

1 **Q. (Reference Application Schedule B, Substation Spare Transformer Inventory,**  
2 **page 88) How does Newfoundland Power determine the appropriate number,**  
3 **size and voltage level of transformers to be included in its spare transformer**  
4 **inventory?**

5  
6 A. Newfoundland Power determines the appropriate number, size and voltage level of  
7 transformers to be included in its spare transformer inventory through analysis of the  
8 in-service power transformers with respect to the available coverage provided by the  
9 Company's portable substations and current inventory of spare transformers.<sup>1</sup>

10  
11 Power transformers require long lead times for delivery as they have to be  
12 manufactured to meet the specifications of the power system they are connected to.  
13 Consideration of these long lead times and the probability of failure impact the  
14 determination of the appropriate number of spare power transformers.<sup>2</sup>

15  
16 The required spare transformer characteristics including winding configuration, size and  
17 primary/secondary voltage levels are determined by analyzing the Company's spare  
18 transformer inventory to evaluate coverage for failures within the Company's in-service  
19 transformer fleet.<sup>3</sup> The characteristics of the spare transformers should encompass the  
20 broadest range of in-service transformers possible to maximize the coverage provided.

21  
22 Newfoundland Power plans to maintain an adequate inventory of spare transformers  
23 through the procurement of conventional spares that will be placed into service upon  
24 the failure of an in-service unit. Newfoundland Power will assess the condition of its  
25 spare transformers and its inventory requirements annually to determine the need for  
26 any additional spare units. The Company will seek Board approval of any additional  
27 spare units through future capital budget applications.

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<sup>1</sup> See the *2023 Capital Budget Application*, report *2.2 Substation Spare Transformer Inventory*, Appendix B, which details the coverage available for each in-service power transformer.

<sup>2</sup> See the *2023 Capital Budget Application*, report *2.2 Substation Spare Transformer Inventory*, page 7.

<sup>3</sup> Refer to the *2023 Capital Budget Application*, report *2.2 Substation Spare Transformer Inventory*, *Section 3.4* for details on why a 66-25/12.5 kV, 15/20/25 MVA spare transformer was selected at this time to be included in Newfoundland Power's spare transformer inventory.