



ORDER NUMBER
G-278-19

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

and

British Columbia Hydro and Power Authority
Application for Electricity Purchase Agreement Renewals for
Sechelt Creek Hydro, Brown Lake Hydro and Walden North Hydro

BEFORE:

D. M. Morton, Panel Chair
B. A. Magnan, Commissioner
R. I. Mason, Commissioner

on November 8, 2019

ORDER

WHEREAS:

- A. On May 31, 2018, British Columbia Hydro and Power Authority (BC Hydro) filed with the British Columbia Utilities Commission (BCUC) an application, pursuant to section 71 of the *Utilities Commission Act* (UCA), to accept for filing the following Electricity Purchase Agreements (EPA) (collectively, the Application):
1. An EPA effective March 1, 2018 between BC Hydro and MPT Hydro LP for the Sechelt Creek run-of-river hydroelectric project for a term of 40 years;
 2. An EPA effective April 1, 2018 between BC Hydro and Brown Miller Power Limited Partnership for the Brown Lake Storage hydroelectric project for a term of 40 years; and
 3. An EPA effective April 1, 2018 between BC Hydro and Cayoose Creek Power Limited Partnership for the Walden North run-of-river hydroelectric project for a term of 40 years;
- B. By Order G-61-12, dated May 17, 2012, the BCUC approved the Rules for Energy Supply Contracts for Electricity (Rules). Appendix A of Order G-61-12 contains the Rules, which are intended to facilitate the BCUC's review of energy supply contracts for electricity, pursuant to section 71 of the UCA;
- C. On April 17, 2018, BC Hydro requested an extension from the 60 days filing rule for the Sechelt Creek EPA Renewal, as set out in the Rules. BC Hydro's filing extension request was granted by letter dated April 24, 2018;
- D. By Order G-153-18, dated August 16, 2018, the BCUC established the regulatory timetable to review the Application, including an opportunity for intervenor registration, and directed BC Hydro to provide further

elaboration on why the confidentially filed information should be held confidential. The regulatory timetable was further amended by Orders G-168-18, G-200-18 and G-91-19;

- E. By Order G-154-19, dated July 11, 2019, the BCUC suspended the timetable and requested submissions from all parties on the reopening of the evidentiary record to admit the letter of comment from Clean Energy Association of British Columbia dated July 9, 2019 (Clean Energy BC Letter). The timetable was subsequently re-established by Order G-174-19;
- F. Following the Clean Energy BC Letter, BC Hydro and interveners filed supplemental final and final arguments, respectively, on September 26, 2019 and October 3, 2019, respectively. BC Hydro filed its reply argument October 10, 2019; and
- G. The BCUC has considered the Application, evidence, and submissions from all parties filed in the proceeding, and makes the following determination.

NOW THEREFORE for the Reasons for Decision attached as Appendix A to this order, the BCUC adjourns this proceeding for 60 days from the date of this order to allow BC Hydro and the counterparties, should they so choose, to restructure and resubmit to this Panel EPA renewals with each of the Sechelt Creek, Brown Lake and Walden North Independent Power Producer (IPP) facilities that addresses the Panel's concerns related to the terms of the EPAs.

DATED at the City of Vancouver, in the Province of British Columbia, this 8th day of November 2019.

BY ORDER

Original signed by:

D. M. Morton
Commissioner

Attachment

British Columbia Hydro and Power Authority

Application for Electricity Purchase Agreement Renewals for Sechelt Creek Hydro, Brown Lake Hydro and Walden North Hydro

Reasons for Decision

November 8, 2019

Before:

D. M. Morton, Panel Chair
B. A. Magnan, Commissioner
R. I. Mason, Commissioner

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1.0 Background and Context

1.1 Approvals sought

On May 31, 2018, pursuant to section 71 of the *Utilities Commission Act (UCA)*, the British Columbia Hydro and Power Authority (BC Hydro) filed with the British Columbia Utilities Commission (BCUC) the following Electricity Purchase Agreements (EPA) (collectively, the Application):

- An EPA effective March 1, 2018 between BC Hydro and MPT Hydro LP for the Sechelt Creek run-of-river hydroelectric project (Sechelt Creek EPA);
- An EPA effective April 1, 2018 between BC Hydro and Brown Miller Power Limited Partnership for the Brown Lake Storage hydroelectric project (Brown Lake EPA); and
- An EPA effective April 1, 2018 between BC Hydro and Cayoose Creek Power Limited Partnership for the Walden North run-of-river hydroelectric project (Walden North EPA);

BC Hydro also requests that the BCUC keep the unredacted version of the Application confidential as it contains information which is commercially sensitive to BC Hydro and the counterparties, and if publicly disclosed may compromise BC Hydro's negotiating position with respect to other EPAs.

