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British Columbia Hydro and Power Authority Review of the Regulatory Oversight of Capital Expenditures and Projects

Decision and Order G-313-19

December 2, 2019

Before:
K. A. Keilty, Panel Chair
W. M. Everett, Q.C., Commissioner
R. I. Mason, Commissioner

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Executive summary

On May 3, 2016, the British Columbia Utilities Commission (BCUC) established this proceeding to review the regulatory oversight of British Columbia Hydro and Power Authority's (BC Hydro) capital expenditures and projects (Review).¹

The key purpose of this Review is to consider how the BCUC can provide efficient and effective oversight of BC Hydro's capital expenditures, prospectively when appropriate, within the bounds of the existing regulatory processes and legislative framework. Effective BCUC oversight includes approving capital expenditures that are needed to provide service to customers and to approve rates that recover the utility's cost of service.

The four items within the scope of this Review are summarized as follows:²

- The scope, timing, and process for the BCUC's review of BC Hydro's capital expenditures and projects. This includes consideration of the appropriateness of such reviews as a component of various applications and filings BC Hydro makes with the BCUC including:
 - Revenue Requirement Applications (RRA);
 - Annual Report filings;
 - Project-specific compliance filings;
 - Certificate of Public Convenience and Necessity (CPCN) Applications;³ and
 - Section 44.2 expenditure schedule applications;⁴
- The appropriateness of BC Hydro's 2010 Capital Project Filing Guidelines (2010 Guidelines) for Information Technology (IT) capital expenditures and projects or propose separate IT capital project filing guidelines;
- The appropriateness of expenditure thresholds contained in BC Hydro's 2010 Guidelines; and
- The circumstances under which it is appropriate for BC Hydro to file an application pursuant to sections 45 and 46(1) [CPCN] of the *Utilities Commission Act* (UCA) versus section 44(2) of the UCA [Expenditure Schedule].

The existing regulatory processes and the legislative framework, the role of BC Hydro and the BCUC regarding management of capital expenditures and the purpose of BCUC approved guidelines provide an overarching context for this Review.

As part of the Review, BC Hydro seeks BCUC approval of the proposed 2018 Capital Filing Guidelines (2018 Guidelines) included in BC Hydro's Revised Proposal.⁵ The proposed 2018 Guidelines contain:

- Guidance for the review of capital projects in RRA proceedings;

¹ Pursuant to BCUC Order G-58-16 dated May 3, 2016.

² BCUC Orders G-174-16 and G-126-18 confirmed the scope as outlined in Appendix B to BCUC Order G-63-16.

³ Applications made pursuant to section 46(1) of the UCA.

⁴ Applications made pursuant to section 44(2) of the UCA.

⁵ Exhibit B-7.

- Filing requirements for RRAs;
- “Major Project” expenditure thresholds for Power Systems projects, Buildings projects and IT projects. If the authorized cost estimate for a project exceeds the threshold, BC Hydro commits to filing a CPCN if the project is an extension, or a section 44.2 expenditure schedule if the project is not an extension;
- BC Hydro’s description of the circumstances that may constitute an extension project; and
- An overview of BC Hydro’s required compliance reporting.

BC Hydro submits BCUC approval of its 2018 Guidelines is an appropriate outcome of this proceeding.⁶

The Panel’s approval of BC Hydro’s 2018 Guidelines (included as Appendix B to BC Hydro’s Revised Proposal), pursuant to sections 44.2, 45 to 46 and section 59 to 61 of the UCA, is subject to BC Hydro amending the 2018 Guidelines to:

- indicate that BC Hydro will provide information on any significant changes in its capital management processes, including changes in how capital expenditures are defined and authorized and any significant deficiencies in its capital management processes identified through internal and external audits or reviews;
- include in BC Hydro’s Annual Report a list of all extension capital expenditures (and forecasted total cost where this information is available), where the extension capital expenditures meet the following criteria:
 - Financial approval of extension capital expenditures is authorized or expected to be authorized by BC Hydro at a group, program or other aggregated level; and
 - Any individual capital expenditures within the group, program or other aggregated level are extensions;⁷ and
- include the other amendments BC Hydro indicated it was amenable to making as set out in sub-section 3.2 of this Decision.

BC Hydro is directed to file an update of the 2018 Guidelines in a compliance filing for review and approval by this Panel, on or before 60 days following the date of this Decision.

The Panel finds that the scope of this Review has been addressed in the proceeding and the Review has achieved what it set out to do. The parties have had an opportunity to explore alternatives, provide input and there have been significant improvements in the 2018 Guidelines when compared to the 2010 Guidelines. The information BC Hydro has committed to filing in the various BCUC proceedings is extensive and this information will assist the BCUC in an effective and efficient review of capital expenditures. This Review and the 2018 Guidelines have been a positive step in an ongoing process of balancing effective oversight of capital investments with regulatory efficiency.

Commercial Energy Consumers Association of British Columbia (CEC), a registered intervener, proposes changes to how the BCUC reviews BC Hydro’s capital and recommends the BCUC establish an ongoing process to systematically improve the information available to enable the BCUC to more effectively perform its regulatory

⁶ BC Hydro Final Argument, p. 5.

⁷ Extensions as defined by BC Hydro in the 2018 Guidelines or as otherwise determined by the BCUC.

oversight. The Panel is not persuaded that CEC's proposals, if implemented, will improve the effectiveness and efficiency of the BCUC's regulatory oversight of BC Hydro's capital expenditures in carrying out its role under the UCA.

The Panel agrees with BC Hydro that there would be little incremental benefit or value that could result from any further process at this time. The BCUC, BC Hydro and interveners will benefit from working with the updated 2018 Guidelines for a period before they are revisited. The Panel is not proposing to set a date for a formal review of the 2018 Guidelines, noting that BC Hydro may request or BCUC may order a standalone process to review and further update the guidelines if and when this is warranted.

1.0 Introduction and Background

1.1 Introduction

On May 3, 2016, the British Columbia Utilities Commission (BCUC) established this proceeding to review the regulatory oversight of British Columbia Hydro and Power Authority's (BC Hydro) capital expenditures and projects (Review).⁸ This Review, and a concurrent inquiry into BC Hydro's expenditures related to the adoption of the SAP Platform (SAP Inquiry), were both initiated in response to a complaint received by the BCUC on December 10, 2015.

The scope of the Review is set out in sub-section 1.2 of this Decision.

As part of the Review, BC Hydro seeks BCUC approval of the 2018 Capital Filing Guidelines (2018 Guidelines) included in its Revised Proposal.⁹ BC Hydro submits BCUC approval of its 2018 Guidelines is an appropriate outcome of this proceeding.¹⁰

Commercial Energy Consumers Association of British Columbia (CEC), a registered intervener, proposes changes to how the BCUC reviews BC Hydro's capital and recommends the BCUC establish an ongoing process to systematically improve the information available to enable the BCUC to more effectively perform its regulatory oversight.¹¹

In this Decision, the Panel considers whether BC Hydro's proposed 2018 Guidelines address the established scope of the Review and whether further process, as requested by CEC, is required to ensure the BCUC's effective and efficient regulatory oversight of BC Hydro's capital expenditures for rate setting purposes.

Section 2 of this Decision provides the legal and regulatory context for the Review and includes an overview of the existing regulatory processes, the legislative framework, the role of BC Hydro and the BCUC regarding management of capital expenditures and the purpose of BCUC approved guidelines.

Section 3 of the Decision reviews BC Hydro's proposed 2018 Guidelines and addresses the issues raised by interveners.

Section 4 includes the Panel's review of CEC's process proposals including cost-effectiveness assessments, the review of strategies and plans, and the proposal for an annual capital report.

Section 5 concludes on whether BC Hydro's proposed 2018 Guidelines appropriately address the scope of the Review and whether further process is required.

⁸ Pursuant to BCUC Order G-58-16 dated May 3, 2016.

⁹ Exhibit B-7.

¹⁰ BC Hydro Final Argument, p. 5.

¹¹ CEC Final Argument, pp. 1–2.

1.2 Scope of the Review

The BCUC established this proceeding to review the regulatory oversight of BC Hydro's capital expenditures and projects¹² and proposed a scope for the Review.¹³ The proposed scope of the Review was subsequently confirmed by the BCUC¹⁴ and this approved scope is included in Appendix A of this Decision. The four items within the scope of this Review are summarized as follows:¹⁵

- The scope, timing, and process for the BCUC's review of BC Hydro's capital expenditures and projects. This includes consideration of the appropriateness of such reviews as a component of various applications and filings BC Hydro makes with the BCUC including:
 - Revenue Requirement Applications (RRA);
 - Annual Report filings;
 - Project-specific compliance filings;
 - Certificate of Public Convenience and Necessity (CPCN) Applications;¹⁶ and
 - Section 44.2 expenditure schedule applications;¹⁷
- The appropriateness of BC Hydro's 2010 Capital Project Filing Guidelines (2010 Guidelines) for Information Technology (IT) capital expenditures and projects or propose separate IT capital project filing guidelines;
- The appropriateness of expenditure thresholds contained in BC Hydro's 2010 Guidelines; and
- The circumstances under which it is appropriate for BC Hydro to file an application pursuant to sections 45 and 46(1) [CPCN] of the *Utilities Commission Act* (UCA) versus section 44(2) of the UCA [Expenditure Schedule].

On March 1, 2018, the BCUC issued its decision on BC Hydro Fiscal 2017 to Fiscal 2019 RRA (F2017 to F2019 RRA Decision) and in which it stated that "the upcoming BC Hydro Review of the Regulatory Oversight of Capital Expenditures and Projects proceeding will provide another opportunity for the Commission and interveners to further refine their understanding of the effectiveness of BC Hydro's capital processes. The [BCUC] recommends the issue of the adequacy of BC Hydro's planning and execution related to large capital projects be explored in this upcoming proceeding." This Panel has previously considered this recommendation and found that it did not suggest an expansion of the scope of this Review, but merely concluded that the findings in the BC Hydro 2017-2019 RRA proceeding may help inform the Panel and the parties in this Review about the appropriateness of the proposed 2018 Guidelines, including consideration of the proposed filing thresholds.¹⁸

¹² BCUC Order G-58-16.

¹³ BCUC Order G-63-16 dated May 10, 2016, Appendix B.

¹⁴ BCUC Orders G-174-16 dated November 30, 2016 and G-126-18 dated July 12, 2018 confirmed the scope as outlined in Appendix B to Order G-63-16.

¹⁵ BCUC Orders G-174-16 and G-126-18 confirmed the scope as outlined in Appendix B to BCUC Order G-63-16.

¹⁶ Applications made pursuant to section 46(1) of the UCA.

¹⁷ Applications made pursuant to section 44(2) of the UCA.

¹⁸ Exhibit A-15, Order G-126-18 dated July 12, 2018, p. 4.

1.3 Regulatory Process

On May 3, 2016, the BCUC established the Review.

The BCUC established regulatory timetables¹⁹ which commenced with intervenor registration on May 25, 2016 and BC Hydro was subsequently directed to file its initial proposal two weeks following the issuance of the BCUC F2017 to F2019 RRA Decision on March 1, 2018.

The following parties registered as interveners:

- British Columbia Old Age Pensioners' Organization et al. (BCOAPO);
- BC Sustainable Energy Association and Sierra Club (BCSEA);
- Clean Energy Association of BC (CEABC);
- CEC;
- Movement of United Professionals (MoveUP);
- Ilse Leis; and
- Association of Major Power Customers of British Columbia (AMPC).

BCOAPO, BCSEA, CEABC, CEC and MoveUP filed final arguments.

BC Hydro filed its initial proposal and proposed 2018 Guidelines on April 3, 2018.

Intervenors and BCUC delivered technical and clarifying questions regarding BC Hydro's initial proposal followed by a BC Hydro led transcribed workshop on May 18, 2018.

On June 13, 2018, BC Hydro filed its revised proposal requesting approval of the 2018 Guidelines (Revised Proposal).

On November 5, 2018, CEC filed intervenor evidence of David Craig and Scott Thomson. On December 10, 2018, CEC filed responses to Information Requests (IR) from BC Hydro, BCUC and intervenors.

On September 7, 2018, the BCUC issued its final report on the Inquiry of Expenditures Related to the Adoption of the SAP Platform (SAP Inquiry Report). The SAP Inquiry Report included a recommendation that this Review consider BC Hydro's financial policies for authorization of capital expenditures. This recommendation and relevant findings from the SAP Inquiry Report are considered in sub-section 3.1.

On February 15, 2019, BC Hydro filed rebuttal evidence, including evidence of Dr. Carpenter and Dr. Brown of the Brattle Group (Brattle Group) and subsequently filed its responses to further IRs on both its Revised Proposal and its rebuttal evidence on July 4, 2019.

¹⁹ BCUC Orders G-63-16, G-174-16, G-58-16, G-89-18, G-126-18, G-173-18, G-193-18, G-223-18, G-226-18, G-16-19, G-24-19 and G-63-19.

BC Hydro filed its Final Argument on August 1, 2019, followed by intervener Final Arguments on or before August 22, 2019.

BC Hydro filed its Reply Argument on September 5, 2019.

2.0 Context for the Review

In this section the Panel sets out an overview of the existing regulatory processes and the legislative framework, the role of BC Hydro and the BCUC regarding management of capital expenditures and the purpose of BCUC approved guidelines. These topics provide an overarching context for this Review and the related Panel determinations.

The key purpose of this Review is to consider how the BCUC can provide efficient and effective oversight of BC Hydro's capital expenditures, prospectively when appropriate, within the bounds of the existing regulatory processes and legislative framework. BC Hydro notes effective BCUC oversight includes approving capital expenditures that are needed to provide service to customers and to approve rates that recover the utility's cost of service.²⁰ The Brattle Group also states:

A key role of energy regulators is to ensure that rates charged for utility service are just and reasonable. As part of ensuring that rates are just and reasonable, regulators want to make sure that utilities do not recover in rates the costs of investments that were unrelated to providing utility service or which were unnecessary or wasteful.²¹

Included in this sub-section are references to BC Hydro's and intervener evidence and arguments regarding:

1. existing regulatory processes and the legislative framework;
2. the overall responsibility for the management of capital; and
3. the purpose of BCUC approved guidelines.

Other specific issues related to BC Hydro's proposed 2018 Guidelines and CEC's proposed process are addressed in Sections 3 and 4 of this Decision considering the overall context set out in this section.

2.1 Existing Regulatory Processes and Legislative Framework

BC Hydro outlines that the UCA provides the BCUC with several mechanisms, subject to any legislative exemptions or Government directions, to oversee BC Hydro's capital expenditures, including:

- the ability to require BC Hydro to obtain a CPCN for extensions under section 45 of the UCA;
- the approval of an application made by BC Hydro for acceptance of capital expenditure schedules under section 44.2 of the UCA;
- the approval of rates in a revenue requirement proceeding;

²⁰ BC Hydro Reply Argument, p. 8.

²¹ Exhibit B-15-1, p. 5.

- the ability to order compliance filings, including BC Hydro’s Annual Report to the Commission;²²
- the power to review capital expenditures after implementation for prudence and to exclude imprudent expenditures in the setting of just and reasonable rates;²³ and
- the review and acceptance of BC Hydro’s Integrated Resource Plan (IRP) by the BCUC given the enactment of recent legislative amendments that update BC Hydro’s regulatory framework.²⁴

CPCN and Section 44.2 Expenditure Schedule Filings

BC Hydro refers to the section of the UCA which provides that the utility system BC Hydro was operating as of September 11, 1980 has a deemed CPCN for that existing system as well as any extensions to that system. However, the UCA also provides that the BCUC has the discretion to require BC Hydro to apply for a separate CPCN for an extension. If the BCUC determines a separate CPCN is required for an extension, BC Hydro is not able to start construction in advance of the BCUC granting a CPCN and if the CPCN is not granted, BC Hydro is not able to construct the proposed extension.²⁵

While the term “extension” is not defined in the UCA, BC Hydro proposes that an extension be interpreted as a capital expenditure that expands the service area or capacity of a utility plant or system. BC Hydro submits this definition is consistent with the plain meaning of the word extension, its use in the UCA and the origins of the CPCN requirement, as well as the BCUC’s use of the term in its 2015 Thermal Energy Systems Regulatory Framework Guidelines.²⁶

BC Hydro elaborates on its interpretation of the term “extension” by providing examples of extension projects in its 2018 Guidelines, including:

- facility end-of-life replacement projects (as opposed to individual component(s) that have reached end-of-life);
- new projects designed to serve incremental energy and/or peak load growth; and
- refurbishment projects that are not undertaken to serve incremental load growth, but through efficiencies result in additional MWs and/or GWhs/year on a planning basis.²⁷

BC Hydro submits that IT capital projects do not meet the definition of extension of a utility plant or system as such projects would not be initiated to expand the geographic extent or capacity of the utility plant or system.²⁸

BC Hydro explains section 45(6) of the UCA requires BC Hydro to file with the BCUC an annual filing identifying the extensions (over the materiality limit) that it plans to construct and if the BCUC deems it appropriate, it can require a CPCN application to be filed.²⁹ BC Hydro states the content of an annual filing is established through dialogue between BC Hydro and the BCUC and the materiality limits have historically been set at \$2 million for IT

²² BC Hydro Final Argument, p. 12.

²³ BC Hydro Final Argument, p. 34.

²⁴ Ibid., p. 33.

²⁵ Exhibit B-7, p. 17.

²⁶ BC Hydro Final Argument, p. 16.

²⁷ Exhibit B-3, Appendix B, pp. 3-4.

²⁸ BC Hydro Final Argument, p. 44.

²⁹ Exhibit B-7, p. 19 and Appendix C, p. 2.

expenditures and \$5 million for all other capital. For the Fiscal 2018 Annual Report, a materiality limit was also set for variances exceeding \$10 million and 10 percent of planned expenditures and additions in the F2017-F2019 RRA and for those instances, BC Hydro was required to provide explanations for the variances.³⁰

BC Hydro states that non-extension projects related to constructing or operating a public utility plant or system to serve a new service area will result in a CPCN application and there will be no expenditure threshold for such projects.³¹

For all other non-extension projects BC Hydro may file for acceptance of planned capital expenditures under section 44.2 of the UCA. BC Hydro explains that a section 44.2 application is voluntary and that the BCUC cannot direct BC Hydro to file an application for acceptance of a capital expenditure schedule.³²

BC Hydro submits that CPCN and section 44.2 expenditure schedule filings are the primary way for the BCUC to review capital expenditures on a prospective basis.³³ BC Hydro states the BCUC's role as set out in its regulatory framework is consistent with other jurisdictions and cites the expert evidence the Brattle Group who describe that regulators often have a role in approving certain capital expenditures, including evaluating alternatives, before implementation.³⁴

RRA Proceedings

BC Hydro submits that RRAs provide an avenue for the BCUC to review and test BC Hydro's planned capital additions and expenditures that are not reviewed under a section 44.2 expenditure schedule or CPCN filing.³⁵ BC Hydro states that the BCUC can review capital expenditures and additions in an RRA proceeding for the period that the BCUC will be setting rates (test period). BC Hydro explains that its revenue requirement and rates are impacted by the depreciation expense, property and other taxes and financing costs associated with in service assets as well as planned capital additions during the test period. In addition to considering the rate impacts of capital expenditures in an RRA proceeding, the BCUC can make determinations about whether capital projects are in the public interest before significant dollars have been spent and can also order BC Hydro to file a CPCN for an extension project.³⁶

BC Hydro states that if the BCUC has approved a CPCN or accepted an expenditure schedule, the requirement for the project is established. However, the RRA still provides a venue for the BCUC to assess whether a capital project with a BCUC approved CPCN or an accepted expenditure schedule has been, or is being, executed prudently.³⁷

Compliance Reporting

BC Hydro states that it regularly files compliance reports that include information to assist the BCUC in its review of BC Hydro's capital expenditures and projects. This compliance reporting includes BC Hydro's Annual Report

³⁰ Exhibit B-4, BCOAPO IR 29.1 Attachment 1, p. 1; Exhibit B-7, p. 56; Exhibit B-16, BCOAPO IR 43.2.

³¹ Exhibit B-7, Appendix B, p. 4.

³² Ibid., p. 17.

³³ BC Hydro Final Argument, p. 27.

³⁴ Ibid., p. 28.

³⁵ Ibid., p. 29.

³⁶ Exhibit B-17, p. 16.

