



ORDER NUMBER
G-50-24

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

and

British Columbia Hydro and Power Authority
Electricity Purchase Agreement Renewals for Sechelt Creek, Brown Lake,
Pingston Creek, Miller Creek, Rutherford Creek and Mears Creek

BEFORE:

B. A. Magnan, Panel Chair
E. B. Lockhart, Commissioner

on February 27, 2024

ORDER

WHEREAS:

- A. On May 1, 2023, 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) (Filing):
1. An EPA effective February 1, 2023, between BC Hydro and MPT Hydro LP for the Sechelt Creek run-of-river hydroelectric project for a term of 20 years (Sechelt Creek 2023 EPA); and
 2. An EPA effective March 3, 2023, between BC Hydro and Brown Miller Power Limited Partnership for the Brown Lake storage hydroelectric project for a term of 20 years (Brown Lake 2023 EPA);
- B. By Order G-153-23 dated June 16, 2023, the BCUC established a regulatory timetable for review of the Filing, which included one round of information requests (IRs) and further process to be determined;
- C. By letter dated June 23, 2023, BC Hydro requested that the Pingston Creek, Miller Creek, Rutherford Creek and Mears Creek EPA renewals be reviewed as part of the Sechelt EPA and Brown Lake EPA proceeding and requested to amend the regulatory timetable established pursuant to Order G-153-23 to include time to submit the Pingston Creek, Miller Creek, Rutherford Creek and Mears Creek EPAs and to provide an update on the cost effectiveness of the Sechelt EPA and Brown EPA;
- D. By Order G-163-23 dated June 27, 2023, the BCUC accepted BC Hydro's request and amended the Regulatory Timetable;
- E. On July 6, 2023, BC Hydro filed the Pingston Creek, Miller Creek, Rutherford Creek and Mears Creek EPAs as well as updates to the cost effectiveness of the Sechelt Creek EPA and Brown Lake EPA;
- F. On August 9, 2023, the BCUC issued IR No. 1 to BC Hydro;

- G. On August 16, 2023, registered interveners BC Old Age Pensioners' Organization (BCOAPO) and Commercial Energy Consumers Association of British Columbia (CEC) issued Intervener IR No. 1 to BC Hydro;
- H. On September 27, 2023, BC Hydro submitted its responses to BCUC and Intervener IRs No. 1;
- I. By Order G-282-23 dated October 19, 2023, the BCUC established a further regulatory timetable for final arguments from BC Hydro and registered interveners, with deadlines of Thursday, November 2, 2023, and Thursday, November 16, 2023 respectively;
- J. By letter dated October 27, 2023, BC Hydro requested an extension to the deadline to file its final argument from November 2, 2023, to November 9, 2023, due to resource constraints of key personnel;
- K. By Order G-295-23 dated October 30, 2023, the BCUC amended the further regulatory timetable for BC Hydro's final argument with a deadline of November 9, 2023;
- L. On November 9, 2023, BC Hydro submitted its final argument;
- M. On November 23, 2023, registered interveners BCOAPO and CEC submitted their final arguments;
- N. On December 7, 2023, BC Hydro submitted its reply argument; and
- O. The BCUC has considered the Filing, evidence, and submissions from all parties filed in the proceeding, and makes the following determinations.

NOW THEREFORE pursuant to section 71 of the UCA and for the Reasons for Decision attached as Appendix A to this order, the BCUC orders the following:

- 1. The Sechelt Creek 2023 EPA, Brown Lake 2023 EPA, Pingston Creek 2023 EPA, Miller Creek 2023 EPA, Rutherford Creek 2023 EPA and Mears Creek 2023 EPA are accepted for filing.
- 2. The BCUC will hold the unredacted Sechelt Creek 2023 EPA, Brown Lake 2023 EPA, Pingston Creek 2023 EPA, Miller Creek 2023 EPA, Rutherford Creek 2023 EPA, Mears Creek 2023 EPA and the unredacted version of the Filing confidential, until the BCUC determines otherwise, due to their commercially sensitive nature.

