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November 8, 2019

Mr. Patrick Wruck
Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Wruck:

**RE: Project No. 1598990
British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Fiscal 2020 to Fiscal 2021 Revenue Requirements Application (the
Application)**

BC Hydro writes with regards to the information requests on the Cost of Energy Evidentiary Update (Exhibit B-11) and the 20-Year Load Forecast (Exhibit B-15), received from the BCUC and interveners, on Wednesday October 30, 2019.

BC Hydro respectfully requests a modification to the time allotted for filing responses to information requests. BC Hydro will make its best efforts to file as many responses as possible by the original deadline of Thursday November 14, but requests additional time to file remaining responses with regards to the 20-Year Load Forecast by Thursday November 21. This modification is necessary due to the significant number of information requests received, particularly with regards to the 20-Year Load Forecast.

BC Hydro also respectfully requests a direction from the BCUC that BC Hydro is not obligated to respond to the information requests identified in Attachment "A" to this letter. The purpose of the Application is to set rates for fiscal 2020 and fiscal 2021. In BC Hydro's view, the information requests listed in the attachment go well beyond what is required for the BCUC to make a decision on the Application and are best addressed through the upcoming 2021 Integrated Resource Plan (**IRP**) proceeding.

We believe that the requested order will promote the fair and efficient resolution of the Application.

Background

The Application included an October 2018 Load Forecast, covering fiscal 2019 to fiscal 2024. The calculation of the Test Period revenue requirements, as updated by the Evidentiary Update, uses actual financial results for April 2019 and May 2019 and the October 2018 Load Forecast for the remainder of fiscal 2020 and all of fiscal 2021.

BC Hydro filed a June 2019 Load Forecast in response to a commitment made at the March 15, 2019 Workshop and information requests received to date. The June 2019 Load Forecast covers more than the Test Period (it covers fiscal 2020 to fiscal 2039) because it was prepared as an interim step to inform BC Hydro's future capital planning cycle and the upcoming February 2020 Service Plan. When the June 2019 Load Forecast was filed, we noted that:

“Fiscal 2022 to fiscal 2039 are outside of the Test Period covered by the Application and are provided for information purposes only....In early 2020, BC Hydro will complete an updated comprehensive 20-year load forecast to inform the 2021 Integrated Resource Plan (IRP).”

We suggested that “Information Requests on the June 2019 Load Forecast be focused on the Test Period of the Application (fiscal 2020 and fiscal 2021). Questions regarding the years beyond the Test Period are more appropriately addressed in the 2021 IRP proceeding.”

BC Hydro's Requests Regarding Round 4 Information Requests

The regulatory timetable approved by the BCUC provided for two weeks to respond to information requests. In BC Hydro's view, this short timeline implicitly anticipated that the information requests would address matters that impact the Test Period revenue requirements, would be relatively limited in number given the focus of the new material and would relate to the new material (i.e., could not have been asked in prior rounds).

BC Hydro received a total of 327 information requests. Among these:

- Attachment A provides a list of 34 out of scope questions. All of these questions are related to the longer-term implications of the 20-Year Load Forecast and concern matters that are best explored and determined in the upcoming 2021 IRP proceeding; and
- BC Hydro has also identified approximately 40 questions that could have been asked in prior rounds.

Throughout this proceeding, BC Hydro has taken an open, transparent and pragmatic approach to answering information requests. We have answered approximately 3850 information requests to-date, as fully as reasonably possible. We have also answered many information requests that go beyond the scope of this proceeding and are willing

to answer the information requests received in this round that should have been asked previously.

A modification to the time allotted for filing responses to information requests on the 20-Year Load Forecast as well as an order from the BCUC directing that BC Hydro is not obligated to answer the information requests outlined in Attachment A will assist BC Hydro in providing full answers on the matters that are truly at issue in this proceeding, and will contribute to its fair and efficient resolution.

We appreciate the BCUC's consideration of these requests. As the deadline for filing round four information requests is fast approaching, we would appreciate receiving the BCUC's confirmation as soon as possible.

For further information, please contact Chris Sandve at 604-974-4641 or by email at bchydroregulatorygroup@bchydro.com.

Yours sincerely,



Fred James
Chief Regulatory Officer

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List of Out of Scope Information Requests

Information Request	Question
AMPC 4.7.1	Please explain how BC Hydro is planning to address the energy and capacity deficits listed in Tables D-3 and D-4 in Appendix D.
BCSEA 4.89.1	Please provide an Energy Load Resource Balance figure (line and shaded range for demand, vertical bars for supply) and a Capacity Load Resource Balance figure based on Tables D-3 and D-4 respectively.
BCSEA 4.89.2	For each of the Energy Load Resource Balance and the Capacity Load Resource Balance after Planned Resources and after DSM based on the June 2019 Load Forecast, please provide a table showing the year in which a deficit position arises in the Low, Mid and High Gap scenarios.
BCUC 4.326.4	Please explain whether, and if so how, the planned reliance on IPPs in the future could impact BC Hydro's capital planning and expenditures. For example, would BC Hydro increase maintenance, upgrades and construction of BC Hydro's generation facilities if energy and capacity from IPPs make a smaller portion of BC Hydro's total future resource?
CEABC 4.58.1	Since the Table 1 and Table 2 format provided a very useful and understandable synopsis, please update and augment Tables 1 and 2, and the associated discussion, to include all the new information that informed the new 20-Year Load Forecast (June, 2019), that includes projections going beyond F2024. In the associated discussion, please describe the main factors that result in material changes from the October 2018 Load Forecast.
CEABC 4.58.3	If a North Montney transmission project is developed, what impact could it have on the service percentages in the 5 Montney regions, in particular the GM Shrum area?
CEABC 4.58.4	To what extent will an increasing carbon tax offset the decline in gas prices? How much will a \$50/tonne carbon tax add to a gas producer's cost per MMBtu of natural gas? How many MMBtus of natural gas are required to generate one MWh of work energy in the gas processing plants? (i.e. what is the fuel efficiency of the gas-fired compressors that deliver the work energy?)