³⁷ Exhibit B-7, p. 18.

and project-specific compliance reports filed on a schedule determined by the applicable BCUC order.³⁸ BC Hydro states that compliance reporting is another mechanism available to the BCUC to assist in the review of BC Hydro's capital expenditures and projects.³⁹

Prudence Reviews

BC Hydro explains that retrospective (prudence) reviews are another mechanism that can be used by the BCUC to exercise regulatory oversight over BC Hydro's capital expenditures. BC Hydro notes the BCUC has previously stated:

The Commission Panel considers, therefore, that it is required, by virtue of sections 59 and 60 of the Act to allow the utility to recover its reasonable and prudent cost of service, to be determined on the basis of its 2006 RRA and the evidence adduced in this proceeding.⁴⁰

BC Hydro submits this type of review creates a strong incentive for BC Hydro to act prudently.⁴¹ BC Hydro states the review of prudence can take place in the RRA or in a separate process designed for that purpose.⁴² BC Hydro submits that since the prudence standard is applied to past expenditures, in setting just and reasonable rates the BCUC can disallow imprudent expenditures after they have been incurred.⁴³

Integrated Resource Plan

At the time of the commencement of this Review, BC Hydro was not required to file an Integrated Resource Plan (IRP) for approval by the BCUC. Therefore, the IRP was not included in the original scope of the Review. On May 16, 2019, the enactment of *the Energy Statutes Amendment Act, 2019* resulted in amendments to, section 44.1 of the UCA, which now apply to BC Hydro. This means that the BCUC will review BC Hydro's IRP going forward. A sub-section has also been added to the UCA stating that BC Hydro need not file an IRP before February 28, 2021.⁴⁴

BC Hydro submits that the BCUC's review of the IRP will provide a forum for the BCUC to review and consider BC Hydro's long-term resource plans, which will give the BCUC oversight over key strategic decisions of BC Hydro and will inform the BCUC's oversight over BC Hydro's capital expenditures. The Brattle Group also explains that regulators often have a role in relation to longer term strategic plans and state:

Consideration of such strategic options typically takes place in an IRP process. The IRP process is focused on long-term strategy and does not usually result in approval of specific projects. Rather, subsequent project approval processes may include testing how proposed projects contribute to or are consistent with the approved IRP.⁴⁵

³⁸ Exhibit B-7, p. 56.

³⁹ Ibid., p. 19.

⁴⁰ BC Hydro Final Argument, p. 35; BCUC Reasons for Decision, dated August 16, 2006, p. 24. Online: https://www.b cuc.com/Documents/Proceedings/2006/DOC_12354_G-99-06_PNG_2006RR_Reasons.pdf.

⁴¹ Exhibit B-15, p. 16.

⁴² Exhibit B-4, BCUC IR1.9.2; Exhibit B-16, BCUC IR 2.21.1.

⁴³ Exhibit B-15, p. 16.

⁴⁴ Exhibit B-16, BCSEA IR 2.17.1, Attachment 1.

https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/final_report_desktop_bc_hydro_review_v04_feb12_237pm-r2.pdf.

⁴⁵ Exhibit B-15-1, pp. 5–6.

BC Hydro submits that resource planning matters can be pursued as part of the review of an IRP and notes the BCUC has already issued resource planning guidelines.⁴⁶

Intervener Arguments

The Panel notes that while some Interveners suggest additional processes to provide the BCUC with further oversight over certain aspects of BC Hydro's capital expenditures and have a different view of the way the BCUC should be involved in planning, none of the Interveners take exception to the overview that BC Hydro provides of the current regulatory processes and legislative framework as summarized above. Specific issues raised by interveners are addressed in Sections 3 and 4.

Panel Discussion

BC Hydro's overview of the how existing regulatory processes and mechanisms align with the legislative framework provides useful context and assistance for the Panel's consideration of BC Hydro's proposed 2018 Guidelines and the Interveners' proposals in determining an efficient and effective process for the oversight of capital expenditures.

2.2 Management of Capital Expenditures

BC Hydro states that although the running of the utility is exclusively the responsibility of BC Hydro's management, the BCUC may review the adequacy of BC Hydro's capital planning and execution in the context of BC Hydro's revenue requirements and BC Hydro's CPCN and section 44.2 expenditure schedule filings. BC Hydro explains that a review of capital planning and execution may assist the BCUC in determining the reasonableness of BC Hydro's capital expenditure or additions forecasts or the prudence of completed projects.⁴⁷

The Brattle Group also explains that the BCUC's role includes ensuring that BC Hydro's rates do not include recovery for imprudent capital expenditures and describes the role of BC Hydro management as planning, implementing approved projects and managing the company's operations, including controlling cost.⁴⁸ The Brattle Group elaborates on the role of management and regulators as follows:

Q11. Is it possible to achieve the same effect – encouraging the utility to control costs – through regulatory oversight of capital expenditure plans?

A11. No. Controlling capital costs involves identifying worthwhile initiatives that have a good chance of reducing costs, and managing their successful implementation. This is the function of utility management, and regulators typically do not try to second guess management decisions because they do not have the staff expertise and other resources to be effective in doing so.⁴⁹

BC Hydro cites *BC Hydro v. British Columbia Utilities Commission*, 20 BCLR 3d 106, where the B.C. Court of Appeal states that the BCUC's jurisdiction does not extend to the management of the utility at paras. 56 and 58:

It is only under s.112 of the Utilities Act that the Commission is authorized to assume the management of a public utility. Otherwise the management of a public utility remains the

⁴⁶ BC Hydro Reply Argument, p. 16.

⁴⁷ Exhibit B-7, p. 22.

⁴⁸ Exhibit B-15-1, p. 3.

⁴⁹ Ibid., p. 8.

responsibility of those who by statute or the incorporating instruments are charged with that responsibility.

...

Taken as a whole the Utilities Act, viewed in the purposive sense required, does not reflect any intention on the part of the legislature to confer upon the Commission a jurisdiction so to determine, punishable on default by sanctions, the manner in which the directors of a public utility manage its affairs.⁵⁰

BC Hydro explains the above case was applied in 2004 by the B.C. Supreme Court in *Office and Professional Employees' Int'l Union et al v. B.C. Hydro et al*, 2004 BCSC 422 where the Court held that the BCUC did not have jurisdiction over BC Hydro's outsourcing of certain services to Accenture. The Court concluded at para. 63:

The choice to out-source these services to Accenture was a management decision. As such, it fell within the purview of B.C. Hydro's directors, and did not attract the jurisdiction of the Utilities Commission: *British Columbia Hydro and Power Authority v. British Columbia Utilities Commission*, supra at paras. 55-58. As the CEC recognizes, the B.C. Court of Appeal has stated that the UCA does not give the BCUC the jurisdiction to direct the manner in which the directors of a public utility manage its affairs.⁵¹

BC Hydro states the responsibility for how its capital program is managed is a management function and not a function of the BCUC. BC Hydro submits any actions by the BCUC that interfere with the management of the utility are contrary to *BC Hydro v. British Columbia Utilities Commission* (Court of Appeal decision).⁵²

Intervener Evidence and Arguments

CEC states that the Court of Appeal decision is clear regarding the BC Hydro Board's responsibility to manage the company and its planning. CEC also submits the BCUC has "broad powers" to obtain information from BC Hydro arising from several sections of UCA and does not believe that the BCUC would be constrained if it seeks to improve its oversight information for BC Hydro's capital expenditures and investments.⁵³ CEC explains that the BCUC cannot seek information to direct the management decision making process or interfere with management but it can obtain oversight information for the purpose of the BCUC approval responsibilities under the UCA.⁵⁴

MoveUP submits the line between the roles of utility management and the regulator is not as simple as the Court of Appeal decision suggests. MoveUP notes that since the Court of Appeal decision, oversight of resource planning has become an integral dimension of utility regulation. Specifically, the amendment to the UCA to add section 44.1:

...conferred explicit jurisdiction on the BCUC to review resource planning by regulated utilities, and made it clear that the role of the regulator includes holding management accountable for the way it plans how to meet projected needs and demands.⁵⁵

⁵⁰ BC Hydro Final Argument p. 76; *BC Hydro v. British Columbia Utilities Commission*, 20 BCLR 3d 106, Book of Authorities, Tab 1.

⁵¹ BC Hydro Final Argument pp. 76-77; *Office and Professional Employees' Int'l Union et al v. B.C. Hydro et al*, 2004 BCSC 422, Book of Authorities, Tab 1.

⁵² BC Hydro Final Argument, p. 76.

⁵³ Exhibit C3-14, CEC IR 1.1.

⁵⁴ Ibid., IR 1.2.

⁵⁵ MoveUP Final Argument, p. 3.

CEABC submits that while strategic planning requires the participation of BC Hydro's board and shareholder, there should also be a role for the BCUC. CEABC argues the BCUC's mandate to protect the public and ratepayers' interests means it is appropriate for the BCUC to take a more proactive role in the oversight of a regulated utility's strategic planning and capital expenditure program.⁵⁶ Other issues raised by CEABC regarding BC Hydro's resources planning are addressed in sub-section 3.6.2.

BC Hydro Reply Argument

BC Hydro submits CEABC's view that the BCUC should take a more proactive role in BC Hydro's strategic planning should be rejected. BC Hydro states that the BCUC's role is defined by the UCA and as an outcome of the Government Review, the BCUC will now be reviewing BC Hydro's IRP. Further, strategies can be assessed as part of the BCUC's role in approving just and reasonable rates in RRAs or determining that capital expenditures are in the public interest in CPCN and section 44.2 expenditure schedule filings. BC Hydro submits that beyond these processes, a strategy is not subject to any BCUC approval or acceptance under any section of the UCA.⁵⁷

BC Hydro notes that CEC acknowledges the BCUC cannot seek to direct the management decision making process at BC Hydro.⁵⁸

Panel Determination

The Panel finds the parties are in general agreement about the role of utility management and the BCUC's role as regulator reflecting an understanding of the Court of Appeal decision that the BCUC's jurisdiction does not extend to the management of the utility.

CEC and BC Hydro agree that the BCUC can obtain oversight information for the purpose of discharging its approval responsibilities under the UCA. However, they have differing views on how this is best achieved and the line between management's responsibilities and the BCUC's regulatory oversight of BC Hydro capital expenditures. MoveUP also submits the line is not as simple as BC Hydro states. The Panel considers this issue further in sub-section 3.1 and addresses the specifics of CEC's proposed process in Section 4 of this Decision.

Generally, the submissions of the parties related to the role of utility management and the BCUC's role as regulator provide useful context and assistance for the Panel's consideration of BC Hydro's proposed 2018 Guidelines.

The Panel agrees with BC Hydro and finds CEABC's suggested modifications to BC Hydro's system of strategic planning to be outside the BCUC's jurisdiction. Strategic planning is clearly a management function and BCUC participation in that process would interfere with the management of the utility. BCUC's participation could also impact its ability to objectively and independently assess the reasonableness of the strategies to the extent they impact rates or in assessing whether the strategies are consistent with the public interest when reviewing IRPs, CPCN or section 44.2 expenditure schedules. As acknowledged by BC Hydro, the BCUC can review BC Hydro's strategies as part of the BCUC's role in approving just and reasonable rates in RRAs or determining that capital expenditures are in the public interest in CPCN and section 44.2 expenditure schedule filings as well as the review of the IRP.

⁵⁶ CEABC Final Argument, p. 21.

⁵⁷ BC Hydro Reply Argument, p. 20.

⁵⁸ Ibid., p. 27.

2.3 Purpose of BCUC Approved Guidelines

BC Hydro seeks an order, pursuant to sections 45 and 46 and sections 59 to 61 of the UCA, for approval by the BCUC of BC Hydro's 2018 Guidelines. BC Hydro outlines the authority and purpose of BCUC approved guidelines, citing several authorities as follows:⁵⁹

- The BCUC has the implicit authority to issue guidelines under the UCA and has done so on numerous occasions including the 2015 CPCN Guidelines and 2003 Resources Planning Guidelines;
- The BCUC's existing guidelines are helpful to participants to outline the policy and practice of the BCUC, what is expected to be included in applications and, how the BCUC will exercise its discretion under the UCA;
- Guidelines do not bind the BCUC in the exercise of its jurisdiction under the UCA as the BCUC cannot fetter its discretion and cannot restrict itself from considering the specific circumstances in reaching a determination; and
- Guidelines, although nonbinding, can help enhance the quality of decision-making, promote certainty and reduce inconsistencies resulting in effective and fair administration.⁶⁰

BC Hydro's existing 2010 Guidelines were created and filed in response to Direction 31 of the BCUC decision concerning BC Hydro's 2008 Long-Term Acquisition Plan, but there was no BCUC Order approving the 2010 Guidelines. BC Hydro submits that its proposed 2018 Guidelines are designed to update, expand and replace the 2010 Guidelines.⁶¹

The proposed 2018 Guidelines provide guidance to BC Hydro in preparing and filing applications and compliance reports.⁶² The Guidelines contain:

- Guidance for the review of capital projects in RRA proceedings;
- Filing requirements for RRAs;
- "Major Project" expenditure thresholds for Power Systems projects, Buildings projects and IT projects. If the authorized cost estimate for a project exceeds the threshold, BC Hydro commits to filing a CPCN if the project is an extension, or a section 44.2 expenditure schedule if the project is not an extension;
- BC Hydro's description of the circumstances that may constitute an extension project; and
- An overview of BC Hydro's required compliance reporting.

BC Hydro submits approval of 2018 Guidelines are an appropriate outcome of the Review⁶³ and that the 2018 Guidelines will:

- promote an effective and efficient review of BC Hydro's capital expenditures and projects;

⁵⁹ *Maple Lodge Farms v. Government of Canada* [1982] 2 S.C.R. 2, 1982 CanLII 24 (SCC); BC Hydro Final Argument, Book of Authorities, Tab 2; and Robert W. Macaulay, James L.H. Sprague & Lorne Lossin, *Practice and Procedure Before Administrative Tribunals*, looseleaf (Toronto: Thomson Reuters, 2018); BC Hydro Final Argument, Book of Authorities, Tab 3.

⁶⁰ BC Hydro Final Argument, pp. 5, 23-26; Exhibit B-16, BCUC IR 17 series.

⁶¹ *Ibid.*, p. 6.

⁶² Exhibit B-7, Appendix B.

⁶³ BC Hydro Final Argument, pp. 5, 23-26; Exhibit B-16, BCUC IR 17 series.

- clarify the nature of the BCUC’s oversight over BC Hydro’s capital expenditures and projects in revenue requirements applications, major project applications, and compliance reports;
- provide guidance to BC Hydro with respect to the information required for revenue requirements applications, when a CPCN is required, and the timing of compliance reports; and
- document BC Hydro’s commitment to file section 44.2 applications for major projects that are not extensions.⁶⁴

Intervener Arguments

BCOAPPO submits that BC Hydro’s proposed 2018 Guidelines are a positive first step or initial framework, but it remains concerned the information BC Hydro has proposed to provide does not go far enough.⁶⁵

BCSEA generally supports BCUC approval of the 2018 Guidelines noting the guidelines accomplish the basic objective of providing clarity, transparency and reasonable procedural outcomes in normal situations.⁶⁶

CEABC submits there is no reason why the BCUC should grant BC Hydro’s request for an order approving the 2018 Guidelines because they are not written in mandatory language and are not enforceable by the BCUC.⁶⁷

CEC submits the 2018 Guidelines are “not sufficient” but it does not raise any objections to the approval of guidelines by the BCUC.⁶⁸

MoveUP submits that while it could go further, the proposed 2018 Guidelines are a substantial improvement upon the 2010 Guidelines and that the enhanced transparency should help avoid future deviations like the SAP project.⁶⁹

BC Hydro Reply Argument

BC Hydro states that although guidelines are non-binding they cannot be ignored and if the 2018 Guidelines are approved, BC Hydro will:

- comply with the 2018 Guidelines or, as indicated in the guidelines, will identify and explain any departures if the related guideline is written in mandatory language such as “BC Hydro will file”;
- look to the 2018 Guidelines to determine whether it should file a major project application rather than consider afresh the appropriate major project threshold for every project; and
- include certain information in its RRAs since the 2018 Guidelines will set out the BCUC’s filing expectations.⁷⁰

⁶⁴ Exhibit B-7, p. 5.

⁶⁵ BCOAPO Final Argument, p. 17.

⁶⁶ BCSEA Final Argument, pp. 3, 12.

⁶⁷ CEABC Final Argument, p. 30.

⁶⁸ CEC Final Argument, p. 4.

⁶⁹ MoveUP Final Argument, p. 8.

⁷⁰ BC Hydro Reply Argument, pp. 5–6.

Panel Determination

The Panel finds that the BCUC has implied authority to set guidelines where it has approval authority. The Panel finds it has the authority to approve the 2018 Guidelines under sections, 44.2, 45 and 46 and sections 59 to 61 of the UCA since the 2018 Guidelines address the form and content of information to be filed with the BCUC to obtain approval or acceptance. This finding is consistent with the BCUC's 2015 CPCN Guidelines which were approved under sections 45 and 46 of the UCA.

The Panel agrees with BC Hydro that having an approved set of capital filing guidelines, even though they are nonbinding, can be beneficial in providing certainty and clarity to the parties and can assist the BCUC in the efficient and effective oversight of capital expenditures. The Panel considers having approved guidelines to be an improvement over the "unapproved" status of the 2010 Guidelines.

The existence of approved guidelines and the fact that they are not enforceable does not preclude the BCUC or other parties from seeking further information that is needed in a proceeding. Further, the BCUC may always require a CPCN application for extensions below the thresholds established in the approved guidelines.

The specific issues with the proposed 2018 Guidelines raised by interveners are addressed in Sections 3 and 4 of this Decision.

3.0 BC Hydro's Proposed 2018 Capital Filing Guidelines

BC Hydro submits the 2018 Guidelines will enable the efficient and effective oversight over BC Hydro's capital expenditures, as follows:

- Capital expenditures are reviewed prior to and after implementation

The 2018 Guidelines provide the BCUC with ample opportunity to exercise oversight over capital expenditures prior to implementation through:

- the review of major project filings (under section 44.2 or sections 45–46 of the UCA); and
- RRAs when setting rates (under sections 58–61 of the UCA).

The review of the Integrated Resource Plan (IRP) under section 44.1 of the UCA provides an additional opportunity for oversight.

These prospective reviews are coupled with the BCUC's power to review capital expenditures for prudence, post implementation.

- The major project thresholds capture significant extensions

The 2018 Guidelines set major project thresholds and indicate when a CPCN for significant extension projects is required. The 2018 Guidelines balance oversight and efficiency, while recognizing that the BCUC always retains discretion to direct that a CPCN is required for extension projects below the thresholds.

- The commitment to file 44.2 applications for acceptance of certain expenditure schedules ensures review of all major projects

The 2018 Guidelines document BC Hydro's commitment to file for section 44.2 acceptance of non-extension projects that exceed the major project thresholds. This ensure that the BCUC conduct a detailed, public interest review of all projects above the thresholds.

- The 2018 Guidelines outline the information to be filed in RRAs

The 2018 Guidelines document the key information on capital expenditures that BC Hydro is to provide in its revenue requirements applications. Combined with the opportunity through the information request process to gather more detailed information on specific issues and projects, the BCUC can be confident that it will have the information needed to conduct oversight over BC Hydro's capital expenditures through the revenue requirement process.

- Compliance reporting will be enhanced

The 2018 Guidelines provide clarity on the timing and content of BC Hydro's Annual Report and project-specific compliance reports to the BCUC.⁷¹

The Panel addresses issues related to BC Hydro's proposed 2018 Guidelines in the following sub-sections:

1. What constitutes a "project" for review by the BCUC, including consideration of BC Hydro's capital management processes and the definition and financial approval of programs and projects;
2. Major project filings and related filing thresholds;
3. Review of capital in an RRA including information to be filed in an RRA and whether the review should focus on capital additions and expenditures;
4. Project execution and prudence reviews;
5. Other filings including compliance filings and IRPs; and
6. Intervener submissions on edits to the to the 2018 Guidelines.

3.1 Is an Individual Project the Appropriate Level for Review of Capital Expenditures?

As noted in sub-section 1.2, the proposed scope of this Review is included in Appendix A attached to this Decision and sub-item 1d of which states:

Clarity on what constitutes a project. This would consider how to treat and review independent projects or programs that are linked (in function and/or geographic term) and, in aggregate, meet or exceed any prescribed expenditure thresholds.