DATED at the City of Vancouver, in the Province of British Columbia, this 27th day of February 2024.

BY ORDER

Original signed by:

B. A. Magnan
Commissioner

Attachment

British Columbia Hydro and Power Authority

Electricity Purchase Agreement Renewals for Sechelt Creek, Brown Lake, Pingston Creek, Miller Creek, Rutherford Creek and Mears Creek

Reasons for Decision

February 27, 2024

Before:

B. A. Magnan, Panel Chair
E. B. Lockhart, Commissioner

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1.0 Background and Context

1.1 Approvals Sought

On July 6, 2023, BC Hydro submitted a consolidated filing (Filing) to the BCUC pursuant to section 71 of the *Utilities Commission Act* (UCA) to accept the following six Electricity Purchase Agreement renewals (collectively, EPA Renewals) for filing:

- Sechelt Creek run-of-river hydroelectric project (Sechelt Creek);
- Brown Lake storage hydroelectric project (Brown Lake);
- Pingston Creek run-of-river hydroelectric project (Pingston Creek);
- Miller Creek run-of-river hydroelectric project (Miller Creek);
- Rutherford Creek run-of-river hydroelectric project (Rutherford Creek); and
- Mears Creek run-of-river hydroelectric project (Mears Creek).

BC Hydro requests that the BCUC keep the unredacted version of the Filing confidential as it contains information that is commercially sensitive to BC Hydro and the counterparties, and if publicly disclosed may compromise BC Hydro's negotiating position with respect to further EPAs.¹

1.2 Background

1.2.1 EPA Renewal Program

BC Hydro explains that it is in the process of renewing EPAs with independent power producer (IPP) facilities whose EPAs are expiring. The EPA Renewals are the first of 19 projects under BC Hydro's EPA renewal program (EPA Renewal Program), which is limited to EPAs for clean and renewable energy projects with expiry dates on or before April 1, 2026. The program, which uses a specimen EPA as a base on which to build EPA renewal contracts for eligible projects, streamlines the contracting and BCUC approval processes for EPA renewals.²

BC Hydro developed the EPA Renewal Program in accordance with the 2021 Integrated Resource Plan (IRP) that it filed with the BCUC in December 2021. The 2021 IRP includes a plan to offer a market-price-based renewal option to existing clean or renewable IPPs with EPAs expiring in the next five years. BC Hydro's stated objectives for EPA renewals are to rely on existing infrastructure to keep costs down for customers, reduce greenhouse gas emissions through clean electricity, limit land and water impacts and support the growth of British Columbia's economy.³

¹ Exhibit B-3, Cover Letter, p. 4.

² Exhibit B-3, Section 2, p. 12.

³ Exhibit B-3, Appendix B-2, Section 4, pp. 12–15.

1.2.2 EPA Renewal Program Pricing

The EPA Renewal Program offers IPPs two options for EPA renewal: a five-year contract with a variable energy price based on a day-ahead Mid-C index; or a 20-year contract with a fixed energy price escalating annually at 50 percent of British Columbia's Consumer Price Index (CPI). The price offered is subject to adjustments, as applicable, for transmission losses, wheeling costs, and monthly time of delivery factors. The program's pricing structure also allows for adders to be factored into the base price to account for project-specific benefits. The Sechelt Creek, Brown Lake, Pingston Creek, Miller Creek, Rutherford Creek and Mears Creek IPPs selected the option for a 20-year EPA renewal contract at a fixed price of \$58/MWh, subject to project-specific adjustments.⁴

1.3 Legislative Framework

The review of an EPA is conducted under section 71 of the UCA, pursuant to which the BCUC must determine whether the contract is in the public interest.⁵

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 updated to September 30, 2001, by Amending Ministerial Order M-22-9801-A1.

