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March 1, 2021

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: British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Reliability Metrics**

BC Hydro writes in response to the BCUC's request dated February 12, 2021, to confirm the accuracy of the data in the attached document prepared by BCUC staff titled "BC Hydro Reliability Metrics – February 2021" (**Staff Document**). BC Hydro appreciates the opportunity to review, and provide comment on, the Staff Document.

General Comment

BC Hydro understands that the information compiled in the Staff Document may be for the purpose of assisting BCUC staff to respond to potential complaints received by the BCUC from BC Hydro customers, and is not intended for any public dissemination. BC Hydro requests the opportunity to offer further comments on the Staff Document, if it is to be submitted as evidence in any proceeding, at a future date.

BC Hydro has reviewed the information in the Staff Document and compared it against BC Hydro's annual reporting of reliability indices information with comparisons to Canadian Electricity Association (**CEA**) averages, previously submitted to the BCUC,¹ and BC Hydro's response letter to the BCUC dated March 12, 2020 regarding Iskut Power Outages – Northwest Transmission Line. BC Hydro has not verified any information in the Staff Document beyond these previous submissions to the BCUC or as indicated in the review comments that follow.

¹ In compliance with Directive 26 of BCUC Order No. G-96-04 on BC Hydro's F2005 to F2006 Revenue Requirements Application.

Specific Comments

Based on the review described in our General Comments above, BC Hydro offers the following comments:

1. The BC Hydro and CEA Distribution SAIFI, SAIDI and CAIDI data in the tables below Figures 1, 2, and 3 on pages 3 to 5 of the Staff Document are accurate and represent BC Hydro's Distribution related outage data only. The SAIFI, SAIDI, and CAIDI average calculations shown in the tables were completed by others.
2. Figures 1, 2, and 3 were not prepared by BC Hydro and while they cannot be validated by BC Hydro, they appear to represent the data in the tables; however, BC Hydro notes that:
 - Figure titles should make it clear that the BC Hydro indices are "All-Event indices, Not Normalized". The current titles may suggest that only CEA indices are "All-Event Indices, Not Normalized";
 - The Vertical Axis labelling is incorrect in Figure 1 – System Average Interruption Frequency Index (SAIFI) Distribution. The Vertical Axis should be "Frequency of Outages", not "Hours"; and
 - Footnote 1 and Footnote 2 related to Figure 1 and Figure 2, respectively are incorrectly referring to an average "transmission" customer. The data represent information relating to "distribution" customers.
3. The tables and associated charts presented in Figures 4 and 5 on pages 7 and 8 of the Staff Document were not prepared by BC Hydro. However, the data appears to have been sourced from Table 1 and Table 2 of BC Hydro's March 12, 2020 response to question 3 of the BCUC's Letter dated February 20, 2020 with regard to Iskut Power Outages – Northwest Transmission Line (See references to the data sources #3 and #4 on page 12 of the Staff Document).
4. The titles and legends in Figure 4 and Figure 5 and the data column labels in the tables below Figures 4 and 5 on pages 7 and 8 of the Staff Document are labelled as transmission related indices. This is not correct as only the "BC Hydro Overall Transmission SAIFI" and "BC Hydro Overall Transmission SAIDI" columns contain "transmission" data that were submitted in Table 5 of BC Hydro's Annual Reporting of Reliability Indices. Error! Bookmark not defined.

The columns containing the wording "EDD/TAT" and "Northwest Area" (for both SAIFI and SAIDI) present distribution indices and represent total distribution customer outage data as impacted by both distribution and transmission systems. The data as submitted in Table 1 and Table 2 of BC Hydro's March 12, 2020 response to question 3 of the BCUC's Letter dated February 20, 2020 with regard to Iskut Power Outages – Northwest Transmission Line, are accurate and correctly labelled as SAIFI and SAIDI as experienced by the customers.

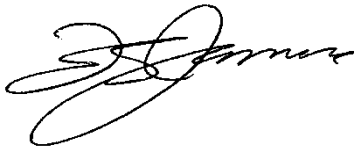
The definitions of "SAIFI" and "SAIDI", respectively, in footnotes 4 and 5 (pages 7 and 8 of the Staff Document) are not correct. SAIFI and SAIDI are "distribution" system indices and measure the number of sustained interruptions and amount of

time without power an average “distribution” customer would experience. “T-SAIFI” and “T-SAIDI” represent similar information for “transmission” customers. Please refer to Page 1 of BC Hydro’s F2020 Annual Reporting of Reliability Indices^{Error!} **Bookmark not defined.** filed on May 4, 2020 for further information.

5. Figures 6 and 7 on pages 9 and 10 of the Staff Document are accurate; however, footnote 7 on page 10 states that “The cumulative bar graph represents SAIFI for the community of Iskut”. This is not correct. The cumulative bar graph represents “SAIDI”, not SAIFI, for the community of Iskut.

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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