

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

INFORMATION REQUEST ROUND NO: #1

TO: BRITISH COLUMBIA UTILITIES COMMISSION STAFF CONSULTANT

DATE: October 28, 2020

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: Regulatory Goals and the advantages of PBR in achieving them.

In its September 30, 2020 submission the intervener B.C. Sustainable Energy Association (“BCSEA”) has given a concise summation of the BCUC’s regulatory goals, as follows (Exhibit C1-6, page 1):

“... the goals of BCUC regulation of BC Hydro should be to ensure that BC Hydro provides safe, reliable, reasonably-priced service in line with the BC energy objectives, and to regulate in a manner that is effective, efficient and fair.”

- 1.1 In the Staff Consultant’s experience, does this concise description portray a reasonable (albeit highly condensed) characterization of the regulatory goals for a typical utility such as BC Hydro? Are there any aspects that would typically be added, deleted or stated differently, in the Consultant’s experience, for a Crown utility such as BC Hydro?
- 1.2 In view of these goals, what are the shortcomings of the current regulation of BC Hydro, which could be improved by the use of certain specific PBR measures? Which of those regulatory goals could be better met by using specific PBR methodologies?
- 1.3 To what extent should these specific PBR measures be able to eliminate or reduce the shortcomings? And why should these measures be expected to accomplish this improvement?
- 1.4 What other costs or problems could be expected to arise due to the application of those specific PBR measures? And what could be done to mitigate those other problems?
- 1.5 Presumably, one of the benefits expected from multiple year rate plans (“MRP”) would be less time spent in regulatory processes and a lesser burden on the utility associated with providing information to the Commission and interveners. However, in a hybrid system, one that retains Cost of Service (“COS”) elements as well as PBR incentive measures, wouldn’t the longer interval between proceedings still result in a large informational burden, just less frequently?
- 1.6 With longer intervals between proceedings, won’t there be a need for additional time and effort for the regulator and interveners to re-acquaint themselves with the operation of the utility during the interval in order to fully understand the next MRP?
- 1.7 Under a PBR system do separate applications for certificates of public convenience and necessity continue (“CPCNs”)? If not please explain? If yes, what is the relationship between any approvals of CPCNs during the term of an already approved MRP and the next MRP?

2.0 **Reference: Exhibit A2-6, BCUC’s Staff Presentation. The deficiencies of regulatory incentives.**

BCUC’s Staff Presentation (Exhibit A2-6, slide 5) characterized the deficiencies in regulatory incentives as leading to three undesirable outcomes [emphasis added]:

- *Good things that are not profitable for the utility*
- *Bad things that are profitable to the utility*
- *Good things not getting done for lack of interest or motivation*

- 2.1 In the case of a Crown utility like BC Hydro, that does not appear to be “profit” driven, what other performance measure than “profitable” would you substitute in the above list?
- 2.2 In the case of BC Hydro, what aspects of its performance do you see as falling into each of these three categories of undesirable outcomes? I.e. In your view, what “good things” are being missed and what “bad things” are being done?
- 2.3 In BC Hydro’s case, what incentives could be utilized, apart from the profit incentive, to avoid these undesirable outcomes?

3.0 **Reference: Benchmarking: Exhibit A2-5, Staff Consultant Report, and Exhibit A2-7, Workshop Presentation “Review of BC Hydro’s PBR Report”.**

BC Hydro currently benchmarks its rates against the Quebec Hydro survey of North American rates, and the Staff Consultant has acknowledged that BC Hydro’s Service Plan currently uses at least 12 performance metrics (Exhibit A2-7, slide 64). These include:

- SAIDI,
- SAIFI,
- Key Generation Forced Outage Factors,
- Customer Satisfaction Indexes,
- Progressive Aboriginal Relations Designations,
- Competitive Rates in the 1st Quartile (based on the Quebec Hydro survey),
- Project Budget to Actual Cost Ratios,
- Overall Clean Energy % targeting 93%,
- New Clean Supply at 100%,
- Incremental Energy Conservation Energy targeting 700 GWh/year,
- Zero Fatality and Serious Injury counts at zero,
- Lost Time Injury Frequency targeting 0.80,
- Timely Completion of Corrective Actions % targeting 95%.

- 3.1 What aspects of successful performance are these benchmarks missing?
- 3.2 In what ways are the current benchmark metrics deficient? In your experience, are there other, perhaps better, benchmarks that should be used? Would you recommend adding some different benchmarks or using the same ones in different ways?
- 3.3 You stated that a benchmarking study can usually be done in 2 to 3 months (Exhibit A2-7, slide 11). Are you recommending that the BCUC should have BC Hydro commission a benchmarking study?
- 3.4 Would such a benchmarking study be a reasonable first step in assessing whether BC Hydro could benefit from PBR?