Section 68 of the UCA states, among other things:

"energy supply contract" means a contract under which energy is sold by a seller to a public utility or another buyer, and includes an amendment of that contract, but does not include a contract in respect of which a schedule is approved under section 61 of this Act;

While each of the original EPAs was exempt from section 71 of the UCA, the EPA Renewals are considered new energy supply contracts pursuant to section 68 of the UCA and are therefore not exempt.

In determining whether an energy supply contract filed by BC Hydro is in the public interest, the BCUC, 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 either an integrated resource plan approved under section 4 of the *Clean Energy Act* before the repeal of that section or long-term resource plan filed by the authority under section 44.1,
- (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,
- (f) the price and availability of any other form of energy that could be used instead, and
- (g) the price of the energy.

⁴ Exhibit B-3, Section 3.1, p. 15.

⁵ The Rules were established by the BCUC by Order G-61-12, dated May 17, 2012.

In addition to the section 71 review, for EPAs entered into by BC Hydro, the BCUC must consider whether entering into these EPAs triggers a duty to consult First Nations on the part of BC Hydro as a Crown utility.⁶

1.4 Regulatory Process

On May 1, 2023, BC Hydro filed an application with the BCUC pursuant to section 71 of the UCA to accept the Sechelt Creek and Brown Lake EPA renewals for filing. After the BCUC established a regulatory timetable⁷ to review the filing, BC Hydro submitted a letter requesting that the Pingston Creek, Miller Creek, Rutherford Creek and Mears Creek EPA renewals also be reviewed in the same proceeding.⁸ The BCUC accepted BC Hydro's request and amended the regulatory timetable to include one round of BCUC and intervener information requests (IR) and allow time for BC Hydro to submit an amended Filing.⁹ On July 6, 2023, BC Hydro filed the amended consolidated Filing including the six EPA renewals described in Section 1.1 above.

Two parties intervened and actively participated in the proceeding:

- British Columbia Old Age Pensioners' Organization et al (BCOAPO); and
- the Commercial Energy Consumers Association of British Columbia (CEC).

The following parties also intervened in the proceeding but did not actively participate:

- Adams Lake Indian Band;
- Splats'in; and
- Little Shushwap Lake First Nation.

On August 9, 2023, the BCUC issued IR No. 1 to BC Hydro and on August 16, 2023, registered interveners BCOAPO and CEC issued Intervener IR No. 1 to BC Hydro. BC Hydro submitted its responses to both the BCUC's and Intervener's IR No. 1 on September 27, 2023.

On October 19, 2023, the BCUC issued Order G-282-23 establishing a further regulatory timetable and setting deadlines for final arguments from BC Hydro and registered interveners. By letter dated October 27, 2023, BC Hydro requested an extension to the deadline to file its final argument from November 2, 2023, to November 9, 2023, due to resource constraints of key personnel and on October 30, 2023, the BCUC issued Order G-295-23 amending the regulatory timetable.

Between November 9 and November 23, 2023, BC Hydro and the registered interveners submitted their final arguments to the BCUC and on December 7, 2023, BC Hydro submitted its reply argument.

⁶ See BCUC First Nations Information Filing Guidelines for Crown Filings and Crown Applications pursuant to the *Utilities Commission Act* September 2009.

⁷ BCUC Order G-153-23, dated June 16, 2023.

⁸ Exhibit A-2.

⁹ BCUC Order G-163-23 dated June 27, 2023.

2.0 Facility Summaries

2.1 Sechelt Creek

BC Hydro states that Sechelt Creek is a run-of-river hydro project located northeast of Sechelt, BC, within the consultative boundaries of the shíshálh Nation, which holds an equity ownership in the project and has a profit-sharing arrangement with the project's majority owner MPT Hydro Limited Partnership (LP). The 16.6 megawatt (MW) project commenced operations in 1997 and generates approximately 85 gigawatt hour (GWh) annually. The Sechelt Creek project is located close to BC Hydro's load centre, delivers a relatively high proportion of its annual energy during BC Hydro's peak load months (December and January), and has a high annual capacity factor. The Sechelt Creek EPA expired on January 31, 2023. This has been replaced by the Sechelt Creek 2023 EPA under which the IPP continues to supply electricity to BC Hydro pending the outcome of this Filing.¹⁰