In the SAP Inquiry, the BCUC found that BC Hydro's decision to implement SAP was an approval by BC Hydro's Executive Team of a proposal with a capital budget of \$167 to \$173 million to replace its IT systems with SAP over a multi-year period.⁷² At the time, BC Hydro's financial controls specified that expenditure authorizations and associated business cases were required for "any monetary outlays or binding financial commitments" in excess of \$50 million.⁷³ The SAP Inquiry Report concluded that the way the decision was made by BC Hydro to

⁷¹ BC Hydro Final Argument, pp. 6–7.

⁷² SAP Inquiry Report p. ii.; SAP Inquiry Report, p. 40.

⁷³ Ibid., p. 37.

replace the IT systems with SAP “prevented its appropriate scrutiny by BC Hydro’s Board of Directors and the BCUC.”⁷⁴

⁷⁴ Ibid., p. 46.

Further, the SAP Inquiry Report included a recommendation that this proceeding to review the 2018 Guidelines consider BC Hydro's financial policies for authorization of capital expenditures. In the SAP Decision, the BCUC recommended BC Hydro's policies should be appropriately designed and operate in a manner that ensures: an effective approval/decision-making framework with a clear hierarchy of responsibility for review; authorization of capital expenditures at the appropriate level of management or the Board of Directors; proper aggregation of related expenditures and components; and that precludes project splitting.⁷⁵

With respect to the question of whether an individual project, as defined by BC Hydro, is the appropriate level for the BCUC's review of capital expenditures BC Hydro submits:

- The BCUC should review programs of projects at the project level in an RRA or through a CPCN and section 44.2 expenditure schedule filings when a project exceeds the established threshold;
- The project level is appropriate as each project within a Program of Projects delivers individual benefits, is justified on its own merits, and has a discrete business justification. The program may lack these elements making it less amenable to review by the BCUC;
- Even if the total cost of a program may approach or exceed the major project threshold, the individual projects within a program have discrete business justifications and should be reviewed or approved on an individual basis consistent with BC Hydro's internal financial approval process;⁷⁶ and
- Its practices for the planning and delivery of capital investments are established and performing well⁷⁷ and a review of capital planning and execution may assist the BCUC in determining the reasonableness of BC Hydro's capital expenditures and additions or the prudence of completed projects.⁷⁸

Given the key purpose of this Review is to consider how the BCUC can provide efficient and effective oversight of capital expenditures under the regulatory framework and processes described in Section 2, the Panel considers below whether an individual 'project' as defined by BC Hydro is the appropriate level for the BCUC to review capital expenditures. In making this assessment, in the following sub-sections, the Panel considers:

1. BC Hydro's definition of projects and programs;
2. BC Hydro's process for authorization of projects and programs; and
3. BC Hydro's capital management processes.

Intervener arguments, BC Hydro's reply and the Panel's overall determination on whether an individual capital expenditure or some other aggregated level or grouping of capital expenditures is the appropriate level for the BCUC's review is included below after sub-section 3.1.3.

⁷⁵ Ibid., pp. 110–111.

⁷⁶ BC Hydro Final Argument, pp. 48–49.

⁷⁷ Ibid., p. 84.

⁷⁸ Exhibit B-7, pp. 23–24.

3.1.1 Projects and Programs of Projects

BC Hydro explains that individual Projects are time-bound, one-time undertakings to buy, replace, maintain, or rehabilitate a distinct asset, a set of assets, or a group of assets to achieve a specified set of objectives.⁷⁹ The scope of a single project is determined by a specific set of business requirements. If additional work does not meet those particular business requirements, the work is not considered part of the project. BC Hydro elaborates that two sets of work that are geographically close to each other do not become part of a single project for that reason alone.⁸⁰

BC Hydro defines a Program of Projects as follows:

A Program of Projects is a group of related projects with common business drivers and or technical characteristics which are managed in a coordinated way to deliver a common business requirement or achieve delivery efficiencies by sharing teams, resources, and information technology environments. The projects are managed together to reduce risk and achieve efficiencies and other delivery benefits not available if managed individually. Programs of Projects usually have long durations (multiple years), a finite end date, and are often flexible in scope with new projects added over time.⁸¹

BC Hydro states that the concept of a Program of Projects is to create project delivery efficiencies rather than an approval mechanism as each project can deliver individual benefits as discussed further in the next sub-section.⁸²

BC Hydro also creates Recurring Capital Programs, which include:

- Work Programs involving repeatable work units, generally recurring annually. These programs are grouped to deliver aggregate benefits and usually involve highly standardized high volume and low complexity asset replacements or system improvements. BC Hydro provides the following examples of Work Programs: Wood Pole Replacement, IT application enhancements and hardware sustainment, Fleet Vehicle Capital Replacement, and Insulator Replacement programs; and Acquisitions involving one-time and recurring annual purchases representing about 10 percent of the IT capital expenditures/plan. These acquisitions include purchases of data network equipment, data centre equipment, user access tokens, business software licenses, enterprise application licenses, personal computers, and mobile phones.⁸³

BC Hydro submits that the BCUC should focus its review on individual projects. BC Hydro states that a review by the BCUC of the entire cost of Programs of Projects is not useful because:

- a Project that forms part of a Program of Projects is typically independent of the other projects because the implementation of one project does not rely on the other projects for precedence;
- the individual projects may start at different times and may be deferred or cancelled; and

⁷⁹ Exhibit B-7, p. 33.

⁸⁰ Ibid., pp. 33–34.

⁸¹ Ibid., pp. 46–47.

⁸² Exhibit B-16, BCUC IR 38.1.1.

⁸³ Exhibit B-7, pp. 47–48.

- new projects may be added, and/or the timing of projects may be revised over time due to changing system risks and needs.

BC Hydro also states it would not be possible for most Programs of Projects to be reviewed in a CPCN type process because such a filing has specific requirements such as a level of cost estimate accuracy, evaluation of technically feasible alternatives, and sufficient consultation. Since individual projects may be at different phases of a project life cycle, they may not all satisfy such filing requirements.⁸⁴

To facilitate the BCUC's review of projects within a program, BC Hydro states it will identify individual projects (exceeding the materiality limit) in the table attached as Appendix I of its RRAs and indicate whether the project is part of a program.⁸⁵ BC Hydro will also include an Appendix J summary sheet for Programs of Projects identified in Appendix I.⁸⁶ BC Hydro elaborates that depending on the stage of the constituent projects, this summary may not provide a total forecast cost due to uncertainty over scope and duration.⁸⁷

BC Hydro submits this will:

- enable the BCUC to review the associated capital expenditures associated with a program;⁸⁸
- allow the BCUC to exercise its oversight role with respect to addressing concerns with a program;
- provide the BCUC with increased visibility into how BC Hydro is grouping projects into a program to achieve delivery efficiency; and
- enable the BCUC to review program strategies that have projects in the test period.

Further, if there are concerns, the projects associated with a program can be reviewed on a retrospective basis through a prudence review, or on a forecast basis in a revenue requirements application or, if applicable, a major projects application.⁸⁹

3.1.2 Authorization of Projects and Programs

BC Hydro states a Program of Projects does not indicate an investment decision and that its Management Accounting Policies and Procedures (MAPP) outline that related expenditures cannot be separated into multiple projects if dependent on each other for benefits.⁹⁰

BC Hydro explains it uses staged financial approvals for Projects and Programs. The projects, individually or in a program, progress through identification, definition, and implementation phases of the project life cycle. Different projects within a Program of Projects will typically be at different stages, and will have correspondingly different levels of scope, cost, and schedule definition.⁹¹

⁸⁴ Exhibit B-16, BCUC IR 38.4.

⁸⁵ Ibid., BCUC IR 38.1.

⁸⁶ Ibid., BCUC IR 38.1.

⁸⁷ BC Hydro Final Argument, p. 49; Exhibit B-16, BCUC IR 38.1.2.

⁸⁸ BC Hydro Final Argument, p. 47.

⁸⁹ Ibid., p. 49.

⁹⁰ Ibid., pp. 48–50; Exhibit B-16, BCUC IR 38 series; Exhibit B-7, pp. 46–47.

⁹¹ Exhibit B-16, BCUC IR 38.4; Exhibit B-7, Appendix H, p. 14.

BC Hydro explained in the SAP Inquiry that under the MAPP, an Expenditure Authorization Request (EAR) is an approval document required for all initiative expenditures exceeding \$100,000 and an EAR is required to commence the definition phase of a project. A single EAR is prepared for each identifiable project and is used to obtain approval for a project for all costs (whether Capital or Operating) associated with a specific project.⁹²

BC Hydro states its MAPP does not require the full cost of a Program of Projects to be approved. BC Hydro explains it typically uses one of three approaches for the funding and approval of its Programs of Projects:

1. Each individual project's need, alternatives, cost, and project execution strategy is assessed independent of other projects in the Program to determine if a project will be initiated and implemented. In this case, each project is initiated and approved based on an individual business case and each individual project has its own EAR. There is no Program cost estimate separate from the forecast cost of the individual projects.
2. The need for the projects within the Program is assessed together in the Identification Phase. Each individual project's alternatives and forecast cost are evaluated independent of other projects in the Program and released with separate business cases into the Feasibility Stage or Definition Phase with its own EAR. Program cost is estimated as what would be required to complete the identification phase.
3. The Program is evaluated, and its funding is approved with a single business case for all stages of the Program's lifecycle. All project costs within the program captured in a single EAR. This approach is usually used for low risk, repeatable projects.

BC Hydro states the first two approaches align with its EAR Procedure, as follows:

- an initiative is subdivided into separate projects if each project can be completed and placed into operation independently of the other projects and achieves the key benefits for the portion that is completed;
- the authorization documents for separate projects should include information on the overall strategy, program or initiative; and
- independent projects must have separate authorization documents.

For the third approach, approval is required at the level for the entire program. Under this approach, the Program is evaluated, and funding is approved with a single business case for all stages of the Program's lifecycle for low risk and repeatable projects.

BC Hydro elaborates that the concept of Program of Projects is to create project delivery efficiencies rather than an approval mechanism as each project can deliver individual benefits. BC Hydro provides an example where specific equipment at a facility (such as reactors) can be replaced on an individual basis. For financial approvals, the project would be for the individual reactor replacement. However, for project delivery efficiency purposes, several reactors could be grouped together as a Program of Projects. Each reactor replacement has stand-alone benefits and each project could start at different times or be deferred or cancelled or the timing of the projects can be changed based on system risks and needs.⁹³

⁹² SAP Inquiry, Exhibit B-3, Attachment 15, p. 1.

⁹³ Exhibit B-16, BCUC IR 38.3.

In the SAP Inquiry, BC Hydro's presented its Financial Approval Authority Limits by position as follows:

Table 1: BC Hydro Financial Approval Authority Limits⁹⁴

Financial Approval Authority Limits (excluding HST)				
Position	Authorization / Planning Documents	Commitment Documents	Payment Documents	Expense Claims
President & CEO ⁽¹⁾	\$50,000,000	\$50,000,000	\$50,000,000	Any items
Executive Vice-President Finance & Chief Financial Officer (CFO) ⁽¹⁾	\$20,000,000	\$20,000,000	\$20,000,000	\$50,000
Executive VP	\$6,000,000	\$10,000,000	\$10,000,000	\$20,000
VP / Executive Director	\$3,000,000	\$3,000,000	\$3,000,000	\$20,000
VP, <i>Project Delivery</i>	\$3,000,000	\$10,000,000	\$10,000,000	\$20,000
Project Director, <i>Project Delivery</i>	Nil	\$6,000,000	\$6,000,000	\$20,000
Finance Leads ⁽¹⁾	\$1,000,000	\$1,000,000	\$1,000,000	\$20,000
M4	\$1,000,000	\$1,000,000	\$1,000,000	\$20,000
M3	\$500,000	\$150,000	\$150,000	\$15,000
M2	\$200,000	\$100,000	\$100,000	\$10,000
M1	\$100,000	\$50,000	\$50,000	\$10,000
Professionals ⁽²⁾	Nil	Nil	Nil	Nil
Other Employees and Contractors ⁽²⁾	Nil	Nil	Nil	Nil

(1) For financial approval of Ex-Plan Operating and Capital funding requests, please refer to Financial Approval Procedure (CPS)-section "Procedure Application- Ex-Plan Approval."

(2) Nil except as authorized by a Finance Lead

BC Hydro also explained that the EAR section of the MAPP contemplates approval for Programs of Projects reaching the implementation phase in two ways:

Multiple projects that are intended to be run as a program, or that have a common objective with similar characteristics, shall be consolidated into one Program Initiative for approval purposes. Approval is required at the FAAP [Financial Approval Authority Limits] level for the entire program. For Transmission and Distribution Sustaining Capital program expenditures that would otherwise require Board approval, the CEO has the option of approving the Program.

Similarly, a Program can be subdivided into separate projects if each project is discrete and can be completed and placed into operation independently of other projects within the program. Each project that is part of an approved Program shall have a separate EAR with an approval level based on the costs of that project (however Sustaining Capital programs will not require re-approval). For project approval purposes, the EVP [Executive Vice-President] can approve individual projects within an approved program irrespective of the project amount.⁹⁵

⁹⁴ SAP Inquiry, Exhibit B-3, Attachment 13, p. 2.

⁹⁵ Ibid., Attachment 15, p. 2.

As noted previously, BC Hydro says that programs in the first category are typically low-risk repeatable programs⁹⁶ and therefore it appears to the Panel that most types of Program of Projects would fall into the latter category, requiring authorization at the project level.

The MAPP further explains the approval processes for such low risk, repeatable programs as follows:

Acquisition of Multiple Similar Items

A “blanket” or “open” EAR is used as the approval document for the acquisition of multiple similar low dollar value items purchased as part of a program. A single EAR is prepared for the annual planned amount of these expenditures for the business unit. For example, a blanket EAR is used for the annual purchase of personal computers by a business unit...

Recurring Capital

Recurring capital such as regular replacements and improvements on the distribution system are budgeted in annual work programs and approved through a work order. Recurring capital, except Distribution Customer Driven Projects within the scope of [BC Hydro’s MAPP for EAR⁹⁷], does not require the preparation of an EAR, unless it is part of an Initiative project or the business group Finance Lead requires an EAR.⁹⁸

BC Hydro submits the BCUC’s review of recurring work programs is best done in an RRA, through the review of program spending over the test period. BC Hydro states:

...it presents information on its recurring work programs in Chapter 6 of its revenue requirements application, so that forecast spending over the test period is transparent and can be reviewed. The BC Hydro approval processes for recurring capital programs are streamlined as they comprise low-complexity work and are recurring in nature. These programs often involve work on assets that are put into service in the same year as the expenditure is made. Therefore, a revenue requirements proceeding is the most efficient and effective way to review recurring work programs.⁹⁹

3.1.3 BC Hydro Capital Management Processes

An important factor in determining the appropriate level of review of capital expenditures by the BCUC is the oversight role of both management and the regulator. As discussed in Section 2, it is the responsibility of BC Hydro’s management and board to design and maintain an effective system for the authorization, oversight and execution of capital expenditures. It is the BCUC’s role to determine if planned capital expenditures are in the public interest under sections 44.2, 45 and 46 of the UCA and if capital expenditures are just and reasonable and prudently incurred and therefore appropriate for including in rates under sections 58 to 61 of the UCA. BC Hydro provides a description of its governance and oversight structure in section 3.2 of the Revised Proposal. BC Hydro’s states the governance structures that provide oversight over BC Hydro’s capital planning and delivery processes involve the Board of Directors, the Executive Team, business unit leadership teams, portfolio managers, and project and program managers.¹⁰⁰

⁹⁶ Exhibit B-16, Response to BCUC IR 38.3.

⁹⁷ SAP Inquiry, Exhibit B-3, Attachment 15, p. 3.

⁹⁸ Ibid., p. 2.

⁹⁹ BC Hydro Final Argument, p. 50.

¹⁰⁰ Exhibit B-7, p. 20.

BC Hydro submits, the BCUC may review the adequacy of BC Hydro's capital planning and execution in the context of BC Hydro's revenue requirements and major project applications. In these proceedings, a review of capital planning and execution may assist in determining the reasonableness of BC Hydro's capital expenditure or additions forecasts or the prudence of completed projects.¹⁰¹ BC Hydro notes it also included a discussion of its governance structure in the Fiscal 2017–Fiscal 2019 RRA and will provide an update in its future RRAs.¹⁰²

BC Hydro's submits its practices for the planning and delivery of capital investments are established and performing well. BC Hydro states it has made improvements in its capital management processes, is committed to continuous improvement and third parties have recognized BC Hydro's success in this regard.¹⁰³

BC Hydro states:

In December 2018, the Office of the Auditor General of B.C. released an independent audit of Capital Asset Management in BC Hydro. The audit found that BC Hydro's capital asset management systems and practices reached a generally advanced level of maturity. On page 17 of the report the Auditor General stated: "BC Hydro has a generally advanced level of maturity in asset management. Its success in this regard is a result of concerted effort over several years by a set of skilled professionals focused on ensuring that a reliable source of electrical power will be supported by a mature asset management practice." The Auditor General also commented: "I am pleased to say that because BC Hydro is managing its assets well, we made no recommendations in this audit."¹⁰⁴

Intervener Arguments

BCOAPO generally accepts BC Hydro's proposal regarding programs, except if funding is approved with a single business case for all stages of the program's lifecycle, then the review should take place at the program level. BCOAPO also says BC Hydro should note where a project is the first to be reviewed in a program.¹⁰⁵

MoveUP is satisfied that BC Hydro has incorporated useful refinements to avoid inappropriate project disaggregation for oversight purposes and asks the BCUC to address the assurances provided by BC Hydro regarding the review of projects within programs to be incorporated in the decision. MoveUP also states:

We suggest that BC Hydro's decisions to categorize projects as components of programs slated for less stringent review than their aggregate cost would indicate should be subject to Commission approval.¹⁰⁶

CEC did not state any positions related to programs.

BC Hydro Reply Argument

BC Hydro responds that the decision to group projects in a program is a management decision and there is no section under the UCA under which BC Hydro could seek such approval. Further, since MoveUP states that it is

¹⁰¹ Exhibit B-11, p. 23.

¹⁰² Exhibit B-7, pp. 23-24.

¹⁰³ BC Hydro Final Argument, p. 84.

¹⁰⁴ Ibid., p. 85.

¹⁰⁵ BCOAPO Final Argument, p. 15.

¹⁰⁶ MoveUP Final Argument, p. 10.

satisfied that BC Hydro has incorporated useful refinements to avoid inappropriate project disaggregation for oversight purposes, BC Hydro does not see any need for further process around the grouping of projects into programs.

BC Hydro submits a CPCN-like review of a collection of low-risk, repeatable projects would not be warranted. BC Hydro argues that major project filings should be reserved for significant projects which raise more complex issues for BCUC review and determination, and this approach is consistent with the BCUC's 2015 CPCN Guidelines. Regarding BCOAPO's proposal that the first project of a program or strategy be identified by BC Hydro in its RRA, BC Hydro states its proposal is that all projects above the \$5 million thresholds in an RRA that are associated with a program or strategy will be identified and the program or strategy summarized.¹⁰⁷

Panel Determination

Subject to the additional information requirements identified below, the Panel finds BC Hydro's proposals related to projects and programs information to be filed with the BCUC are appropriate.

It is the BCUC's role to determine if planned capital expenditures are in the public interest under sections 44.2, 45 and 46 of the UCA and to allow for prudently incurred capital expenditures that are just and reasonable to be included in rates under sections 59 to 61 of the UCA. The purpose of this Review is to consider how the BCUC can effectively and efficiently carry out these responsibilities.

To be efficient and effective the BCUC must get the information it needs in a timely and fulsome manner that facilitates its review of capital expenditures. Preferably this information can be provided by BC Hydro leveraging or using its existing internal processes to maximum advantage. Additionally, as pointed out by BC Hydro, a review of BC Hydro's capital planning and execution processes can assist the BCUC in determining the reasonableness of BC Hydro's forecast capital expenditures and the prudence of completed projects.