4.0 **Reference: What incentives, other than profit, can effectively motivate BC Hydro?**

For many years, CEABC has been recommending that an effective way for BC Hydro to mitigate its steadily rising rates, and also achieve the Government of B.C.'s objectives for reducing GHG emissions in the province, would be to aggressively pursue new energy loads, in particular pursuing electrification that reduces fossil fuel consumption.

CEABC has also frequently recommended that BC Hydro should focus more of its capital investment plans on assets that would result in increased domestic loads, rather than focusing largely on assets to reduce safety and reliability risks.

Yet BC Hydro's annual domestic energy sales remain no greater today than in 2006. While its capital-based revenue requirement has increased by 85%, its staffing by 75%, and its operating costs by 138%, continually driving up its required domestic rates. And its capital spending program remains 95% allocated to risk reduction projects rather than sales increasing projects.

In CEABC's view, there is clearly something missing from BC Hydro's motivations. But CEABC is not sure it is something that PBR measures could correct.

- 4.1 In your experience, is there some incentive missing from BC Hydro's motivations, or is there some negative incentive operating, that results in BC Hydro's lack of action towards increasing its domestic load and, in particular, pro-actively seeking ways to electrify more fossil fueled emission sources?
- 4.2 What PBR measures could be instituted, that could cause BC Hydro to become more pro-active towards seeking out new domestic loads, particularly loads which would reduce fossil fueled energy production?

5.0 **Reference: How can a corporation be incentivized without incentivizing the individuals who control and act for the corporation?**

Powerex, BC Hydro's unregulated import/export marketing arm, has a compensation plan that includes strong performance-based incentives. Powerex, therefore, is highly profit-motivated, and actively pursues increasing electricity sales.

The regulated side of BC Hydro, does not use management incentive plans to encourage domestic electricity sales, and domestic electricity sales have not increased for over 10 years.

During the F2020-F2021 Revenue Requirement hearing (Transcript Volume 7, pages 1072-1073) BC Hydro chief financial officer David Wong described the system of bonuses at Powerex as incentive compensation:

"If it relates to the front office staff or the sales staff, marketing and sales staff, then they would get that incentive compensation,..."

In its Revenue Requirement Decision, the BCUC described BC Hydro's bonus system as follows (F2020-F2021 RRA Decision, p. 63):

"The executive and director level positions within the management and professional affiliation are eligible to receive incentive pay, which is referred to as salary holdback and the maximum annual award is 10 percent or 20 percent of the employee's salary, depending on position. Awards are based on corporate and individual performance. Corporate performance is based on results achieved on BC Hydro's Service Plan performance measures and individual performance is based on the employee's individual performance objectives established at the start of the year and assessed by the employee's manager or for executive positions, the Board of Directors, at year-end. BC Hydro budgets to pay-out 75 percent of the maximum calculated holdback; this budgeted amount is included in the proposed 2.5 percent

salary increase for management and professionals. BC Hydro explains that only one percent of management and professional employees is eligible to receive holdback pay since it is limited to executive and director level positions and notes that in fiscal 2019, actual holdback payments totaled approximately \$1.4 million, and no employees received their full holdback amount. If all employees eligible for holdback pay received their full holdback amount in fiscal 2019, the total would have been approximately \$1.7 million.”

As a result of these differential incentive schemes, the heavily incented efforts of the unregulated subsidiary may actually encourage an increase in GHG emissions, by increasing the purchase of imported gas-fired electricity.

- 5.1 In your judgment, can a corporation be incented to pursue certain objectives (e.g. to sell more electricity in order to earn additional revenue and also meet government greenhouse gas reduction target) if the management of that corporation is not similarly incented to meet those same objectives?
- 5.2 In your experience, how often are management incentive bonus plans used by Crown corporations to achieve government objectives? Are these considered PBR measures?
- 5.3 Does PBR methodology extend to prescribing or altering the terms of the internal incentive programs for a subject utility’s management?
- 5.4 In your experience, to what extent do regulators prescribe the terms of a utility’s management incentive programs?

6.0 **Reference: Should the achievement of provincial GHG reduction objectives form a part of a Crown utility’s performance evaluation criteria? How would PBR deal with this?**

The BCUC is mandated by the B.C. Utilities Commission Act (“UCA”), which states that, when accepting a long-term resource plan or an expenditure schedule submitted by a public utility, the commission must consider not only: “(d) the interests of persons in British Columbia who receive or may receive service from the public utility.” but also: “(a) the applicable of British Columbia’s energy objectives,…”

Those energy objectives are laid out by the Government in section 2 of the Clean Energy Act (“CEA”) and they include: “(g) to reduce greenhouse gas emissions…” and “(h) to encourage the switching from one kind of energy source or use to another that decreases greenhouse gas emissions in British Columbia;” and “(i) to encourage communities to reduce greenhouse gas emissions and to use energy efficiently;…”

The Government has set a number of energy objectives which include greenhouse gas (“GHG”) reduction objectives, and it has mandated the BCUC to consider these objectives in its regulation of BC Hydro. Yet BC Hydro includes no such objectives in its own performance evaluation metrics. Instead, BC Hydro awaits specific orders from the Government, telling it specifically what actions it should take to reduce GHGs.

