

**Fred James**

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December 10, 2020

Ms. Marija Tresoglavic  
Acting Commission Secretary and Manager  
Regulatory Support  
British Columbia Utilities Commission  
Suite 410, 900 Howe Street  
Vancouver, BC V6Z 2N3

Dear Ms. Tresoglavic:

**RE: British Columbia Utilities Commission (BCUC or Commission)  
British Columbia Hydro and Power Authority (BC Hydro)  
Walden North Hydro Forbearance Agreement (2020)  
BC Hydro Responses to BCUC and Intervener IRs No.1**

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BC Hydro writes in compliance with Commission Order No. G-268-20 to provide its responses to Round 1 information requests as follows:

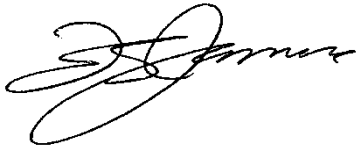
Exhibit B-3	Responses to Commission IRs (Public Version)
Exhibit B-3-1	Responses to Commission IRs (Confidential Version)
Exhibit B-4	Responses to Commission Confidential IRs (Confidential)
Exhibit B-5	Responses to Interveners IRs
Exhibit B-5-1	Responses to Interveners IRs (Confidential Version)
Exhibit B-6	Responses to Interveners Confidential IRs (Confidential)

BC Hydro is filing a number of IR responses and/or attachments to responses confidentially with the Commission. BC Hydro confirms that in each instance, an explanation for the request for confidential treatment is provided in the public version of the IR response. BC Hydro seeks this confidential treatment pursuant to section 42 of the *Administrative Tribunals Act* and Part 4 of the Commission's Rules of Practice and Procedure.

December 10, 2020  
Ms. Marija Tresoglavic  
Acting Commission Secretary and Manager  
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British Columbia Utilities Commission  
BC Hydro Responses to BCUC and Intervener IRs No.1

For further information, please contact Chris Sandve at 604-974-4641 or by email at [bchydroregulatorygroup@bchydro.com](mailto:bchydroregulatorygroup@bchydro.com).

Yours sincerely,



Fred James  
Chief Regulatory Officer

df/tl

Enclosure

<b>British Columbia Utilities Commission</b> Information Request No. <b>1.1.1</b> Dated: <b>November 19, 2020</b> British Columbia Hydro & Power Authority Response issued <b>December 10, 2020</b>	Page 1 of 2
British Columbia Hydro & Power Authority <b>BC Hydro Walden North Hydro Forbearance Agreement</b>	Exhibit: <b>B-3</b>

**1.0 A. FRAMEWORK FOR EVALUATION**

**Reference: FRAMEWORK FOR EVALUATION Exhibit B-1 (Filing), pp. 1-2, 5; Order G-148-20, Appendix A, p. 6; Ministerial Order M-22-9801; Amending Ministerial Order M-22-9801-A Electricity Purchase Agreement (EPA) Amendments**

On page 6 of the Reasons for Decision, attached as Appendix A to Order G-148-20, the British Columbia Utilities Commission (BCUC) states that:

The Panel finds that the Forbearance Agreement is an amendment to the Original EPA [or Walden North EPA] and should have been filed with the BCUC under section 71 of the [*Utilities Commission Act (UCA)*].

The Forbearance Agreement has the effect of changing at least two material aspects of the Original EPA: the termination provisions and the price.

The BCUC also states that “While the Original EPA and the Forbearance Agreement are indeed two separate agreements, the practical effect when considering the two of them together is that BC Hydro has amended the termination provisions of the Original EPA.”

On pages 1-2 of the Filing, British Columbia Hydro and Power Authority (BC Hydro) states that:

BC Hydro has concerns with the BCUC’s reasoning in the Order No. G-148-20 Decision and the resulting directives. BC Hydro believes that the BCUC’s Rules for Energy Supply Contracts for Electricity (the Rules), as established pursuant to BCUC Order No. G-61-12, provide appropriate guidance as to whether a document or action is an amendment of an energy supply contract that is to be filed under section 71 of the UCA or a “contractual development” that is not filed under section 71. Parties to an agreement or action related to an energy supply contract should be able to rely on the Rules to ascertain their filing requirements.