It would be efficient and effective for both BC Hydro and the BCUC if the BCUC is able to focus its review of capital expenditures based on BC Hydro's capital management processes including BC Hydro's process for the review and authorization of capital expenditures by management and the board of directors. However, to leverage these authorization processes, the BCUC must be satisfied they are properly designed and operating effectively. In this proceeding, BC Hydro describes its capital management processes and provides evidence to support that they are well designed and effective. BC Hydro also provides information on its capital investment governance structure in its RRAs and major project filings and commits to continue to do so in the future.

Given the importance of BC Hydro's capital management processes to an effective and efficient review of capital expenditures by the BCUC, the BCUC needs to be kept informed about significant changes in processes including the existence of any significant deficiencies that have been identified through internal or external review processes. **Accordingly, BC Hydro is directed to amend the 2018 Guidelines to indicate it will provide information on:**

- **any significant changes in its capital management processes, including changes in how capital expenditures are defined and authorized; and**
- **any significant deficiencies in its capital management processes identified through internal and external audits or reviews.**

¹⁰⁷ BC Hydro Reply Argument, pp. 14–15.

Regarding the question of whether the individual project, as defined by BC Hydro, is the appropriate level for the BCUC's review of capital expenditures, as noted above, the Panel considers it optimal for the BCUC to review capital expenditures at the same level they are required to be approved under BC Hydro's implemented capital expenditure approval policies (i.e. its Financial Approval Authority Limits).

If BC Hydro aggregates capital expenditures for approval, this aggregated level will also assist the BCUC in the efficient and effective review of capital expenditures. Further, reviewing capital expenditures at the level projects are required to be aggregated for approval purposes also addresses the concerns raised in the SAP Inquiry Report and is consistent with BCOAPO's submission related to the review of projects that are approved with a single business case for all stages of the program's lifecycle.

BC Hydro argues the BCUC should review capital expenditures at the individual project level in an RRA or through a CPCN and section 44.2 expenditure schedule filings when a project exceeds the established threshold. It further argues the project level is more appropriate than at the program level even if the total cost of a program may approach or exceed the major project threshold because the individual projects within a program have discrete business justifications and should be reviewed or approved on an individual basis by the BCUC consistent with BC Hydro's implemented capital expenditure approval policies.¹⁰⁸ Further, the Panel notes the following:

- BC Hydro's currently implemented capital expenditure approval policies prohibit documentation splitting as such a practice circumvents the intent of the its policies;¹⁰⁹
- Typically, BC Hydro groups projects into programs for the management of projects and not for approval purposes.¹¹⁰
- Projects grouped into programs for authorization purposes, are typically low-risk, repeatable projects and BC Hydro commits to providing information on these programs in its RRAs; and
- BC Hydro also commits to file information in RRAs about projects that are associated with programs which provides the BCUC with an opportunity review programs on a forecast basis in RRAs or retrospectively through a prudence review.

Even if BC Hydro approves or expects to approve a grouping of non-extension projects at an aggregated level (e.g. program level) and the grouping of projects exceeds the major filing thresholds, the BCUC has no authority to order a prospective major project filing because a section 44.2 expenditure schedule filing is voluntary on the part of BC Hydro. In the 2018 Guidelines, BC Hydro only commits to a section 44.2 major filing for an individual project that exceeds the filing threshold. However, while the BCUC cannot order BC Hydro to file section 44.2 major filing for non-extension capital expenditures grouped together for authorization as a single business case or any other grouping of non-extension projects (e.g. geographically proximate projects or projects using a common technology platform), the BCUC can request BC Hydro to file a 44.2 major filing based on information it obtains in an RRA proceeding. While not mandatory, such a request would signal the BCUC's interest in reviewing a combination of projects on a prospective basis.

¹⁰⁸ BC Hydro Final Argument, pp. 48–49.

¹⁰⁹ Exhibit B-3, Attachment 13, p. 1.

¹¹⁰ Exhibit B-16, BCUC IR 38.3.

With respect to a grouping of extension capital expenditures authorized at the aggregated level, it may be more efficient and effective for the BCUC to consider whether to require a CPCN for an aggregated group of extension projects using the same authorization level required under BC Hydro's implemented capital expenditure approval policies. If a program or other grouping of extension capital expenditures is approved at an aggregated level and the total amount authorized exceeds the major filing threshold, the BCUC may want to exercise its authority to order a CPCN based on the aggregated approval level even if BC Hydro intends to implement the group of capital expenditures as a series of individual projects. While authorization of a program or aggregated grouping of extension capital expenditures is not likely to occur very often the BCUC may still want to consider whether it should require a CPCN for the grouping of extension capital expenditures.

Given that under section 45(5) the BCUC may only order a CPCN within 30 days after construction of the extension has begun, for the BCUC to consider if ordering a CPCN for a grouping of capital expenditures approved or expected to be approved as a group is warranted, it requires information regarding extension capital expenditures at a sufficiently early stage. While BC Hydro has committed to file information regarding programs of projects in Appendix J of the RRA, the extension information included in the Annual Report is based on individual extension capital expenditures and does not include information for a grouping of capital expenditures approved or expected to be approved as a group.

Accordingly, BC Hydro is directed to amend the 2018 Guidelines to include in the Annual Report a list of all extension capital expenditures (and forecasted total cost where this information is available), where the extension capital expenditures meet the following criteria:

- **Financial approval of extension capital expenditures is authorized by BC Hydro or expected to be authorized at a group, program or other aggregated level; and**
- **Any individual capital expenditures within the group, program or other aggregated level are extensions.**¹¹¹

Additionally, in its review of the Annual Report and in RRA proceedings the BCUC can inquire into the potential linkages between projects and can order joint CPCNs for extension projects where the BCUC considers this is appropriate. For example, in the F2017 to F2019 RRA Decision, the BCUC found that the Westbank Substation Upgrade project and West Kelowna Transmission extension capital expenditures were sufficiently linked that they could be expediently reviewed in one process, and ordered BC Hydro to file a CPCN application pursuant to section 45(5) of the UCA.¹¹² The Panel considers that the information that BC Hydro proposes to file regarding programs of projects in Appendices I and J of an RRA to be of assistance to the BCUC's identification of and inquiry into potentially linked projects.

3.2 Review of Major Project Filings

BC Hydro outlines that the 2018 Guidelines set major project thresholds indicating when a CPCN for significant extension projects is required. The 2018 Guidelines also recognize that the BCUC retains the discretion to direct that a CPCN is required for extension projects below the thresholds.¹¹³ Further, the 2018 Guidelines document

¹¹¹ Extensions as defined by BC Hydro in the 2018 Guidelines or as otherwise determined by the BCUC.

¹¹² BC Hydro F2017-2019 RRA Decision dated March 1, 2018, p. 39.

¹¹³ BC Hydro Final Argument, pp. 6-7.

BC Hydro's commitment to file for section 44.2 acceptance of non-extension projects that exceed the major project thresholds.¹¹⁴ BC Hydro proposes to set the thresholds for Major Projects at: \$100 million for Power System projects; \$50 million for Buildings projects; and \$20 million for Information Technology projects.¹¹⁵

¹¹⁴ BC Hydro Final Argument, p. 7.

¹¹⁵ Exhibit B-7, Appendix B, p. 3.

The Panel considers the appropriateness of setting filing thresholds and the thresholds proposed by BC Hydro in the next sub-section.

3.2.1 Major Project Filing Thresholds

The 2018 Capital Filing Guidelines contain three expenditure thresholds that would class a project as a “Major Project” and trigger a CPCN or section 44.2 expenditure schedule filing (depending on whether the project is an extension): \$100 million for Power Systems (Generation, Transmission, Distribution); \$50 million for Buildings; \$20 million for IT projects. The proposed thresholds are similar to the 2010 Guidelines, except that Distribution projects previously had a \$50 million threshold. BC Hydro submits the thresholds appropriately balance oversight and efficiency, while recognizing that the BCUC always retains discretion to direct that a CPCN is required for extension projects. Major project thresholds enhance certainty by allowing BC Hydro to account for the time and resources required for the preparation of a CPCN application when determining the schedule and cost estimate for a project.¹¹⁶

BC Hydro commits to filing major project expenditure schedule applications for all non-extension projects that exceed the major project thresholds. BC Hydro submits this will allow the BCUC to undertake a separate public interest review of any project over the applicable threshold proposed by BC Hydro.¹¹⁷

BC Hydro expects 20 projects included in the F2020 to F2024 Capital Plan will meet the major project thresholds (though not all may be filed with the BCUC in this period),¹¹⁸ and that approximately 20-30% of BC Hydro’s non-exempt capital expenditures would be reviewed by the BCUC in a major project filing in the next ten years.¹¹⁹ If the threshold values were halved this would result in 41 major projects and would require additional resources.¹²⁰ BC Hydro also responded to questions regarding the feasibility of other approaches to triggering major projects, such as thresholds relative to overall capital expenditure and public interest issues, but BC Hydro considers absolute values to be the most clear and consistent approach to establishing major project thresholds.¹²¹

The table below identifies the non-exempt capital expenditures expected to be reviewed in major project applications for F2019 to F2028.

Table 2: Non-exempt Capital Expenditures Reviewed in Major Project Applications (\$ million)¹²²

	F2019	F2020	F2021	F2022	F2023	F2024	F2025	F2026	F2027	F2028
Total Non-Exempt Capital Expenditures	\$2,764	\$1,664	\$1,735	\$1,703	\$1,860	\$2,057	\$2,231	\$2,271	\$2,218	\$2,652
Major Project Applications / Non-Exempt Capital Expenditures	53%	19%	22%	28%	31%	31%	21%	16%	23%	22%

¹¹⁶ Exhibit B-7, p. 38; Appendix B, pp. 3–4; BC Hydro Final Argument, pp. 6–7, 15, 26, 40–41.

¹¹⁷ BC Hydro Final Argument, p. 16.

¹¹⁸ Exhibit B-16, BCUC IR 18.6.

¹¹⁹ Ibid., BCUC IR 18.8.1.

¹²⁰ Ibid., to BCUC IR 18.6.

¹²¹ Ibid., BCUC IR 18 series.

¹²² Exhibit B-4, BCUC IR 5.2 Attachment 1.

Intervener Arguments

No interveners raised issues with the major project thresholds.

BCSEA views that the thresholds are appropriate and notes that reducing the threshold by 50 percent would result in too many major filings. BCSEA submits there should be a balance between oversight and the practicalities of limited resources and that simply having more proceedings with even more technical and financial evidence could be counter-productive.¹²³

MoveUP agrees with BC Hydro on the role of expenditure thresholds, and that the thresholds are reasonable.¹²⁴

CEC agrees that in-depth public reviews of specific projects are appropriately focused on major projects such as CPCNs and section 44.2 applications and can be reasonably constrained by setting thresholds.¹²⁵

Panel Determination

The Panel finds BC Hydro's proposed major filing thresholds in 2018 Guidelines are appropriate. The thresholds result in the appropriate balance between prospective oversight of capital projects and regulatory efficiency. Prospective reviews allow the BCUC to scrutinize the need, alternatives and the reasonability of the forecasted cost in detail before construction begins and/or before significant costs are expended. Prospective reviews may also provide greater certainty to BC Hydro with respect to the future recovery of significant project costs in rates. The estimate of forecast capital subject to detailed, prospective review by the BCUC in major project filings provides appropriate coverage and is consistent with the previous coverage that resulted from BC Hydro following its 2010 Guidelines. The Panel agrees any reduction in the thresholds could result in an increased cost and resource requirement to BCUC, BC Hydro and interveners.

BC Hydro's commitment to filing major project expenditure schedule applications for all non-extension projects that exceed the major project thresholds allows the BCUC the opportunity to undertake a prospective public interest review of non-extension major projects over the filing threshold. Further, regardless of major filing threshold levels, the BCUC can still order a CPCN for extensions below the threshold level if it considers it to be warranted and the balance of capital projects can still be reviewed in an RRA or Prudence Review.

3.3 Review of Capital in RRAs

BC Hydro submits RRAs are the appropriate place for the BCUC to review the balance of non-exempt capital projects that are not the subject of a Major Project application because they either do not meet a major project filing threshold or have not otherwise been directed by the BCUC to require a CPCN. BC Hydro explains that RRAs provide an avenue for the BCUC to review and test BC Hydro's planned capital additions and expenditures and submits RRAs provide enough information and opportunity for the BCUC to review BC Hydro's capital investments.¹²⁶

¹²³ BCSEA Final Argument, pp. 8, 17, 18.

¹²⁴ MoveUP Final Argument, p. 8.

¹²⁵ CEC Final Argument, p. 5.

¹²⁶ BC Hydro Final Argument, p. 29.

In the following sub-sections, the Panel considers the adequacy of the information BC Hydro proposes to file in an RRA and issues raised by Interveners regarding the review of forecast capital expenditures and capital additions an RRA proceeding.

3.3.1 Information to be Filed

The 2018 Guidelines provide a list of information related to capital that BC Hydro intends to file in RRAs, and in response to BCUC and intervener IRs BC Hydro also identifies further information that it would be amenable to filing. The following table summarizes this information:

Table 3: Capital Expenditure Information to be Filed

Information provided in RRA	Proposed Location in RRA
Proposed 2018 Guidelines¹²⁷	
(a) Project's unique planning identification number	Appendix J (>\$20M) Appendix I (>\$5M)
(b) Project's driver	Appendix J
(c) Project's lifecycle phase or stage	Appendix I & J
(d) Key project milestone dates	Appendix I
(e) Project forecast capital expenditures and additions	Appendix I
(f) An indication of whether a project will be subject to a CPCN or 44.2 application	Appendix I
(g) An indication whether a project is an extension	Appendix I
(h) If applicable, an indication of which strategies, plans, or studies a project is linked to	Appendix I & K
(i) Descriptions of the strategies, plans, or studies identified in (h) above	Appendix K
(j) If applicable, an indication of which projects are part of Programs of Projects	Appendix I
(k) Description, objectives, scope, schedule, risk and mitigation strategies, and, if available, cost estimate for the programs identified in (programs of projects) above.	Appendix J
Additional Information BC Hydro is Amenable to Filing	
Information on the category of capital investments (mandatory investment, committed investment and investment to be prioritized) for individual projects listed in Appendix I. ¹²⁸	
A qualitative discussion of potential public interest matters with regard to the environment, First Nations, and communities / stakeholders for capital projects in Identification phase or later that meet the Appendix J threshold. ¹²⁹	
The actual or forecasted construction start dates for capital projects in Implementation phase that meet the Appendix J threshold. ¹³⁰	
The final, actual cost for completed capital projects and programs above a materiality threshold. ¹³¹	
Reducing the threshold for the projects in Appendix J in an RRA from \$20 million to \$10 million for IT projects. ¹³²	Appendix J
Risk and value scores ¹³³	Appendix I

¹²⁷ Exhibit B-7, Appendix B, pp. 2–3.

¹²⁸ BC Hydro Final Argument, pp. 45–46.

¹²⁹ BC Hydro Final Argument, pp. 45–46.

¹³⁰ Ibid.

¹³¹ Ibid.

¹³² Ibid., p. 59.

BC Hydro also outlines the information it regularly provides in an RRA and a table of this information is included in Appendix B of this Decision.

Prior to BC Hydro preparing its RRA filing, the BCUC and BC Hydro establish materiality limits for the information to be provided. For the F2020-F2021 RRA the materiality limits were set at:

- Individually Identified Projects and Programs in Appendix I:
 - greater than \$2 million for IT projects and greater than \$5 million for non-technology projects;
- Inclusion in Appendix J:
 - greater than \$20 million;
- Variance Explanations in Appendix G:
 - variances exceeding 10 per cent, with a minimum variance threshold of \$10 million, of planned asset category expenditures and additions in the F2017-F2019 RRA.¹³⁴

Intervener Arguments

In addition to information summarized in the above table and Appendix B, BCOAPO also requested additional information as follows:

- The RRA filing should specifically note those instances where the project concerned is the first project the BCUC will be reviewing in the context of a strategy/plan/study. This could be done in Appendix I;¹³⁵ and
- The RRA filing should include a variance report showing the difference between actual and planned capital additions for the previous test period for all projects with an authorized cost of \$20 M except IT projects where the threshold should be \$10 M.¹³⁶

CEC also requests additional information by proposing four revisions to the 2018 Guidelines in the form of additional chapters, as follows:

1. The nature of the benefits related to BC Hydro's capital expenditures;
2. Clarity about what constitutes significant decisions regarding capital investments;
3. The continuous improvement of the oversight information available to the BCUC; and
4. The review of capital expenditures in process or completed which may identify potential prudence issues.¹³⁷

The CEC submits that the addition of the chapters could result in more effective oversight information being available to the BCUC in its approval roles under the UCA.¹³⁸

BC Hydro Reply Argument

In response to BCOAPO, BC Hydro states that it will provide information in its RRAs for all projects above the \$5 million materiality limit and will identify whether they are associated with a program or strategy and the

¹³³ BC Hydro Reply Argument, p. 13.

¹³⁴ Exhibit B-16, BCOAPO IR 43.2.

¹³⁵ BCOAPO Final Argument, p. 16.

¹³⁶ Ibid., p. 9.

¹³⁷ The CEC Final Argument, p. 25.

¹³⁸ Ibid.

program or strategy will be summarized. In this way, programs and strategies will be identified in an RRA as soon as a project related to the program or strategy is included in Appendix I of the RRA.¹³⁹ BC Hydro considers its current practice of reporting historical variances in an Appendix to its RRAs (see, for example, Appendix G in the F2020–F2021 RRA) to be reasonable and sufficiently substantive, and consistent with the type of assessment being undertaken by the BCUC, recognizing that further information can always be requested through the information request process.¹⁴⁰

BC Hydro submits that CEC’s proposed amendments to the 2018 Guidelines should be rejected on the basis that the amendments are “not in the nature of guidelines”. As an example, BC Hydro states that the addition of a chapter on the nature of the benefits related to its capital expenditures would require groups within BC Hydro to provide their understanding of the benefits of the expenditures they make, and the issues addressed. This, BC Hydro states, would result in a detailed discussion of matters related to BC Hydro’s capital planning and management processes and it “does not describe a guideline.” BC Hydro submits that it would be inappropriate to include matters related to how it should manage its capital in the guidelines and furthermore, this type of information is already provided in BC Hydro’s revenue requirement and other applications.¹⁴¹

Panel Determination

The Panel finds the information BC Hydro proposes to or is amenable to including in an RRA, as set out in Table 3 above, to be comprehensive and appropriate. The Panel finds that BC Hydro’s reply to issues raised by BCOAPO and CEC to be sufficient and further notes that additional information can always be requested through the information request process in the RRA proceeding.

Accordingly, the Panel directs BC Hydro to amend section 6 of the 2018 Guidelines (RRA Filing Requirements) to include the “Additional Information BC Hydro is Amenable to Filing” as outlined in Table 3 of this Decision.

3.3.2 Review of Capital Additions and Expenditures in an RRA

Future projects that do not trigger a Major Project filing constitute a significant portion of BC Hydro’s capital spending. BC Hydro submits that that revenue requirements applications should be the primary venue for reviewing such projects.¹⁴² In an RRA, BC Hydro presents information regarding both forecast capital expenditures and capital additions and states that it will continue to do so.

BC Hydro submits the BCUC should focus its review on capital additions rather than capital expenditures, as only the forecast capital additions affect BC Hydro’s revenue requirements in the test period.¹⁴³ BC Hydro explains:

- projects that are not forecast to enter service in a test period may be in the early planning stage and therefore BCUC’s review of such project may be based on information that is incomplete or likely to change. As a result, any comments from the BCUC on such a project may provide limited value;
- as forecast capital expenditures in one test period will become forecast capital additions in subsequent test periods, reviewing capital expenditures would result in redundant reviews and regulatory inefficiency; and

¹³⁹ BC Hydro Reply Argument, p. 15.

¹⁴⁰ Ibid., p. 12.

¹⁴¹ Ibid., pp. 21–22.

¹⁴² Exhibit B-7, p. 30.

¹⁴³ BC Hydro Final Argument, p. 30.

- reviewing capital expenditures does not aid the BCUC in setting rates because capital expenditures do not directly impact rates. Reviewing capital expenditures would divert focus and attention from issues that are relevant to the setting of rates in the test period.¹⁴⁴

BC Hydro notes that forecast capital expenditures associated with work in progress do not affect revenue requirements until the projects go into service, and thus will become forecast capital additions in the current or subsequent test periods. BC Hydro submits the BCUC and Interveners will have the opportunity to review those same projects in those test periods.

