Q. The submission of a private citizen dated April 27, 2014 states, *"Given that NL Hydro's 2008 CDM Potential Study did not explore demand opportunities, how then can NL Hydro's current application be evidence-based and how therefore can NL Hydro rationally conclude that a 100 MW combustion turbine is the best and least cost option?"* Please provide Hydro's reply to this question.

A. As will be explained below, least cost was not the only consideration in determining alternatives to meet future electricity supply requirements by Hydro.

Nalcor's Submission to the Board of Commissioners of Public Utilities with respect to the Reference from the Lieutenant-Governor in Council on the Muskrat Falls Project – November 10, 2011 (the "Submission") notes that in considering alternatives to meet future electricity supply requirements a broad range of alternatives were considered. In order to focus its resources, efforts, and capital on those alternatives that were viable with respect to meeting future electricity supply requirements, a two phase screening process commenced, with the initial Phase 1 screening process employing five key principles:

1. Security of Supply and Reliability;
2. Cost to Ratepayers;
3. Environmental Considerations;
4. Risk and Uncertainty; and
5. Financial Viability of Non-Regulated Elements.

Security of Supply and Reliability

Security of supply and reliability are the two most important criteria for evaluating a supply investment decision. Hydro is mandated to provide reliable least cost electrical supply to the people of the province. As part of its mandate, Hydro must maintain a long-term plan that demonstrates its ability to continue to supply the expected requirements. A realistic plan is particularly important for the island portion of the province as it is currently isolated from the rest of the North American electrical grid and cannot rely on support from neighbouring jurisdictions should there be problems because of the application of risky technologies.

Because of the importance of having a realistic plan, Hydro has developed an expansion plan that is a least cost optimization utilizing only proven technologies to ensure they can meet the required expectations from security of supply, reliability, and operational perspectives. There must be a high level of certainty that all elements of the plan can be permitted, constructed and integrated successfully with existing operations. Generation technologies that do not meet these rigorous requirements are excluded from further consideration.

As noted on page 26 of the Submission, in 2008, Hydro and Newfoundland Power jointly filed a Five-Year Energy Conservation Plan: 2008 – 2013 with the Board, which outlined proposed energy conservation initiatives to be implemented including technologies, programs, support elements and cost estimates that promote a long-term goal of establishing a conservation and efficiency culture.

Further, as noted on page 26 of the Submission, to date (the end of 2010), the response to CDM programs and initiatives has been modest and lagging targets. Hydro has not explicitly incorporated these utility sponsored program savings targets into its planning load forecast due to the uncertainty of achieving

dependable firm outcomes. The annual efficiency gains measured in the load forecast models are forecast to continue to the end of the forecast period. Hydro will re-assess what are reasonable assumptions to include regarding sponsored CDM savings over the longer term with each load forecast cycle.

This experience of the response to the current CDM programs being modest and lagging targets led Hydro to the conclusion that there was not a high level of certainty that a CDM program focussing on demand reduction would meet its targets and provide Hydro with the means to meet its reliability criteria in the time required. As a CDM demand reduction program did not meet the Security of Supply and Reliability requirements, it was excluded from further consideration. It is Hydro's view that the assumptions concerning CDM are still valid.

Of the alternatives that made it to Phase 2 of the screening process, a combustion turbine was considered to be the least cost option for meeting Hydro’s capacity needs.