

1 **Q. In the report, *Thermal Generation Refurbishment*, June 2014, page 5, Newfoundland**
2 **Power Inc. (“Newfoundland Power”) states that:**

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4 *“Previous repairs were unsuccessful in eliminating the vibration*
5 *problem entirely.”*

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7 **What assurances are available to Newfoundland Power that the planned overhaul of**
8 **the unit will address the vibration issue?**

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10 **A.** The planned refurbishment of the Wesleyville power turbine will not address the high
11 vibration issue on the power turbine gearbox. This issue has been present since the unit
12 was relocated to Wesleyville in 2002. The power turbine vibration issue has not caused
13 the Wesleyville gas turbine system to be unreliable when operating at or below the de-
14 rated maximum load of 10 MW.

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16 Addressing the high vibration issue in the power turbine would involve replacing the bull
17 gear and potentially the entire gearbox. As the gearbox inspection completed in May
18 2014 did not show any additional wear to the bull gear or high speed pinion since it was
19 last inspected in 2004, it was decided not to address the vibration issue at this time.

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21 The planned refurbishment of the Wesleyville power turbine will address (i) the
22 replacement of the insulating blanket and (ii) weld repairs to the inlet duct shroud. With
23 the power turbine inlet removed to complete welding of the cracks in the inlet duct
24 shroud, other repairs may also be completed if necessary on the power turbine disc.