

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

A. *Transmission Rebuild*

In its 2006 Capital Budget Application, Newfoundland Power submitted a 10-year plan to rebuild its transmission lines in the report titled *3.1 Transmission Line Rebuild Strategy*.¹ This report outlined the need to completely rebuild certain deteriorated sections of aging transmission lines.

The Company's transmission line rebuild strategy is updated annually to ensure it reflects the latest reliability data, inspection information, and condition assessments.² Decisions as to which transmission lines are included in the annual Transmission Line Rebuild capital project are made by the senior engineers and engineering technologists in the Company's Transmission group. Specific capital projects may require additional studies, which are carried out by the Company's planning engineers.³

Substation Refurbishment and Modernization

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

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