- 6.1 In your experience, how customary is it for a regulator to judge a utility’s performance using criteria that include government policy objectives, such as its GHG reduction performance relative to the potential for such reduction? And how do PBR measures accommodate such policy objectives? Please give examples from your experience.
- 6.2 What PBR measures are available to the Commission that would include such performance criteria?

7.0 **Reference: Is the California approach possible in British Columbia? Could PBR measures bring this about?**

As outlined in the article quoted below, the California Public Utilities Commission (“CPUC”) formally considers the state’s emissions goals in its regulation of utilities. It very clearly connects California’s emission goals with each utility’s resource planning and its forecast for electrification.

<https://www.utilitydive.com/news/cpuc-proposes-optimal-2030-system-portfolio-tripling-battery-storage-more/573075/>

“The California Public Utilities Commission (CPUC) is proposing to adopt a 46 million metric ton (MMT) greenhouse gas emission target for the electric sector in 2030, to keep load-serving entities on track to meet the state’s goal of supplying 100% of electricity from zero-carbon resources by 2045...

California conducts a two-year integrated resource planning cycle, with the first year focusing on a reference system portfolio — the optimal portfolio of electric resources that takes into consideration emissions goals, reliability and affordability. In the second year, the agency reviews individual load-serving entity IRPs. The electric sector greenhouse gas target is re-evaluated every cycle.”

On the other hand, in British Columbia, BC Hydro makes no connection between its load forecasts and the provincial GHG reduction goals.

- 7.1 Could the California approach be implemented for BC Hydro?
- 7.2 To what extent could PBR measures contribute to bringing this about? And what specific PBR measures would you recommend to accomplish this?
- 7.3 What other additional measures or actions would be required, on the part of the utility, the BCUC, or the Government?

8.0 **Reference: How would PBR deal with BC Hydro’s challenging circumstances?**

BC Hydro’s situation is extremely dynamic and is fraught with a number of challenging circumstances, including:

- The vast majority of its generation assets are located at great distances from its load centres, which requires numerous long transmission lines, great expense and delay if any new generation is added which might require additional transmission (such as site C).
- BC Hydro’s capital asset base has been growing at a phenomenal pace and is expected to continue to do so. A decade ago, its capital assets were less than \$10 billion, but by 2030 it will have spent \$50 billion mostly refurbishing those assets, with only a slight amount allotted to increasing sales (\$2 billion per year for 20 years, plus Site C).
- Its domestic energy deliveries have not increased since 2006, but its revenue requirement has increased by 89% between F2008 and F2019, primarily due to the rapid growth of its capital rate base, but also due to the more than doubling of its operating costs.
- Over the same period, it has built up its Deferral and Regulatory Accounts to over \$5 billion (the equivalent of a full year’s revenue requirement), in spite of the Government writing off \$1.1 billion to the taxpayers.
- Its largest capital project, Site C, is due to come online by 2025, at an as yet unknown cost, but certain to exceed \$11 billion.

- There is tremendous potential in British Columbia for the electrification of existing fossil fueled energy production but, as yet, BC Hydro has only recognized a small percentage of this potential in its long-term planning.
 - If LNG export facilities are built, as planned, they will add new fossil fueled energy production of over 10,000 GWh for the liquefaction plant plus approximately an equal amount for the upstream energy requirements. BC Hydro is not planning to electrify more than 20% of this new load.
- 8.1 In your experience, what other regulated utilities have coped with such a dynamic array of circumstances? And how have PBR measures been able to deal with these challenges? Giving examples from your experience wherever possible, please outline how specific PBR measures have been used to deal with each of the circumstances listed above.
 - 8.2 In particular, how have PBR incentives been able to operate effectively when the accumulation of significant deferral accounts effectively insulates management (and the shareholder) from the consequences of spending decisions?
 - 8.3 How would PBR measures operate to incent BC Hydro to take advantage of its electrification opportunities?

9.0 **Reference: How does PBR methodology deal with competing objectives?**

As a Crown utility, BC Hydro may have to balance between actions which could keep electricity rates low and actions which might raise rates but will implement government objectives. And these government objectives are often subject to significant and sudden change, as a result of political decisions.

- 9.1 How have PBR measures been able to deal with objectives that may conflict? For instance, one objective is to keep electricity rates from rising, while another objective may be to encourage conservation by giving customers incentives for DSM measures. Still another objective might be to achieve greenhouse gas reductions by giving a lower rate that encourages electric vehicle adoption. Since these objectives may inherently conflict, how do PBR measures find the balance between them?
- 9.2 In your experience, how have PBR measures been able to cope with a potentially changeable political environment? Please give examples.