BC Hydro states it is not proposing to limit reviews to only capital additions but encourages the BCUC and Interveners to be cognizant of the potential for redundant reviews and regulatory inefficiency when considering capital expenditures.¹⁴⁵ BC Hydro submits that if the review is focused on capital expenditures, rather than additions, parties would be reviewing projects (future capital additions) based on an early stage of project development such that the information on cost, schedule, and scope may be more uncertain and more prone to material changes. Such reviews may therefore be premature and would not have any impact on the rates for the test period.¹⁴⁶

BC Hydro also submits while BC Hydro's RRAs provide the opportunity to review capital investments, it is not always necessary for the BCUC to engage in a detailed review of forecast projects over a test period. BC Hydro explains this is particularly the case for BC Hydro given the continuation of the approved Amortization of Capital Additions Regulatory Account, which ensures customers only pay for actual capital additions. BC Hydro cites the following comments by the Brattle Group regarding the nature of the BCUC's review of capital when setting rates as follows:

In some jurisdictions authorized revenues (and therefore rates) reflect anticipated future capital expenditures, and there are infrequent and prospective true-ups for differences between anticipated and actual capital expenditures. This contrasts with the regime that applies to BC Hydro, where authorized revenues and rates are trued up retrospectively at every test period for differences between anticipated and actual capital expenditures. In these other jurisdictions regulators are likely to be concerned with the level of anticipated capital expenditure because they are prospectively incorporated into rates. Typically, these regulators are concerned that the level of capital expenditure corresponds to what is reasonably anticipated and is not biased upwards, since actual expenditure below anticipated levels accrue to the utility as additional return over and above the authorized rate of return. These regulators are concerned that rates should reflect only the capital expenditure that is reasonably anticipated to be spent.

BC Hydro submits that the amortization of the Capital Additions Regulatory Account can relieve the need to test BC Hydro's forecast of capital additions, as they will be completely trued up in the subsequent test period.¹⁴⁷

Intervener positions

Several interveners disagree with BC Hydro's position regarding the review of capital expenditures in an RRA proceeding.

¹⁴⁴ Exhibit B-16, BCUC IR 2.23.4.

¹⁴⁵ Exhibit B-7, p. 31.

¹⁴⁶ Exhibit B-4, CEC IR 14.3.

¹⁴⁷ BC Hydro Final Argument, p. 31.

BCOAPO does not embrace a limitation on focusing the review on capital additions. BCOAPO says that this fetters the BCUC ability to oversee capital spending to an unacceptable degree and it prevents both the BCUC and interveners from having the information and scope necessary to take fully informed positions and make fully informed decisions.¹⁴⁸ BCOAPO adds that projects with material capital spending in the test period (relative to their total cost) but no capital additions still do need to be subject to scrutiny as part of the “current” RRA application’s review since by the time the next RRA cycles occurs the projects may well fall into the “committed investment” category.¹⁴⁹

CEABC submits that problem with exercising any oversight only at the point of capital additions is that the important decisions have long-since been made, such as an examination of need and alternatives, expenditure of money, and the building of the asset.¹⁵⁰

CEC submits that an early review of capital expenditures may have significant impact on future rates, and such reviews provide necessary information to contribute to the continuous improvement of the oversight process and provide context for the BCUC’s regulatory oversight and decision making. CEC says this would not represent an onerous increase in regulatory proceedings.¹⁵¹

BC Hydro Reply Argument

BC Hydro does not agree with interveners’ characterization of its position as being that the BCUC should confine or limit the scope of its review. BC Hydro reiterates that it files information on both capital expenditures and additions in RRAs. BC Hydro’s position is that the BCUC should focus its review on capital additions as this is consistent with the BCUC’s primary task in an RRA, which is to set rates for the test period.

In reply to BCOAPO, BC Hydro notes that projects can be reviewed in an RRA whether they are categorized as mandatory, committed or to be prioritized, and that committed projects are not immune from BCUC review. BC Hydro views that focussing on capital additions ultimately fosters a more meaningful and substantive review process, as it is more effective and efficient to wait until a later RRA when the project has reached a more advanced phase and more complete information is available.¹⁵²

Panel Determination

The Panel agrees it is appropriate for BC Hydro to continue to provide information on forecast capital additions and expenditures in its RRAs. The Panel acknowledges that BC Hydro proposes to provide information on both and does not propose to limit reviews to only forecast capital additions.

Overall, the purpose of an RRA is to set rates for the test period covered by the application. It is forecast capital additions not forecast capital expenditures that affect BC Hydro’s revenue requirements and impact rates for the test period. By encouraging the BCUC and interveners to focus on additions, BC Hydro is pointing out that the review of forecast capital expenditures may potentially result in redundant reviews and regulatory

¹⁴⁸ BCOAPO Final Argument, p. 6.

¹⁴⁹ Ibid., p. 9.

¹⁵⁰ CEABC Final Argument, p. 4.

¹⁵¹ CEC Final Argument, pp. 8–9.

¹⁵² BC Hydro Reply Argument, p. 11.

inefficiency. Forecast capital expenditures that will not be capital additions during the test period may be at an earlier stage of stage of project development and the information on cost, schedule, and scope may be more uncertain and more prone to material changes. The Panel agrees that the detailed review of such expenditures may be premature and that it may be more efficient to review them in a future proceeding.

The Panel also acknowledges that BC Hydro's current regulatory framework means authorized revenues and rates are trued up retrospectively in the next test period for differences between forecast and actual capital expenditures. This means actual expenditures are what ultimately impact rates and customers only pay for actual capital additions.

The Panel agrees with BC Hydro that review of the Amortization of Capital Additions Regulatory Account Variance account does provide another opportunity for review of capital expenditures. However, the Panel does not agree that its existence can "relieve the need" to test BC Hydro's forecast of capital additions prospectively. In most cases the length of the test period is sufficiently short that capital additions can be forecast with a reasonable degree of accuracy. In addition, it is preferable and more efficient to review forecast capital additions prospectively in the period they are forecast to be added to rate base since this is the period that the capital additions are likely to have the greatest impact on rates. This enables the BCUC to focus on the causes of variances from tested forecasts that result from execution issues, changes in scope or unplanned expenditures and may help the BCUC identify any prudence issues to be explored.

Further, while a detailed review of forecast capital expenditures may be inefficient in some circumstances, information on forecast capital expenditures provides the BCUC with an opportunity to identify forecast extension projects below the threshold for major projects that may warrant a CPCN filing to consider if the project is in the public interest. For regulatory efficiency, the BCUC should generally not focus its attention on projects that will be subject to CPCN or section 44.2 major project application in an RRA proceeding.

3.4 Project Execution and Prudence Reviews

BC Hydro considers that a prudence review is a retrospective review of project execution. BC Hydro submits that a prudence review is best undertaken after project completion, when final costs and outcomes are known. It states a prudence review could occur in an RRA proceeding or in a specific process designed for that purpose.

BC Hydro explains that in the event the BCUC found that capital expenditures were not prudent, the implications are as follows:

- the BCUC could reduce the amount of amortization recovered in rates subject to the restriction on retroactive ratemaking. Any changes to amortization in the current test period would be captured by BC Hydro's Amortization of Capital Additions Regulatory Account. Since capital additions are typically amortized over many years, the amount of capital amortized in the first years after a project enters service would generally not represent a significant portion of the capital additions of the project; and
- if the BCUC is concerned about ongoing amortization on a particular project, the BCUC could either establish a deferral account to capture ongoing amortization on the project or make BC Hydro's rates interim until the matter is resolved.¹⁵³

¹⁵³ Exhibit B-7, cover letter, p. 3 of 8.

BC Hydro further submits it is strongly incented to act prudently because the BCUC can exclude the recovery of expenditures deemed to be imprudent.

BC Hydro explains that a prudence review can also be a review of project need if the BCUC has not previously approved the need for the expenditure or could consider if a project is still needed if there has been a material change in circumstance. BC Hydro cites the Brattle Group which states that prudence reviews should not use hindsight, recognizing utility management has significant discretion if acting in good faith.¹⁵⁴

Intervener Arguments

BCOAPO submits that the BCUC needs to determine whether the costs related to in-service additions that have occurred during the previous test period are reasonable and should be recovered from customers. BCOAPO suggests that such a review does not necessarily involve a formal prudence review and can start with confirming that the cost of the in-service additions is not materially different from the forecasts approved in the last RRA.¹⁵⁵

CEABC submits that prudence reviews are virtually never contemplated and that review after an asset is in service is unacceptable. CEABC states it is only reasonable to exercise oversight before the spending decision is made.¹⁵⁶

MoveUP submits that retrospective prudence reviews are weak and question the efficacy of a mechanism that is rarely invoked to discourage imprudent behaviour. MoveUP recommends that the scope of review in an RRA should not be constrained, and the BCUC should not hold ongoing projects as “out-of-scope” until it is too late to correct the problem.¹⁵⁷

CEC submits that relying on a prudence review to potentially disallow imprudent spending after the fact is clearly not an ideal response, when the spending could be better reviewed before it occurs. CEC submits that in its experience the RRA process does not provide a chance to review the prudence of capital expenditures and the BCUC’s oversight information and oversight processes could be significantly strengthened over time by inclusion of this information in the Annual Report to the BCUC.¹⁵⁸

BC Hydro Reply Argument

BC Hydro states it does not agree with CEABC’s submission that the only reasonable time for the BCUC to exercise oversight is before a capital spending decision is made or MoveUP’s submission that a prudence review is a “weak instrument”. BC Hydro submits the 2018 Guidelines recognize the importance of effective and efficient prospective oversight, primarily through major project proceedings. BC Hydro also submits

¹⁵⁴ BC Hydro Final Argument, pp. 27, 35-37.

¹⁵⁵ BCOAPO Final Argument, p. 5.

¹⁵⁶ CEABC Final Argument, p. 5.

¹⁵⁷ MoveUP Final Argument, pp. 11–12.

¹⁵⁸ CEC Final Argument, p. 41.

retrospective prudence reviews are another mechanism by which the BCUC exercises regulatory oversight over BC Hydro's capital expenditures and reiterates that possibility of this type of review creates a strong incentive for BC Hydro to act prudently.¹⁵⁹

Panel Determination

The BCUC has a responsibility to set just and reasonable rates and this responsibility includes evaluating the prudence of BC Hydro's capital projects both prospectively when reviewing major project filings and forecast capital expenditures in an RRA and as suggested by BCOAPO, retrospectively in an RRA by reviewing of capital expenditures on assets put into service since the last RRA.

The Panel agrees with BC Hydro that application of the prudence standard, when reviewing both actual capital additions and variances captured in the Amortization of Capital Additions Regulatory Account Variance account in an RRA or undertaking a detailed prudence review of incurred expenditures, is an important element of the BCUC's exercise of its regulatory oversight. Consideration of the prudence of capital expenditures is the mechanism that enables the BCUC to disallow imprudent expenditures after they have been incurred, thereby ensuring rates are just and reasonable. Further, prudence of execution can only be assessed after a capital expenditure is incurred.

The Panel agrees with BC Hydro submission that:

It would be contrary to the Commission's obligations under the UCA to suggest that it is "too late" for the Commission to disallow costs if they have already been incurred. For both Crown and investor-owned utilities, the Commission is charged with approving rates that are just and reasonable. Allowing the recovery of imprudent expenditures in rates is inconsistent with that standard.¹⁶⁰

The Panel disagrees with the comments of some interveners that prudence reviews are "weak" and believes the BCUC should conduct prudence reviews when warranted.

Regarding CEC's submission to include consideration of the prudence of capital expenditures in the Annual Report, the Panel finds it is more effective and efficient to consider the prudence of expenditures when rates are set (i.e. an RRA proceeding) or in a separate proceeding if warranted. As outlined by BC Hydro, if the BCUC has concerns about the prudence of certain expenditures and has established further process to review the prudence of expenditures separately from the RRA proceeding, it could either establish a deferral account to capture ongoing amortization on the project or set interim rates until the matter is resolved.

3.5 Other Filings

3.5.1 Compliance Filings

Item 1c of the scope of this Review contemplates the following:

The scope, timing, and process for the Commission's review of BC Hydro's capital expenditures and projects. This includes consideration of the appropriateness of such reviews as a component

¹⁵⁹ BC Hydro Reply Argument, p. 9.

¹⁶⁰ Exhibit B-15, p. 16.

of various applications and filings BC Hydro makes with the Commission. The various applications and filings include: ...

Annual Report;
Project-specific compliance filings;

Guidelines for Compliance Filings

Section 8 of BC Hydro's Revised Proposal addresses updates to its Annual Report to the BCUC and proposed changes to project specific compliance filings.¹⁶¹

BC Hydro states that it will continue to provide the Annual Report in a form required by the BCUC, noting that it will continue to look for opportunities to improve the presentation of the Annual Report in discussion with BCUC staff.

BC Hydro also states it will continue to make project specific compliance filings with the BCUC in the manner and form of previous project specific compliance reports or in a manner or form directed to by the BCUC. BC Hydro proposes some changes to improve consistency and timing as follows:

- continuing to file semi-annual project progress reports for most capital projects meeting the criteria for CPCN or section 44.2 applications, which will be more likely to have relevant and updated information than filing a quarterly report, which BC Hydro does not support. BC Hydro will request to file only annual project progress reports if it is deemed appropriate given the project's schedule; and
- BC Hydro proposes to file the Project Final Report with the BCUC three months after it is approved by BC Hydro's Board of Directors. This milestone is clearer than the deadlines outlined in an order granting a CPCN or accepting capital expenditures, and more aligned with BC Hydro's governance practices.¹⁶²

Baseline Costs for Project Specific Progress Reports

In its Revised Proposal BC Hydro considers the form most commonly directed by the BCUC to be effective as it provides timely updates on a project's progress, and changes to the project's schedule and costs.¹⁶³

With respect to changes to a project's schedule costs, BC Hydro provides the following explanation regarding baseline metrics used to track ongoing project spending and how the BCUC can effectively track changes to the project relative to the BCUC approved project:

subject to the qualification below, the baseline scope, schedule and cost used for tracking project changes and variances in the progress reports is the same scope, schedule and cost baseline approved by BCUC; and

if BC Hydro's Board of Directors approves a change to the baseline scope, schedule or cost of a project, BC Hydro will notify the BCUC of the change in baseline and will report against the new baseline in the periodic progress reports. This will ensure that the reporting to the Board and the BCUC remains consistent.¹⁶⁴

¹⁶¹ Exhibit B-7, pp. 56-59.

¹⁶² BC Hydro Final Argument, pp. 19-20.

¹⁶³ Revised Proposal p. 57.

¹⁶⁴ Exhibit B-16, BCUC IR 32.3.1.

Panel Determination

Generally, the Panel is satisfied with BC Hydro's proposed guidelines regarding compliance filings and notes that there are opportunities for the BCUC to direct the manner and form of such filings outside of this Inquiry. However, the Panel observes that reporting against an updated baseline cost in project progress reports (that differs from the cost estimates in an approved CPCN or expenditure schedule) can create inconsistencies and inefficiencies with regards to the BCUC's monitoring of a project's progress, due to the need for clarifying information requests from BCUC staff to verify project expenditures relative to the work categories identified in an application.

The Panel, therefore, recommends that future Panels direct BC Hydro to report project spending against the BCUC-approved CPCN cost estimates or expenditure schedules in a project's periodic progress reports. BC Hydro should also continue to include updated board approved budgets for tracking and consistency with BC Hydro's internal reporting.

With respect to the timing of the filing of a project's final report, the Panel notes that it remains the discretion of future BCUC Panels whether to direct BC Hydro to provide final project reporting information prior to the approval of the Project Final Report by BC Hydro's board of directors.

3.5.2 Integrated Resource Plan

As discussed in sub-section 2.1, BC Hydro states the BCUC's review of the IRP will provide a forum for the BCUC to review and consider BC Hydro's long-term resource plans, which will give the BCUC oversight over BC Hydro's key strategic decisions and will inform the BCUC's oversight over BC Hydro's capital expenditures.¹⁶⁵

Intervener Arguments

CEABC submits there are a series of shortcomings with present capital expenditure decision-making. In summary, CEABC says that BC Hydro should:

- focus more on investments that generate increased electricity sales;
- be proactive in fulfilling the carbon goals of the CEA;
- consider the possibility of a non-BC Hydro alternative to a capital investment more frequently and use updated cost assumptions when it does;
- prepare a detailed analysis of project need for risk driven projects;
- take an all-inclusive approach to interrelated assets on the same river system; and
- contemplate phasing out of assets under its Strategic Asset Management Plan and consider a full range of alternatives.

CEABC says these matters are in scope and within the BCUC's jurisdiction. CEABC states that to remedy the shortcomings with BC Hydro's present capital expenditure decision-making, some modifications will be required to BC Hydro's overall system of strategic planning as well as its interaction with the BCUC's oversight. CEABC does not offer a specific recommended direction from the BCUC but proposes a further workshop.¹⁶⁶

¹⁶⁵ BC Hydro Final Argument, p. 34.

¹⁶⁶ CEABC Final Argument, pp. 7–15, 21–22, 27.

CEC submits that the IRP is a significant and integral part of the overall capital planning process in that it lays the foundation for the potential spending of hundreds of millions of dollars. CEC submits capital planning and the IRP should not be considered in isolation of each other, and that BC Hydro's unwillingness to provide details of how the IRP should be assessed in a review of the 2018 Guidelines, is problematic.¹⁶⁷

MoveUP states the principal vehicle for BCUC oversight of BC Hydro's planning is section 44.1 of the UCA, Integrated Resource Planning.¹⁶⁸

BC Hydro Reply Argument

BC Hydro submits resource planning matters can be pursued in relation to the IRP. Regarding CEC's submission that the 2018 Guidelines should include how the BCUC should assess the IRP, BC Hydro points out that the BCUC has already issued resource planning guidelines.

BC Hydro notes that CEABC generally cites no evidence and that its submissions should be given little weight. Additionally, the issues generally relate to integrated resource planning.¹⁶⁹

Panel Determination

The Panel finds it appropriate for BC Hydro to follow the resource planning guidelines already issued by the BCUC. These BCUC guidelines consider the BCUC's mandate regarding the resource plans of energy utilities and outline a comprehensive process to assist the development of such plans. Further, the Panel agrees the review of BC Hydro's IRP will be an opportunity to pursue long-term resource planning matters, review BC Hydro's key strategic decisions and to determine whether the IRP is in the public interest.

3.6 Intervener Proposed Amendments to the 2018 Guidelines

3.6.1 BCOAPO

BCOAPO requests that the 2018 Guidelines provide clarification on prudence reviews where a material change in circumstance has occurred. BCOAPO states that BC Hydro has confirmed in response to IRs that consideration of project execution, as part of the RRA process, includes the question of whether a project should continue if circumstances have changed materially since its approval. BCOAPO however, considers the wording of section 3 of the 2018 Guidelines to be ambiguous on this subject.¹⁷⁰

BCOAPO also submits that the 2018 Guidelines should acknowledge that the BCUC can direct a CPCN application for any extension project.¹⁷¹

¹⁶⁷ CEC Final Argument, p. 33.

¹⁶⁸ MoveUP Final Argument, p. 7.

¹⁶⁹ BC Hydro Reply Argument, pp. 16–17.

¹⁷⁰ Exhibit B-7, Appendix B, p. 1; Exhibit B-16, BCOAPO IR 42.1; BCOAPO Final Argument, p. 10.

¹⁷¹ BCOAPO Final Argument, pp. 11; 3.

BC Hydro Reply Argument

Regarding BCOAPO's comments on prudence reviews, BC Hydro submits that the 2018 Guidelines do not seek to define the scope of a prudence review but focus on the common pattern where the need of a project is reviewed prospectively, and execution of a project is reviewed retrospectively.¹⁷²

BC Hydro states that it is amenable including a statement in the 2018 Guidelines that the BCUC can direct a CPCN application for any extension project.¹⁷³

Panel Determination

The Panel accepts that BC Hydro will update the 2018 Guidelines to include a statement that the BCUC can direct a CPCN application for any extension project. The Panel agrees with BC Hydro that the defining the scope of a prudence review in the guidelines is unnecessary.

