Q. A reduction in capacity of the Black Tickle diesel plant would likely have produced a cost savings and a delay in returning the plant to its normal service. Please provide Hydro's estimates of both the cost savings and the schedule penalty of such capacity reduction.

A. A reduction in capacity of the Black Tickle diesel plant would not have produced a cost savings, and would have delayed the return of the plant to its normal service by an estimated ten months.

With respect to cost, a reduction in capacity would have increased the cost of the project. As stated in Hydro's response to PR-PUB-NLH-085, the re-building of the Black Tickle plant to original installed capacity for the upcoming winter was the least cost option. The project as executed included the purchase of a re-manufactured replacement diesel engine and restoration of the existing generator for a combined direct cost of $52,145, compared to the alternative of purchasing a new, reduced capacity diesel engine and generator (genset) at an approximate cost of $105,000[1]. Furthermore, the lower capacity would have necessitated the replacement of auxiliary components including exhaust piping, silencer, radiator, aftercooler, and coolant piping, which were not required to be replaced in the project that was executed. Hydro did not prepare a detailed estimate for resizing the unit, as the least cost alternative was apparent.

With respect to schedule, the "schedule penalty" of a capacity reduction was estimated to be ten months. As stated in Hydro's response to PR-PUB-NLH-085, restoration in kind of the existing plant had a scheduled in-service date of

[1] Genset cost was based on tender results from a 2011 project to replace a 150 kW genset in Francois, NL.

November 2012, whereas a new purpose built plant, designed specifically for a reduced load would have had an in-service date of September 2013. Estimated activities and durations for the procurement of a new genset are provided in Table 1. Had this work commenced in May 2012, when Hydro was advised the fish plant would not be opening, the new equipment could have been manufactured by February or March 2013. However, shipping lanes to Black Tickle are closed in winter and delivery to site could be expected in July 2013, when seasonal ferry service typically resumes. Construction and commissioning of the purpose-built plant was estimated at eight weeks, with completion in September 2013. This is ten months later than the return to service date for the project actually executed.

Table 1 – Anticipated Durations to Obtain Resized Genset

Activity	Duration (weeks)
Load Review/Analysis	1
Engineering/Tender Preparation	2
Tender Period	3
Tender Review/Evaluation/Award	2
Delivery to Site	32
TOTAL	**40**