

1 **Q. Reference: “2021 Capital Budget Application,” Newfoundland Power, July 9, 2020,**  
2 **Volume 2, Feeder Additions for Load Growth at p.5.**

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4 **Citation:**

5 **Compared to extending an adjacent distribution line or constructing a new**  
6 **feeder, the least-cost alternative to address this overload condition is to: (i)**  
7 **construct approximately 700 metres of new 3-phase 4/0 AASC distribution**  
8 **line along Main Road; and (ii) upgrade 2.3 kilometres of existing single-**  
9 **phase distribution line to 3-phase along Main Road to the trestle across the**  
10 **Southwest River.**

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12 **Was a detailed cost benefit analysis completed to determine which of these**  
13 **alternatives were the least cost? If yes, please provide. If not, why not?**

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15 **A.** Newfoundland Power completed an assessment of all viable alternatives to address the  
16 issues on the 3.0 kilometre section of PBD-01 feeder. The assessment determined that  
17 upgrading the section of single phase distribution line to 3-phase at an estimated cost of  
18 \$600,000 was the least-cost alternative to resolve the overload conditions.

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20 In addition to the selected alternative, the 2 other alternatives that were assessed included:  
21 (i) the extension of LET-01 feeder to offload a portion of PBD-01 that is overloaded; and  
22 (ii) the construction of a new feeder from Port Blandford (“PBD”) Substation.

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24 The extension of LET-01 would be approximately 11.0 kilometres and would also require  
25 upgrading a single-phase section of LET-01 to 2-phase to support the load. The estimated  
26 cost of this alternative is more than triple the selected alternative and is therefore not  
27 economically viable.

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29 The construction of a new feeder from PBD substation would require the construction of  
30 approximately 2.5 kilometres of new distribution line from PBD Substation as well as the  
31 associated feeder protection and termination equipment at the substation. The estimated  
32 cost of this alternative is approximately \$750,000 and is not least-cost in comparison to  
33 the selected alternative.