1.2 Background and Relevant Previous Decisions

The original EPAs with each Independent Power Producer (IPP) were signed under the 1989 Request for Proposals, with each contract term extending for at least 20 years. Each of the original EPAs also contained evergreen provisions to continue each contract on a year-to-year basis unless terminated by either party by providing six-months' notice.¹

The original EPAs related to Sechelt Creek and Brown Lake were terminated prior to March 1, 2018 and April 1, 2018, respectively, immediately prior to the effective date of each EPA renewal. Conversely, the original EPA for Walden North, and its related Forbearance Agreement, have not yet been terminated.²

By Ministerial Order M-22-9801, dated August 28, 1998, any EPAs agreed upon by BC Hydro or any persons selling electricity to BC Hydro on or before March 31, 2000, were exempted from section 71 of the UCA. The threshold date for this exemption was subsequently updated to September 30, 2001, by Amending Ministerial Order M-22-9801-A1.

1.3 Legislative Framework

The review of an EPA is conducted pursuant to section 71 of the UCA and the Rules for Energy Supply Contracts for Electricity (ESC Rules). The ESC Rules were established by the BCUC by Order G-61-12, dated May 17, 2012.

Section 71(2) states:

¹ Exhibit B-1, pp. 9–10, 17, 25–26.

² Exhibit B-1, pp. 10, 17, 27.

The commission may make an order under subsection (3) if the commission, after a hearing, determines that an energy supply contract to which subsection (1) applies is not in the public interest.

Section 71(2.2.1) states:

In determining under subsection (2) whether an energy supply contract filed by the authority is in the public interest, the commission, in addition to considering the interests of persons in British Columbia who receive or may receive service from the authority, must consider

- (a) British Columbia's energy objectives,
- (b) the most recent of the following documents:
 - (i) an integrated resource plan approved under section 4 of the *Clean Energy Act* before the repeal of that section;
 - (ii) a long-term resource plan filed by the authority under section 44.1 of this Act,
- (c) the extent to which the energy supply contract is consistent with the requirements under section 19 of the *Clean Energy Act*,
- (d) the quantity of the energy to be supplied under the contract,
- (e) the availability of supplies of the energy referred to in paragraph (d),
- (f) the price and availability of any other form of energy that could be used instead of the energy referred to in paragraph (d), and
- (g) in the case only of an energy supply contract that is entered into by a public utility, the price of the energy referred to in paragraph (d).

A list of British Columbia's energy objectives can be found under Section 2 of the *Clean Energy Act* (CEA).³

1.3.1 Contract Filing

Section 71(1) of the UCA states:

Subject to subsection (1.1), a person who, after this section comes into force, enters into an energy supply contract must

- (a) file a copy of the contract with the commission under rules and within the time it specifies, and
- (b) provide to the commission any information it considers necessary to determine whether the contract is in the public interest.

Under section 1.1.2 of the ESC Rules, energy supply contracts shall be filed with the BCUC within 60 days of the entry of the contract. On April 17, 2018, BC Hydro requested an extension to file the Sechelt Creek EPA by May 31, 2018, so that all three EPAs could be filed together as a consolidated application. The BCUC granted this extension requested by letter dated April 24, 2018.

³ Clean Energy Act, SBC 2010, Chapter 22, section 2, retrieved from http://www.bclaws.ca/civix/document/id/complete/statreg/10022_01#section2

1.4 Regulatory Process and Participants

By orders G-153-18 and G-168-18, dated August 16, 2018 and September 7, 2018, respectively, the BCUC established the written hearing process and the initial regulatory timetable to review the Application. The regulatory timetable was subsequently amended by orders G-200-18, G-91-19, G-154-19 and G-174-19.

The final regulatory review process consisted of:

- Intervener registration;
- Three rounds of information requests (IR); and
- Written final, supplemental final and reply arguments.

