Q. **In Section 5.4: Holyrood Capacity Versus Energy Classification, the IIC's Consultants state that 100% classification to energy of Holyrood's fuel costs does not properly reflect the cost driver as sometimes the plant operates at inefficient levels to provide transmission support/capacity in contrast to when it operates at efficient levels to provide energy. Please provide or estimate how many MWh a year of Holyrood generation is used as an energy driven resource and how many MWh as a capacity driven resource.**

A. The issue cannot be broken down by MW.h. The issue is that more fuel is used to produce the same number of kW.h because of capacity or transmission related constraints. As noted below, the quantity of fuel that is only related to capacity or transmission related constraints is 42,500 barrels.

Although there is a valid distinction regarding a pure energy related use of fuel, and a use more akin to transmission support, the division of particular fuel units into the relevant categories is difficult to do. As an example, the response to IC-NLH-160 indicates that at certain high Holyrood loadings using modern fuel heat content, a fuel efficiency of up to 650-660 kW.h/bbl gross (approximately 617 kW.h/bbl net) has been routinely achieved. This however is based on recent loadings which are below the level forecast for 2015 – the previous years with loadings into this level are shown in the response to NP-NLH-196 (Rev. 1) reaching as high as 630 kW.h/bbl). This compares to 607 kW.h/bbl in the GRA. Even using the lower value of 617 kW.h/bbl as a reasonable estimate for an efficiently dispatched Holyrood, a difference arises of approximately 42,500 barrels on a load of 1593 GW.h as per the Test Year, or $2.8 million in added costs.

Messrs. Bowman and Najmidinov in the 2014 pre-filed testimony indicated that some allocation of fuel costs in this manner may be appropriate, to as high as $22 million (i.e., much higher than the above estimate) based on the assumption that a large portion of the fuel consumed in spring and fall was not contributing to overall annual energy supply, but only to meeting short-term peaks. However, two factors led to the decision to revise this recommendation:

1) The response to IC-NLH-175, which indicates that at current system loading, there is very little likelihood of avoidable spill on the system except at extremely high water flows (90th percentile and above). This means that although Holyrood is running inefficiently and consuming more fuel than required at a better loading, at least the kW.h produced ultimately go to benefit the supply of system load (and do not, for example, end up offset by spilled water).

2) The larger concern that begins to arise as the date for a Labrador infeed gets closer in time. This concern is related to the allocation of Holyrood capital costs to demand and energy as set out at Section 5.4 of the pre-filed testimony, more than annual fuel costs.

As a result, Messrs. Bowman and Najmidinov adjusted the recommendation to focus on the appropriate classification of Holyrood capital costs rather than fuel costs. However, there remains a valid argument regarding the approximately $2.8 million in added fuel that is only consumed due to inefficient system operation, and the role of this fuel as more of a transmission system support (a capacity related cost) rather than direct annual energy supply (an energy related cost).

The three alternative approaches are set out in Table 1 below:

Table 1: Holyrood Costs Classification 2015

2015 Holyrood Classification ($)

	2015 NLH Cost of Service		Per Bowman&Najmidinov		Per Bowman&Najmidinov plus fuel adjustment	
	Demand	**Energy**	**Demand**	**Energy**	**Demand**	**Energy**
Fuel - Energy		172,737,329		172,737,329		169,937,329
Fuel - Demand					2,800,000	
O&M	14,057,184	5,401,819	17,123,923	2,335,080	17,123,923	2,335,080
Depreciation	9,282,586	3,567,062	11,307,690	1,541,958	11,307,690	1,541,958
NBV	50,443,026	19,383,976	61,447,762	8,379,240	61,447,762	8,379,240
Fuel Inventory		58,916,050		58,916,050		58,916,050
Rate Base	50,443,026	78,300,026	61,447,762	67,295,290	61,447,762	67,295,290
	6.81%	6.81%	6.81%	6.81%	6.81%	6.81%
RORB	3,433,657	5,329,883	4,182,749	4,580,790	4,182,749	4,580,790
Revenue Requirement	26,773,427	187,036,093	32,614,362	181,195,158	35,414,362	178,395,158
per cent classification	12.5%	87.5%	15.3%	84.7%	16.6%	83.4%

As can be seen in Table 1, under all scenarios, the vast majority of Holyrood costs will be classified to energy, not demand. The sum total of costs classified to demand varies between only 12.5% and 16.6%. As Holyrood is headed to be classified 100% demand within a few years, more notable movement towards a capacity allocation at this time would be supportive of sending appropriate long-term rate signals and rate stability. Both the 15.3% and the 16.6% demand allocation assist in moving towards this objective.