2.2 Brown Lake

The Brown Lake facility is a hydroelectric plant with storage located on the Ecstall River near Prince Rupert, BC. BC Hydro states that the facility has been operating since 1996 and is within the consultative boundaries of the following First Nations:

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

The project is owned by Brown Miller LP with a total installed capacity of 7.2 MW generating approximately 57 GWh annually. The Brown Lake project has a high annual capacity factor and delivers a high proportion of its annual energy during BC Hydro's peak load months and a low proportion of its annual energy during the freshet season.¹¹ As is the case with Sechelt Creek, the Brown Lake EPA expired on January 31, 2023 and has been replaced by the Brown Lake 2023 EPA under which the IPP continues to supply electricity to BC Hydro pending the outcome of this Filing.¹²

2.3 Pingston Creek

The Pingston Creek project is a 45 MW hydroelectric plant located approximately 60 kilometres south of Revelstoke, BC with an annual generation of approximately 193 GWh. The project commenced commercial operations in 2003 and is owned in equal shares by Canadian Hydro Developers and GLP Pingston Creek LP. The Pingston Creek project has been supplying energy to BC Hydro under a 20-year EPA which expired on May 8, 2023. Pingston Creek continues to supply electricity to BC Hydro under the Pingston Creek 2023 EPA pending the outcome of this Filing. BC Hydro submits that the Pingston Creek facility is within the consultative boundaries of the following nine First Nations according to the Provincial Consultative Areas Database:¹³

¹⁰ Exhibit B-3, pp. 22–23.

¹¹ Exhibit B-3, pp. 28–34.

¹² Exhibit B-3, pp. 22–23.

¹³ Exhibit B-3, pp. 34–40.

- Adams Lake Indian Band;
- Ktunaxa Nation Council;
- Lakes Tribe (Sinixt);
- Neskonlith Indian Band;
- Okanagan Indian Band;
- Okanagan Nation Alliance;
- Shuswap Band;
- Skw'lax te Secwepemcul'ecw; and
- Splots'in First Nation.

2.4 Miller Creek

Miller Creek is a run-of-river project located near Pemberton, BC with a capacity of 33 MW generating approximately 118 GWh annually. BC Hydro states that the project is owned by Brown Miller LP and falls within the consultative boundaries of the Lil'wat Nation and St'át'imc Chiefs Council First Nation. The plant has been in operation since 2003, supplying energy to BC Hydro under a 20-year EPA which expired on October 2, 2023. Miller Creek continues to supply electricity to BC Hydro under the Miller Creek 2023 EPA pending the outcome of this Filing. The project is located near the Lower Mainland load centre giving it the benefits of lower line losses and increased reliability.¹⁴

2.5 Rutherford Creek

BC Hydro characterizes the Rutherford Creek project as a 50 MW run-of-river facility generating approximately 172 GWh annually, located near Pemberton, BC within the consultative boundaries of the Lil'wat Nation and St'át'imc Chiefs Council First Nation. The project, which is owned by the Rutherford Creek Power LP, commenced operations in 2003 and has been supplying energy to BC Hydro under a 20-year EPA which will expire on May 31, 2024. Rutherford Creek continues to supply electricity to BC Hydro under the Rutherford Creek 2023 EPA pending the outcome of this Filing. As the project is located near the Lower Mainland load centre, it has the benefits of lower line losses and increased reliability for the region.¹⁵

2.6 Mears Creek

BC Hydro states that the Mears Creek run-of-river hydro project is located near Gold River, BC, on Vancouver Island within the consultative boundaries of the Mowachaht/Muchalaht First Nation. The plant has a 3.8 MW capacity, generating approximately 19.5 GWh annually. Commercial operations began in 2004, from which time it has been supplying energy to BC Hydro under a 20-year EPA that expired on January 26, 2024.¹⁶ Mears Creek continues to supply electricity to BC Hydro under the Mears Creek 2023 EPA pending the outcome of this Filing.

