

1 **Q. The response to PUB-NP-155 discusses transmission load flow planning and**
2 **operational planning, but it did not discuss the planning process for Substation**
3 **Refurbishment and Modernization projects and Transmission Rebuild projects.**
4 **Please describe the planning process for these capital programs and how**
5 **transmission planning engineers and asset management engineers are involved.**
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7 **A. *Transmission Rebuild***

8 In its 2006 Capital Budget Application, Newfoundland Power submitted a 10-year plan to
9 rebuild its transmission lines in the report titled *3.1 Transmission Line Rebuild Strategy*.¹
10 This report outlined the need to completely rebuild certain deteriorated sections of aging
11 transmission lines.
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13 The Company's transmission line rebuild strategy is updated annually to ensure it reflects
14 the latest reliability data, inspection information, and condition assessments.² Decisions
15 as to which transmission lines are included in the annual Transmission Line Rebuild
16 capital project are made by the senior engineers and engineering technologists in the
17 Company's Transmission group. Specific capital projects may require additional studies,
18 which are carried out by the Company's planning engineers.³
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20 ***Substation Refurbishment and Modernization***

21 In its 2007 Capital Budget Application, Newfoundland Power submitted its new 10-year
22 substation refurbishment and modernization plan in a report titled *2.1 Substation*
23 *Strategic Plan*. The report described a plan to address substation refurbishment and
24 modernization work in 80% of the Company's substations in an orderly way over a multi-
25 year planning horizon.⁴
26

27 Substation refurbishment and modernization is reviewed annually.⁵ When updating the
28 substation refurbishment and modernization plan, assessments are made based upon (i)
29 the condition of the infrastructure and equipment, (ii) the need to upgrade and modernize
30 protection and control systems, and (iii) other relevant work. For example, substation
31 refurbishment and modernization typically requires power transformers to be removed
32 from service. Therefore, in order to avoid customer outages, the timing of the work is
33 restricted based on the availability of a portable substation. Similarly, substation
34 refurbishment and modernization work may be coordinated with the addition of new

¹ The *Transmission Line Rebuild Strategy* is included as Attachment A to the response to Request for Information PUB-NP-061.

² Annual updates to the *Transmission Line Rebuild Strategy* are included as Attachments B through F to the response to Request for Information PUB-NP-061.

³ See the responses to Requests for Information PUB-NP-147 and PUB-NP-155 for additional information.

⁴ The *Substation Strategic Plan* is included as Attachment A to the response to Request for Information PUB-NP-065.

⁵ Annual updates to the *Substation Strategic Plan* are included as Attachments B through F to the response to Request for Information PUB-NP-065.

1 power transformers to take advantage of shared resources such as project management,
2 thereby reducing the overall project cost.

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4 Decisions as to which substations are included in the annual Substation Refurbishment
5 and Modernization capital project are made by the senior engineers and engineering
6 technologists in the Company's Substations group.