

REQUESTOR NAME: Clean Energy Association of B.C. (CEABC)

INFORMATION REQUEST ROUND NO: #1

TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY (BC Hydro or BCH)

DATE: January 7, 2021

PROJECT NO: 1599045 Order G-245-19 and Order G-246-19

APPLICATION NAME: BCUC Review of Performance Based Regulation (“PBR”) for BC Hydro (“PBR Review”)

- 1.0 **Reference:** Exhibit A2-10 PEG Responses to CEABC IR 1 to BCUC Staff Consultant, and Exhibit B-8, BC Hydro Supplementary Evidence, Section 2 The Goals of BCUC Regulation.

In his response to CEABC IR 1.1 (Exhibit A2-10), Dr. Lowry gave the following as “*a good summary of goals*” [emphasis added]:

“BCUC regulation of BC Hydro should ensure that the Company provides an appropriate array of safe, reliable, and reasonably-priced services that are in line with the BC energy objectives, and to regulate in a manner that is effective, efficient and fair..”

In its answer A4 (Exhibit B-8), BC Hydro states that [emphasis added]:

“The BCUC should have three broad goals with respect to its regulation of BC Hydro’s revenue requirement: to set rates at efficient levels, to maintain adequate, safe and reliable service and to ensure financial integrity through the recovery of reasonable and prudently incurred costs and by providing an opportunity to earn a fair return on investment.”

Both summaries include effective, efficient, and fair regulation, service that is safe and reliable, and rates that are reasonably priced to recover BC Hydro’s costs. However, notably missing from the BC Hydro summary of regulatory goals is any mention of the BC energy objectives.

The Utilities Commission Act (UCA) repeatedly directs the BCUC to “*consider... British Columbia’s energy objectives*” in its regulation of public utilities and, furthermore, in section 60, it states that “*In setting a rate under this Act (a) the commission must consider all matters that it considers proper and relevant affecting the rate,...*”

- 1.1 Why does BC Hydro not include any mention of B.C.’s energy objectives in its summary of appropriate regulatory goals, even though the UCA repeatedly stipulates that B.C.’s energy objectives must be considered in the BCUC’s regulation of public utilities?
- 1.2 Is it BC Hydro’s view that B.C.’s energy objectives should NOT be included as a consideration when the BCUC reviews BC Hydro’s revenue requirements and sets BC Hydro’s requested rates?
- 1.3 What does BC Hydro mean by “*rates at efficient levels*”? In BC Hydro’s view, how is an efficient rate level defined? How does BC Hydro measure the efficiency of its rates?

- 2.0 **Reference:** Exhibit B-8, BC Hydro Supplementary Evidence, Section 4, Aspects of PBR that May Help or Interfere with the Goals of BCUC Regulation of BC Hydro, page 11, Answer to Q6, re Moving to a 3-year Test Period.

BC Hydro was asked if it supported Dr. Lowry’s suggestion of moving to a three-year test period, and its response was [emphasis added]:

"A6. Yes. Multiyear Rate Plans are intended to incent efficient performance by creating a multi-year disconnect between allowed revenue and actual costs so that a utility must perform within a pre-determined revenue envelope to achieve its allowed return. BC Hydro's current regulatory system already takes this approach by setting rates based on forecast costs for multiple 8 years. A three-year test period would create a greater disconnect between BC Hydro's allowed revenue and actual costs.

In his evidence, Dr. Weisman noted that the "textbook" Cost of Service regulation typically referenced in comparisons to PBR differs from what BC Hydro has currently, with the latter providing greater incentives. He confirms that under BC Hydro's existing forecast test period approach to Cost of Service regulation, adding a third year to the test period would increase the incentive for efficient performance..."

- 2.1 What is BC Hydro's definition of "efficient performance" as used in the last line of the above quote? How does BC Hydro measure the "efficiency" of its own performance, and what "efficiency" scores has it achieved over the past 5 years?
 - 2.2 If all significant variances between forecast and actual revenues and costs are absorbed in deferral accounts, how is there any "disconnect between allowed revenues and actual costs" that can incent the utility to perform in order to achieve its allowed return?
 - 2.3 If a utility's allowed return is invariant regardless of its cost or revenue performance, how is there any incentive for the utility to perform more efficiently in order to earn that allowed return?
 - 2.4 In BC Hydro's case, with all its significant variances absorbed in deferral accounts, and its allowed return prescribed and invariant, how does adding a 3rd year to the test period "increase the incentive for efficient performance"?
 - 2.5 If performing better than forecast, either by cutting costs or increasing sales, makes no difference to the bottom line (i.e. to the shareholder's Net Income), and if management's personal compensation also does not depend on that bottom line, then how is there any incentive for management to improve bottom-line performance?
 - 2.6 Please explain why not being subject to an earnings review for three years, rather than two years, would give BC Hydro's management some additional incentive for efficient performance?
- 3.0 **Reference: Exhibit B-8, BC Hydro Supplementary Evidence, Section 4, Aspects of PBR that May Help or Interfere with the Goals of BCUC Regulation of BC Hydro, page 15, Answer to Q10, re Low-Carbon Electrification, and Exhibit A2-5, BCUC Staff Consultant Report, and Exhibit A2-7, BCUC Staff Consultant Presentation.**

In his PBR Workshop presentation (Exhibit A2-7, "Review of BC Hydro's PBR Report", and subtitled "PBR in a High Distributed Energy Future"), under the heading of "Baby Steps", Dr. Lowry made the following suggestions (slide 74) [emphasis added]:

"Strengthened incentives for large load customers, bulk power sales, and low carbon electrification

e.g., Partial true up of electric vehicle sales volumes to actuals"

Which he further elaborated in his discussion (Transcript, vol. 2 page 255) as follows [emphasis added]:

"Also, lastly, in the area of baby steps, I would say that it seems kind of a no-brainer to in some way strengthen the incentives of low carbon electrification. That could be done in a lot of different ways. One idea would be to have a partial true-up of estimated electric vehicle sales volumes to actuals. In other words, since instead of having the full drop, full decoupling for every cotton-picking sale to electric vehicle customers in the residential and commercial sector, you would have a partial true-up of the estimated sales volumes."