Three interveners registered in the proceeding: British Columbia Old Age Pensioners' Organization et. al. (BCOAPO), the Commercial Energy Consumers Association of British Columbia (CEC), and the Cayoose Creek Indian Band (CCIB). Capstone Infrastructure Corporation (Capstone) registered as an Interested Party. Two letters of comment were also submitted to the BCUC.

BC Hydro filed its final argument and supplemental final arguments on July 5, 2019 and September 26, 2019, respectively. Intervenors filed their final arguments October 3, 2019, subsequently followed by BC Hydro's reply argument October 10, 2019.

2.0 Facility Summaries

2.1 Sechelt Creek Project

The Sechelt Creek project is a run-of-river hydroelectric facility located northeast of Sechelt, BC, with an installed capacity of 16.7 MW and with average annual generation of 85 GWh. The project is owned by MPT Hydro LP, a subsidiary of Capstone, and is operated by Regional Power Inc.⁴ Effective March 1, 2017, an agreement was reached to provide the shíshálh Nation with equity ownership in the facility, along with a profit-sharing arrangement.⁵ In addition to its standard operations, the spawning channel, which was created by the IPP and is maintained by both the IPP and members of the shíshálh Nation, is viewed as an important natural and financial resource for their community, given its role in maintaining the salmon population and promoting eco-tourism in the local area.^{6,7,8} The Sechelt Creek's proximity the Lower Mainland also benefits BC Hydro, as fewer line losses are expected on the system.⁹

In the absence of an EPA, the Sechelt Creek IPP has stated that it is uncertain whether or not the Sechelt Creek project may be decommissioned or decommissioned early.¹⁰

⁴ Exhibit B-1, p. 9.

⁵ Exhibit B-5, BCUC IR 1.1.1

⁶ Exhibit B-5, BCUC IR 1.1.2.2

⁷ Exhibit B-12, BCUC IR 2.1.2

⁸ Exhibit B-5, BCUC IR 1.3.3.1

⁹ Exhibit B-5, BCUC IR 1.35.1

¹⁰ Exhibit B-1, pp. 15–16.

2.2 Brown Lake Project

The Brown Lake project is a hydro storage facility located by the Ecstall River near Prince Rupert, BC that provides average annual energy generation of 52.3 GWh. Brown Lake has been owned and operated by Innergex Renewable Energy Inc. (Innergex) since 2012.¹¹ The Brown Lake project is one of three resources that provides local reliability to the Prince Rupert area and provides an estimated 6MW of dependable capacity to BC Hydro's system.¹² In the event of a forced or planned outage for BC Hydro's transmission line 2L101, generation output from the Brown Lake project allows BC Hydro to reduce the output required from the Prince Rupert Generation Station, a natural gas and diesel generation facility, which is both more expensive and a producer of greenhouse gases.¹³

In the absence of an EPA, the Brown Lake IPP has stated that an alternative would be to sell electricity to third parties, or to provide reliability services to BC Hydro.^{14,15}

2.3 Walden North Project

The Walden North project is a run-of-river hydroelectric facility located near the confluence of Cayoosh Creek and the Seton River, approximately five kilometers west of Lillooet, BC and downstream of BC Hydro's Seton Dam. The facility has an installed capacity of 16 MW and produces an average of 33.8 GWh per year.¹⁶ Since 2016, the Walden North project has been owned by Cayoosh Creek Power Limited Partnership (CCPLP), which is comprised of the Cayoosh Creek Development Corporation (CCDC) (49%) and Innergex (51%). The CCIB is the sole owner of CCDC.¹⁷ The Walden North IPP provides environmental benefits by diverting water from the tailrace through BC Hydro's Cayoosh Diversion Tunnel into Seton Lake, which facilitates salmon migration to spawning areas in the Bridge River system.¹⁸

2.3.1 Walden North – Diversion Agreement and Forbearance Agreement

BC Hydro signed a Diversion Agreement with the Walden North IPP in 1990, which set out the rights and obligations of each party, enabled the diversion of water from Cayoosh Creek through the Cayoosh Diversion Tunnel, and provided BC Hydro with incremental generation and environmental benefits. To preserve this value, BC Hydro entered into a Forbearance Agreement, effective November 1, 2014, where BC Hydro agreed to forbear from exercising its rights to terminate the original EPA for a number of years.

The original EPA and related Forbearance Agreement will continue in accordance with their respective terms unless the EPA renewal is accepted.¹⁹

¹¹ Exhibit B-1, pp. 16–17.

