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January 15, 2020

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
Updated Information on Technology Capital Projects and the Metro North
Transmission Project**

BC Hydro writes to provide the BCUC and interveners with updated information on:

- Six Technology capital projects that we expect to undertake, or have undertaken, during the fiscal 2020 to fiscal 2021 Test Period; and
- The cancellation of the Metro North Transmission Project.

BC Hydro is committed to an open and transparent regulatory process. While preparing for the Oral Hearing, we realized that there may be interest in these particular developments. We wanted to provide this information in advance so that all parties were aware and are prepared to answer questions with regards to these updates at the oral hearing. Questions with regards to Technology capital projects should be directed to Panel 2 while questions with regards to the cancellation of the Metro North Transmission Project should be directed to Panel 4.

These updates are a result of BC Hydro's ongoing capital management processes, as set out in Chapter 6 of the Application. Any changes in capital expenditures or additions (including resulting amortization) for the Test Period, associated with these updates, will be managed within the amounts that were included in the Application.

Technology Projects Update

As discussed further in Chapter 6, section 6.5.3.3 of the Application, BC Hydro's Technology capital plan is dynamic and actual capital investments in the Test Period

may be different from planned investments for a number of reasons, including changes in technology choice, changes in solution scope, scale, design and timing as well as emerging and changing business priorities.

In this update, BC Hydro has included Technology capital investments that were:

- Initiated subsequent to the date of the capital plan that was filed in the Application and have a current forecast total capital cost greater than \$10 million; or
- Included in the Application at a forecast capital cost less than \$10 million and now have a current forecast total capital cost that is greater than \$10 million.

BC Hydro is also providing an update on the IT Service Management Toolset project because the forecast total project cost, including configuration costs, forecast service fees and operating costs, is over \$10 million.

As mentioned above, the Technology capital plan is dynamic and, through active management, changes occur on an ongoing basis in order to respond to new circumstances. Therefore, while Appendix I lists all technology capital projects over \$2 million, BC Hydro selected \$10 million as a threshold for this update, in order to focus on the notable developments that have taken place since the preparation of the plan that was included in the Application.

Energy Management System Upgrade Project (Project ID-T002036)

The Energy Management System is used to monitor and control electric power transmission and generation at BC Hydro's Control Centre and provides system operators with a detailed view into the real time condition of the Power System, to inform their decisions.

Proactive upgrades of the Energy Management System mitigate risk and are required to maintain operational stability and meet Mandatory Reliability Standards, including NERC compliance. The Energy Management System was originally installed in 2008 and upgraded to version 2.5 in fiscal 2011 and version 3.0 in fiscal 2017. The vendor will be ending its support for the current version and the hardware that the system runs on should also be replaced at this time. Accordingly, BC Hydro has now prioritized this project to begin in the Test Period.

The Energy Management System version 3.3 Upgrade Project has a forecast total capital cost of \$15.6 million, including forecast capital expenditures of \$10.2 million in the Test Period. The expected in-service date is fiscal 2023.

Advanced Distribution Management System Replacement Project (Project ID-901654)

The Advanced Distribution Management System supports a set of distribution management capabilities such as energy conservation through Volt/Var Optimization (**VVO**).

There are additional benefits and capabilities that are not included in the current version, due to vendor system limitations. In addition, the current software and hardware, acquired in 2010, are at end of life and the vendor will be ending its support for the current version. Accordingly, BC Hydro has now prioritized this project to begin in the Test Period.

The Advanced Distribution Management System has a forecast total capital cost of \$12.9 million, including capital expenditures of \$8.7 million in the Test Period. The expected in-service date is fiscal 2023. The expected benefits of this project include:

- Further utilization of automation devices and smart meters during critical events such as major storms and disasters;
- Optimizing distribution system monitoring control and operation, and utilizing non-wire solutions such as distributed energy resources, demand response, energy conservation, and vehicle to grid management;
- Simplifying safety processes and reducing manual activities, which is expected to reduce near-miss incidents; and
- Integrating distribution and low-voltage substation management and monitoring functions to improve decision making and maintain safety standards for control centre operation, field operation, engineering, design, and maintenance and planning.

Contact Centre Technology Foundation (Project ID-T001397)

The Contact Centre Technology Foundation project was included in the Application (Appendix I, page 9, line 7) with a forecast total capital cost To Be Determined (**TBD**), and an in-service date TBD. The initial project assumptions were based on upgrading the existing IT components.

Since the Application was filed, during the Identification phase of the project, BC Hydro determined that the selection of a new software vendor and the replacement of the IT components, was the preferred approach. As a result, the forecast total capital cost was updated, based on current cost information, to be within the range of \$6 million to \$24 million, with a forecast in-service date of fiscal 2022.

The Contact Centre Technology Foundation project will address end-of-life Contact Centre technology assets and the expiration of the Accenture Quality Performance Management solution license in 2021. The project will implement current-generation

Contact Centre technology to provide a stable IT platform for all of BC Hydro's Contact Centres.

Next Generation Desktop (Windows 10) (Project ID-T001105)

The Next Generation Desktop (Windows 10) project was included in the Application (Appendix I, page 9, line 10) with a forecast total capital cost range of \$6.3 million to \$11.1 million, and an in-service date of fiscal 2021.