BC Hydro further states that:

Additionally, we remain of the view that a forbearance agreement is a common form of commercial agreement where one party agrees to forbear from exercising a right in an underlying agreement for a period of time in exchange for consideration from the other party without amending the underlying contract. There is nothing improper about a forbearance agreement.

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- 1.1.1 Please identify the terms in an EPA that British Columbia Hydro and Power Authority (BC Hydro) considers to be fundamental terms, such that modification of any one or more of these terms would constitute an “amendment” to the EPA.

**RESPONSE:**

**Whether a term of an energy supply contract is considered to be fundamental or not, by either BC Hydro or the Seller, is not determinative on whether an energy supply contract has been amended.**

**Section 68 of the *Utilities Commission Act* requires a person to file a contract under which energy is sold by a seller to a public utility or another buyer, and includes an amendment of that contract. Section 1.7 of the BCUC’s Rules for Energy Supply Contracts for Electricity (the Rules) provide more clarity as follows:**

**“For the purposes of this [annual] filing, an amendment means an alteration or revision, by modification, addition or deletion, to any term or condition of the ESC.”**

**Further, section 2.1 of the Rules goes on to define “Contractual Developments” as including any “document or action that does not alter or revise, by modification, addition or deletion, any term or condition of the ESC”. In other words, Contractual Developments include documents signed and actions taken that are not “amendments” to an EPA.**

**This definition of “amendment” in the Rules is wholly consistent with the Merriam-Webster dictionary’s definition of “amend” - defined as “to alter formally by modification, deletion, or addition”.<sup>1</sup>**

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<sup>1</sup> <https://www.merriam webster.com/dictionary/amend>

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**1.0 A. FRAMEWORK FOR EVALUATION**

**Reference: FRAMEWORK FOR EVALUATION Exhibit B-1 (Filing), pp. 1-2, 5; Order G-148-20, Appendix A, p. 6; Ministerial Order M-22-9801; Amending Ministerial Order M-22-9801-A Electricity Purchase Agreement (EPA) Amendments**

On page 6 of the Reasons for Decision, attached as Appendix A to Order G-148-20, the British Columbia Utilities Commission (BCUC) states that:

The Panel finds that the Forbearance Agreement is an amendment to the Original EPA [or Walden North EPA] and should have been filed with the BCUC under section 71 of the [*Utilities Commission Act (UCA)*].

The Forbearance Agreement has the effect of changing at least two material aspects of the Original EPA: the termination provisions and the price.

The BCUC also states that “While the Original EPA and the Forbearance Agreement are indeed two separate agreements, the practical effect when considering the two of them together is that BC Hydro has amended the termination provisions of the Original EPA.”

On pages 1-2 of the Filing, British Columbia Hydro and Power Authority (BC Hydro) states that:

BC Hydro has concerns with the BCUC’s reasoning in the Order No. G-148-20 Decision and the resulting directives. BC Hydro believes that the BCUC’s Rules for Energy Supply Contracts for Electricity (the Rules), as established pursuant to BCUC Order No. G-61-12, provide appropriate guidance as to whether a document or action is an amendment of an energy supply contract that is to be filed under section 71 of the UCA or a “contractual development” that is not filed under section 71. Parties to an agreement or action related to an energy supply contract should be able to rely on the Rules to ascertain their filing requirements.

BC Hydro further states that:

Additionally, we remain of the view that a forbearance agreement is a common form of commercial agreement where one party agrees to forbear from exercising a right in an underlying agreement for a period of time in exchange for consideration from the other party without amending the underlying contract. There is nothing improper about a forbearance agreement.

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- 1.1.2 If BC Hydro were to file an amended EPA with the BCUC pursuant to section 71 of the UCA, would BC Hydro expect the BCUC's review to be: (i) limited to only the specific provisions of the EPA that had been modified; (ii) to encompass the entirety of the amended EPA; or (iii) some other alternative.

**RESPONSE:**

This also responds to CEC IRs 1.7.1 and 1.7.2, as well as BCSEA IR 1.1.2.

If BC Hydro were to file a contract that amends an EPA with the BCUC pursuant to section 71 of the *Utilities Commission Act* (UCA), the BCUC's powers under section 71 would be limited to the amending contract filed. That is, the BCUC could accept the amending contract or if the BCUC, after a hearing, determines that the amending contract is not in the public interest the BCUC could declare the amending contract unenforceable, for example.

