

REQUESTOR NAME: **Clean Energy BC**  
INFORMATION REQUEST ROUND NO: **2**  
TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY  
DATE: **February 15, 2022**  
PROJECT NO: **1599243**  
APPLICATION NAME: **BC Hydro F2023-F2025 Revenue Requirements**

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**1.0 Reference: Exhibit B-10, Appendix B, Section 7.4.5.3**

BC Hydro states that there are \$190 million in financial benefits to ratepayers because of BC Hydro's planned approach of renewing contracts at market-based prices.

- 1.1 Please explain how this \$190 million figure is derived.
- 1.2 Please provide all studies, reports, or similar that underpin assumptions or cost estimates that form part of that derivation.

**2.0 Reference: Exhibit B-10, Appendix B, Section 7.4.5.3**

BC Hydro states that if the renewed energy supply contracts are "structured properly" – that is, they are based on "market prices that can adjust to market conditions" – these contracts will produce little risk to ratepayers.

- 2.1 Please provide a detailed description or example of what BC Hydro believes a "properly structured" price adjustment term and condition would look like in a renewed energy supply contract with an existing IPP.

**3.0 Reference: Exhibit B-10, Appendix B, Section 8.3**

BC Hydro states that "The Accelerated electrification scenario assumes a full realization of the load growth in the Electrification Plan and that the Province moves forward with the development and implementation of a plan to fully meet the Provincial greenhouse gas reduction targets in 2025, 2030, and 2040."

BC Hydro states, further, that the impact of this scenario will have almost immediate load impacts and, if this does occur, BC Hydro's plan is to "rely on market energy" to meet load requirements for up to 2,000 GWh/year for five years.

- 3.1 Is it correct to interpret BC Hydro's comment to conclude that BC Hydro is saying that the government does not have a plan, either developed or implemented, to meet its legislated greenhouse gas targets?
- 3.2 Please explain in detail how BC Hydro will know that circumstances have changed, that it is now facing the Accelerated electrification scenario, and, therefore, that it faces an almost immediate need for new resources?
- 3.3 Will BC Hydro inform the Commission when it has made this determination, and is not planning and acting under this alternative scenario? If not, why not?

- 3.4 Please explain exactly what plans BC Hydro has put in place to acquire this 7,100 GWh of energy and 400 MW of capacity, should the need for it arise almost immediately. Please include in this answer any reports, evaluations, assessments, or similar reviews where BC Hydro has considered how it would go about specifying the “processes” that it would initiate to acquire the new resources.
- 3.5 If BC Hydro has not put such plans in place, please explain why not?

**4.0 Reference: BC Hydro Response to BCUC IR 1.32.1 and Clean Energy BC IR 1.1.2; Exhibit B-10, Appendix B, Section 7.4.5.3**

BC Hydro’s response to BCUC IR 1.32.1 states that, in the context of IPP contract renewals, by “market-based pricing” the utility means Mid-C prices, with certain adjustments.

In the same answer, BC Hydro observes that its energy supply contracts will be filed with the Commission pursuant to section 71 of the *Utilities Commission Act*.

BC Hydro also states that “market-based pricing” should “adjust to market conditions”.

In BC Hydro’s answer to Clean Energy BC about the meaning of “market-based pricing”, BC Hydro states that this meaning includes consideration of the IPP’s “cost of service (including rate of return)”.

- 4.1 To what extent, if any, is this revenue requirement proceeding relevant to, or determinative of, subsequent perspectives or findings by the Commission in respect of BC Hydro’s anticipated filings under section 71 of the *Utilities Commission Act*? In responding to this question, please identify if BC Hydro’s advocacy in this proceeding for IPP contract renewals at “market-based pricing” is intended to have any direct relevance to, or bearing on, the Commission’s determinations in those subsequent filings.
- 4.2 Is BC Hydro seeking in this proceeding any order from the Commission related to the use of market-based pricing in its IPP contract renewals?
- 4.3 Please explain in detail how BC Hydro anticipates that a specific IPP’s internal cost structure will be reflected in pricing in a contract where that pricing is determined based on “market-based pricing” (for example, a variable Mid-C price). In this answer, please provide sample contract terms that shows how these two different determinants of pricing might be reflected within a renewed IPP contract.
- 4.4 Does BC Hydro believe that the Mid-C market price that BC Hydro intends to rely on for renewing an IPP contract is sufficient to fully compensate a *new* producer for all of its long-run costs, including returns. Please explain why or why not, based, in part, on how, in an economic sense, the Mid-C market price is determined (for example, does the Mid-C clearing price tend to reflect the short-run marginal cost of suppliers, or some other economic consideration).

