

1 **Q. Re 2011 Capital Plan, P. A-2**

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3 **In NP's 2011-2015 Capital Plan for Generation a project for the 2011 Horse Chops**
4 **Generator Rewind is proposed. In last year's 2010-2014 Generation Capital Plan,**
5 **the Horse Chops Generator Rewind was not planned for any year during that**
6 **planning period--. Please explain why this project is being accelerated?**
7

8 A. At the time of preparation of the 2010 Capital Budget Application, Newfoundland Power
9 had not yet identified a need to rewind the stator and rotor at the Horse Chops Hydro
10 Plant. The need was identified later in 2009 following the failure to remedy low
11 insulating values in the plant's stator and rotor windings by alternative means.
12

13 In 2009, the Horse Chops Hydro Plant was scheduled to be out of service for four months
14 to complete upgrades to the protection and controls equipment. Polarization index tests
15 had indicated low insulating values in the plant's stator and rotor windings. The
16 scheduled outage presented an opportunity to attempt to improve insulating values in the
17 windings by using heat to remove absorbed moisture from the insulating materials.
18

19 If successful, this would have likely extended the life of the 55-year old windings beyond
20 the 2014 time horizon of the 2010 5-year Capital Plan.
21

22 During the final 4 weeks of the 2009 plant outage, the generator windings were covered
23 and heated. However, testing carried out before the plant was returned to service
24 revealed that insulating values in the windings remained below the recommended
25 standard.¹
26

27 There are no other alternatives available to improve the insulating values of the existing
28 windings. It is therefore necessary to rewind the stator and rotor at the Horse Chops
29 Hydro Plant in 2011 to eliminate the risk of in-service failure due to low insulation levels
30 in the existing windings.

¹ IEEE Standard 43-2000 (R2006), *Recommended Practice for Testing Insulation Resistance of Rotating Machinery*.