¹⁴ Exhibit B-3, pp. 40–45.

¹⁵ Exhibit B-3, pp. 45–50.

¹⁶ Exhibit B-3, pp. 50–55.

3.0 Panel Considerations

As noted in section 1.3, there are specific criteria that the Panel must consider when reviewing the EPA Renewals, to determine whether they are in the public interest. We address these criteria in the sections that follow.

In section 3.1, we consider BC's energy objectives, the extent to which the EPA Renewals are consistent with section 19 of the *Clean Energy Act* (CEA), and whether the EPA renewals trigger the duty to consult with specific First Nations.

In section 3.2 we consider the most recent long-term resource plan filed by BC Hydro under section 44.1 of the UCA, which is the integrated resource plan (IRP) that BC Hydro filed with the BCUC on December 21, 2021.

In section 3.3, we consider the quantity, availability and price of energy under the EPA Renewals as well as the price and availability of any other form of energy that could be used instead.

3.1 BC Energy Objectives and the *Clean Energy Act*

In determining whether a EPA is in the public interest, the UCA requires that the BCUC consider, among other things, British Columbia's energy objectives as set out in section 2 of the CEA. In addition, the BCUC must consider the extent to which the EPA Renewals are consistent with the requirements under section 19 of the CEA, which set out criteria for clean or renewable resources.

BC Hydro submits that the EPA Renewals support BC's energy objectives for the following reasons¹⁷:

2(a) To achieve electricity self-sufficiency

- BC Hydro has exclusive rights to the electricity from these facilities (electricity generated in BC) to satisfy domestic need.

2(c) To generate at least 93% of the electricity in BC from clean or renewable resources

- Electricity purchased under these EPAs helps BC Hydro meet the 93% clean or renewable generation target.

2(d) To use and foster the development in BC of innovative technologies that support energy conservation and efficiency and the use of clean or renewable resources

- These facilities use proven technologies that use clean or renewable hydro resources.

2(f) To ensure the BC Hydro's rates remain among the most competitive of rates charged by public utilities in North America

- The levelized unit energy costs for the EPAs are cost-effective under the terms of the EPA Renewal Program.

2(k) To encourage economic development and the creation and retention of jobs

- Renewal of each of these EPAs provides for greater certainty in relation to the continued operation of the generation facility, job retention and economic benefits associated with ongoing expenditures related to the facilities.

¹⁷ Exhibit B-3, pp. 56–59.

2(l) To foster the development of First Nation and rural communities through the use and development of clean or renewable resources

- The local communities in the region will continue to obtain economic benefits from the ongoing generation of clean or renewable electricity from these facilities.

2(m) To maximize the value, including the incremental value of the resources being clean or renewable resources, of BC's generation and transmission assets for the benefit of British Columbia

- The continued generation of clean or renewable electricity from these six facilities will facilitate the optimization of existing assets.

Section 19 of the CEA requires that a person to whom the section applies, in this case BC Hydro, take actions to meet the targets and guidelines prescribed by the Minister in planning for energy purchases. BC Hydro notes in the 2021 IRP that there are no prescribed targets or guidelines for the purposes of section 19 of the CEA.¹⁸

Positions of the Parties

BCOAPPO agrees with BC Hydro's assessment that the proposed EPA Renewals meet the energy objectives that BC Hydro has identified.¹⁹

The CEC did not comment on whether the EPA Renewals meet the BC energy objectives and the requirements of the CEA.