- 4.5 Considering BC Hydro's self-sufficiency obligations, does it follow that if BC Hydro cannot reach a renewal agreement with an existing IPP, then for any given level of demand, it must replace that lost energy with a new, clean, domestic source of generation? If not, please explain why that is not true? If that is true, does it follow that the cost of new, clean, domestic generation defines BC Hydro's opportunity cost in IPP re-contracting? If not, why not.

**5.0 Reference: BC Hydro Response to Clean Energy BC IR 1.1.2 and 1.1.4**

In its response to CEBC IR 1.1.2, BC Hydro states that re-contracting pricing may take account of the IPP's cost of service (including rate of return).

In its response to CEBC IR 1.1.4, BC Hydro states that it cannot assess the impact of an IPP's closure on First Nations, because: (1) if the IPP owner is not a First Nation, BC Hydro will not know what the owner pays to local First Nation; and (2) if the IPP owner is a First Nation, the Utility cannot know the returns that First Nation earns.

- 5.1 Will BC Hydro not have to know about cost items such as First Nations' accommodation costs or returns to assess an IPP's cost of service (including rate of return)? If not, why not? If yes, please explain on what basis that information will become available to BC Hydro for re-contracting purposes, but was not available to BC Hydro as a basis for considering the economic impact on First Nations when the Utility determined the pricing principles that it intends to apply to that re-contracting.
- 5.2 Please describe the steps, if any, that BC Hydro took to seek from IPPs the confidential information it describes for the purpose of determining the impact of its pricing decisions on First Nations. For example, did BC Hydro approach IPPs or First Nations and ask for this information so it could be used for such an assessment?

**6.0 Reference: BC Hydro Response to Clean Energy BC IR 1.1.5**

In response to the referenced question, BC Hydro states, without the explanation or elaboration sought in the original question, that its approach to re-contracting does not conflict with the advancement of reconciliation. BC Hydro also appears to imply that concerning itself with the costs (which its answer to CEBC IR 1.1.4 concedes it does not know) to First Nations of unsuccessful re-contracting would put it off-side with Commission approval of its new IPP contracts.

- 6.1 How can BC Hydro know that its policy choice to price IPP contract renewals at "market-based prices" will not harm its reconciliation goals if it does not know the impact on First Nations of that decision?
- 6.2 If BC Hydro fails to reach a contract with an IPP because, for example, it insisted on market-based pricing, and this did have a negative social or economic impact on First Nations, and did harm reconciliation, is it correct that BC Hydro would not make a filing under section 71 of the *Utilities Commission Act*, and so the Commission would never get the opportunity to judge if that failure to re-contract is in the public interest?

**7.0 Reference: BC Hydro Response to Clean Energy BC IR 1.1.6**

The referenced question asks BC Hydro about its access to alternatives at market-based pricing if contract renewals with IPPs are not successful. BC Hydro's answer is that it expects the renewals will be successful. With respect, that is not responsive.

CEBC suggests that the validity of the question is clear: it is seeking to understand BC Hydro's opportunity cost of new supply, which must be relevant to the re-contracting pricing regime that BC Hydro is advancing.

7.1 Will BC Hydro please describe its access to long-run supply alternatives at market-based prices that are consistent with the utility's self-sufficiency obligations.

**8.0 Reference: BC Hydro Response to CEBC IR 1.2.1**

BC Hydro describes that "cost effective" in the Non-Integrated Area means that the IPP alternative offers a lower cost of service result than the diesel alternative. BC Hydro states that it is "guided" by other non-priced values, such as environmental, reconciliation, or socio-economic factors, but does not apply a "quantitative weighting" to them.

8.1 Please describe exactly how BC is guided by these factors qualitatively, and how that qualitative assessment is balanced with BC Hydro's cost quantitative effectiveness test. Please provide any written policies, guidelines, or similar that define this "guidance" process.

8.2 Please list those cases where BC Hydro has filed for acceptance by the Commission of a contract that did not satisfy BC Hydro's cost-effectiveness test, but which BC Hydro believed passed a public interest test based on the referenced section 71(2.21) factors and criteria and its own qualitative assessment.

**9.0 Reference: BC Hydro Response to CEBC IR 1.5.2**

In the referenced question, CEBC was seeking to understand if BC Hydro was intending to provide a degree of flow-through pricing in its IPP re-contracting, recognizing that certain defined costs were uncontrollable to IPPs in the same way that they are uncontrollable to BC Hydro. BC Hydro's response deals, instead, with the matter of how IPP costs are treated for revenue requirements purposes. CEBC apologizes for the ambiguity in its original question.

