirements in its overall Project budget estimate.
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- 32 d) Newfoundland Power does not currently register its planned capital projects for EA
33 with the provincial government ahead of project approval from the Board.
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35 The advantage of moving to this model would be the elimination of potential
36 construction schedule delays related to a prolonged environment review of the
37 Project. However, as detailed in the response to Request for Information
38 PUB-NP-033, part d), Newfoundland Powers change in project execution
39 methodology for upcoming transmission line rebuild projects to include a planning
40 year will assist in eliminating any of these delays moving forward. As timelines
41 associated with EA division project reviews are set at 45 days, even prolonged
42 delays to this process as experienced on the *Transmission Line 94L Rebuild* project
43 would no longer affect the start of construction under this new project execution
44 methodology.
45

46 Additionally, having a project released from further environmental assessment prior
47 to submitting it to the Board for approval would not provide any additional cost
48 certainty to the project. As outlined in part c), above, the conditions imposed on past

1 projects through environmental assessments have not caused significant increases to
2 overall project cost.
3
4 When Newfoundland Power submits a project to the Board for approval, there are
5 typically a number of alternatives presented that can vary in nature, scope and
6 location. As such, an environmental assessment would be required for each
7 alternative to ensure the option that was ultimately approved by the Board was
8 already released from further environmental assessment and ready to move to the
9 construction phase of the project. This would increase the workload, and in turn the
10 costs related to developing environmental assessment registration documents.
11
12 Submitting multiple alternatives for a single project would also increase the burden
13 on the government's EA division, which may further delay release. It is also unclear
14 if the EA division would consider completing reviews of multiple alternatives for the
15 same registration.
16
17 Newfoundland Power is not currently aware of any jurisdictions in Canada where a
18 utility is required to obtain environmental assessment approval of a project prior to
19 approval of the project by their regulator.