

1 **Q. Re: Application for Exemption to Regulation 17 — Wabush Airport, Schedule 3**

2 **Citation (p. 15 pdf):**

3 ... In addition, these boilers are now obsolete making repair parts difficult to  
4 locate or source . These boilers are an extreme risk to the on-going service of  
5 the Wabush Airport and need replacement as soon as possible. Even though not  
6 ideal, the ATB cannot risk another heating season in 2023 and would be forced  
7 to pivot and install new oil fired boilers if additional power cannot be approved.

8 Based on this, Transport Canada did not hire a third party consultant to conduct  
9 a report to show that these boilers need to be replaced. It is apparent without  
10 tests, studies or reports that this is a large risk that's needs to be mitigated as  
11 soon as possible. Transport Canada and PSPC have gone forward with Electric  
12 Boilers as the number one option, but this is not the reason for the project and  
13 they will need to be replaced prior to the 2023 heating season regardless of the  
14 method.

15 If you have any further questions or want to discuss with my team, please let  
16 me know and I can coordinate the meeting.

17 a. Did Hydro inquire whether or not Transport Canada has explored the option of replacing the  
18 boilers with heat pump technology, instead of resistance heating, in order to increase their  
19 efficiency and reduce the amount of electricity required?

20 i. If so, please describe these discussions and their outcome.

21 ii. If not, please explain why no such inquiries were made.

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24 A. a. Newfoundland and Labrador Hydro ("Hydro") did not inquire whether the customer  
25 considered the option of replacing the boilers with heat pump technology.

26 ii. Oil-fired hot water boiler systems, including the associated hot water distribution  
27 network and radiators, are designed to operate at high water temperatures. Converting  
28 from a standard hot water boiler system to a heat pump based system would likely  
29 require substantial modification of the entire hot water distribution network and end

1 terminals in order to work with lower water temperatures that are typical from heat  
2 pump technology; or require specialized heat pump equipment, if the conversion is even  
3 viable at all. The cost of specialized heat pump equipment, along with the potential for  
4 required modifications to hot water distribution systems and equipment, are very likely  
5 to make a heat pump option the highest capital cost option. Options with higher up-  
6 front costs can be justified in cases where a customer's operating savings will produce  
7 the lowest net positive value over the life of the project; however, commercial  
8 electricity rates in Labrador are significantly lower than other jurisdictions that may  
9 have pursued heat pump based solutions for boiler conversions. The poor economics for  
10 converting boiler plants to heat pump based technology can be observed by the lack of  
11 examples for such projects in Labrador, or even the Island Interconnected System where  
12 customer electricity rates are higher, and as such, would theoretically achieve higher  
13 cost savings than a commercial customer in Labrador.