Panel Determination

The Panel has reviewed the Filing against BC's energy objectives and we are satisfied that BC Hydro has identified the applicable energy objectives and that the EPA Renewals meet these energy objectives. Specifically, the EPA Renewals provide for the continued procurement of hydroelectric power from facilities within BC and therefore support the province's energy self-sufficiency with clean or renewable resources. The EPA Renewals minimize the overall cost to BC Hydro and maximize value to its customers by optimizing existing assets. Further, the EPA Renewals also provide for greater operational certainty of the generation facilities, as well as continued employment and economic benefits to local First Nation and rural communities.

The Panel finds that section 19 of the CEA is not applicable to the EPA Renewals because there are no prescribed targets or guidelines.

3.1.1 First Nations Consultation

BC Hydro states that there are no potential new or incremental impacts on asserted Aboriginal rights and title arising from the EPA Renewals. It does not anticipate that any of the EPA Renewals will result in changes to the physical footprint of the existing facilities and there will be no change to energy output. Further, there were no environmental impacts resulting from the original construction of the facilities that have the potential to worsen with continued operation.²⁰ Therefore, BC Hydro submits that no consultation with First Nations is required.

¹⁸ BC Hydro IRP p. 3-20.

¹⁹ BCOAPO Final Argument, p. 20.

²⁰ BC Hydro Final Argument, pp. 6-12.

Positions of the Parties

Intervenors did not make any submissions regarding this issue.

Panel Determination

The Panel accepts that BC Hydro has identified the First Nations potentially affected by the Filing, in accordance with the BCUC's First Nations Information Filing Guidelines for Crown Utilities.²¹ Further, we are satisfied that the EPA Renewals are for existing facilities and do not require any changes to the facilities. We are persuaded there will be no incremental adverse impacts on asserted Aboriginal rights and title arising from the EPA Renewals and that the duty to consult regarding the EPA Renewals was not triggered.

3.2 BC Hydro 2021 IRP and Signposts Update

BC Hydro's 2021 IRP sets out BC Hydro's long-term resource plan to meet future demand includes a near-term action to renew EPAs for clean or renewable facilities expiring prior to April 1, 2026, under the EPA Renewal Program. The 2021 IRP notes that these EPAs, which include the six IPP facilities that are the subject of the EPA Renewals, produce a total of approximately 900 GWh.²² As part of long-term electricity planning, BC Hydro monitors the planning environment to determine whether adjustments are needed to the IRP, which it calls 'signposts monitoring'. BC Hydro filed a Signposts Update and Updated 2021 IRP with the BCUC on June 15, 2023, which noted that indications of increased load as well as decreased supply have resulted in an earlier need for future resources. BC Hydro identifies EPA Renewals as a key resource to balance its supply against rising demand and mitigate a forecast deficit in energy supply from fiscal year 2029.²³ It also confirmed that the near-term action to renew EPAs for clean or renewable facilities expiring prior to April 2026 under the EPA Renewal Program had not changed from the 2021 IRP.²⁴

BC Hydro submits that the anticipated deficit makes it essential to secure the energy planned under the EPA Renewal Program, and notes that the EPA Renewals comprise roughly two-thirds of the program's total energy needed to align with BC Hydro's planned energy resource acquisitions.²⁵

Positions of the Parties

The CEC notes that the EPA Renewals are consistent with the near-term action in the 2021 IRP for the renewal of EPAs for clean or renewable resources set to expire prior to April 1, 2026.²⁶ The CEC states that it finds the EPA Renewals to be necessary for future load resource balancing.²⁷

BCOAPO acknowledges that the Signposts Update advances the energy need date.²⁸

²¹ [2010 First Nations Information Filing Guidelines for Crown Utilities](#).

²² Exhibit B-3, p. 12.

²³ Exhibit B-3, p. 3.

²⁴ BC Hydro Final Argument, p. 16.

²⁵ BC Hydro Final Argument, p. 15.

²⁶ CEC Final Argument, p. 8.

²⁷ Ibid.

²⁸ BCOAPO Final Argument, p. 12.

