

1 Q. **Tab 14; Volume II: Diesel Genset Replacements Port Hope Simpson and**
2 **Charlottetown, Labrador**

3 Please provide a definition for refurbishment, rebuild and overhaul as related to
4 gensets.

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6 A. The following are definitions for the terms refurbishment, rebuild and overhaul as
7 related to gensets and as applied by Hydro.

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9 **Refurbishment:** Service to a genset engine to bring it back to a more reliable
10 operating condition. The scope of work can vary in how extensive it may be. It is
11 more than regular maintenance items or just a specific component replacement/
12 repair. The most extensive refurbishment would be the same as an overhaul.

13

14 **Rebuild:** Although not referenced in the report it would mean to dismantle the
15 genset engine for component repair, and many other component replacements
16 with new parts, before reassembly. The term would be synonymous with overhaul.

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18 **Overhaul:** Dismantle the genset engine and reassemble with many new parts to
19 return, as much as possible, to new like condition. Hydro schedules engine
20 overhauls after approximately 20,000 operating hours. Overhauls may also be
21 performed after an unexpected sudden engine failure that caused extensive
22 damage. The work generally involves the following:

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- Disassembly;

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- Replacement of planned parts for overhaul such as (note not complete list):

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- Main bearings

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- Cam Shaft Bearings

- 1 ○ Cylinder packs including liner, pistons, rings, connection rod etc.
- 2 ○ Front and Rear timing gear and timing bearing
- 3 ○ Injectors
- 4 ○ Fuel and coolant lines
- 5 ○ Oil hoses and cooler etc.;
- 6 ● Inspection of parts not changed to detect damaged, defective or worn parts;
- 7 ● Repair or replacement of damaged, defective or worn parts; and
- 8 ● Reassembly, testing and commissioning, then returning to service.