Since the Application was filed, during the Definition phase of the project, the forecast total capital cost was updated, based on current cost information, to \$12.7 million. The increase is primarily due to higher than expected deployment costs and increased security control costs.

This project addresses BC Hydro's need to maintain a secure and productive fleet of approximately 9,000 personal computing (PC) devices, used by most of BC Hydro's employees (and some contractors) to do their work and deliver services to customers.

The project will upgrade the primary desktop operating system (Microsoft Windows) including the associated productivity suite (Microsoft Office) on BC Hydro's end user computing devices (desktops, laptops and tablets) from Windows 7 to Windows 10 and from Office 2010 to Office 365.

These upgrades are required because the vendor will be ending its support for the existing versions of Windows and Office and because the current versions are increasingly challenged to effectively interoperate with modern hardware and applications. The upgrade will provide improved performance and productivity as well as technical advantages such as enhanced data encryption.

Microsoft Enterprise License Agreement (Project ID-T002257)

Capital costs associated with BC Hydro's annual Microsoft license fee were included in the Application (Appendix I, page 9, line 4, Project ID-T001913), with \$2 million in capital expenditures planned in each of fiscal 2020 and fiscal 2021. These annual expenditures were also planned to be detailed as capital additions in fiscal 2020 and fiscal 2021, respectively, and amortized into rates starting in the Test Period. In addition to the capital costs, there will be \$0.8 million in annual operating costs associated with the agreement. These operating costs are included in the Technology KBU budget in the Application.

Since the Application was filed, the terms of the contract with the vendor have changed from a perpetual license contract to a subscription license for the seven year term of the contract. This subscription license contract is accounted for as an intangible asset that includes a financing arrangement.

Accordingly, the recognized capital cost of the subscription license (excluding the portion attributed to annual maintenance and support fees) is capitalized based on the net present value of the cost of the contract. This results in the recognition of costs up-front for the full length of the contract, with an expected value of \$19.5 million in fiscal 2020, which will be amortized over the seven year life of the contract. There is no change to the forecast operating costs for the term of the contract, which were included in the Application.

IT Service Management Toolset (Project ID-T001630)

The IT Service Management Toolset project was included in the Application (Appendix I, page 9, line “Projects and Programs less than \$2 million”), with a forecast total capital cost of \$1.5 million.

The forecast capital cost, based on current cost information, is now \$3.9 million. The cost increase is due to additional project design considerations and complexity as well as the additional time required to coordinate multiple vendors and meet staffing requirements.

The total project cost also includes pre-paid configuration operating costs and usage fees, which are forecast to be \$1.1 million annually for eight years, starting in fiscal 2021, as well as one-time operating costs in fiscal 2021, which are forecast to be \$1.6 million. BC Hydro will manage these operating costs within its operating budget for the Test Period.

The IT Service Management Tool project will provide a platform for standard IT support processes for BC Hydro and BC Hydro's IT service providers. The platform reduces the risk of being locked in to one IT service provider and provides the flexibility to improve IT service management capabilities. The project will also improve IT system operations by improving the management and reporting of IT incidents and changes.

Cancellation of the Metro North Transmission Project (Project ID-93845)

BC Hydro initiated the Metro North Transmission Project in fiscal 2013 to meet the forecast need to increase the load supply capability in the Metro Vancouver region. In its decision on the Previous Application, the BCUC directed BC Hydro to file a Certificate of Public Convenience and Necessity (**CPCN**) application for the project, if it proceeded.

The project advanced to the Definition phase in fiscal 2017, and BC Hydro selected the leading alternative of the construction of a new 230 kV transmission line between Coquitlam and Vancouver, via Port Moody, Anmore and Burnaby, which would provide an additional 629 MW of firm transmission capacity.

The project was included in the Application (Appendix I, page 4, line 4, and Appendix J, page 73). Planned capital expenditures for the project were \$1 million in the Test Period and forecast total project costs were within the range of \$300 million to \$530 million, with a forecast in-service date of fiscal 2025.

Based on the June 2019 Load Forecast, provided as Exhibit B-15 in this proceeding, BC Hydro has now determined that the need to increase the load supply capability in the Metro Vancouver region can be deferred until after fiscal 2029, due to a reduction in the forecast load growth in the Metro Region. As a result, BC Hydro is cancelling the Metro North Transmission Project at this time, and will continue to evaluate the need to increase the load supply capability in the Metro Vancouver region in the future. When required, BC Hydro will initiate a new project to address that need and will file an application with the BCUC in accordance with the capital filing guidelines or any directions from the BCUC that are applicable at that time.

As discussed in section 8.11 of Chapter 8 of the Application, BC Hydro has forecast capital project write-offs of \$9.9 million in fiscal 2020 and \$9.7 million in fiscal 2021. To the extent that the cancellation of the Metro North Transmission Project causes actual project write-offs to exceed the forecast amounts, the difference would be to the account of the Government of B.C., as BC Hydro's shareholder.

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

Yours sincerely,



(for) Fred James
Chief Regulatory Officer

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