Panel Determination

The Panel acknowledges that the need for, and timing of, new energy resources to meet customer load are the subject of the 2021 IRP proceeding, which has not yet concluded. The Panel accepts that BC Hydro has identified a need for new energy resources in the most recently filed long-term resource plan as part of BC Hydro's Updated 2021 IRP and we are satisfied that the EPA Renewals align with the need for, and timing of, energy resources laid out therein.

3.3 EPA Renewal Price, Quantity, Availability and Price and Availability of Alternative Sources of Energy

Pursuant to section 71(2.21) of the UCA, the Panel is also required to consider the price, quantity, and availability of the energy to be supplied under the EPA Renewals, as well as the price and availability of any other form of energy that could be used instead.

Each of the IPPs in this Filing opted for the 20-year EPA renewal contracting option with a fixed energy price of \$58/MWh, plus any project specific adjustments, escalating at 50% of BC CPI annually, as described above in section 1.2.2. BC Hydro submits that under this option, the fixed energy price offer considered market prices and was determined through an iterative methodological process, including a quantitative assessment to confirm cost effectiveness.²⁹

BC Hydro explains that its approach to pricing considers BC Hydro's Load Resource Balance, before planned demand side management (DSM) and planned EPA renewals. BC Hydro submits that the Load Resource Balance demonstrates that new energy is required from fiscal 2024 onwards and new capacity is required from fiscal 2031 onwards.³⁰ BC Hydro's approach to pricing also considers certain cost-effectiveness benchmarks, including an estimate of the IPP's cost of service, which is derived from operating and maintenance costs, as well as the opportunity costs of both BC Hydro and the IPP.³¹

BC Hydro's opportunity cost is based on market prices during times of surplus and its long run marginal cost (LRMC) in periods of deficit, after DSM and EPA renewals, which BC Hydro calculated to be \$70/MWh in the Updated 2021 IRP.³² Since the IPPs involved in the EPA Renewals selected the longer-term contract option, in determining the energy price, BC Hydro considered both the forecast Mid-C market price as well as longer-term market forces, such as the potential benefits to BC Hydro of avoiding greenfield supply in later years.

To calculate the IPP's opportunity costs, BC Hydro assumes that the IPP's alternative to selling to BC Hydro would be selling to a third-party marketer or the export market and thus BC Hydro assumes the value of energy to an IPP is based on market prices.³³

BC Hydro submits that the energy price of the EPA Renewals is cost effective because the levelized unit energy cost for the renewed EPAs is below BC Hydro's opportunity cost for each renewed EPA. BC Hydro submits that it views its opportunity cost as the upper benchmark of cost-effectiveness and considers this to be the value of the energy that it will acquire.³⁴

²⁹ BC Hydro Final Argument, p. 16.

³⁰ Exhibit B-9, CEC IR 1.5.1.

³¹ Exhibit B-3, pp. 15–16.

³² Exhibit B-3, pp. 17–18.

³³ Exhibit B-3, p. 16.

³⁴ Exhibit B-3, p. 58.

In regards to the availability of energy to be supplied under the EPA Renewals, BC Hydro notes that the six IPP facilities have reliably supplied energy for more than 20 years and are expected to be capable of continued reliable operation over the entire term of the EPA Renewals.³⁵

BC Hydro states the volume of energy to be purchased under each of the new renewal EPAs will generally be consistent with the volume of energy purchased pursuant to each of the prior expired EPAs for each of the facilities.³⁶

BC Hydro identifies greenfield resources are the only alternative for new energy, which it expects would be more costly than the EPA Renewals with existing IPP projects.³⁷

Positions of the Parties

The CEC notes concerns related to the CPI as an inflator. It accepts BC Hydro's assumptions for an IPP's cost of service, IPP opportunity cost and BC Hydro opportunity cost; however, it disagrees with the proposed escalation factor, which is set at 50 percent of BC CPI. The CEC argues that if CPI averages 3 percent annually, such a rate puts the base price at risk of outrunning the inflation adjusted levelized LRM of \$70 within the 20-year contract term. As a result, the CEC recommends that the BCUC consider denying the 50 percent CPI escalation factor and substitute it with a lesser escalation factor.³⁸