Section 68 of the UCA defines "energy supply contract" as meaning "a contract under which energy is sold by a seller to a public utility or another buyer, and includes an amendment of that contract...". Therefore a contract that amends an EPA is itself an "energy supply contract" that must be filed pursuant to section 71 of the UCA so long as the contract is not otherwise exempt.

BC Hydro believes that the filing of an amending contract under section 71 does not provide the BCUC with any powers in respect of the existing, underlying EPA whether or not the underlying EPA is exempt.

In the case of the Walden North IPP facility, the original EPA is exempt from the section 71 filing requirement pursuant to the Minister's Order No. M-22-9801-A1. Therefore, since the Commission has now determined that the Forbearance Agreement is an amendment of the original EPA and BC Hydro has accordingly filed the Forbearance Agreement under section 71 of the UCA, the Commission's powers under section 71 apply only to the Forbearance Agreement and not the original EPA.

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**1.0 A. FRAMEWORK FOR EVALUATION**

**Reference: FRAMEWORK FOR EVALUATION Exhibit B-1 (Filing), pp. 1-2, 5; Order G-148-20, Appendix A, p. 6; Ministerial Order M-22-9801; Amending Ministerial Order M-22-9801-A Electricity Purchase Agreement (EPA) Amendments**

On page 6 of the Reasons for Decision, attached as Appendix A to Order G-148-20, the British Columbia Utilities Commission (BCUC) states that:

The Panel finds that the Forbearance Agreement is an amendment to the Original EPA [or Walden North EPA] and should have been filed with the BCUC under section 71 of the [*Utilities Commission Act (UCA)*].

The Forbearance Agreement has the effect of changing at least two material aspects of the Original EPA: the termination provisions and the price.

The BCUC also states that “While the Original EPA and the Forbearance Agreement are indeed two separate agreements, the practical effect when considering the two of them together is that BC Hydro has amended the termination provisions of the Original EPA.”

On pages 1-2 of the Filing, British Columbia Hydro and Power Authority (BC Hydro) states that:

BC Hydro has concerns with the BCUC’s reasoning in the Order No. G-148-20 Decision and the resulting directives. BC Hydro believes that the BCUC’s Rules for Energy Supply Contracts for Electricity (the Rules), as established pursuant to BCUC Order No. G-61-12, provide appropriate guidance as to whether a document or action is an amendment of an energy supply contract that is to be filed under section 71 of the UCA or a “contractual development” that is not filed under section 71. Parties to an agreement or action related to an energy supply contract should be able to rely on the Rules to ascertain their filing requirements.

BC Hydro further states that:

Additionally, we remain of the view that a forbearance agreement is a common form of commercial agreement where one party agrees to forbear from exercising a right in an underlying agreement for a period of time in exchange for consideration from the other party without amending the underlying contract. There is nothing improper about a forbearance agreement.

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1.1.3 Please explain why BC Hydro elected to enter into the Forbearance Agreement rather than to modify the terms of the Walden North EPA.

**RESPONSE:**

This also responds to BCOAPO IRs 1.2.1, 1.2.2 and 1.2.3, CEC IR 1.3.1, as well as BCUC IR 1.10.2.

Both Attachments referenced in this response, and an additional portion of this response, are being provided in confidence to the BCUC, in order to protect the IPP's commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).

In 2014, the seller wanted assurance from BC Hydro that BC Hydro would not exercise its discretionary right to terminate the Walden North EPA, and BC Hydro was prepared to agree not to do so for [REDACTED] in exchange for consideration including the negotiated forbearance fee. Given the interdependence of a number of important elements, including the Diversion Agreement and the interconnection provisions within the EPA and time constraints, the parties wanted to leave the terms of the Walden North EPA otherwise unaffected.

The Forbearance Agreement was executed on January 8, 2015 with an effective date of April 1, 2014. Although the Board of Directors of BC Hydro was made aware of the Forbearance Agreement, it was ultimately approved by the Chief Financial Officer in early January 2015. Please find as Confidential Attachment #1 to this response an Expenditure Authorization Form prepared to support the execution of the Forbearance Agreement as well as Confidential Attachment #2 to this response, the briefing note provided to the Board of Directors in November 2014 for information which was attached to the Expenditure Authorization Form. The briefing note includes the cost/benefit analysis supporting the decision to enter into the Forbearance Agreement.

