

Fred James

Chief Regulatory Officer

Phone: 604-623-4046

Fax: 604-623-4407

bchydroregulatorygroup@bchydro.com

March 3, 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: Project No. 1599164
British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Fiscal 2022 Revenue Requirements Application**

While preparing for the Review Session on March 4, BC Hydro noticed that some revisions were required to information already on the record in this proceeding. Accordingly, BC Hydro writes to provide revisions to three Round 1 information request responses and to provide Errata No. 2 to the Application, as follows:

Exhibit B-4-2	Revisions to BCUC IR 1.22.1.3
Exhibit B-5-2	Revisions to BCOAPO IR 1.36.2 and CEC IR 1.24.1
Exhibit B-2-6	Errata No. 2 to the Application filed on December 22, 2020 – Revision to Chapter 5

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

cs/rh

Enclosure

British Columbia Utilities Commission Information Request No. 1.22.1.3 Dated: January 21, 2021 British Columbia Hydro & Power Authority REVISED Response issued March 3, 2021	Page 1 of 2
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22.0 E. CHAPTER 5 – OPERATING COSTS – MANDATORY RELIABILITY STANDARD

**Reference: Mandatory Reliability Standard (MRS)
 Exhibit B-2, Section 5.6.3.2, pp. 5-33–5-34
 Implementation of CIP Version 7 Will Require Additional
 Investment for Long Term Sustainment**

BC Hydro’s application on page 5-33 states:

MRS Standards, and the associated requirements, are updated and expanded through the adoption of new standards and “versions”. As described below, new versions of CIP [Critical Infrastructure Protection] standards have significantly expanded the scope and complexity of the obligations on BC Hydro. A new version of CIP-003 (CIP-003-8, also commonly referred to as CIP Version 7) has been adopted and will be effective in October 2023; sustainment activities for the new version will begin in fiscal 2023.

Initially, the cyber assets governed by CIP Standards were narrow and included only four of BC Hydro’s generating stations and two control centres.

The adoption of CIP Version 5 in British Columbia in July 2015 brought about a step change in the number of requirements, the complexity of these requirements and the number of facilities and assets to which the requirements applied. Assets covered by these standards grew to include cyber protection for cyber assets at 43 transmission substations that were previously exempt.

On October 1, 2018, BC Hydro implemented CIP Version 5. To support this work, BC Hydro initiated a set of projects within different Business Groups to develop procedures, update documentation of the assets governed by the new standards, implement work flows and software to facilitate the changes, and coordinate change management and training to sustain compliance within the organization. This work occurred from July 2015 through October 2018. Currently, BC Hydro has over 3,250 assets that must comply with physical and cyber protection requirements set out by the CIP standards.

On October 1, 2019, BC Hydro implemented a standard that protects transient cyber assets such as laptops, removable media such as USB keys and other devices that may temporarily connect to its system to meet the requirements of CIP-010-2 R4 (for 27 Transient Cyber Assets and Removeable Media).

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- 1.22.1.3 Please explain whether the increase in scope and complexity of CIP standards correlated with an increase in full time equivalents (FTEs) to manage ongoing compliance with BC Hydro's MRS program.

ORIGINAL RESPONSE:

As the scope of complexity increased, BC Hydro reallocated resources from our existing headcount to meet these resource needs. BC Hydro noted in our Previous Application that we had reallocated 18 existing roles to support compliance with CIPv5.¹

In the Application, BC Hydro has now requested 21.5 FTE which are to address the continued enhancements and adjustments we are making in response to the increased complexity of the CIP standards. BC Hydro will complete a full resource analysis for CIP sustainment as part of our next revenue requirements application.

REVISED RESPONSE:

As the scope of complexity increased, BC Hydro reallocated resources from our existing headcount to meet these resource needs. BC Hydro noted in our Previous Application that we had reallocated 18 existing roles to the Operations Business Group for the Reliability Coordinator function (13 FTEs) and to support compliance with CIPv5 (five FTEs).¹

In the Application, BC Hydro has now requested 21.5 FTE which are to address the continued enhancements and adjustments we are making in response to the increased complexity of the CIP standards. BC Hydro will complete a full resource analysis for CIP sustainment as part of our next revenue requirements application.

¹ BC Hydro's Fiscal 2020 to Fiscal 2021 Revenue Requirements Application, page 5C-55