

Response to BCUC Exhibit A-13

Clean Energy Association of British Columbia

Re: British Columbia Hydro and Power Authority

**B.C. Utilities Commission Review of Performance Based
Regulation**

Project No. 1599045

March 19, 2021

B.C. Utilities Commission (“BCUC”) Review of Performance Based Regulation for British Columbia Hydro and Power Authority

Response by Clean Energy Association of B.C. (“CEABC”) to BCUC Exhibit A-13

I. CONTEXT

In Exhibit A-13:

“...the Panel requests parties to make submissions on each of the following hypothetical outcomes and how they might affect the timing of future BC Hydro rate applications, including the proposed 3-year Revenue Requirement Application it expects to file in August 2021:

- 1. Under a scenario where BC Hydro is directed to fully implement a Performance Based Regulation (PBR) mechanism.*
- 2. Under a scenario where BC Hydro is directed to implement some hybrid form of PBR.*
- 3. Under a scenario where BC Hydro is directed to implement any or all of its suggested improvements to its existing cost of service framework, as identified in its Supplementary Evidence (Exhibit B-8).”*

BC Hydro (“BCH”) has described what it believes are the essential components of Performance Based Regulation (“PBR”) as follows:¹

“In simple terms, PBR involves setting rates through a formula. This formula de-links costs and rates for a specified period of time. A typical approach to PBR in the electricity industry is a hybrid plan where some costs are subject to a PBR formula and other costs are set through cost of service regulation.

Under PBR, a cost of service review would be conducted first, to set BC Hydro’s base costs. In subsequent years, cost components subject to PBR would be determined by applying a formula to adjust the previous year’s costs for the effects of inflation and productivity improvements. This means that the amount of revenue recovered through rates in subsequent years would be independent from BC Hydro’s costs, rather than dependent on them.”

¹ Exhibit A2-1, Chapter 11, pages 11-3 to 11-4

II. CEABC RESPONSE.

1) Under a scenario where BC Hydro is directed to fully implement a Performance Based Regulation (PBR) mechanism.

At this point in the BCUC's review of PBR for BCH ("PBR Review") it is difficult to ascertain exactly what the BCUC would seek to include in a "fully implemented" PBR mechanism for BCH. While something approaching "fullness" might be possible in the longer term, CEABC believes this would be an impossible option to implement prior to the expected filing date for BCH's next Revenue Requirement Application ("RRA") in August 2021. Even for the longer term, it would require much more definition before any full-scale implementation could be initiated.

CEABC agrees with BCH that a fully formulaic approach to regulation would not only be extremely difficult to implement but also would not offer any advantage over the present approach.

BCH already uses a variety of quite complex formulas to project its future costs. For instance, its load forecasts may depend upon external predictions of CPI inflation, GDP growth, population growth, industry outlooks and expansion plans, etc. It is difficult to see how the BCUC could arrive at a superior assortment of forecasting formulas than those that BCH is already using, especially not given the short time available.

CEABC does believe that there could be value in the use of comparative industry benchmarking to reveal some opportunities for performance metrics and targets for BCH but that, too, would take more time than available before the next RRA.

CEABC also sees significant obstacles that would block the effectiveness of many PBR mechanisms for BCH, namely:

- the absence of a mandate to maximize profits, and
- the proliferation of Deferral and Regulatory Accounts which obscure the immediate and direct consequences of some management decisions.

Regardless of whether these obstacles would effectively preclude fully formulaic PBR being applied to BCH, there is not sufficient time to establish the appropriate formulas prior to the upcoming RRA.

2) Under a scenario where BC Hydro is directed to implement some hybrid form of PBR.

Given the obstacles to PBR cited above, CEABC believes that a hybrid approach will be the only feasible option for BCH regulation in the longer term. However, given the projected August RRA filing date, even the implementation of a hybrid form of PBR will have the same timing problems as the implementation of a full PBR.

The areas that would be subject to PBR under the hybrid form would first have to be selected and the metrics or formulas developed. In this regard, a benchmarking study could provide valuable insight.

These areas would also have to be free from the obscuring effect of Deferral and Regulatory Accounts. While the use of these deferral accounts can help to make rates more stable by protecting ratepayers from sudden changes caused by forces beyond management's control, they can also insulate management from seeing the full and immediate impact of its decisions on the matters that are deferred.²

There are also other obstacles that could disincentivize BC Hydro in certain specific areas. As an example, when questioned about its investing in electric vehicle charging stations, BC Hydro revealed³ that it does not intend to determine whether its investment is profitable or not, because it intends to spread the costs and revenues over at least three different Regulatory Accounts⁴ where they will never form a complete picture of profit or loss.