BC Hydro notes that in the 2014 timeframe, BC Hydro was not planning to terminate the Walden North EPA without alternative arrangements to replace the existing agreements with the Walden North IPP. As we had submitted in BC Hydro's May 2018 application for the renewal of the Walden North EPA, the existing EPA has the unique benefit of allowing BC Hydro to continue diverting water from Cayoosh Creek into Seton Lake providing additional generation at BC Hydro's Seton Generating Station and maintaining the dilution ratio supportive of fish spawning in the Bridge River system.

BC Hydro notes that the cost/benefit analysis in the briefing note for the Forbearance Agreement is characterized as an EPA "renewal" because at that



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time BC Hydro was reviewing its framework for the renewal of hydro projects and the characterization used for the reasoning supporting the agreement was less precise than perhaps was warranted in this unique circumstance. For EPA renewals, that are not exempt, BC Hydro has been filing these EPA renewals with the Commission for acceptance under section 71 of the UCA.

Specifically, the Forbearance Agreement circumstances were unlike other circumstances where we have used forbearance agreements in that the Walden North EPA is an agreement with an “evergreen” provision, whose original contract term had expired, and where BC Hydro agreed to forbear from exercising a termination right for an extended period of time. BC Hydro has used forbearance agreements in other circumstances, such as to allow a seller to have more time to reach commercial operation or in circumstances where BC Hydro has requested and the seller has agreed to delay its commercial operation date. BC Hydro has also used a similar concept to forbearance agreements in the context of certain EPA renewal negotiations where the original contract had an “evergreen” provision. Specifically, BC Hydro would issue a termination notice under an EPA in accordance with its terms and, if negotiations were progressing, BC Hydro would agree to extend the termination notice period in exchange for a fee paid by the seller. However, all of these arrangements were viewed as interim arrangements to bridge a seller to commercial operation or the parties to a new agreement, and the agreement to forbear was not for an extended period of time.

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ATTACHMENT**

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**1.0 A. FRAMEWORK FOR EVALUATION**

**Reference: FRAMEWORK FOR EVALUATION Exhibit B-1 (Filing), pp. 1-2, 5; Order G-148-20, Appendix A, p. 6; Ministerial Order M-22-9801; Amending Ministerial Order M-22-9801-A Electricity Purchase Agreement (EPA) Amendments**

On page 5 of the Filing, BC Hydro states the following:

- The Walden North EPA is exempt from the UCA section 71 filing requirement pursuant to Minister's Order M-22-9801-A1.
- Section 4(1)(b) of Direction No. 8 to the BCUC provides that in setting rates for BC Hydro, the BCUC must not disallow for any reason the recovery in rates of the costs incurred by BC Hydro with respect to energy supply contracts entered into before April 1, 2016, which includes the Walden North EPA.

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, are 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.

1.1.4 If, rather than entering into the Forbearance Agreement, BC Hydro had amended the Walden North EPA to reflect the same price and termination provisions as those agreed to under the Forbearance Agreement, would the amended agreement remain exempt from the UCA section 71 filing requirement pursuant to Amending Ministerial Order M-22-9801-A1? Please explain.

**RESPONSE:**

**Under most exemptions, if an EPA is exempt, so too are amendments to the EPA. The wording of the specific exemption has to be considered in the context of the relevant facts.**

**In the case at hand, BC Hydro determined that the Forbearance Agreement was not an energy supply contract because it did not amend the Walden North EPA. As a result, the application of the exemption was not relevant. However, the BCUC has since determined that the Forbearance Agreement is an energy supply contract because it effectively amends the term and price for energy under the Walden North EPA and directed BC Hydro to file the Forbearance Agreement pursuant to section 71. BC Hydro filed the Forbearance Agreement as required. BC Hydro is not taking the position that the exemption applies to the Forbearance**

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**Agreement; however, BC Hydro is of the view that the Walden North EPA continues to be exempt pursuant to the exemption despite the execution of the Forbearance Agreement.**

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**1.0 A. FRAMEWORK FOR EVALUATION**