BC Hydro was asked (Exhibit B-8, page 15) ***"Do you support Dr. Lowry's suggestion that low-carbon electrification should not be subject to full revenue decoupling?"*** It responded:

"A10. No. BC Hydro's Load Forecast Variance Deferral Account currently provides full revenue decoupling.

Partial decoupling of low-carbon electrification revenues would mean that customers would not receive all of the incremental revenue from BC Hydro's electrification activities. Rather, the Government of B.C. would retain some of the incremental revenue in the form of higher actual net income."

- 3.1 Our understanding of “full revenue decoupling” is that neither shortfalls nor excesses of revenues (vs. the forecast), will have any impact on the company’s Net Income. Hence these revenue variances will not go to the benefit (or cost) of the shareholder, but will, instead, produce additional benefits or costs to the ratepayers – although these additional benefits or costs will be deferred into subsequent years. Is that a correct characterization of the expression “full revenue decoupling” as BC Hydro views it?
- 3.2 Please describe how the Load Forecast Variance Deferral Account operates, and how it provides “full revenue decoupling”.
- 3.3 Does the use of this Deferral Account mean that, although rates are initially reduced by the amount of the forecast revenues (from sales to electric vehicles), any over or under-achievement of that forecast will be passed on to ratepayers in subsequent years?
- 3.4 Are the costs of providing these sales to electric vehicles also incorporated into the same Deferral Account? How is this done?
- 3.5 Therefore, does this mean that the ratepayers will eventually receive all the actual revenues from and all the actual costs of any electricity sales to electric vehicles?
- 3.6 How does BC Hydro interpret Dr. Lowry’s phrase *“a partial true-up of estimated electric vehicle sales volumes to actuals”*? Does BC Hydro interpret this to mean the elimination of the use of the Load Forecast Variance Deferral Account with respect to sales to electric vehicles? Would that, in turn, mean that any under or over-achievement of the forecast sales would then flow to BC Hydro’s Net Income in the year of the sales, and consequently alter the Government’s return for that year?
- 3.7 How does BC Hydro interpret Dr. Lowry’s use of the word “partial”? Is he implying less than the full elimination of the use of the Deferral Account? How does BC Hydro assume that such a partial true-up could be implemented?
- 3.8 Please describe how the “partial true-up” described by Dr. Lowry could strengthen the incentives for low-carbon electrification? Would it provide any additional incentive for BC Hydro to more aggressively pursue increased sales to electric vehicles (such as by offering incentive pricing schemes similar to those used to encourage energy efficiency and conservation)? Would it remove the risks associated with BC Hydro pursuing a more aggressive campaign to increase sales to electric vehicles?

- 3.9 To what extent is BC Hydro forecasting a profit or a loss from sales to electric vehicles? Is there a perceived risk associated with these incremental sales? If so, why, and what is the potential cost and timing of that risk?
 - 3.10 Could some variation of a “partial true-up,” such as alluded to by Dr. Lowry, be used to transfer the risk of any sales shortfalls or cost overruns to the Government, while retaining at least some portion of the upside of any cost savings or sales increases for the ratepayers? If so, how would this be implemented by BC Hydro?
 - 3.11 If the Government were to direct BC Hydro to aggressively price and pursue a specified level of electricity sales to electric vehicles, would BC Hydro then consider it appropriate to eliminate the use of the Deferral Account to defer any variances in those sales revenues or the costs of providing those sales, thus causing the risks and the rewards associated with that Government direction to then fall on the Government rather than the ratepayers?
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- 4.0 **Reference: Exhibit B-8, BC Hydro Supplementary Evidence, Appendix A, Dr. Weisman’s Supplementary Report, pages 12-16, discussion of Incentive Power.**

Dr. Weisman compares the merits of longer vs. shorter test periods, and of higher vs. lower rates of revenue retention, in terms of a measure he calls “incentive power”. It appears that the whole concept of incentive power is predicated on management being able to retain some portion of any cost savings or revenue enhancements they can produce. The greater the proportion of savings that can be retained by management, or the longer the duration of that retention, the higher will be the calculated score for incentive power.

This implies that the ability of management to retain efficiency gains for its own benefit is the source of any incentive for management to find and achieve cost savings and efficiency gains -- i.e. to encourage them to find and achieve efficiency gains, management must be able to retain some portion of the benefits from those gains.

 - 4.1 Is our understanding correct, that without any ability to retain the benefits of cost savings or efficiency gains there can be no incentive power, according to Dr. Weisman’s metric?
 - 4.2 If BC Hydro management has no ability to retain any of the benefits, from cost savings, efficiency gains, or sales increases, then would Dr. Weisman give BC Hydro a score of zero in terms of his incentive power metric?
 - 4.3 If BC Hydro has a zero score for incentive power, then why would a longer test period, such as 3 years or even 5 years, result in any higher score than a 2-year test period?