3.6.2 CEABC

CEABC proposes six revisions to the 2018 Guidelines, which are summarized in the table below (in blue):

BC Hydro 2018 Guidelines ¹⁷⁴	CEABC Proposed Revisions ¹⁷⁵
4. <u>For projects subject to a future CPCN or section 44.2 application</u> and that have capital expenditures or additions in the test period, the scope of review in a revenue requirements proceeding may include examination of project need and alternatives to the extent reasonably required to test the forecast capital expenditures or additions in the test period. A detailed assessment of need and alternatives should be left to the pending CPCN or section 44.2 application for these projects.	4. <u>For projects subject to a future CPCN or section 44.2 application</u> and that have capital expenditures or additions in the test period, the scope of review in a revenue requirements proceeding may [will] include examination of project need and alternatives to the extent reasonably required to test the forecast capital expenditures or additions in the test period. A detailed assessment of need and alternatives should be left to the pending CPCN or section 44.2 application for these projects.
5. <u>For projects that do not meet the requirements for a CPCN application or have not and will not be the subject of a section 44.2 application</u> , the scope of review in a revenue requirements proceeding may include an examination of project need and alternatives and the reasonableness of the forecast assuming the project proceeds. Any consideration of project execution will normally await project completion.	5. <u>For projects that do not meet the requirements for a CPCN application or have not and will not be the subject of a section 44.2 application</u> , the scope of review in a revenue requirements proceeding may [will] include an examination of project need and alternatives and the reasonableness of the forecast assuming the project proceeds. Any consideration of project execution will normally await project completion.
6. BC Hydro will include in its revenue requirements applications for all individual projects above a specified materiality limit: ... (e) project forecast capital expenditure and additions;	6. BC Hydro will include in its revenue requirements applications for all individual projects above a [reasonably] specified materiality limit: ... (e) project forecast capital expenditure and additions;

¹⁷² BC Hydro Reply Argument, p. 9.

¹⁷³ Ibid., p. 13.

¹⁷⁴ Exhibit B-7, Appendix B, pp. 1-2.

¹⁷⁵ CEABC Final Argument, pp. 19-20.

BC Hydro 2018 Guidelines ¹⁷⁴	CEABC Proposed Revisions ¹⁷⁵
(f) an indication of whether a project will be subject to a CPCN or expenditure schedule application;	<p>(f) the project's lifecycle costs and the revenues that it will generate;</p> <p>(g) all the alternatives to the project, their lifecycle costs and the revenues they would generate, on a system-wide basis</p> <p>(h) an indication of whether a project will be subject to a CPCN or expenditure schedule application;</p>
(e)	(e)
7. BC Hydro will continue to provide relevant information on project justification and alternatives for major projects over a specified materiality limit. In addition, BC Hydro will include information on Implementation Phase risk and risk treatment and impacts and benefits.	7. BC Hydro will continue to provide relevant information on project justification and alternatives for major projects over a specified materiality limit. In addition, BC Hydro will include information on Implementation Phase risk and risk treatment and impacts and benefits. <i>This relevant information will include the evaluation of a broad range of alternatives, including different technologies and/or system designs, their lifecycle costs and the revenues they would generate, on a system-wide basis.</i>
8. Recurring Capital Programs may be reviewed in the appropriate section(s) in a revenue requirements application.	8. Recurring Capital Programs may be reviewed in the appropriate section(s) in a revenue requirements application. <i>The analysis of Recurring Capital Programs will also include the evaluation of a broad range of alternatives, including different technologies and/or system designs, their lifecycle costs and the revenues they would generate, on a system-wide basis.</i>

CEABC states that the revisions to sections 4 and 5 of the 2018 Guidelines would avoid “locking in a narrow view” of the alternatives at too early a stage of evaluation, as well as identify which alternatives have the potential to assist in mitigating rate increases. CEABC explains that the revisions would allow all parties to be made more aware of the mix of rate-increasing and sales-increasing expenditures with the goal of shifting the mix, over time, towards the sales-increasing expenditures and reducing the upward pressure on rates.¹⁷⁶

BC Hydro Reply Argument

BC Hydro states CEABC's recommended amendments (as outlined in the table above) are not suitable as guidelines and submits that CEABC's proposed amendments:

- relate to assessing a broad range of alternatives and estimating incremental electricity sales and other factors reflecting the CEABC's interest in resources from Independent Power Producers (IPP);
- include content related to how the utility should manage or plan its capital projects, or are aimed at shaping BC Hydro's capital investment decisions to favour a particular outcome; and
- do not fit for all projects and programs since for some programs, such as wood pole replacements, it is not necessary to consider a broad range of alternatives or estimate incremental electricity sales.

¹⁷⁶ CEABC Final Argument, pp. 19–20.

BC Hydro further submits that an estimate of incremental revenues is not relevant to many projects and programs, such as those required to maintain existing assets. BC Hydro states that the guidelines should be generally applicable and therefore CEABC's amendments should not be accepted.¹⁷⁷

Panel Determination

The Panel finds CEABC's suggested edits are too prescriptive for guidelines and appear to be an attempt to compel BC Hydro to change its management practices. Further, the Panel agrees with BC Hydro that not all aspects of CEABC's proposals are feasible or relevant to many of BC Hydro's projects. If some of this detailed information should be come relevant to a proceeding, the parties can seek the information through IRs.

4.0 CEC's Proposed Process

In this sub-section, the Panel considers CEC's evidence and related submissions regarding its proposals for improving BC Hydro's process for approving capital investments and BC Hydro's rebuttal evidence and related submissions. The Panel's determinations follow a summary of the parties' Final Arguments and BC Hydro's Reply Argument.

As outlined in sub-section 4.1, CEC presents evidence that it submits attempts to create ongoing incremental improvement in BC Hydro's processes for approving capital investments.¹⁷⁸ CEC argues its evidence establishes that BC Hydro's proposed 2018 Guidelines are insufficient to enable a suitable level of regulatory oversight. CEC recommends the BCUC establish an ongoing process to systematically improve the information available to enable the BCUC to more effectively perform its regulatory oversight.¹⁷⁹

BC Hydro submits CEC's proposal would interfere with the management of the utility and would lead to an inferior approach to asset management, capital planning and delivery.¹⁸⁰ As outlined above, BC Hydro presents expert rebuttal evidence it submits addresses whether the evidence filed by the CEC appropriately characterizes the objectives and role of the BCUC with respect to the oversight of capital investments and provides an assessment of the CEC's proposed framework.¹⁸¹

CEC Evidence

Mr. Craig provided evidence on behalf of the CEC with respect to appropriate information requirements for the BCUC to effectively carry out its oversight and regulatory responsibilities. CEC believes that the greatest benefit to improve the BCUC's oversight would be from information related to cost-effectiveness, drivers, strategies, capital planning and accountability.¹⁸² Scott Thompson also provided expert opinion on CEC's proposals. His evidence provides views including the appropriateness of the BCUC requesting and utilizing information related to quantified cost-effectiveness, drivers and strategies, and the reasonableness of CEC's proposed framework.¹⁸³

Cost-Effectiveness

¹⁷⁷ BC Hydro Reply Argument, p. 20.

¹⁷⁸ CEC Final Argument, p. 1.

¹⁷⁹ Ibid., p. 2.

¹⁸⁰ Exhibit B-15, pp. 2–3.

¹⁸¹ Exhibit B-15-1, cover letter.

¹⁸² Exhibit C3-17, BCSEA IR 3.1

¹⁸³ Exhibit C3-11.

CEC submits that small improvements in the cost-effectiveness of BC Hydro's capital investments can have substantial impacts that far outweigh the potential regulatory and other costs that may precipitate improvement. CEC considers that cost-effectiveness is the defining principle for improving the BCUC's oversight and to advance continuous improvement.¹⁸⁴

In its evidence, CEC presents a set of templates for quantitatively representing BC Hydro's cost-effectiveness in managing and planning capital expenditures, which requires information on costs and benefits of such expenditures.¹⁸⁵

Information on Drivers

CEC says that the BCUC requires oversight of information related to the drivers of capital expenditure, such as load forecasting, condition and performance assessment, risk and security assessment, and stakeholder concern assessment. CEC identifies concerns such as the validity of such drivers for capital expenditures, optimization of the matching of supply and demand and maximization of the lifecycle value of assets.¹⁸⁶ CEC believes that the BCUC should have a clear view on the effectiveness of BC Hydro's assessment of drivers in properly allocating capital. CEC says this provides a foundation as to whether capital expenditures are justified and should be recovered in rates.¹⁸⁷

Information on Strategies and Plans

CEC proposes that information is needed on the cost-effectiveness of BC Hydro's strategies and plans as they relate to capital investments in Generation, Transmission and Distribution, Properties, Fleets and Technology.¹⁸⁸ CEC submits that BCUC oversight of the development of strategies adds value in its decision-making regarding capital expenditures, and adds that without quantifying strategies it is difficult to understand the importance of the strategies. CEC states that BCUC should be able to clearly identify how BC Hydro's strategies relate to the business drivers and determine whether they are cost-effective solutions to the issues facing the utility. The BCUC should also be able to determine which strategies are the most cost-effective.¹⁸⁹

CEC states that BC Hydro's capital plans contain the priorities, trade-offs and organization for executing capital expenditures, and that having oversight of these plans provides the BCUC with the opportunity to evaluate BC Hydro's performance regarding its expenditures during RRAs and major project applications.¹⁹⁰

Proposed Annual Report on Capital

¹⁸⁴ Exhibit C3-10, pp. 1–2.

¹⁸⁵ Ibid., pp. 3, 10–52.

¹⁸⁶ Ibid., pp. 6–9.

¹⁸⁷ Ibid., p. 68.

¹⁸⁸ Ibid., pp. 11–52.

¹⁸⁹ Exhibit C3-10, pp. 77–79.

¹⁹⁰ Ibid., p. 93.

CEC views that reforming the Annual Report on Capital and making it a focus of regulatory process would enable the proposed emphasis on drivers, strategies, plans, business cases, and feedback to become effective for informing the BCUC's approvals of expenditures and ratemaking processes.¹⁹¹ CEC submits the timing of RRA approvals tends to be at a point where there is limited improvement available in the cost-effectiveness of expenditures, and that the Annual Report on Capital will stimulate improvements in the management of capital.¹⁹²

BC Hydro Rebuttal Evidence

BC Hydro provided rebuttal evidence with input from various by directors, senior managers and subject matter experts in BC Hydro's Finance, Integrated Planning, Technology, Properties, Project Delivery, and Supply Chain key business units including those listed in the table on page 1 of Exhibit B-15. BC Hydro also provided expert evidence from the Brattle Group, who address whether the evidence filed by the CEC appropriately characterizes the objectives and role of the BCUC with respect to the oversight of capital investments and provide an assessment of CEC's framework.¹⁹³

BC Hydro submits its evidence demonstrates that CEC's proposal would interfere with the management of the utility.¹⁹⁴ Further, it would lead to an inferior approach to asset management, capital planning and delivery. In this regard, BC Hydro provides clarifications regarding Mr. Craig's characterization of certain aspects of BC Hydro's planning and management of capital and presents examples where BC Hydro's practices for planning and delivery of capital have been endorsed by independent bodies.¹⁹⁵

BC Hydro considers that the evidence of Mr. Craig does not demonstrate a need for CEC's proposed processes. BC Hydro further outlines that the BCUC's existing regulatory processes facilitate effective oversight. BC Hydro notes the BCUC can request and review relevant information, that performance metrics are included in BC Hydro's service plan, and that the prudence standard gives a strong incentive to avoid disallowed costs.¹⁹⁶

BC Hydro Final Argument

BC Hydro submits that the extensive amount of information that CEC proposes BC Hydro file is designed to give the BCUC control over how BC Hydro manages its capital, would interfere with management of the utility contrary to the Court of Appeal decision, and would require the BCUC to duplicate the resources already at the utility.¹⁹⁷

BC Hydro submits that CEC's proposal is not limited to seeking information oversight but instead seeks to redefine the standard by which BC Hydro's capital is judged and to direct BC Hydro management on how it should be managing its capital portfolio. BC Hydro says the proposal interferes with utility management by:¹⁹⁸

- replacing prudence standard with the concept of cost-effectiveness;¹⁹⁹

¹⁹¹ Ibid., p. 129.

¹⁹² Ibid., p. 135.

¹⁹³ Exhibit B-15-1, cover letter.

¹⁹⁴ Exhibit B-15, pp. 21–23.

¹⁹⁵ Ibid., pp. 24–56.

¹⁹⁶ Ibid., pp. 5–20.

¹⁹⁷ BC Hydro Final Argument, p. 76.

¹⁹⁸ Ibid., p. 78.

- forcing the utility to create new information as part of its management decision making process;²⁰⁰ and
- imposing a process where information would be continually improved over time resulting in cost-effectiveness.²⁰¹

BC Hydro further submits that CEC's concept of "cost-effectiveness" is about "cost-control", which is a function of utility management.²⁰²

BC Hydro argues that the CEC's proposal is similar in many respects to the directives declared unenforceable by the Court of Appeal *decision* and illustrates the similarities in the following table:²⁰³

Table 4: Comparison of CEC Proposal to *BC Hydro v BCUC*

Directions Declared Unenforceable by Court of Appeal	Proposal of CEC
Were claimed to be no more than enforcement of information gathering power (paras. 19 and 54)	Claimed to be confined to gathering information (Exhibit C3-14, response to MoveUP IR 1.1.2)
Were claimed to be justified on basis that planning process is enhanced by participation of interest groups (para. 21)	Justified on basis that BCUC's oversight "could be substantially enhanced with effective review of the earlier stages of the capital management processes and comprehensive understanding of the contextual elements" (Exhibit C3-10, para. 94)
Were claimed to be justified on basis that regulatory control at planning stage is required to avoid disallowing substantial incurred expenditures at rate review stage (para. 39)	Justified on basis that oversight of planning is required to avoid disallowing incurred expenditures in revenue requirement proceedings (Exhibit C3-10, para. 92)
Required the creation of information (para. 41)	Requires creation of information (Exhibit C3-10, pages 13–19, 22–28, 31–36, 39–44, 47–52)
Is specific to the planning phase of the utility's response to its statutory mandate (para. 55)	Focused on "the review of the earlier stages of the capital management processes" (Exhibit C3-10, para. 94) and "assessment of the validity of BC Hydro's capital planning and planning processes" (Exhibit C3-10, para. 177)
Directs when and how factors are to be taken into account in BC Hydro's planning processes (para. 36)	Directs when and how factors are to be taken into account in BC Hydro capital planning and management (Exhibit C3-10,

¹⁹⁹ Ibid., pp. 80–81.

²⁰⁰ Exhibit C3-13, BCUC IR 1.1.2

²⁰¹ BC Hydro Final Argument, pp. 78–79.

²⁰² Ibid., pp. 81–83

²⁰³ Ibid., pp. 79–80.

Directions Declared Unenforceable by Court of Appeal	Proposal of CEC
	Part I)
Punishable on default (para. 25)	Punishable on default by disallowance of costs (Exhibit C3-13, BCUC IR 1.1.2, p. 6)

CEC Final Argument

CEC submits that BC Hydro has mischaracterized its proposals and its evidence does not propose any such control of the management of BC Hydro by the BCUC.²⁰⁴ CEC submits its proposal is that the BCUC's regulatory oversight role for rates and capital spending approvals can be better informed if it develops a better understanding about the developing strategies, plans, projects and programs over time. CEC's argues if the BCUC keeps itself better informed under its section 24 obligations it will be in a better position to discharge its regulatory decision making.²⁰⁵

CEC states it explicitly summarized the BCUC's jurisdiction and appropriate use of oversight information in its response to BCUC IR 1.2.²⁰⁶ CEC indicated that the BCUC could use cost-effectiveness information as follows:

The Commission's enabling statute is the UCA, and its powers are therefore derived in the text of the Act. Pursuant to to [sic] the following sections of the UCA, the CEC submits that the Commission has the jurisdiction and authority to tailor its information-gathering processes such that it may effectively inform itself of BC Hydro's business and fulfill its regulatory duties. The Commission's authority to require and review information is provided in the UCA Sections 24, 82, 43, 86 and 60

...

The Commission may in any of its approval processes, if it so requires, specify and inquire into information with respect to the capital expenditures and investments of BC Hydro. The Commission may make determinations with respect to the prudence of the same and approval for the same to be included in rate setting for recovery from ratepayers. The Commission's scope for seeking oversight information is broadly empowered in the UCA. The CEC believes the Commission should and can use it powers to provide such oversight of capital expenditures and capital investments to ensure it understands their cost-effectiveness.²⁰⁷

CEC submits its evidence is that the BC Hydro evidentiary information regarding its management of capital can be improved and should be a work in progress.²⁰⁸ CEC states it is not recommending that BCUC-led decision making should be inserted into BC Hydro's management of the utility, and notes that its proposals are

²⁰⁴ CEC Final Argument, p. 45.

²⁰⁵ Ibid., p. 24.

²⁰⁶ Ibid., p. 46.

²⁰⁷ Exhibit C3-13, BCUC IR 1.2.

²⁰⁸ CEC Final Argument, p. 45.

illustrative and not an attempt to provide an end position. CEC further submits it does not suggest its proposals are about cost-control.²⁰⁹

Intervener Arguments

BCSEA submits that CEC's evidence has added a valuable perspective to this Review but states that this is a complex process that should be subject to continuous improvement, not wholesale revamping. While BCSEA agrees the concept of cost-effectiveness is an important concept, it submits cost-effectiveness is not a legal test in the UCA, and the term requires careful definition as the intended meaning varies widely.²¹⁰

BCOAPO submits there remains a great deal of work that could be done to build on what both BC Hydro and the CEC have filed to find a workable solution that provides an adequate level of oversight to ensure that responsible opportunities for financial savings are explored. BCOAPO submits that although the approaches of BC Hydro and the CEC appear to be incompatible, there remains significant potential for collaboration between BC Hydro, Interveners and the BCUC to develop a satisfactory framework for capital oversight, taking points from each proposed model.²¹¹

CEABC states that the CEC's proposal has a good directional intent, which broadens the oversight of the BCUC to include a more proactive strategic overview and CEABC agrees that the BCUC's oversight of capital expenditures needs to evolve in that direction. However, CEABC submits that the CEC's proposed approach is too prescriptive to be imposed on BC Hydro at this point and it agrees with the utility that a jump to such a high degree of prescriptive information would put a burden of cost and regulatory process onto BC Hydro, which is not commensurate with the benefits.²¹²

MoveUP states that the CEC's proposal presents a comprehensive, ground-up reconceptualization of the nature and extent of the BCUC's process for oversight of BC Hydro's capital expenditures. It is based on an extensive, quantitatively-grounded set of matrices for the regulatory review of Hydro's capital plans, programs and expenditures, and sets "cost-effectiveness" as an over-arching criterion for project evaluation. Whilst MoveUP acknowledges the CEC's work, it considers it to be more suggestive of a potential approach than a fully-developed final product.²¹³

MoveUP states that it has reservations about reducing the evaluation of BC Hydro's capital projects to a system of quantitative scoring, citing social good, environmental imperatives, and core values like reconciliation with First Nations as important subjective judgements, which are often a part of sound capital project planning. MoveUP does not discount the idea of implementing a more extensive application of quantitative grading, but it submits that such an approach would need to be tempered to a considerable extent with space to consider more subjective factors.²¹⁴

²⁰⁹ Ibid., p. 46.

²¹⁰ BCSEA Final Argument, pp. 19–20.

²¹¹ BCOAPO Final Argument, p. 17.

²¹² CEABC Final Argument, p. 22.

²¹³ MoveUP Final Argument, p. 5.

²¹⁴ MoveUP Final Argument, p. 6.

BC Hydro Reply Argument

Regarding CEC's proposed annual information filing and process for the BCUC's review of capital investments, BC Hydro argues there is no need for additional process and submits:

- CEC has not shown that the BCUC has a lack of understanding that would require an annual filing of additional information and additional process;
- The BCUC's existing processes already provide enough ability to gather information and for the BCUC to increase its understanding if required;²¹⁵ and
- The BCUC can adjust its existing processes to provide opportunities to increase understanding to address any concerns. For example, workshops can be held on specific topics or third-party experts can be retained to provide reports or advice.²¹⁶

In further reply to CEC, BC Hydro submits that while BC Hydro has and will continue to improve its capital management processes, this proceeding is focussed on how the BCUC exercises oversight through the powers invested in it through the UCA, rather than how BC Hydro should manage its capital investments.