**Reference: FRAMEWORK FOR EVALUATION Exhibit B-1 (Filing), pp. 1-2, 5; Order G-148-20, Appendix A, p. 6; Ministerial Order M-22-9801; Amending Ministerial Order M-22-9801-A Electricity Purchase Agreement (EPA) Amendments**

On page 5 of the Filing, BC Hydro states the following:

- The Walden North EPA is exempt from the UCA section 71 filing requirement pursuant to Minister's Order M-22-9801-A1.
- Section 4(1)(b) of Direction No. 8 to the BCUC provides that in setting rates for BC Hydro, the BCUC must not disallow for any reason the recovery in rates of the costs incurred by BC Hydro with respect to energy supply contracts entered into before April 1, 2016, which includes the Walden North EPA.

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, are 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.

1.1.5 Does section 4(1)(b) of Direction No. 8 provide that the BCUC must not disallow for any reason the recovery in rates of the costs incurred by BC Hydro with respect an energy supply contract entered into before April 1, 2016, if that energy supply contract is subsequently amended (i) prior to April 1, 2016 or (ii) after April 1, 2016? Please explain.

**RESPONSE:**

**Section 4(1)(b) of Direction No. 8 (Direction) provides that the BCUC must not disallow for any reason the recovery in rates of the costs incurred by BC Hydro with respect to an energy supply contract entered into before April 1, 2016. Since an amendment to an energy supply contract is itself a stand-alone energy supply contract, the Direction would apply to amendments to energy supply contracts that are entered into before April 1, 2016.**

**The date of the contract is a “bright line” that determines the application of the Direction - i.e., an amendment entered into before April 1, 2016 would fall under the Direction and one entered into after April 1, 2016 would not.**

**To clarify further, the costs incurred pursuant to an energy supply contract (i.e., an original EPA) entered into before April 1, 2016 continue to be recoverable**

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**pursuant to the Direction even if there is a subsequent amendment to that original EPA. The cost implications of an amending agreement entered into after April 1, 2016, however, would not be required to be recoverable pursuant to the Direction. Finally, if an original EPA is terminated and replaced with a new EPA, the Direction would not apply to the new EPA entered into after April 1, 2016.**

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**2.0 A. FRAMEWORK FOR EVALUATION**

**Reference: FRAMEWORK FOR EVALUATION  
Exhibit B-1, pp. 4-6  
Stand-alone Evaluation**

On pages 4 to 5 of the Filing, BC Hydro states that:

Under the Forbearance Agreement, BC Hydro agreed to forbear from exercising its termination rights under the evergreen Walden North 1990 EPA in consideration for a forbearance payment. For administrative convenience, we agreed that the forbearance payment would simply be set-off against the EPA payments. The Forbearance Agreement did not change the term of the EPA, which is evergreen, nor did it change the quantity of energy or price under the EPA.

On page 6 of the Filing, BC Hydro states that:

In BC Hydro's view, the factors and criteria specified under section 71(2.21) overall do not contemplate evaluation of an agreement like the Forbearance Agreement. Rather, the factors and criteria contemplate evaluation of a contract for the supply of a quantity of energy to BC Hydro at a specified price against other forms of energy that are available and could be used instead of the energy to be supplied under the contract, in the context of the drivers and policies set out in the IRP and B.C.'s energy objectives.

In this proceeding, BC Hydro has filed the Forbearance Agreement as a standalone document.

1.2.1 Please provide any examples where the BCUC or a similar regulatory body reviewed an amendment to a contract on a standalone basis rather than in concert with all of the terms and provisions of original agreement.

**RESPONSE:**

**Some recent examples of other proceedings where the BCUC has reviewed amendments to energy supply contracts on a stand-alone basis are those proceedings related to BCUC Order Nos:**

- **E-4-17 (East Toba and Montrose, Kwalsa, Upper Stave and Tyson Creek Hydro Projects);**
- **E-11-17 (Cranberry Creek and South Cranberry Creek Hydro Projects); and**



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- **E-12-17 (Kwalsa, Upper Stave and Ocean Falls Hydro Projects)**

Please also refer to BC Hydro's response to BCUC IR 1.1.2 for a discussion about the BCUC's powers under section 71 of the *Utilities Commission Act*.