¹² Exhibit B-5, BCUC IR 1.32.1

¹³ Exhibit B-5, BCUC IR 1.37.1

¹⁴ Exhibit B-5, BCUC IR 1.4.1

¹⁵ Exhibit B-5, BCUC IR 1.38.3

¹⁶ Exhibit B-1, p. 23.

¹⁷ Exhibit B-5, BCUC IR 1.2.1

¹⁸ Exhibit B-1, pp. 23–24.

¹⁹ Exhibit B-1, pp. 23–26.

3.0 Topics of Discussion

3.1 Duty to consult

BC Hydro states that it incorporates the principles of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Truth and Reconciliation Commission (TRC) in carrying out BC Hydro's consultation processes in relation to an EPA, stating that UNDRIP and TRC are relevant to the public interest evaluation when an EPA arises from an accommodation or reconciliation commitment made by BC Hydro to a First Nation.²⁰ However, as the EPA renewals do not give rise to any potential incremental adverse impacts on Aboriginal rights or title, BC Hydro asserts that there are no adverse impacts on Aboriginal rights or title that are relevant to the public interest determination in relation to any of the EPAs in this Application.

Sechelt Creek EPA

The Sechelt Creek project is within the consultative boundaries of the shíshálh Nation. During EPA renewal renegotiations, BC Hydro was advised of the agreement between the shíshálh Nation and Capstone.

BC Hydro views that the Sechelt Creek EPA renewal does not trigger a duty to consult because:²¹

- i) there are no new or incremental impacts to Aboriginal rights and title;
- ii) there are no anticipated changes to the physical footprint of the IPP or energy output; and
- iii) there are no environmental impacts that resulted from the original construction of the facility that have the potential to worsen with continued operation.

Brown Lake EPA

The Brown Lake project is within the consultative boundaries of the following First Nations:

- Lax Kw'alaams Band;
- Gitgaat First Nation;
- Gitxaala Nation;
- Kitselas First Nation;
- Kitsumkalum First Nation; and
- Metlakatla First Nation.

BC Hydro views that the Brown Lake EPA renewal does not trigger a duty to consult because:

- i) there are no new or incremental impacts to Aboriginal rights and title;
- ii) there are no anticipated changes to the physical footprint of the IPP or energy output; or

²⁰ Exhibit B-17, BCUC IR 3.2.5

²¹ Exhibit B-1, pp. 15–16.

- iii) there are no environmental impacts that resulted from the original construction of the facility that have the potential to worsen with continued operation.

While network upgrades are expected to be undertaken by BC Hydro in relation to the EPA renewal, this will not change the operations or physical footprint of the BC Hydro transmission system.²²

Walden North IPP

The Walden North IPP is within the consultative boundaries of the CCIB and the T'it'q'et Administration (TA). The CCIB and TA are two of the eleven communities constituting the St'át'imc Nation.

BC Hydro is of the view that the Walden North EPA renewal will not result in any new or incremental impacts on the St'át'imc Nation's Aboriginal rights and title, and therefore it does not trigger the duty to consult because of the following:

- i) No changes to the physical footprint of the IPP are anticipated;
- ii) The proposed plant refurbishment and culvert upgrade do not involve changes to existing water license or other Crown authorizations;
- iii) There are no environmental impacts that resulted from the original construction of the Walden North facility that have the potential to worsen with its continued operation; and
- iv) The Walden North facility will not be decommissioned or decommissioned earlier if the EPA is not renewed.

BC Hydro also states any past, present and future claims relating to potential impacts from the operation of the diversion tunnel have been included in settlement agreements signed with the St'át'imc Nation in 2011, as they relate to BC Hydro's Bridge River facilities and their continued maintenance and operations.²³

Panel Determination

The Panel finds that with respect to the EPA renewals with each of the Sechelt Creek, Brown Lake and Walden North IPPs, BC Hydro's duty to consult First Nations is not triggered by any of the EPA renewals because there are no anticipated adverse impacts on Aboriginal rights or title.

3.2 Resource Planning and Need for Energy

At the time of negotiating and executing the EPA renewals, BC Hydro anticipated it would need additional energy in fiscal 2022. With regard to the cost of the energy arising from the EPA renewals, BC Hydro submits that individual IPPs are not evaluated against each other to maximize cost-effectiveness of the renewable portfolio, nor do such evaluations consider targets or threshold amounts for energy and capacity. Instead, the

²² Exhibit B-1, pp. 21–22.