9.1 Can BC Hydro please explain if it has considered re-contracting with IPPs on the basis of flowing through such uncontrollable costs? If not, why not?

9.2 Based on BC Hydro's understanding of the economic forces setting the clearing price at the Mid-C market, does BC Hydro believe that IPPs re-contracting at these market-based prices have a feasible way to recover uncontrollable cost increases that they face. If so, please explain that mechanism. If not, does this raise reasonable concerns about the economic viability of IPPs with contracts at "market-based prices"? If not, why not?

**10.0 Reference: BC Hydro Response to CEBC IR 1.8.1 and 1.8.2**

BC Hydro states that it did not attempt to quantify the economic impact of its Electrification Plan, nor did it design the Electrification Plan with a target for economic growth contribution in mind.

- 10.1 Based on BC Hydro's response to this question, is it correct to conclude that BC Hydro did not consider alternative approaches to electrification, as compared with its chosen Electrification Plan, that may have delivered more economic benefits to the Province, but perhaps at a higher cost? If not, why not?
- 10.2 If BC Hydro had elected a higher cost approach to electrification based on that plan making a greater social or economic contribution to the provincial economy, does BC Hydro believe that the Commission would have the jurisdiction to approve that plan. Please detail why or why not.

**11.0 Reference: BC Hydro Response to Clean Energy BC IR 1.9.2**

BC Hydro states that it did not include the objective of enhancing First Nations' economic opportunity in developing its Electrification Plan because the "focus" of the plan is addressing barriers to customer electrification.

- 11.1 Who determined this "focus" for the Electrification Plan? That is, was the Plan's focus determined by BC Hydro, or imposed on BC Hydro by another party? If the latter, by whom?
- 11.2 Does BC Hydro agree that First Nations have identified – including, for example, in the record of the Commission's Inquiry into the Regulation of Indigenous Utilities – that economic opportunity in the clean energy industry is an important avenue for reconciliation?
- 11.3 BC Hydro states that it will identify economic opportunities related to future interconnections, through engagement with First Nations in the context of those engagements. Does BC Hydro agree that this approach of looking for opportunities arising from the Plan is likely to be qualitatively and quantitatively different in result from a Plan where creating First Nations opportunity was among the "guiding principles". If so, please provide an assessment of how the results may have been different. If not, please explain why there would be no expected difference.
- 11.4 Does BC Hydro believe that the Commission would have the jurisdiction to approve an Electrification Plan (or actions and costs arising from it, as the case may be), if that Plan contained higher costs because it productively aimed to advance Provincial reconciliation objectives?

**12.0 Reference: BC Hydro Response to Clean Energy BC IR 1.9.3**

The referenced question asks if BC Hydro considered the record and the recommendations of the Commission's Inquiry into the Regulation of Public Utilities, and if not, why not. BC Hydro's response states that it did not consider the recommendations (as opposed to the record) and describes the process the recommendations are now going through. Respectfully, this is not fully responsive.

- 12.1 Can BC Hydro please confirm that in addition to not considering the recommendations arising from the Utility, it did not consider the record of the Inquiry in formulating its Electrification Plan. If confirmed, please explain why BC Hydro did not believe that this may be a valuable record to consider, along with (for example) its own engagement process.
- 12.2 Is BC Hydro saying that it felt precluded from considering the recommendations of the Commission in this Inquiry, because of the Government's post-submittal process? If so, please explain why? If not, please elaborate on why it did not consider the recommendations as an instructive adjunct to its own engagement process.

**13.0 Reference: BC Hydro Response to Clean Energy BC IR 1.11.1 and IR 1.11.3**

The referenced questions asked if BC Hydro had a view about the level of carbon mitigation that must be achieved through Low Carbon Electrification if BC is to achieve its legislated GHG mitigation targets, and what options were considered in that respect. BC Hydro's responses state that it did not have such a view, had not "assessed a more aggressive Electrification Plan", and that the "possible combination" of actions in the Electrification Plan that would achieve the GHG targets is not the "base" scenario being advanced by BC Hydro.

- 13.1 Is BC Hydro saying that its Electrification Plan was (1) developed, and (2) should be evaluated and approved by the Commission, independently of any "public interest" consideration or review about whether the Utility is using its market position and assets to make the most reasonable and productive possible contribution to BC's legislated GHG targets? If so, why is that not among the correct frames of review? If that is not what BC Hydro is saying, please clarify?
- 13.2 If BC Hydro were to submit an Electrification Plan that was designed around making the most reasonable and productive possible contribution to achieving BC's legislated greenhouse gas targets, and this plan came at a higher cost than the "base" plan being advanced by BC Hydro, would the Commission have the jurisdiction to approve that plan? If not, why not?