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**2.0 A. FRAMEWORK FOR EVALUATION**

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Stand-alone Evaluation**

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In this proceeding, BC Hydro has filed the Forbearance Agreement as a standalone document.

1.2.2 Please provide a copy of the Walden North EPA.

**RESPONSE:**

**BC Hydro is providing a copy of the Walden North EPA in confidence to the BCUC only as Attachment #1 to this response, in order to protect the IPPs' commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).**

**CONFIDENTIAL  
ATTACHMENT**

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ONLY**

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**2.0 A. FRAMEWORK FOR EVALUATION**

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In this proceeding, BC Hydro has filed the Forbearance Agreement as a standalone document.

1.2.3 Please provide a copy of the Diversion Agreement relating to the Walden North EPA.

**RESPONSE:**

**A copy of the Diversion Agreement dated November 14, 1990, and its first amending agreement dated December 17, 2014, are provided as Attachments #1 and #2 to this response.**

**BC Hydro is providing these Agreements in confidence to the BCUC only, in order to protect the IPPs' commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).**

**CONFIDENTIAL  
ATTACHMENT**

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**FILED WITH BCUC  
ONLY**

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**2.0 A. FRAMEWORK FOR EVALUATION**

**Reference: FRAMEWORK FOR EVALUATION  
Exhibit B-1, pp. 4-6  
Stand-alone Evaluation**

On pages 4 to 5 of the Filing, BC Hydro states that:

Under the Forbearance Agreement, BC Hydro agreed to forbear from exercising its termination rights under the evergreen Walden North 1990 EPA in consideration for a forbearance payment. For administrative convenience, we agreed that the forbearance payment would simply be set-off against the EPA payments. The Forbearance Agreement did not change the term of the EPA, which is evergreen, nor did it change the quantity of energy or price under the EPA.

On page 6 of the Filing, BC Hydro states that:

In BC Hydro's view, the factors and criteria specified under section 71(2.21) overall do not contemplate evaluation of an agreement like the Forbearance Agreement. Rather, the factors and criteria contemplate evaluation of a contract for the supply of a quantity of energy to BC Hydro at a specified price against other forms of energy that are available and could be used instead of the energy to be supplied under the contract, in the context of the drivers and policies set out in the IRP and B.C.'s energy objectives.

In this proceeding, BC Hydro has filed the Forbearance Agreement as a standalone document.

1.2.4 Explain how the "factors and criteria specified under section 71(2.21) overall do not contemplate evaluation of an agreement like the Forbearance Agreement." In your response please explain why set-off payments that reduce the cost of energy in an EPA should be evaluated separately from its effect on the underlying EPA.

**RESPONSE:**

**As specified in BC Hydro's letter to the Commission dated June 25, 2020 enclosing the Forbearance Agreement for filing, the factors and criteria set out in section 71 of the *Utilities Commission Act* (UCA) contemplate evaluation of a contract for the supply of a quantity of energy to BC Hydro at a specified price against other forms of energy that are available and could be used instead of the**

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energy to be supplied under the contract, in the context of the drivers and policies set out in the Integrated Resource Plan and B.C.'s energy objectives.

There is no energy supplied under the Forbearance Agreement nor does the Forbearance Agreement increase or otherwise change the quantity or form of energy supplied to BC Hydro under the Walden North 1990 EPA which is why BC Hydro made the statement noted in its letter.

Nonetheless, BC Hydro assessed the factors and criteria under section 71(2.21) and determined that the only ones that could be viewed as applicable to consideration of the Forbearance Agreement were as follows:

- The interests of both current and future BC Hydro customers – BC Hydro believes that the Forbearance Agreement is in the interests of both current and future BC Hydro customers because BC Hydro does not incur any costs under the Forbearance Agreement, and the agreement reduces the total costs otherwise payable to the seller under the Walden North 1990 EPA by BC Hydro and its ratepayers by way of an offset against amounts invoiced to BC Hydro under the Walden North 1990 EPA; and
- British Columbia's energy objective (f), "to ensure the authority's rates remain among the most competitive of rates charged by public utilities in North America" – BC Hydro believes that the Forbearance Agreement supports this energy objective for the same reasons as the point above.