²³ Exhibit B-1, pp. 34–35.

approach to EPA renewals is informed by Recommended Action 4 from the 2013 Integrated Resource Plan (IRP).^{24,25,26}

On February 14, 2019, the BC Government released its Comprehensive Review of BC Hydro Phase 1 Final Report (Phase I Report), of which one goal was to establish “a new five-year rates forecast that reflects cost and revenue strategies to keep rates affordable.”²⁷ The Phase I Report also states the following:

- BC Hydro is currently forecast to be in energy surplus into the 2030s;²⁸
- BC Hydro continues to forecast that it will have an energy surplus, even with changes in the future of energy procurement resulting from both phases of the BC Government’s Comprehensive Review of BC Hydro;²⁹ and
- A new IRP is expected to be submitted to the BCUC by February 2021;³⁰

The Phase I Report is also set to inform Phase II of the Comprehensive Review, which will focus on transformational aspects to changing energy markets.³¹

Position of the Parties

BC Hydro states that, until recently, its approach to EPA renewals was informed by Recommended Action 4 from the 2013 IRP, which discusses the key principle of reducing near term costs while maintaining cost-effective options for long-term need.³² BC Hydro expects that its EPA renewal approach will be revisited as part of the process for the 2021 IRP.³³

BCOAPO states that “...the timing of the need for and the cost of these resources is uncertain.”³⁴ However, BCOAPO also notes that with BC Hydro’s load resource balance (LRB) being in surplus, objective 2(n) of BC’s energy objective “to be a net exporter of electricity from clean or renewable resources” is relevant as the renewals will lead to increased net exports by BC Hydro from clean and renewal resources in the short term.³⁵

Overall, CEC submits that it is “important to avoid acquiring energy when it is not required at prices above that for which it may be sold in the market until such time as it may be used to serve domestic customers in BC.”³⁶ CEC also submits that the 2013 IRP is outdated and that it would be preferable for BC Hydro to avoid finalizing the acquisition of IPP energy at least until the LRB is updated and preferably until the IRP is completed.^{37,38} With

²⁴ Exhibit B-5, BCUC IR 1.11.1

²⁵ Exhibit B-5, BCUC IR 1.42.1.1

²⁶ Exhibit B-14, CEC IR 2.30.2

²⁷ Phase I Report, p. 1, retrieved from 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

²⁸ Phase I Report, p. 3.

²⁹ Phase I Report, p. 33.

³⁰ Phase I Report, p. 2.

³¹ Phase I Report, p. 35.

³² Exhibit B-5, BCUC IR 1.42.1.1

³³ Exhibit B-12, BCUC IR 2.15.1

³⁴ BCOAPO Final Argument, p. 20.

³⁵ BCOAPO Final Argument, p. 7.

³⁶ CEC Redacted Final Argument, p. 3.

³⁷ CEC Redacted Final Argument, p. 7.

³⁸ CEC Redacted Final Argument, p. 11.

respect to the term of the contracts, EPA submits that EPA contracts for maximum 5-year terms would better enhance flexibility and allow a period of time for the government to assess its key objectives with regard to IPP renewals and the BCUC to appropriately consider and assess a new IRP.³⁹

Panel Determination

The Phase I Report forecasts that BC Hydro's energy surplus will continue into the 2030s, at which time new resources would be required to meet a domestic energy shortfall. The Panel views that the information provided by Phase II of the Comprehensive Review and the 2021 IRP will be valuable, as will the IRP approval process planned to begin in 2021.

In the absence of an updated IRP, the Panel finds insufficient evidence that BC Hydro has a need for the energy from these EPAs over the term of the contracts. If the energy acquired from the EPA renewals are in excess to what BC Hydro requires to serve domestic load, it is expected that BC Hydro will sell the surplus energy on the open market as part of its energy management. Given the acquisition cost and current market prices and forecasts, there is a risk that this would result in harm to BC Hydro's ratepayers. This is further addressed under Section 3.4 below.