Information Request	Question
CEABC 4.59.4	As a proportion of the total work energy to be consumed by all the existing and planned facilities in the area, what proportion is represented by BC Hydro's June 2019 High Forecast for F2027?
CEABC 4.60.1	How does this 1% growth expectation compare to that of other electric utilities in jurisdictions across Canada and the U.S.? Which of these other utilities have a carbon tax similar to British Columbia's or a low carbon electrification plan similar to the CleanBC Plan designed to also allow the major expansion of a fossil fuel export industry such as LNG in B.C.?
CEABC 4.61.1	Is BC Hydro's 1% load growth expectation, over the next 20 years, consistent with the Clean Energy Act's objectives for GHG reductions, or its objective for switching energy sources to a source "that decreases greenhouse gas emissions in British Columbia"? If not, why not?
CEABC 4.62.1	How does the 1% 20-year load growth featured in the June 2019 Load Forecast "align with Government's new climate plan"?
CEC 4.8.1	Please describe the methodologies BC Hydro used to inflate the load growth beyond the test period.
GJOSHE 4.1.1	Please provide the BC Hydro system wide load factor that informs the energy-to-peak load conversions for the later nine years of the 20-year distribution peak forecast.
GJOSHE 4.1.2	Please advise whether the system wide load factor used in the conversions for the later nine years of the distribution peak forecast, is different from that which informed the 2013 IRP 20-year load forecast.
GJOSHE 4.1.3	Further to Gjoshe 4.2: If so, please discuss how and what factors, if any, have impacted the system wide load factor informing the distribution peak forecast.
GJOSHE 4.1.5	Please describe the nature of the new load growth so as to capture the general share of new load related to (oil &) natural gas sector activities vs. other sectors (in percentage; as average over the 20 year forecast horizon).
GJOSHE 4.1.6	Please describe the nature of the new natural gas sector load, so as to capture the share (in average MW per year over the 20 year forecast horizon) of expected electrification by type of activity: a) at wellhead (gas production); b) at gas collection/processing plants; c) at gas and/or gas liquids' pipelines (i.e. compression load); d) other (please provide an indication of the underlying industrial activity if applicable).

Information Request	Question
GJOSHE 4.1.7	Please provide an estimate of the new wellhead (i.e. gas production) load as percentage of the new gas sector electrification load, at the expected in service year for the PRES project, and/or thereafter at the 5yr, 10yr and 20yr points in the South Peace Region load forecast horizon timeline.
INCE 4.4.0	Please update the above chart.
INCE 4.5.0	Please update the above chart.
INCE 4.6.0	Please update the above Figures 1-7 inclusive to include recent actuals and to include the forecast (20 year) econometric assumptions built into BC Hydro's current load forecast.
INCE 4.7.0	Please provide equivalent charts that includes BC Hydro's published long-term load forecasts for the last 10 years, and the most recent load forecast – specific to integrated system total gross requirements after DSM.
INCE 4.8.0	Please provide equivalent charts for integrated system peak demand - including reserves after DSM.
INCE 4.13.0	Please provide a modified version of Figure C-1 that provides the Mid-level load forecasts prepared in June, 2019 (current) and as well the abovementioned forecasts.
INCE 4.14.0	Please indicate the assumption(s) used by BC Hydro with respect to initial gas well productivities.
INCE 4.15.0	Please confirm that improved hydraulic fracturing technologies may improve initial well productivities above the current assumptions.
INCE 4.20.0	Since the beginning of 2019, the municipalities of Burnaby, Vancouver, Richmond, New Westminster, Port Moody, West Vancouver and both the city and district of North Vancouver have declared climate emergencies. Please comment on how these actions have influenced BC Hydro's long term load forecast.
INCE 4.23.0	Please refer to the spreadsheet attached, which is a reconstruction of the Twenty-Year Load Forecast: Tables D-1 to D-4 inclusive. Please confirm a calculated forecast load factor of approximately 65% over the near term of the Forecast. Why does this load factor decrease somewhat over the forecast horizon? Please comment on why this should not degrade (decrease) more with influx of significant on-peak electrification loads such as residential space heating and EVs.
INCE 4.49.0	Please provide the peak load coincidence factors for the provincial geographical sub regions.

Information Request	Question
INCE 4.50.0	Please confirm that the coincident peak load for each of the provincial sub regions occurs in December or January at approximately 6pm. Do any of the regions of the province peak during the morning?
MOVEUP 4.6.7	What account if any has BC Hydro taken of actual or anticipated municipal initiatives to limit the combustion of fossil fuels in the 20-year load forecast with respect to residential, commercial and industrial loads?
MOVEUP 4.6.8	What is BC Hydro's best estimate of the impact on the risks and uncertainties of the load forecast of a scenario where all or most new and replacement heating and water systems were zero emissions in British Columbia's urban centres within the first decade of the forecast? To what extent is this source of uncertainty accommodated within the 20 year load forecast?
MOVEUP 4.7.2	To what extent do the province's energy utilities' forecasts map a coherent analysis of expected trends over the next 20 years? Are the outlooks of the utilities broadly harmonious, in BC Hydro's view? If so, how is this achieved? If not, why not?
ZONE II RPG 4.63.1	Please provide details on development of the IRP including such specifics as the process, scope, timeline and stakeholder engagement.