Please refer to BC Hydro's response to BCUC IR 1.1.2 where we explain that BC Hydro believes that the BCUC should limit its review of an EPA amending amendment pursuant to section 71 of the UCA to those provisions being amended. However, in order to assess the amendments put forward in an amending agreement, the BCUC would be expected to consider the effect of those amendments on the affected provisions under the original EPA in determining whether the amendments themselves are in the public interest. The applicability of the factors and criteria under section 71(2.21) of the UCA must be considered in the context of the specific amendments at hand which may have more or less relevance depending on the analysis.



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**3.0 A. FRAMEWORK FOR EVALUATION**

**Reference: FRAMEWORK FOR EVALUATION  
Exhibit B-1, p. 1; Order G-148-20  
Delayed regulatory review**

In footnote 1 on page 1 of the Filing, BC Hydro states that:

The Forbearance Agreement was entered into with an effective of April 1, 2014 between BC Hydro and the owner of the Walden North facility at that time, ESI Power-Walden Corporation Ltd. In February 2016, the Walden North facility was acquired by CCPLP, and the Forbearance Agreement was assigned to CCPLP at that time.

BC Hydro filed the Forbearance Agreement on June 25, 2020, in accordance with Directive 1 of Order G-148-20.

1.3.1 Please discuss whether evaluation of the Forbearance Agreement should take into consideration the information available at the time the agreement became effective in 2014 or whether the Forbearance Agreement should be evaluated based on the information available at the time of filing in 2020.

**RESPONSE:**

**In general, BC Hydro would expect the BCUC to evaluate an energy supply contract that has been filed pursuant to section 71 of the *Utilities Commission Act* (UCA) based on the information available at the time of filing.**

**That said, under the BCUC's Rules for Energy Supply Contracts for Electricity (established pursuant to BCUC Order No. G-61-12) entities are required to file an energy supply contract with the BCUC within 60 days of the date upon which the entity enters into the energy supply contract. As a result, it is generally expected that the information available at the time that the parties entered into an agreement should not be significantly different than the information considered by the BCUC upon filing of the energy supply contract.**

**The Forbearance Agreement presents a unique circumstance in light of the significant gap in time between the date of execution of the Forbearance Agreement and the date of its filing pursuant to section 71 of the UCA. Practically speaking, since BC Hydro's assessment in 2014 was that the Forbearance Agreement was not an amendment, the information available at that time may not be useful in this proceeding. The determination of whether the Forbearance Agreement is in the ratepayers' interests should be made based on the information available at the time of its filing, which may include relevant pre-filing facts.**

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**4.0 B. NEED FOR THE FORBEARANCE AGREEMENT**

**Reference: NEED FOR THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 4; Order G-278-19, Appendix A, p. 9  
Load/Resource Balance – Need for Energy**

On page 4 of the Filing, BC Hydro states that the effective date of the Forbearance Agreement was April 1, 2014.

On page 9 of the Reasons for Decision, attached as Appendix A to Order G-278-19 the BCUC states that “On February 14, 2019, the BC Government released its Comprehensive Review of BC Hydro Phase 1 Final Report...” and that the Phase 1 report states that “BC Hydro is currently forecast to be in energy surplus into the 2030s.”

