1	Larry	v B. Brockman
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3	(Re: Pages 7-19 - marginal cost)	
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5		with respect to reflecting demand and energy cost relationships in marginal cost based price signals, please discuss relevant differences between Hydro and other
7		systems
8		systems.
9	A.	Hydro's system is a predominantly hydraulic system whose short-run marginal fuel cost
10		comes from one generating plant – Holyrood for virtually all hours of the year. This is
11		because there is a limited amount of annual energy that can be produced from hydraulic
12		generation. Water not used during the peaks is used during the off peaks and vice versa.
13		In other words, load following is mostly performed with the hydraulic system, not the
14		thermal units. A good way to signal the short-run marginal cost of Hydro's system is,
15		therefore, to use the cost of burning Holyrood fuel plus variable O&M for all hours of the
16		year.
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18		On a typical thermal system, reduction in load during peak times will result in greater fuel
19		cost savings than would be the case during off-peak times. This is due to the fact that less
20		efficient units will be in operation during peak times. The result is that short-run
$\frac{21}{22}$		short run marginal costs of a typical thermal system, time varying short run fuel costs are
22		more appropriate
23		nore appropriate.
25		To determine the long-run incremental costs of any system it is common to use computer
26		models to reflect both the operation of the system and the planning rules. These models
27		are designed to determine how changes in inputted load (peak demand or energy or both)
28		impact cost over time. The biggest difference between Hydro's system and a typical
29		thermal system in this regard would be the use of the firm energy criteria. Therefore, it is
30		important that any long run incremental or marginal cost study accurately model Hydro's
31		firm energy criteria.