3.3 Qualitative Benefits

Sechelt Creek EPA

The equity ownership and profit-sharing arrangement signed with the Sechelt Creek IPP also provides the shíshálh Nation collaborative decision-making and governance. In a letter of comment, the shíshálh Nation view that the Sechelt Creek EPA renewal meets objective (I) in section 2 of the *Clean Energy Act* (CEA)⁴⁰ and encourages "ongoing reconciliation, co-management of resources in shíshálh swiya (water, fish, and renewable energy), shíshálh economic and commercial development (both direct and indirect), and meaningful self-government for shíshálh."⁴¹

The Sechelt Creek project's spawning channel provides additional environmental benefits through salmon repopulation, and the facility as a whole provides a boost to the local economy, through both eco-tourism and local employment (including employment to members of the shíshálh Nation),⁴² as well as the re-opening of commercial fisheries in recent years.^{43,44}

Brown Lake EPA

The Brown Lake project is one of three resources that provides local reliability to the Prince Rupert area and provides an estimated 6MW of dependable capacity to BC Hydro's system.^{45,46} In the event of a forced or

³⁹ CEC Redacted Final Argument, p. 2.

⁴⁰ Objective (I) in section 2 of the *CEA* – BC's energy objectives states "to foster the development of first nation and rural communities through the use and development of clean or renewable resources."

⁴¹ Exhibit E-1, p. 4.

⁴² Exhibit B-5, BCUC IR 1.2.2.2

⁴³ Exhibit B-12, BCUC IR 2.1.2

⁴⁴ Exhibit E-1, pp. 2–3.

⁴⁵ Exhibit B-5, BCUC IR 1.32.1

⁴⁶ BC Hydro Final Argument, p. 4.

planned outage for BC Hydro’s transmission line 2L101, generation output from the Brown Lake project allows BC Hydro to reduce the output required from the Prince Rupert Generation Station, a natural gas and diesel generation facility. Relative to the Prince Rupert Generation Station, the Brown Lake IPP is less expensive to run, and more environmentally friendly.^{47,48}

Walden North EPA

The Limited Partnership Agreement between CCDC and Innergex provides the CCIB and the TA with a number of benefits related to contracting, jobs and training,⁴⁹ as well as a share of net income or loss earned by the CCPLP over the term of the 40-year EPA renewal.⁵⁰

Salmon migration is facilitated by the Cayoosh Diversion Tunnel, and the Walden North IPP states that the salmon population “...is of great natural importance to the CCIB.” Several elements of the Walden North IPP operations provide specific protection and enhancement of the salmon population native to the Cayoosh and Seton areas, and the salmon and other fish species are a source of food for the local and downstream communities. Additionally, the IPP provides indirect employment for many members of the CCIB, as well as other indigenous and neighbouring communities.⁵¹

Position of Parties

BC Hydro views its relationships with First Nations to be important and views the EPA renewals to provide broader public interest benefits to First Nations, local communities and the environment, including salmon migration and spawning.⁵²

The CEC submits that where the IPP projects may be fairly similar in terms of the cost-effectiveness assessment it could be useful to provide additional consideration to the economic benefits:⁵³

- The benefits provided by the Sechelt Creek IPP are important, including the impact on the salmon run.⁵⁴
- The storage capability at the Brown Lake IPP is a significant benefit, particularly as a standby resource in the event of a forced or planned outage on BC Hydro’s transmission line.⁵⁵
- The environmental and other benefits provided by the Walden North project are important, as outlined in BC Hydro’s Final Argument.⁵⁶

In addition to the benefits cited by CEC, BCOAPO provides the following views:

⁴⁷ Exhibit B-5, BCUC IR 1.37.1

⁴⁸ BC Hydro Final Argument, p. 13.

⁴⁹ Exhibit B-5, BCUC IR 1.2.1.2

⁵⁰ Exhibit B-5, BCUC 1.2.1

⁵¹ Exhibit B-12, BCUC IR 2.1.2

⁵² BC Hydro Final Argument, pp. 25–26.

⁵³ CEC Redacted Final Argument, p. 15.

⁵⁴ CEC Redacted Final Argument, p. 19.

⁵⁵ CEC Redacted Final Argument, p. 22.

⁵⁶ CEC Redacted Final Argument, p. 28.