**14.0 Reference: BC Hydro Response to BCUC IR 1.32.5**

BC Hydro states that the self-sufficiency requirement in the *Clean Energy Act* is "long-term planning objective" and does not limit BC Hydro's decisions in the operating timeframe.

Section 6 of the Clean Energy Act reads, in part (with emphasis added):

(2) The authority **must** achieve electricity self-sufficiency by holding, by the year 2016 and **each year after that**, the rights to an amount of electricity that meets the electricity supply obligations solely from electricity generating facilities within the Province,

(a) assuming no more in each year than the heritage energy capability, and

(b) relying on Burrard Thermal for no energy and no capacity, except as authorized by regulation.

(3) The authority **must remain capable** of meeting its electricity supply obligations from the electricity referred to in subsection (2), except to the extent the authority may be permitted, by regulation, to enter into contracts in the prescribed circumstances and on the prescribed terms and conditions.

- 14.1 Please reconcile BC Hydro's description of self-sufficiency as a "long-term planning objective" with the annual achievement obligation in the legislation.
- 14.2 Please reconcile BC Hydro's description of self-sufficiency as a "long-term planning objective" without application in the "operating timeframe" with the mandatory and ongoing ("must remain capable") language in the legislation.
- 14.3 Does BC Hydro agree that self-sufficiency is a legal and binding obligation on it, that must be satisfied each year and maintained, and not a "planning objective". If not, why not?
- 14.4 Does the Commission have the jurisdiction to require BC Hydro's compliance with the Utility's self-sufficiency obligations under the Clean Energy Act? If not, please explain why not. If so, please explain how it should apply that jurisdiction in respect of this application.

**15.0 Reference: BC Hydro Response to BCUC IR 1.122.4**

BC Hydro states that without the "Impacts of the Electrification Plan" and based on Load Resource Balance with existing and committed resources. BC Hydro's surplus is eliminated in F2028.

- 15.1 Under the same conditions but with the "impacts of the Electrification Plan", when is the surplus eliminated?

**16.0 Reference: BC Hydro Response to BCUC IR 1.122.4**

BC Hydro states that if the Electrification Plan is fully realized, even with unrealized "higher levels" of DSM and planned (but as yet unrealized) IPP contract renewals, the Utility will find itself with a "temporary reliance" on market energy.

- 16.1 If BC Hydro achieves only 50 per cent of its target in expanding its DSM programs and renewing its IPP contracts, in what year would the Load Resource Balance turn to deficit?
- 16.2 Under the scenario set out by BC Hydro where the Electrification Plan is fully realized, how long will BC Hydro's "temporary reliance" on market energy last?
- 16.3 Please explain how this approach is consistent with the annual and on-going domestic supply requirements of BC Hydro's self-sufficiency obligations.

- 16.4 Does BC Hydro consider market energy purchases to be a reliable source of supply for planning purposes? If so, please explain why in reference to BC Hydro's system planning criteria.
- 16.5 Please provide all studies, reports, or similar that BC Hydro has relied on in planning to meet energy shortfalls with market energy. In particular, please provide any reports, studies, or similar that BC Hydro relied on that show that the "market" will be a liquid, stable, and cost-effective source of supply relative to domestic supply alternatives. If BC Hydro's response relies on arguments related to the costs and risks of advancing domestic supply alternatives ahead of when they might otherwise be required, please explain and quantify these arguments and risks in detail.

**17.0 Reference: BC Hydro Response to BCUC IR 1.122.6**

BC Hydro states that it expects that pending legislation will require that "market energy imports delivered to BC Hydro's customers in compliance with the [pending] legislation would be required to be supplied from clean sources."

- 17.1 What is the current resource mix in the markets from which BC Hydro plans to rely on import electricity to address deficits in its Load Resource Balance if its Electricity Plan is fully realized and/or if the Accelerated electrification scenario becomes operative?
- 17.2 On a physical basis, when BC Hydro imports electricity from these markets, does it have any ability to ensure that this energy comes from the clean, and not the unclean, elements of the market's resource mix?
- 17.3 In light of BC Hydro's answers to questions 17.1 and 17.2, please explain how BC Hydro intends to rely on import markets to supply its customers, while at the same time complying with the legislation that it is expecting.