

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
MIPUG/GAC (CHERNICK)-1**

Section:	Various	Page No.:	
Topic:	Marginal Costs		
Subtopic:			
Issue:			

PREAMBLE TO IR (IF ANY):

Throughout his evidence, Mr. Chernick makes reference to Hydro's use of marginal cost estimates, and the weaknesses of Hydro's calculations.

QUESTION:

- (a) Re: Page 8, please indicate Mr. Chernick's understanding of the frequency with which "Manitoba Hydro interrupts SEP supply".
- (b) Please confirm that SEP pricing is set weekly, and includes peak, shoulder and off-peak periods with individual pricing. How does this fit with Mr. Chernick's comment that SEP is priced "for relatively flat energy deliveries to industrial customers", i.e., even if the delivery in some cases is "flat" throughout a week, isn't it still reflective of time-differentiated costs if the pricing is designed into three distinct periods?
- (c) If the frequency of interruption is rare (per (a) above) and pricing is distinguished by time periods within each day and week (per (b) above), does this change Mr. Chernick's view regarding the suitability of SEP as a reasonable representation of Hydro's marginal generation cost at the present time?
- (d) Please confirm that one of Mr. Chernick's concerns with Hydro's estimate of marginal cost is that it fails to recognize the differences in load factor for each class, and in this manner may materially underestimate the marginal cost for classes which have a lower load factor, and which make more use of energy during energy-constrained periods, such as winter.
- (e) Manitoba Hydro makes frequent reference to needing transmission and distribution system investment due to regional capacity constraints (e.g., see Exhibit MH-16, slide 15 re: insufficient regional capacity due to "hotspots of growth"). Would Mr.

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Chernick agree that this capital investment driver is related to the marginal cost of added use? Is Mr. Chernick satisfied that Hydro has fully accounted for this type of load driver in classifying its capital spending to that which is caused by load growth versus other factors?

- (f) Mr. Chernick's Table 3 shows marginal costs by function. Are these intended to be costs for energy measured "at the meter" or "at generation"? If at the meter, why is there no difference between GS Small or Residential (which is served at a lower voltage) and GS Large <30kV (which is served at a higher voltage, with customer owned transformation)? Wouldn't customer classes that experience higher losses also drive higher marginal unit costs (at the meter) since each unit consumed must also pay for the incremental losses to serve that unit?
- (g) Re: part (f) above, If the values in Table 3 are at generation, why are they compared to retail rates in Table 4, which are prices at the meter?

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RESPONSE:

- (a) Mr. Chernick does not have data on frequency of SEP supply interruption.
- (b) SEP prices are unweighted averages within each period. In other words, they are calculated for a flat load shape within each period.
- (c) No. The SEP price is estimated for the very short term, not for the long term that is relevant to rate design.
- (d) Hydro's marginal cost estimates fail to recognize that classes have load factors below 100%
- (e) Mr. Chernick is not satisfied that Hydro has fully accounted for all load-related T&D investment in its marginal T&D analysis. See Chernick testimony at 14-24.
- (f) At the meter. Table 3 relies on Manitoba Hydro's estimates of loss factor by class provided in response to GAC/MH II-24b. Yes, the usage of customer classes that "experience higher losses" would have a higher marginal cost.
- (g) See response to (f)

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

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