BC Hydro states as a matter of course it seeks to provide the best value to customers through its capital investments. However, BC Hydro submits that the BCUC's role in overseeing capital is defined by the UCA, namely, ensuring that rates are just and reasonable and that projects, expenditures and integrated resource plans are in the public interest and its role is not to ensure that BC Hydro optimizes its capital portfolio, strategies and plans, as suggested by CEC.²¹⁷

BC Hydro further submits in its reply:

The CEC was clear in its evidence that it was proposing that information would be created to set standards and result in improvements to BC Hydro's capital plan, with failure to satisfy the metrics resulting in disallowance of its costs. The CEC is more circumspect in its Final Argument, but the intent is still clear. The CEC submits at paragraph 18, for instance, "that more current information and more detailed information can enable the BCUC in its oversight role to identify more efficiency and cost effectiveness opportunities on the part of BC Hydro." Further, at paragraphs 255: "it is important that the Commission exercise its oversight in all aspects of key decision-making" [emphasis added]. The CEC is ultimately not interested in collecting information, but using that process to intervene and change BC Hydro's capital management process.²¹⁸

Panel Determination

The Panel is not persuaded by CEC's proposed recommendations that the BCUC establish an ongoing process to systematically improve the information available to enable the BCUC to more effectively perform its regulatory oversight of capital expenditures.

While CEC notes that its proposals are illustrative and are not an attempt to provide an end position, the Panel finds CEC has not made a case that pursuing its recommendations further is necessary or that such an approach

²¹⁵ BC Hydro Reply Argument, p. 22.

²¹⁶ Ibid., p. 24.

²¹⁷ Ibid., p. 23.

²¹⁸ Ibid., p. 27.

could result in improvements in regulatory efficiency. CEC has not provided clear evidence that there are deficiencies in BCUC's current regulatory processes that need to be addressed, and the Panel is not convinced that CEC has identified specific information that is missing and warrants inclusion in BC Hydro's proposed information filing requirements. CEC's suggested direction, while illustrative, does not fit in well with existing IRP, section 44.2, CPCN and RRA processes and legislative framework which enable the BCUC to set rates that are just and reasonable and ensure capital expenditures and integrated resource plans are in the public interest. The Panel agrees with BC Hydro that adding additional process as recommended by CEC would result in additional costs for BC Hydro to produce the proposed additional information and could result in significant duplication of effort for BC Hydro, Interveners and the BCUC. Further, if the BCUC and parties require further information or increased understanding it is efficient to ask for this information or clarifications within the existing regulatory processes as issues arise.

In addition to not demonstrating that its proposals will result in regulatory efficiency, CEC fails establish that its recommendations for additional information and processes will result in a more effective review of capital investments by the BCUC. The Panel finds that BC Hydro's Rebuttal Evidence establishes doubt that CEC's proposals will result in a more effective review by the BCUC and indicates that BC Hydro Capital Management processes are operating effectively. The Panel also agrees with MoveUP's that "reducing the evaluation of Hydro capital projects to a system of quantitative scoring"²¹⁹ may not improve effectiveness since many risks and benefits associated with capital expenditures that the BCUC must consider cannot be quantified.

Further, as pointed out by BCSEA, CEC's proposals do not directly address the role of the BCUC and the tests it applies under the UCA to consider the public interest and to set rates that are not unjust, unreasonable or unduly discriminatory.²²⁰ While the CPCN and section 44.2 processes do test prospective capital expenditures for cost-effectiveness, Mr. Craig's submission that the BCUC has a role in overseeing capital expenditures "to ensure that they are cost-effectively deployed and provide full value for ratepayers"²²¹ goes beyond the BCUC's mandate. Similarly, the Panel agrees with BC Hydro that CEC's position that the BCUC should evaluate if BC Hydro optimizes its IT strategies²²² is not grounded in the BCUC's role as set out in the UCA.²²³

The Panel notes in Section 2.2 of this Decision that CEC and BC Hydro agree that the BCUC can obtain oversight information for the purpose of discharging its approval responsibilities under the UCA, but they have differing views on how this is best achieved and the line between management's and regulator's responsibilities. CEC submits that its proposals are illustrative and are not intended to insert the BCUC into BC Hydro's management of the utility. In contrast, BC Hydro argues that CEC's proposals go beyond oversight and interfere with the management its capital portfolio. The Panel is also concerned that some aspects of CEC's recommendations may go beyond the role of regulatory oversight. However, since the Panel already rejects CEC's proposals because CEC did not demonstrate they will improve the effectiveness and efficiency of the BCUC's regulatory oversight of BC Hydro's capital expenditures in carrying out its role under the UCA as set out above, the Panel makes no finding on this matter.

²¹⁹ MoveUp Final Argument, p. 6.

²²⁰ BCSEA Final Argument, p. 20.

²²¹ Exhibit C3-10, p. 1.

²²² CEC Final Argument, p. 38.

²²³ BC Hydro Final Argument, p. 29.

5.0 Conclusion

Has this Review Addressed the Scope of the Proceeding?

BC Hydro seeks approval of the 2018 Guidelines in Appendix B of its Revised Proposal. BC Hydro points out that at the outset of this proceeding, the BCUC identified that a potential outcome of this Review could be an approved set of capital filing guidelines for BC Hydro and BC Hydro's submits that approval of a set of capital filing guidelines is the appropriate outcome.²²⁴

BC Hydro submits that the BCUC should approve the proposed 2018 Guidelines to:

- promote an effective and efficient review of BC Hydro's capital expenditures and projects; and
- clarify the nature of the BCUC's oversight over BC Hydro's capital expenditures and projects in RRAs applications, major project applications, and compliance reports.

BC Hydro states the 2018 Guidelines will provide guidance to BC Hydro with respect to the information required for BCUC's regulatory processes.²²⁵

Interveners Final Arguments

The interveners submit that some form of further process is needed to build upon this Review, as follows:

- BCOAPO states it is concerned by the narrow scope of information proposed by BC Hydro and that further work is needed;²²⁶
- BCSEA views the BCUC's regulation of BC Hydro's capital expenditures and projects as more of a work-in-progress than a single document or decision;²²⁷
- CEABC proposes a workshop forum to deal collaboratively with the issues raised by CEABC and others;²²⁸
- MoveUP submits the format of the proceedings has not facilitated a constructive "cross-pollination" between the BC Hydro and CEC proposals. MoveUP recommends the BCUC continue to explore ways to improve its capacity to oversee Hydro's capital projects and expenditures in an evolving manner;²²⁹ and
- CEC recommends that the BCUC establish a process to work constructively with BC Hydro to develop a more robust framework for understanding the utility context to improve the Commission's capabilities for regulatory review of BC Hydro's capital.²³⁰

BC Hydro Reply Argument

BC Hydro states it has been responsive to the input received from interveners throughout this Review and has proposed a number of changes to the proposed 2018 Guidelines. However, the final submissions of interveners do not change BC Hydro's view that the 2018 Guidelines remain the appropriate outcome of this proceeding.²³¹

²²⁴ BC Hydro Final Argument, p.5.

²²⁵ BC Hydro Final Argument, p. 91.

²²⁶ BCOAPO Final Argument, p. 17.

²²⁷ BCSEA Final Argument, pp. 3, 19-20.

²²⁸ CEABC Final Argument, p. 22.

²²⁹ MoveUP Final Argument, pp. 3, 8.

²³⁰ CEC Final Argument, p. 2.

²³¹ BC Hydro Reply Argument, p. 5.

BC Hydro does not support an ongoing process to develop or improve upon the 2018 Guidelines, as some interveners suggest. In BC Hydro's view, this proceeding needs to be brought to a resolution since regulatory certainty is a desirable outcome for BC Hydro and all parties. BC Hydro submits the proposed 2018 Guidelines are rooted in the key provisions of the UCA and are at the appropriate level of detail to be useful as guidelines.²³² BC Hydro suggests any formal process should take place every 10 years, and that each proceeding will be a test of the 2018 Guidelines.²³³

Panel Determination

The Panel's approval of BC Hydro's 2018 Capital Filing Guidelines (included as Appendix B to BC Hydro's Revised Proposal), pursuant to sections 44.2, 45 to 46 and section 59 to 61 of the UCA, is subject to:

²³² Ibid., pp. 6–7.

²³³ Ibid., p. 8.

- The amendments directed by the Panel in sub-section 3.1.3; and
- The other amendments BC Hydro indicated it was amenable to making as set out in sub-section 3.2.

BC Hydro is directed to file an update of the 2018 Guidelines in a compliance filing for review and approval by this Panel, on or before 60 days following the date of this Decision.

As discussed in Section 2 of this Decision, the key purpose of this Review was to consider how the BCUC can provide efficient and effective oversight of BC Hydro's capital expenditures, prospectively when appropriate, within the bounds of the existing regulatory processes and legislative framework. The Panel finds that the scope of this Review has been addressed and this Review has achieved what it set out to do. While the Panel notes that there are certain items within the scope (such as Item 2²³⁴) that are not specifically addressed in this Decision, the Panel is satisfied that BC Hydro provided sufficient information to address the items included in the scope of the Review and since no issues were identified in respect of items not specifically addressed a Panel determination is unnecessary.

This Review has provided the parties with an opportunity to explore alternatives, provide input and there have been significant improvements in the 2018 Guidelines when compared to the 2010 Guidelines. The information BC Hydro has committed to filing in the various BCUC proceedings is extensive and this information will assist the BCUC in an effective and efficient review of capital expenditures. This Review and the 2018 Guidelines have been a positive step in an ongoing process of balancing effective oversight of capital investments with regulatory efficiency.

The Panel agrees with BC Hydro that there would be little incremental benefit or value that could result from any further process at this time. The BCUC, BC Hydro and interveners will benefit from working with the updated 2018 Guidelines for a period before they are revisited. In particular, the Panel recognizes the value of working with the updated 2018 Guidelines for a full RRA cycle (i.e. the next RRA following the F2020 to F2021 RRA).

The Panel also considers that there is nothing to preclude the guidelines being refined and updated over time in an "evolutionary" manner, within the context of BC Hydro's various capital filings to the BCUC. Future BCUC Panels and/or BC Hydro may identify areas for improvement or necessary changes as time progresses. Therefore, the Panel is not proposing to set a date for a formal review of the Guidelines, noting that BC Hydro may request or BCUC may order a standalone process to review and further update the guidelines if and when this is warranted.

²³⁴ Item 2: The appropriateness of BC Hydro's 2010 Capital Project Filing Guidelines for IT capital expenditures and projects or propose separate IT capital project filing guidelines

DATED at the City of Vancouver, in the Province of British Columbia, this 2nd day of December 2019.

Original signed by:

K. A. Keilty
Panel Chair / Commissioner

Original signed by:

W. M. Everett, Q.C
Commissioner

Original signed by:

R. I. Mason
Commissioner



ORDER NUMBER
G-313-19

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

British Columbia Hydro and Power Authority
Review of the Regulatory Oversight of Capital Expenditures and Projects

BEFORE:

K. A. Keilty, Panel Chair
W. M. Everett, Q.C., Commissioner
R. I. Mason, Commissioner

on December 2, 2019

ORDER

WHEREAS:

- A. On May 3, 2016, the British Columbia Utilities Commission (Commission) issued Order G-58-16 establishing a proceeding to review the regulatory oversight of British Columbia Hydro and Power Authority's (BC Hydro) capital expenditures and projects (Review);
- B. By Order G-63-16 dated May 10, 2016, the BCUC established the regulatory timetable for the proceeding and included an Initial Scope for the Review as Appendix B to that order;
- C. By May 25, 2016, the following parties registered as interveners: Association of Major Power Customers of British Columbia (AMPC); British Columbia Old Age Pensioners' Organization et al (BCOAPO); BC Sustainable Energy Association and Sierra Club (BCSEA); Clean Energy Association of BC (CEABC); Commercial Energy Consumers Association of British Columbia (CEC); Ilse Leis; and Movement of United Professionals (MoveUP);
- D. By Order G-174-16 dated November 30, 2016, the BCUC ordered that further regulatory process for the Review commence following the issuance by the BCUC of the final decision on the BC Hydro Fiscal 2017 to Fiscal 2019 Revenue Requirements Application (2017-2019 RRA);
- E. By Orders G-89-18, G-126-18, G-173-18, G-193-18, G-223-18, G-226-18, G-16-19, G-24-19 and G-63-19, the BCUC updated the regulatory timetable;
- F. By Order G-47-18 dated March 1, 2018, the BCUC issued its final decision on the BC Hydro 2017–2019 RRA. On April 3, 2018, BC Hydro filed its initial proposal and proposed 2018 Capital Filing Guidelines (2018 Guidelines). On April 24, 2018, interveners and BCUC issued technical and clarifying questions regarding BC Hydro's initial proposal followed by a BC Hydro led transcribed workshop on May 18, 2018;

- G. On June 13, 2018, BC Hydro filed its revised proposal requesting approval of the 2018 Guidelines (Revised Proposal);
- H. On November 5, 2018, CEC filed intervenor evidence of David Craig and Scott Thomson. On December 10, 2018, CEC filed responses to Information Requests (IR) from BC Hydro, BCUC and interveners;
- I. On February 15, 2019, BC Hydro filed rebuttal evidence, including evidence of Dr. Carpenter and Dr. Brown of the Brattle Group (Brattle Group) On July 4, 2019, BC Hydro filed its responses to further IRs on both its Revised Proposal and its rebuttal evidence from the BCUC and interveners;
- J. BC Hydro filed its Final Argument on August 1, 2019. By August 22, 2019, BCOAPO, BCSEA, CEABC, CEC and MoveUP filed intervenor Final Arguments. BC Hydro filed its Reply Argument on September 5, 2019; and
- K. The BCUC has reviewed all evidence in this proceeding and considers that subject to certain amendments, approval of BC Hydro's 2018 Guidelines will be warranted.

NOW THEREFORE the BCUC orders as follows:

- 1. Pursuant to sections 44.2, 45 to 46 and section 59 to 61 of the *Utilities Commission Act*, the BCUC will approve BC Hydro's 2018 Capital Filing Guidelines, subject to:
 - a. The amendments directed by the BCUC in sub-section 3.1.3 of the Decision; and
 - b. The other amendments BC Hydro indicated it was amenable to making as set out in sub-section 3.2 of the Decision.
- 2. BC Hydro is directed to file an update of the 2018 Guidelines in a compliance filing for review and approval by this Panel, on or before 60 days following the date of this Decision.

DATED at the City of Vancouver, in the Province of British Columbia, this 2nd day of December 2019.

BY ORDER

Original signed by:

K. A. Keilty
Commissioner

SCOPE OF REVIEW

Item 1: The scope, timing, and process for the Commission's review of BC Hydro's capital expenditures and projects. This includes consideration of the appropriateness of such reviews as a component of various applications and filings BC Hydro makes with the Commission.

The various applications and filings include:

- i. Revenue Requirement Applications (RRA). How should the Commission address:
 - a) Projects approved or started prior to an RRA and
 - expected to enter service in the test period,
 - expected to enter service outside of the test period.
 - b) Projects exceeding the expenditure threshold and not approved or started prior to RRA and
 - expected to enter service in the test period,
 - expected to enter service outside the test period
 - c) Projects below thresholds and not approved or started prior to RRA and
 - expected to enter service in the test period,
 - expected to enter service outside the test period
- ii. Annual Report;
- iii. Project-specific compliance filings;
- iv. Applications made pursuant to section 46(1) of the *Utilities Commission Act* (UCA) (CPCN Applications); and
- v. Applications made pursuant to section 44(2) of the UCA (section 44.2 expenditure schedule applications).

Specifically, it is proposed that the proceeding address the following issues:

- Clarity on what constitutes a project. This would consider how to treat and review independent projects or programs that are linked (in function and/or geographic term) and, in aggregate, meet or exceed any prescribed expenditure thresholds.
- Establishment of a standardized convention for naming projects and programs to ensure consistency and the ability to track projects during their lifecycle.
- Definition of a strategy to review projects that are linked to capital strategies (for example: individual IT projects in relation to the 5 year IT&T Plan).

Item 2: The appropriateness of BC Hydro's 2010 Capital Project Filing Guidelines for IT capital expenditures and projects or propose separate IT capital project filing guidelines.

Item 3: The appropriateness of expenditure thresholds contained in BC Hydro's 2010 Capital Project Filing Guidelines.

Item 4: The circumstances under which it is appropriate for BC Hydro to file an application pursuant to section 46(1) of the UCA versus section 44(2) of the UCA.

This will address the following:

- Seek input on the position that under section 46(1) of the UCA, applications need only be filed for “extensions.”
- Evaluate whether it is appropriate to use of the definition of extension to a utility plant or system for general capital expenditures and IT projects.

Given that the UCA expressly prohibits a public utility from starting construction in advance of the Commission granting a CPCN, consider the appropriateness of filing section 44(2) applications, which do not have this prohibition, for projects where the duty to consult First Nations is triggered?

OTHER INFORMATION PROVIDED IN A REVENUE REQUIREMENTS APPLICATION

Information provided in RRA	Proposed Location in RRA
Other Information on Capital BC Hydro Provides in an RRA	
<ul style="list-style-type: none"> How BC Hydro has responded, and is responding, to Government policy directions²³⁵ 	Chapter 1
<ul style="list-style-type: none"> Detailed overview of the changes to the regulations applicable to BC Hydro and the Government of B.C.'s plans to table legislative amendments to further update BC Hydro's regulatory framework.²³⁶ 	Chapter 2, Section 2.2
<ul style="list-style-type: none"> Load and Revenue Forecast²³⁷ 	Chapter 3
<ul style="list-style-type: none"> Capital Expenditures and Additions²³⁸ Description of BC Hydro's capital investment planning process, capital project and program delivery, and planned capital expenditures and additions for the test period.²³⁹ Descriptions of capital planning, authorization, delivery, and measurement frameworks, processes, policies, procedures, and practices in revenue requirements applications.²⁴⁰ BC Hydro will continue to include a description of Power System Recurring Capital Programs along with the description of asset health assessments in Chapter 6 of revenue requirements applications.²⁴¹ 	Chapter 6
<ul style="list-style-type: none"> Demand-Side Management Plan²⁴² 	Chapter 10
<ul style="list-style-type: none"> Service Plan²⁴³ 	Appendix E
<ul style="list-style-type: none"> Independent Audit of Capital Asset Management in BC Hydro²⁴⁴ 	Appendix F
<ul style="list-style-type: none"> Variance Explanations²⁴⁵ Prioritized capital expenditure plan and a discussion of the prioritization methodology.²⁴⁶ 10 Year Capital Plan²⁴⁷ 	Appendix G

²³⁵ Exhibit B-7, p. 3.

²³⁶ Exhibit B-16, CEC IR 17.1.

²³⁷ Exhibit B-15, p. 7.

²³⁸ Ibid.

²³⁹ Exhibit B-7, p. 18.

²⁴⁰ Exhibit B-15, p. 26.

²⁴¹ Exhibit B-4-1, BCUC IR 6.8.

²⁴² Exhibit B-16, CEC IR 3.1.

²⁴³ Ibid., CEC IR 20.4.

²⁴⁴ Exhibit B-15, p. 8.

²⁴⁵ Ibid.

²⁴⁶ Exhibit B-4, BCOAPO IR 28.1.

Information provided in RRA	Proposed Location in RRA
<ul style="list-style-type: none"> Capital Plan²⁴⁸ Briefing Note – includes a description on what is driving the level of investment reflected in the capital plan, details on the long-term capital expenditure forecasts by major portfolio, an overview of the annual capital planning process, and descriptions of the investment strategies of each sub-portfolio, data on the portfolio risk-profile of the investments included within the capital plan and the expected long-term implications for BC Hydro's assets.²⁴⁹ 	Appendix H
<ul style="list-style-type: none"> Capital Expenditures Greater than \$5 million²⁵⁰ Power System Strategies, Plans, and Studies: In a column in the list of projects and programs with capital expenditures or additions over a materiality limit BC Hydro will indicate the particular strategy, plan, or study to which a project is linked.²⁵¹ Information Technology Plans: <ul style="list-style-type: none"> (i) In a column in the list of projects and programs with capital expenditures or additions over a materiality limit, BC Hydro will indicate the linkage between projects or programs and the Technology Five-Year Strategic Plan; and (ii) A copy of the most recent Information Technology Five-Year Strategic Plan.²⁵² Additional data on capital projects and programs in an RRA: <ul style="list-style-type: none"> ○ A listing of planning identification numbers to allow a projects or program to be more easily tracked throughout its lifecycle and across filings; ○ Annual capital expenditure cost forecast for projects over a specified materiality limit and in the test period; ○ Indication of which projects are considered extension projects; ○ Identification of projects that may require a major project regulatory filing and the type of filing anticipated – CPCN or 44.2 expenditure schedule application; and ○ Indication of which projects are linked to strategies, plans, and studies.²⁵³ For each capital project, identification of which of the three capital investment categories the project is classed: <ul style="list-style-type: none"> (i) Mandatory investments driven by legal and regulatory requirements; (ii) Committed investments not to be postponed. This category includes projects that were prioritized in previous capital plans and are now economically unreasonable to cancel; and (iii) Investments to be prioritized. This category includes projects that could be re- 	Appendix I

²⁴⁷ Exhibit B-4, BCSEA IR 3.6.

