Q. On page 33 of the Report it is stated that after January 2013 a number of aftermarket options to meet the 2015 capacity requirement were identified. Describe the options identified including: the manufacturer; whether the units were used, used but overhauled, or unused; the capacity of each; the warranty to be provided; the anticipated in-service date; and the approximate costs associated with each option.

A. After the Unit 1 failure at Holyrood in January 2013, and in the third week of January, Hydro began to make enquiries on the availability of units, including aftermarket units, up to 60 MW capacity for immediate use in supporting generation needs during the high load period of 2013 and prior to March 30. At that time, high level enquiries were made to determine availability and estimated fastest in-service dates. Detailed proposals were not received however information was received through various telephone discussions and e-mail transmissions. After considering this information, Hydro concluded that additional generation could not be delivered and installed in the short time frame available to have a significant effect on supporting the system load that would be experienced prior to March 30, 2013. Table 1 identifies the aftermarket vendors contacted and information they provided.

Table 1

Option	Condition	ISO Capacity (MW)	Warranty	Est. In-service Date	Indicative EPC Cost[1] ($1,000)
Pratt & Whitney Power Solutions	Used (Overhauled)	53	Not quoted.	Approx. 12 months.	Not quoted.
Thomassen Amcott International	Unused	85	Not quoted.	Not quoted. (offering supply only)	Not quoted.

In January 2014 Hydro requested all known suppliers of new and aftermarket combustion turbines to submit a high level budgetary proposal to supply and install a 100 MW (nominal) combustion turbine by the end of 2014. Detailed proposals were not received however information was received through various telephone discussions and e-mail transmissions. Table 2 identifies the aftermarket vendors contacted and information they provided.

[1] "Indicative EPC Cost" refers to indicative engineering, procurement and construction cost. It is a very high level budgetary estimate offered by vendors based on a short descriptive scope statement provided by Hydro followed up by telephone conversations and produced in a time frame of approximately two weeks. It is a best high-level estimate that a vendor could provide based on their experience, and using known existing equipment that is available, with out detailed specifications and investigation of the local construction environment. Considering the information available, it is an indication of what an EPC contract cost would be between Hydro and the supplier. It is not a total Hydro project cost which would include project management, site preparation, site specific additional construction requirements that may be required (i.e., equipment modifications, terminal station connections, fuel storage and distribution, winterized enclosure) contingency, and AFUDC.

Table 2

Option	Condition	ISO Capacity (MW)	Warranty	Est. In-service Date	Indicative EPC Cost ($1,000)
PW Power Systems, 2 FT4C-3F TwinPac Units	Used equipment. Approx 40 yrs of age.	2 @ 56 = 112	Warranty is 12 months after first fire, 18 months after delivery or 4,000 operating hours, whichever shall occur first	On site 2014/08/14 based upon 2014/03/15 contract award. No estimated in-service date quoted.	37,400 US
Wood Group, 2 X FT4 TwinPac	Used equipment. Approx. 40 yrs of age.	2 @ 56 = 112	The offered warranty on the gas turbine units is 12 months after first fire, 18 months after delivery or 4,000 operating hours, whichever shall occur first.	2014/11/14 based upon NTP on 2014/03/03.	39,000 US

Option	Condition	ISO Capacity (MW)	Warranty	Est. In-service Date	Indicative EPC Cost ($1,000)
Aux Energy, 2 X P&W FT4 TwinPac	Used equipment. Approx. 40 yrs of age.	2 @ 52 = 104	None quoted.	Aux Energy estimates the time to deliver and install 2ea (Two) Pratt & Whitney FT4 gas turbine generators and full balance of plant to be 90 days from the completion of Civil Works, Foundations and Drainage infrastructure.	27,954 US
ProEnergy, 2X LM6000 PC Sprint	Used equipment.	2 @ 50.5 = 101	None quoted.	2014/11/14	44,046 US
ProEnergy, 1 x Seimens SGT6-3000E	Unused equipment. Approx. 6 yrs. of age.	113	The Warranty period for the Contractor supplied equipment will be the lesser of a) one (1) year from the Commercial Operation Date (COD), or b) 18 months from delivery of major equipment.	8 months ARO	59,837 US
Wood Group, GE 7EA	Unused equipment. Approx. 5 yrs. of age.	99	None	December 2014	52,141 US

Option	Condition	ISO Capacity (MW)	Warranty	Est. In-service Date	Indicative EPC Cost ($1,000)
Wood Group, GE LM6000 PC Sprint	Unused equipment. Approx. 4 yrs. of age.	100	None	December 2014	72,393 US
Wood Group, GE LM6000 PC Sprint	Used equipment. Approx. 19 yrs. of age.	97	Yes, unspecified	December 2014	65,402 US
Thomassen Amcott International	Unused equipment. Approx. 6 yrs. of age	85	Not quoted.	Not quoted	Not quoted

The Indicative EPC cost is for the provision of a combustion turbine plant at the ISO capacity indicated. The plant configuration may consist of a single large combustion turbine or multiple smaller units as indicated. The Indicative EPC costs vary considerably depending on age and condition of the units that are available.

In March 2014 Hydro was advised by Thomassen Amcott International that they had withdrawn their offer. Another buyer had committed to purchasing the combustion turbine.