In response to the CEC, BC Hydro states that the \$58/MWh base price and \$70/MWh LRM figures cannot be directly compared. The \$70/MWh LRM figure is levelized and is in \$2022; whereas the EPA Renewal Program offer price of \$58/MWh is a nominal value subject to inflation of 50 percent BC-CPI annually beginning January 1, 2024. When the \$58/MWh EPA Renewal Program offer price with the 50 percent BC-CPI annual inflation factor is levelized to make it comparable to the LRM, the value is \$54/MWh (\$2022). BC Hydro also states that the 50 percent BC CPI escalation factor is a term of the executed EPA Renewal contracts and cannot be changed by a BCUC Order.³⁹

BCOPO accepts BC Hydro's approach to determining the levelized price and the levelized opportunity cost for the EPA Renewals and agrees with BC Hydro's assessment that the EPA Renewals are cost-effective.⁴⁰

Panel Determination

The Panel finds that the price of the energy pursuant to the EPA Renewals is reasonable. We are satisfied that BC Hydro's methodology for determining the energy price is reasonable and appropriately considered market prices and cost-effectiveness benchmarks including its own opportunity cost. We accept that BC Hydro's opportunity cost is an appropriate upper benchmark of cost-effectiveness. We also accept that the levelized unit energy cost for the renewed EPAs is below BC Hydro's opportunity cost for each renewed EPA.

³⁵ Ibid.

³⁶ Exhibit B-7, BCUC IR 1.7.2.

³⁷ Exhibit B-7, BCUC IR 1.4.2.

³⁸ CEC Final Argument, pp. 14–15.

³⁹ BC Hydro Reply Argument, pp. 3–4.

⁴⁰ BCOPO Final Argument, p. 19.

Intervenors generally agree that the energy price is reasonable, subject to the CEC's submission that the 50 percent CPI inflation escalator is too high given the base price, current inflation rate and the LRMC in the Updated 2021 IRP. As BC Hydro points out, however, when the \$58/MWh EPA Renewal Program offer price with the 50 percent BC-CPI annual inflation factor is levelized to make it comparable to the LRMC, the value is \$54/MWh (\$2022). There is no evidence that \$54/MWh, as the levelized base price, is at risk of outrunning the inflation adjusted levelized LRMC of \$70 within the 20-year contract term. Therefore, we disagree with the CEC that a 50 percent inflation escalator is excessive. Moreover, the Panel does not have the authority under section 71 of the UCA to deny the 50 percent CPI escalation factor and substitute it with a lesser escalation factor.

The Panel notes that the IPP facilities whose EPAs are being renewed have reliably supplied energy for more than 20 years and **therefore we find that the availability and quantity of energy contemplated by the EPA Renewals are appropriate.**

Finally, the Panel accepts that the EPA Renewals are expected to be a lower-cost source of energy compared to the expected cost of greenfield energy supply.

4.0 Overall Panel Determination

When determining whether an energy supply contract filed by BC Hydro is in the public interest, section 71(2.21) of the UCA requires the Panel to consider the interests of persons in BC who receive or may receive service from BC Hydro. **We find that the EPA Renewals are in the interests of BC Hydro's current and future ratepayers because they are cost-effective and support BC Hydro's objective of keeping costs down for customers.**

More generally, **the Panel also finds that the EPA Renewals are in the public interest** because the EPA Renewals help BC to achieve electricity self-sufficiency, reduce greenhouse gas emissions through clean electricity, limit land and water impacts by using existing facilities and support the growth of British Columbia's economy as discussed in section 3.1 of this Decision.

In section 3.2, the Panel found that the EPA Renewals align with the Updated 2021 IRP. In section 3.3.1, the Panel found that the EPA Renewals are cost-effective, and the availability and quantity of energy contemplated by the EPA Renewals are appropriate.