If EV adoption should outweigh the retention of internal combustion vehicles over the next decade, then charging stations could become a significant profit center – and government policies, worldwide, are certainly driving the transportation sector in that direction. However, it appears BC Hydro is not intending to set up an accounting structure that would facilitate the management of this business as a profit center.

3) Under a scenario where BC Hydro is directed to implement any or all of its suggested improvements to its existing cost of service framework, as identified in its Supplementary Evidence (Exhibit B-8).

CEABC recognizes that this third alternative is merely a specific case of option 2, i.e., a specific hybrid PBR approach, based on BCH's stated preferences.

For clarity, the enhancements favoured by BC Hydro are:⁵

1. A three-year test period.
2. Regularly scheduled statistical benchmarking.
3. Information only performance metrics.

The changes opposed by BC Hydro include:⁶

4. The use of an indexed or formulaic approach.
5. The use of performance metrics to apply financial rewards or penalties.

² A more complete discussion of these points can be found in section 3) item 6.) of this response

³ BC Hydro response to CEABC questions in F2022 RRA Transcript, V1, pages 236-237

⁴ Ibid

⁵ Exhibit B-8, page 1

⁶ Exhibit B-9, BCH responses to BCUC IRs 1.2.3, 1.3.1 and 1.6.3

6. Reducing full revenue decoupling to encourage low carbon electrification.

CEABC comments on each of these as follows:

1. A three-year test period.

The CEABC believes that a 3-year test period may prove useful and effective in the future but CEABC cannot support a 3-year test period for the upcoming RRA. For the upcoming RRA the timing is inappropriate for a three-year test period. In the current circumstances a 1 or 2 year application would be appropriate.

Although the environment that BCH operates in is always in flux, it is currently in an abnormally high state of flux. Among other things the Phase 2 of the Comprehensive Review of BCH has not yet been made public. It is difficult to determine whether there will be any lingering impacts of COVID on the demand for electricity. Site C remains uncertain. The global costs of BCH's compliance with Mandatory Reliability Standards may extend for a number of years. All of these factors would indicate a greater need for public review of BCH operations, at a minimum every two years.

Perhaps the most important problem with the present timing is that there is no current integrated resource plan ("IRP") in place, and one will not be available for review until December. The review of the RRA precedes the IRP when it should occur after it.

The long-term plan must provide the context for any short-term plans or budgets. There is little point to embarking on a 3-year Revenue Requirements test period until an IRP plan has been filed, reviewed, and approved. BCH needs an opportunity to integrate the longer-term goals and objectives into its 5-year projections, including its long-term plans to achieve the Government's electrification goals for GHG reductions.

2. Regularly scheduled statistical benchmarking

The CEABC supports regular statistical benchmarking provided the data for this purpose is readily available, accurate and complete, the methodology for the benchmarking is transparent and the benchmarking is useful in relation to management of BCH's operations.

The difficulty with implementing such benchmarking might be in finding the appropriate peers to compare performance to BCH's. If this obstacle can be overcome, then CEABC believes that such benchmarking studies might provide the insight needed to develop and implement some new performance metrics for BCH. At least this benchmarking should be done as a necessary first step towards identifying further PBR measures for future adoption.

3. Information only performance metrics

With similar conditions, the CEABC supports information-only performance metrics at this time. CEABC agrees that it would be advisable for any new performance metrics

to be initiated for information only. However, should they prove effective, these metrics might be enhanced in the future to incorporate rewards or penalties.

4. The use of an indexed or formulaic approach.

For the reasons outlined earlier, CEABC does not believe that any total-company formulas or indexes would prove superior to the formulas that BCH is already employing throughout its business forecasting.

5. The use of performance metrics to apply financial rewards or penalties.

At present, CEABC does not see how financial rewards or penalties could be imposed on BCH's management or made effective in motivating management's decisions. However, if superior objective performance metrics can be developed, then it is possible that financial rewards or penalties could be incorporated in the future.

6. Reducing full revenue decoupling to encourage low carbon electrification.

Although the BCUC's consultant suggested this to motivate low carbon electrification,⁷ BCH was skeptical that it could provide any additional impetus. CEABC, however, believes that there could be a way to boost the programs or measures it undertakes to reduce greenhouse gas emissions through electrification.