- The link between the Sechelt Creek IPP and the spawning channel supports objective (l) in section 2 of the CEA.⁵⁷
- The Brown Lake IPP can be viewed as “i) supporting “the interests of persons in British Columbia who receive or may receive service from the authority (i.e., BC Hydro)” and ii) further supporting objective 2(f) in section 2 of the CEA – to ensure the authority’s rates remain among the most competitive of rates charged by public utilities in North America and objective (c) of the CEA - to generate at least 93% of the electricity in British Columbia from clean or renewable resources and to build the infrastructure necessary to transmit that electricity”;⁵⁸ and
- Renewal of the Walden North EPA and maintaining the unique relationship between Walden North and BC Hydro’s Cayoosh Diversion Tunnel supports objective 2(l) of the CEA.⁵⁹

Panel Discussion

The Panel recognizes the importance of the additional benefits provided by each of the EPA renewals to both the local Indigenous and non-Indigenous communities. With respect to the Sechelt Creek and Walden North projects, the environmental benefits afforded by the spawning channel and the diversion tunnel, respectively, are linked to the benefits provided to both Indigenous communities and the local economy. With respect to the Brown Lake project, the Panel agrees that the storage capabilities of the Brown Lake IPP allow it to act as a standby resource in the event of a forced or planned outage on BC Hydro’s transmission line.

3.4 Cost Effectiveness

BC Hydro evaluates the cost effectiveness of the EPA renewals by comparing the EPA price against the market price during periods of surplus, and against the Long-Run Marginal Cost (LRMC) during periods of deficit,⁶⁰ as set out in Table 1 below.

BC Hydro states that the LRMC is used as a benchmark to determine the cost-effectiveness of different resources. For EPA renewals, BC Hydro expects to acquire additional resources needed from fiscal 2022 to fiscal 2033 at prices below the LRMC of \$89/MWh.⁶¹

Table 1 – Marginal Resources and Related Costs⁶²

Marginal Resources	Period of Applicability	LRMC (Fiscal 2017\$)
DSM and EPA Renewals	Fiscal 2022 to Fiscal 2033	\$89/MWh
Green Field IPPs	Fiscal 2034 and beyond	\$104/MWh

During the proceeding, BC Hydro stated that LRMC values, as used in the Application, were estimated in 2015 and are now considered out of date. Instead, a market price is used as a conservative interim assumption for evaluating energy during surplus and deficit periods in consideration of potential policy changes that may affect

⁵⁷ BCOAPO Final Argument, p. 16.

⁵⁸ BCOAPO Final Argument, p. 17.

⁵⁹ BCOAPO Final Argument, p. 18.

⁶⁰ Exhibit B-1, p. 9.

⁶¹ Exhibit B-1, p. 8.

⁶² Prepared by BCUC Staff. Reference: Exhibit B-1, p. 8; Exhibit B-5, BCUC IR 1.8.3

BC Hydro arising from ongoing government review and other energy related policies.⁶³ This interim market price approach will continue to be used until the next IRP, when BC Hydro plans to update its LRMCS.⁶⁴

The potential rate impact of each EPA renewal, using BC Hydro’s model and the interim market approach, and compared against the BCUC Staff Model⁶⁵, is also provided below:

Table 2 – Rate Impact⁶⁶

EPA Renewal	Rate Impact using BCUC Staff Model ⁴	Rate Impact using BC Hydro Model and Interim Market Approach ⁵
Sechelt Creek EPA	-0.020% to 0.045%	-0.001% to 0.049%
Brown Lake EPA	-0.010% to 0.029%	0.000% to 0.032%
Walden North EPA	0.001% to 0.038%	-0.015% to 0.022%

Position of the Parties

BC Hydro states that “any one distinct set of assumptions should not be relied upon when making public interest determinations; rather the entirety of evidence and criteria set forth in section 71(2.21) of the *UCA* should be considered.”⁶⁷

Overall, BCOAPO notes a lack of clarity on the cost-effectiveness of the EPAs due to “...the uncertainty regarding BC Hydro’s LRB, future market prices and, in particular, the appropriate LRMCS value for the cost of new greenfield (wind-based) IPPs.”⁶⁸ BCOAPO acknowledges that while the detailed results are confidential,⁶⁹ BCOAPO considers the assessment of the cost-effectiveness of EPA renewals to be an important consideration for the BCUC in making its determinations.⁷⁰

CEC submits that the interim market price assumption represents the appropriate value for BC Hydro’s opportunity cost, and that “all the projects have the potential to cause a rate increase under the Interim Market Approach.” CEC also views that “substantial changes may arise in the circumstances over an extended term (i.e. 40 years)...and that less expensive energy resources may be available in the future.”⁷¹

⁶³ Exhibit B-5, BCUC IR 1.8.4

⁶⁴ Exhibit B-12, BCUC IR 2.2.2

⁶⁵ Exhibit A2-2, Updated Confidential Financial Models

⁶⁶ BC Hydro Supplemental Final Argument, p. 4.; Footnote 4 in Table 2 references Exhibit B-13, BCUC CONFIDENTIAL IR 2.8.1.1. Footnote 5 references Exhibit B-18, BCUC CONFIDENTIAL IR 3.1.1

⁶⁷ BC Hydro Final Argument, p. 27.

