

REQUESTOR NAME: **Edlira Gjoshe**
INFORMATION REQUEST ROUND NO: **4 (20-Year Load Forecast)**
TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY
DATE: **October 30, 2019**
PROJECT NO: 1598990
APPLICATION NAME: **British Columbia Hydro and Power Authority - F2020-F2021
Revenue Requirements Application**

In Appendix B – June 2019 Peak Forecast, on page 3 of 6, BC Hydro states: “Figure B-2 below shows the main stages of the distribution peak forecast process. This methodology applies to only the first 11 years of the distribution peak forecast because a substation forecast for planning purposes is only developed for that timeframe. For the remaining nine years, the distribution peak growth is tied directly to the growth in the distribution energy forecast.”

- 4.1 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.
- 4.2 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.
- 4.3 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.

In Appendix C - South Peace Region Forecast, on page 1 of 2, BC Hydro states: “In response to a commitment made in BC Hydro’s response to BCUC IR 1.119.4, this appendix provides an update to the South Peace Region forecast for the area serviced by the Peace Region Electricity Supply Project (PRES).

- 4.4 Please provide a breakdown of the South Peace Region Forecast for the area serviced by the PRES, by a) existing load, including load growth associated with existing customer footprint vs. b) new load (i.e. new customers and/or customer activities) including new load growth.
- 4.5 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).
- 4.6 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).

- 4.7 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.
- 4.8 Please provide an estimate of GHG emissions reduction for each MW of electrified load at: a) wellhead; b) gas collection/processing plants; c) pipelines; and d) other gas sector activities (if applicable).
- 4.9 Please provide any assumptions embedded in the GHG emissions reduction estimates, as it concerns gas-to-electricity conversions.

In Appendix B – June 2019 Peak Forecast, in section 1.2. Peak Load Forecast Informs BC Hydro's Capital Planning, on pages 2 of 6 and 3 of 6, BC Hydro states: "As discussed in BC Hydro's response to BCUC IR 1.111.1, growth investments support system expansions and reinforcements required to reliably serve new and existing customers.."

Further, in response to BCUC 2.250.3 and BCUC 2.254.2, BC Hydro provides information on the North Montney Transmission Development (or the North Montney Power Supply) project (IPID 901572).

- 4.10 Please explain whether there are any changes to load growth expectations for the north Montney region, between the October 2018 Load Forecast and the June 2019 Load Forecast.
- 4.11 Please describe the geographical footprint of the North Montney Transmission Development project.
- 4.12 Please provide the drivers for the North Montney Transmission Development project, especially as it concerns the split between wellhead (gas production), gas processing (processing plant) and compression (pipeline) load.
- 4.13 Please clarify whether the North Montney Transmission development project is in the vicinity of the Aitken Creek Gas Storage facility and/or the path of the North Montney portion of the Alliance Pipeline.
- 4.14 Further to Gjoshe 4.13, are there any plans to electrify the existing compression and auxiliary load of the Aitken Creek Gas Storage facility? If yes, please confirm the electrical load that can be served.

- 4.15 Further to Gjoshe 4.13, are there any plans to electrify the existing compression load of the North Montney portion of the Alliance Pipeline? If yes, please confirm the electrical load that can be served.
- 4.16 Does BC Hydro have GHG emission reduction estimates associated with the electrification of the Aitken Creek Gas Storage facility load? Please discuss.
- 4.17 Does BC Hydro have GHG emission reduction estimates associated with the electrification of the compression load for the North Montney portion of the Alliance Pipeline? Please discuss.