CEABC suggests that some electrification measures should be undertaken without the use of a corresponding Regulatory Account, or the necessity of a specific directive from Government. This could serve as an introductory step to test whether incentives could operate for BC Hydro.

BCH is skeptical, stating that the lack of a Regulatory Account could deny ratepayers of some of the potential benefits they could receive from the introduction of measures.⁸ This should be of minimal concern, provided that the electrification objectives are set at an ambitious level.

Without a Regulatory Account, the forecast outcomes (rather than the actual outcomes), will go to the benefit or cost of the ratepayers, regardless of whether BCH achieves them or not. The risk of any variance will fall to the shareholder. In the case of electrification intended to serve Government GHG reduction policy objectives, this is entirely appropriate.

BCH's skepticism is probably based on an assumption of a roughly equal probability of underachieving or exceeding a given forecast. If the forecast is a profitable one for ratepayers, then exceeding it would bring them more profit, but only if that extra profit were deferred into a Regulatory Account for passing on to ratepayers in a later period. Without the Regulatory Account, the ratepayers receive the forecast profit, regardless of the actual achievement.

⁷ Transcript Vol.2, page 255

⁸ Exhibit B-9, response to BCUC IR 1.6.3, and Exhibit B-10, response to CEABC IR 1.3.6

Provided that the objectives are set at the very ambitious level required to meet the Government's electrification objectives then the probability of exceeding those objectives will be very much less than the probability of falling short. In this case, the absence of a Regulatory Account to obscure the outcome would mean that the ratepayers would receive all the benefits inherent in the objectives, whether BCH actually achieves those objectives or not.

Without a Regulatory Account, the shareholder would accept the risk of BCH's underachieving the objectives, but this should be considered entirely appropriate since the objectives are specifically intended to serve Government policies for GHG reductions, as articulated in its CleanBC Plan, and as legislated in the BC Climate Accountability Act.⁹

It is true that the Government would also receive any benefit from BCH exceeding the electrification objectives, but because those objectives will be set at a very ambitious level, any exceedance should be relatively minor compared to the benefits conferred on the ratepayers by the very existence of a forecast that achieves the objectives.

The bonus value in this approach is that the responsibility to incent management to achieve the objectives would fall squarely on the shareholder. This is exactly where it belongs in the case of achieving Government policy objectives, and which is exactly where the power really resides to motivate management when no profit motivation exists.

A different kind of forecast

The reason why this kind of approach could provide an effective incentive in the case of forecasting electrification load, is because this is a totally different type of forecast than BCH is used to making.

BCH is very much accustomed to making forecasts that are based on a lot of exogenous variables – variables to do with the general economy, or inflation or population growth, or factors affecting one industry or another – generally things that are not under BCH's control.

However, in the case of GHG-reducing electrification, the forecast is fundamentally different from the usual situation. In this case, the outcome is not entirely outside of BCH's control. In fact, there are a great many things that BC Hydro can do to bring about the desired outcome – these may require some very aggressive actions and may cost some major investment of time and money, but they can be achieved if there is a strong motivation to do so.

Achieving the Government's GHG-reduction electrification target levels is not a forecast of the same type that BCH is used to dealing with. Rather, it is a legislated goal that must be reached. It cannot be regarded as one of a number of scenarios that might or

⁹ Target levels stated in Part 2 of the [BC Climate Accountability Act](#)

might not come true, depending on a lot of exogenous variables. It must be treated as a mandatory requirement that BCH will be responsible for seeing through to fruition.

As pointed out in the Navius Report,¹⁰ only one of those scenarios will meet the Government's GHG reduction target level. The rest will fall far short and be essentially irrelevant for planning purposes. Therefore, the scenario that meets the objectives must be accepted as the reference case, and BCH must develop a plan to achieve it. The plan must be focused on achieving the legislated objective.

The forecast for electrification is not the usual projection of using historical figures to derive a forward curve. That would be best described as a prognosis, when what is really needed is a plan -- a plan that will achieve the desired objectives. The objectives have to be set and a plan developed to achieve them.

The situation with regard to achieving electrification is very analogous to the situation with regard to how BCH handles its Demand Side Management (DSM) initiatives. In the case of DSM, BCH has been given certain objectives to achieve, it looks at the obstacles to achieving those objectives and it maps out a strategy for overcoming those obstacles. It must do the same in the case of GHG-reducing electrification.

All of which is respectfully submitted.

March 19, 2021

Clean Energy Association of B.C.

¹⁰ See Exhibit B-8 in the BC Hydro Long-Term Resource Plan Filing Date proceeding, Table 1, pp. 4-6