⁶⁸ BCOAPO Final Argument, p. 12.

⁶⁹ BCOAPO Final Argument, p. 10.

⁷⁰ BCOAPO Final Argument, p. 8.

⁷¹ CEC Redacted Final Argument, pp. 6–7.

Panel Determination

The Panel finds insufficient evidence that any of the three EPAs are cost-effective over the 40 year contract period.

The Panel finds that the interim market approach is the more appropriate method to value the EPA renewals than BC Hydro's opportunity cost. The interim market cost approach provides a more recent comparison of opportunity costs relative to the LRMC, which was estimated in 2015 and which BC Hydro considers "out of date." The Panel also notes that the interim market approach better aligns with the most recent Phase I Government Review of BC Hydro, and that BC Hydro will continue to use the interim market approach until LRMCs are updated in the next IRP.

Evaluating cost-effectiveness starts by using a set of assumptions to calculate a base value. As the interim market approach has been determined as the appropriate method to value each EPA renewal, to state that the EPA renewals are cost-effective would contradict and be inconsistent with this finding.

Further, the Panel views that ratepayers are exposed to price and market risks over the terms of these contracts. This risk is reflected in the range of rate impacts calculated using each of the BCUC Staff Model and the BC Hydro interim market approach.

In the Panel's view, the range of possible ratepayer impacts calculated for each EPA renewal exposes ratepayers to a significant level of risk due to uncertainty in market prices and changes in the energy industry in general, over the 40-year time horizon. However, if the EPA renewals were restructured to have shorter terms, as suggested by CEC, the level of market and price risks would be reduced, and the other benefits provided by each project would outweigh the lack of cost-effectiveness of each EPA renewal. Further, shorter terms would provide some flexibility in reacting to market changes and better align with the upcoming 2021 IRP.

4.0 Panel Determination

The Panel has considered the cost-effectiveness of the EPA renewals, as well as the benefits that each of the EPA renewals provides to their respective local and Indigenous communities, including potential impacts on local employment, environmental impacts and salmon migration.

The Panel acknowledges the benefits these projects provide to their local and Indigenous communities and these benefits are consistent with energy objectives (k) and (l). However, the Panel has also considered energy objective (n) which requires the protection of the interests of persons who receive or may receive service in British Columbia. At the present time, the energy acquired would be surplus to BC Hydro's needs and the contract price of all three EPA renewals exceeds the cost that BC Hydro would be able to sell the energy for on the open market. As a result, this could leave BC Hydro's ratepayers economically harmed over the 40-year term of the EPA renewals.

The Panel views the 40-year term of each EPA renewal to be problematic considering the level of market and price risk exposures placed on ratepayers. In the absence of an updated and approved IRP, we are unable to

determine that these contracts are in the public interest over the 40-year term. These EPA renewals would be best adjudicated within the context of an updated IRP.

In light of the above findings, the Panel declines to make any determination with regards to whether EPA renewals with the Sechelt Creek IPP, Brown Lake IPP and Walden North IPP are in the public interest and accepted for filing under section 71, at this time. However, the Panel is prepared to consider accepting the subject EPA renewals for periods shorter than 40 years to allow for the conclusion of BC Hydro's next IRP proceeding, at which time there may be further clarity on BC Hydro's long term energy needs and supply alternatives to meet demand.

While accepting these EPA renewals as being in the public interest for even a shorter period than 40 years will likely result in some economic harm to ratepayers, the Panel considers this economic harm to be minimal. Further as noted above, a renewal is consistent with energy objectives (k) and (l). Therefore, the Panel considers it reasonable to accept these EPA renewals until the conclusion of the IRP proceeding as they could potentially provide BC Hydro with options for long term sources of energy should BC Hydro be able to demonstrate the need within the upcoming IRP.

Accordingly, the Panel adjourns this proceeding for 60 days to allow BC Hydro and the counterparties, should they so choose, to restructure and resubmit the EPA renewals with a term not to exceed three years from the date of this order.