²⁴⁸ Exhibit B-15, p. 7.

²⁴⁹ Ibid., p. 52.

²⁵⁰ Ibid., p. 7.

²⁵¹ Exhibit B-3, p. 49.

²⁵² Ibid., p. 49.

²⁵³ Ibid., pp. 57-58.

Information provided in RRA	Proposed Location in RRA
<p>prioritized without significant costs.²⁵⁴</p> <ul style="list-style-type: none"> Projects above the materiality limit that are anticipated to be delivered as part of Programs of Projects, and where available will provide a summary of the program strategy for all identified Programs of Projects.²⁵⁵ Indicate what strategies, plans, or studies a project is linked to.²⁵⁶ 	
<ul style="list-style-type: none"> Capital Expenditures Greater than \$20 million²⁵⁷ Summary of project's Implementation Phase risk and risk treatment and impacts and benefits for projects over a specified materiality limit, and the construction start date for projects in the Implementation Phase.²⁵⁸ Actual or forecasted construction start date and the date of funding approval for projects that are in Implementation phase.²⁵⁹ Appendix J project summaries also include information on project impacts and benefits, which generally indicate the primary and secondary benefits.²⁶⁰ 	Appendix J
<ul style="list-style-type: none"> Summaries of Capital Project Strategies, Plans, and Studies²⁶¹ 	Appendix K
<ul style="list-style-type: none"> BC Hydro Technology Strategy and 5-Year Plan²⁶² 	Appendix L
<ul style="list-style-type: none"> Asset Health – Generation²⁶³ 	Appendix M
<ul style="list-style-type: none"> Asset Health – Transmission and Distribution²⁶⁴ 	Appendix N
<ul style="list-style-type: none"> BC Hydro Load Forecast Audit²⁶⁵ 	Appendix P
<ul style="list-style-type: none"> Equipment Health Ratings for Generation assets²⁶⁶ 	Appendix R
<ul style="list-style-type: none"> Asset Health Index ratings for transmission and distribution assets²⁶⁷ 	Appendix S
<ul style="list-style-type: none"> Annual Service Plan Reports²⁶⁸ 	Appendix T

²⁵⁴ Exhibit B-16, BCOAPO IR 34.1.2.

²⁵⁵ BC Hydro Final Argument, p. 49.

²⁵⁶ Ibid., p. 53.

²⁵⁷ Exhibit B-15, p. 7.

²⁵⁸ Exhibit B-7, p. 62.

²⁵⁹ Exhibit B-16, BCUC IR 27.3.

²⁶⁰ Ibid., BCUC IR 28.6.

²⁶¹ Exhibit B-15, p. 7.

²⁶² Ibid.

²⁶³ Ibid.

²⁶⁴ Ibid.

²⁶⁵ Ibid., p. 8.

²⁶⁶ Exhibit B-6, Attachment 1, BCUC IR 64.1.

²⁶⁷ Ibid.

Information provided in RRA	Proposed Location in RRA
<ul style="list-style-type: none"> BC Hydro's Reliability Indices²⁶⁹ 	Appendix W
<ul style="list-style-type: none"> Summary of BC Hydro's Internal Audits²⁷⁰ 	Appendix HH
<ul style="list-style-type: none"> For Power System Strategies, Plans and Studies: In a new Appendix, summary descriptions of the issues and solutions addressed in any of the identified strategies, plans, and studies.²⁷¹ 	New Appendix
<ul style="list-style-type: none"> Descriptions of the strategies, plans or studies identified²⁷² 	New Appendix
<ul style="list-style-type: none"> Summary of the project's Implementation Phase risk and risk treatment and impacts and benefits for projects over a specified materiality limit. These summaries will be added to the supporting appendix similar to Appendix J.²⁷³ 	
<ul style="list-style-type: none"> Annual Waneta Transaction Report. Submitted as part of BC Hydro's Regulatory Annual Report and as an appendix in its Revenue Requirements Applications until 2036.²⁷⁴ 	

²⁶⁸ Exhibit B-16, BCSEA IR 16.7.

²⁶⁹ Exhibit B-15, p. 7.

²⁷⁰ Ibid., p. 8.

²⁷¹ Exhibit B-3, p. 49.

²⁷² Exhibit B-5, pp. 11, 17.

²⁷³ Exhibit B-3, p. 57.

²⁷⁴ Exhibit B-4, BCOAPO IR 29.1, Attachment 1, pp. 83-84.

GLOSSARY AND ACRONYMS

Acronym / Glossary	Description
2010 Guidelines	2010 Capital Project Filing Guidelines
2018 Guidelines	2018 Capital Filing Guidelines
AMPC	Association of Major Power Customers of British Columbia
BC Hydro	British Columbia Hydro and Power Authority
BCOAPO	British Columbia Old Age Pensioners' Organization et al.
BCSEA	BC Sustainable Energy Association and Sierra Club
BCUC	British Columbia Utilities Commission
CEABC	Clean Energy Association of BC
CEC	Commercial Energy Consumers Association of British Columbia
CPCN	Certificate of Public Convenience and Necessity
EAR	Expenditure Authorization Request
EVP	Executive Vice-President
F2017 to F2019 RRA Decision	Decision on BC Hydro Fiscal 2017 to Fiscal 2019 RRA
FAAP	Financial Approval Authority Limits
IR	Information Requests
IRP	Integrated Resource Plan
IT	Information Technology
MAPP	Management Accounting Policies and Procedures
MoveUP	Movement of United Professionals
Review	Review the regulatory oversight of British Columbia Hydro and Power Authority's capital expenditures and projects
RRA	Revenue Requirement Applications
SAP Inquiry	Inquiry into BC Hydro's expenditures related to the adoption of the SAP Platform
SAP Inquiry Report	Report on the Inquiry of Expenditures Related to the Adoption of the SAP Platform
UCA	<i>Utilities Commission Act</i>

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

British Columbia Hydro and Power Authority
Review of the Regulatory Oversight of Capital Expenditures and Projects

EXHIBIT LIST

Exhibit No.	Description
<i>COMMISSION DOCUMENTS</i>	
A-1	Letter Dated May 3, 2016 – Order G-58-16 establishing Review of the Regulatory Oversight of Capital Expenditures and Projects
A-2	Letter Dated May 10, 2016 – Order G-63-16 establishing the regulatory timetable for the proceeding
A-3	Letter Dated June 10, 2016 – Appointment the Panel for the proceeding
A-4	Letter Dated June 14, 2016 – Order G-86-16 establishing the Procedural Conference
A-5	Letter Dated June 21, 2016 – Amended Procedural Conference
A-6	Letter Dated October 5, 2016 – Commission Order G-154-16 setting out the new dater for a Procedural Conference
A-7	Letter Dated November 9, 2016 – Procedural Conference Information
A-8	Letter Dated November 14, 2016 – Amendment of Panel
A-9	Letter dated November 30, 2016 – Commission Order G-174-16 with reasons for decision and the regulatory timetable
A-10	Letter dated March 15, 2018 – Commission Order G-59-18 establishing the regulatory timetable
A-11	Letter dated April 24, 2018 – BCUC Technical Questions to BC Hydro
A-12	Letter dated May 4, 2018 – Workshop Guidelines
A-13	Letter dated May 11, 2018 – BCUC Order G-89-18 with the regulatory timetable
A-14	Letter dated June 18, 2018 – Information and Scope regarding June 27, 2018 Procedural Conference

- A-15 Letter dated July 12, 2018 – BCUC Order G-126-18 with reasons for decision and the regulatory timetable
- A-16 Letter dated July 26, 2018 – Summary of BCUC Staff Evidence Proposal
- A-17 Letter dated August 10, 2018 – Notice of Intention to File Evidence
- A-18 Letter dated August 13, 2018 – BCUC Order G-148-18 with the regulatory timetable
- A-19 Letter dated August 29, 2018 – Request for Submissions on Commercial Energy Consumers Evidence Summary
- A-20 Letter dated September 7, 2018 – Response to BCOAPO Late Submission regarding CEC Evidence
- A-21 Letter dated September 17, 2018 – BCUC Order G-173-18 with reasons for decision for establishing the further regulatory timetable
- A-22 Letter dated October 1, 2018 – Response to CEC’s letter regarding the PACA Guidelines
- A-23 Letter dated October 11, 2018 – BCUC issuing Order G-193-18 with the amended regulatory timetable
- A-24 Letter dated November 19, 2018 – BCUC Information Request No. 1 on CEC Evidence
- A-25 Letter dated November 27, 2018 – BCUC Order G-223-18 with the amended regulatory timetable
- A-26 Letter dated November 29, 2018 – BCUC Order G-226-18 with the amended regulatory timetable
- A-27 Letter dated January 23, 2019 – BCUC Order G-16-19 suspending the regulatory timetable
- A-28 Letter dated January 31, 2019 – BCUC Order G-24-19 establishing the further regulatory timetable
- A-29 Letter dated March 20, 2019 – BCUC Order G-63-19 with the amended regulatory timetable
- A-30 Letter dated June 5, 2019 – BCUC Information Request No. 2 to BC Hydro

APPLICANT DOCUMENTS

- B-1 **BC HYDRO AND POWER AUTHORITY (BC HYDRO)** – Letter dated June 8, 2016 – Submitting comments on Proposed Scope of Issues and Timing
- B-2 Letter dated November 3, 2016 – BC Hydro Comments on the Procedural Conference
- B-3 Letter dated April 3, 2018 – BC Hydro Submitting Initial Proposal

- B-4 Letter dated May 18, 2018 – BC Hydro Submitting Responses to written technical or clarifying questions
- B-4-1 Letter dated May 25, 2018 – BC Hydro Submitting Revised Response to BCUC Technical Question 6.8
- B-5 Letter dated May 23, 2018 – BC Hydro Submitting Transcribed Workshop Presentation
- B-6 Letter dated June 1, 2018 – BC Hydro Submitting Responses to Requests at Workshop
- B-7 Letter dated June 13, 2018 – BC Hydro Submitting a Revised Proposal
- B-7-1 Letter dated June 15, 2018 – BC Hydro Submitting a Blacklined Revised Proposal
- B-8 Letter dated August 2, 2018 – BC Hydro Submission on the Proposed Evidence
- B-9 Letter dated September 5, 2018 – BC Hydro Submission on CEC Evidence Summary
- B-10 Letter dated October 9, 2018 – BC Hydro Submitting Response to CEC Extension Request and Submitting a Request for a Timetable Extension
- B-11 1. Letter dated November 19, 2018 – BC Hydro Information Request No. 1 on CEC Evidence
- B-12 2. Letter dated November 23, 2018 – BC Hydro Request Extension to file Rebuttal Evidence
- B-13 3. Letter dated January 22, 2019 – BC Hydro Request Extension to file Rebuttal Evidence
- B-14 4. Letter dated January 30, 2019 – BC Hydro reply to Intervener Submissions
- B-15 5. Letter dated February 15, 2019 – BC Hydro Submitting Rebuttal Evidence
- B-15-1 6. Letter dated February 15, 2019 – BC Hydro Submitting Expert Evidence
- B-16 7. Letter dated July 4, 2019 – BC Hydro Submitting Responses to BCUC and Intervener Information Requests No. 2

INTERVENER DOCUMENTS

- C1-1 **BC SUSTAINABLE ENERGY ASSOCIATION AND SIERRA CLUB (BCSEA)** – Letter dated May 25, 2016 Request to Intervene by Thomas Hackney and William Andrews
- C1-2 Letter dated June 8, 2016 – BCSEA Submitting comments on Proposed Scope of Issues and Timing
- C1-3 Letter dated April 24, 2018 – BCSEA Technical Questions to BC Hydro
- C1-4 Letter dated August 2, 2018 – BCSEA Submission on the Proposed Evidence

- C1-5 Letter dated August 2, 2018 – BCSEA Submission on the Proposed Evidence
- C1-6 Letter dated October 10, 2018 – BCSEA Submission do not object to BCH regulatory timetable revision
- C1-7 Letter dated November 17, 2018 - BCSEA Submitting Information Request No. 1 on CEC Evidence
- C1-8 Letter dated January 28, 2019 – BCSEA Submitting response to BC Hydro’s extension of the regulatory timetable
- C1-9 Letter dated June 6, 2019 – BCSEA Submitting Information Request No. 2 to BC Hydro Revised Proposal and Rebuttal Evidence
- C2-1 **BRITISH COLUMBIA OLD AGE PENSIONERS’ ORGANIZATION, ACTIVE SUPPORT AGAINST POVERTY, DISABILITY ALLIANCE BC, COUNCIL OF SENIOR CITIZENS’ ORGANIZATIONS OF BC, TOGETHER AGAINST POVERTY SOCIETY”, AND THE TENANT RESOURCE AND ADVISORY CENTRE, (BCOAPO)** Letter dated May 25, 2016 Request to Intervene by Erin Pritchard, Kate Feeney and Bill Harper
- C2-2 Letter dated June 8, 2016 – BCOAPO Submitting comments on Proposed Scope of Issues and Timing
- C2-3 Letter dated January 8, 2018 – BCOAPO Submitting Change of Counsel
- C2-4 Letter dated April 24, 2018 – BCOAPO Technical Questions to BC Hydro
- C2-5 Letter dated August 2, 2018 – BCOAPO Submission on the Proposed Evidence
- C2-6 Letter submitted September 6, 2018 – BCOAPO Late Submission on CEC Evidence
- C2-7 Letter dated January 28, 2019 – BCOAPO Submitting response to BC Hydro’s extension of the regulatory timetable
- C2-8 Letter dated January 28, 2019 – BCOAPO Submitting additional counsel Irina Mis
- C2-9 Letter dated June 6, 2019 – BCOAPO Submitting Information Request No. 2 to BC Hydro Revised Proposal and Rebuttal Evidence
- C3-1 **COMMERCIAL ENERGY CONSUMERS ASSOCIATION OF BRITISH COLUMBIA (CEC)** Letter dated May 17, 2016 Request to Intervene by David Craig and Christopher Weafer
- C3-2 Letter dated June 8, 2016 – CEC Submitting comments on Proposed Scope of Issues and Timing
- C3-3 Letter dated April 24, 2018 – CEC Technical Questions to BC Hydro
- C3-4 Letter dated July 26, 2018 – CEC response regarding filing of evidence
- C3-5 Letter dated August 2, 2018 – CEC Submission on the Proposed Evidence
- C3-6 Letter dated August 27, 2018 – CEC Submitting Summary of Evidence to be filed

C3-7	Letter dated September 10, 2018 – CEC response to BC Hydro regarding scope of evidence
C3-8	Letter dated September 28, 2018 – CEC Submission request BCUC guidance regarding PACA Guideline-16
C3-9	Letter dated October 5, 2018 – CEC request for filing deadline extension
C3-10	Letter dated November 5, 2018 – CEC Submitting Evidence prepared by Mr. David Craig
C3-11	Letter dated November 5, 2018 – CEC Submitting Evidence prepared by Mr. Scott Thomson
C3-12	Letter dated November 28, 2018 – CEC Submitting Extension Request to file Information Request Responses on Evidence
C3-13	Letter dated December 10, 2018 – CEC Submitting Responses to BCUC Information Request No. 1
C3-13-1	Letter dated December 11, 2018 – CEC Submitting working excel file regarding Response to BCUC IR 2.5
C3-14	Letter dated December 10, 2018 – CEC Submitting Responses to MoveUP Information Request No. 1
C3-15	Letter dated December 10, 2018 – CEC Submitting Responses to CEABC Information Request No. 1
C3-15-1	Letter dated December 10, 2018 – CEC Submitting Responses by David W. Craig to CEABC Information Request No. 1
C3-16	Letter dated December 10, 2018 – CEC Submitting Responses to BC Hydro Information Request No. 1
C3-17	Letter dated December 10, 2018 – CEC Submitting response to BCSEA Information Request No. 1
C3-18	Letter dated January 28, 2019 – CEC Submitting response to BC Hydro’s extension of the regulatory timetable
C3-19	Letter dated March 15, 2019 – CEC Submitting Extension Request to file Information Requests on BC Hydro Revised Proposal and Rebuttal Evidence
C3-20	Letter dated June 6, 2019 – CEC Submitting Information Request No. 2 to BC Hydro Revised Proposal and Rebuttal Evidence
C3-20-1	Letter dated June 6, 2019 – CEC Submitting Information Request on Rebuttal Evidence of Brattle Group
C4-1	MOVEMENT OF UNITED PROFESSIONALS (MOVEUP) Letter dated May 29, 2016 Request to Intervene by Iain Reeve, Leigha Worth and James Quail

- C4-2 Letter dated June 8, 2016 – MoveUp Submitting comments on Proposed Scope of Issues and Timing
- C4-3 Letter dated September 28, 2016 – MoveUp Submission regarding Timing of Procedural Conference
- C4-4 Letter dated April 18, 2018 – MoveUp submitting Questions to BC Hydro
- C4-5 Letter dated November 16, 2018 – MoveUp submitting Information Request No. 1 on CEC Evidence
- C4-6 Letter dated January 23, 2019 – MoveUp submitting support to BC Hydro Extension Request to file Rebuttal Evidence
- C4-7 Letter dated June 5, 2019 – MoveUp submitting Information Request No. 2 to BC Hydro on Rebuttal Evidence
- C5-1 **CLEAN ENERGY ASSOCIATION OF BC (CEBC)** Letter dated May 3, 2016 Request to Intervene by Paul Kariya and David Austin
- C5-2 Letter dated April 24, 2018 – CEBC submitting Questions to BC Hydro
- C5-3 Letter dated November 19, 2018 – CEBC submitting Information Request No. 1 on CEC Evidence
- C6-1 **LEIS, ILSE (ILSE)** Letter dated May 9, 2016 Request to Intervene by Ilse Leis
- C7-1 **ASSOCIATION OF MAJOR POWER CUSTOMERS OF BRITISH COLUMBIA (AMPC)** Letter dated June 23, 2016 – Late Request to Intervene by Richard Stout and Matthew Keen

INTERESTED PARTY DOCUMENTS

- D-1 **ACCENTURE BUSINESS SERVICES OF BRITISH COLUMBIA LIMITED PARTNERSHIP (ACCENTURE)** Letter Dated May 24, 2016 – Request for Interested Party Status by Janet Clark
- D-2 **BRYENTON, ROGER (BRYENTON)** Letter dated June 9, 2016 – Request for Interested Party Status
- D-3 **COELHO, ROBERT (COELHO)** Letter dated April 27, 2016 – Request for Interested Party Status
- D-4 **MINISTRY OF ENERGY AND MINES (MEM)** Letter dated June 5, 2017 – Request for Interested Party Status by Jack Buchanan
- D-5 **ASHDOWN, DESTINY (ASHDOWN)** Letter dated August 15, 2017 – Request for Interested Party Status
- D-6 **ALASKA HYDRO CORPORATION (ALASKA)** Letter dated August 15, 2017 – Request for Interested Party Status by Cliff Grandison

- D-7 **STANLAKE, ROBERT (STANLAKE)** Letter dated August 11, 2017 – Request for Interested Party Status
- D-8 **BENNETT, CANDICE (BENNETT)** Letter dated September 12, 2017 – Request for Interested Party Status
- D-9 **SHELTON, CHRIS** Letter dated September 12, 2017 – Request for Interested Party Status
- D-10 **FLICZUK, JIM** Letter dated October 3, 2017 – Request for Interested Party Status
- D-11 **GLOBAL SOLAR (GS)** Letter dated March 27, 2018 – Request for Interested Party Status by Robert Heywood
- D-12 **BROADHURST, G.** – April 17, 2019 Request for Interested Party Status