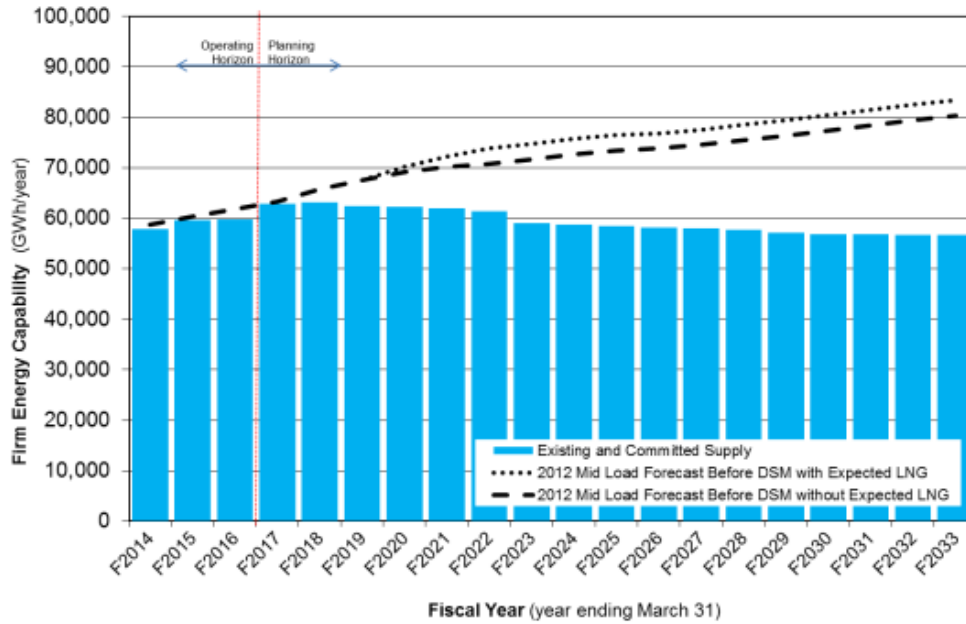
1.4.1 Please provide BC Hydro’s forecast of the load/resource balance for the BC Hydro system as it existed at the time the Forbearance Agreement was executed. Clearly identify the year(s) in which BC Hydro anticipated a need for incremental energy resources and the magnitude of the yearly energy deficits forecast.

**RESPONSE:**

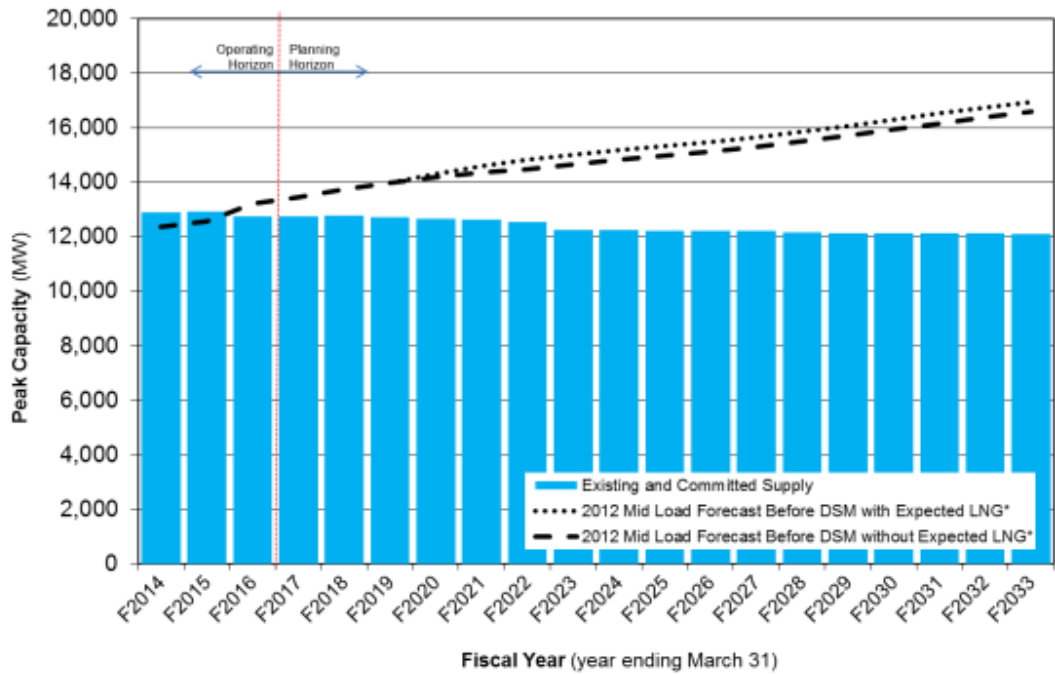
**BC Hydro’s 2013 Integrated Resource Plan (IRP) included BC Hydro’s most current load resource balance that would have been relevant in 2014. The two figures below are extracted from Chapter 2 of the 2013 IRP.**

**BC Hydro was forecasting an energy deficit in fiscal 2017 and a capacity deficit in fiscal 2016 in the 2013 IRP.**

**Figure 2-6 Energy Load-Resource Balance**



**Figure 2-7 Capacity Load-Resource Balance**



\* including planning reserve requirements

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**4.0 B. NEED FOR THE FORBEARANCE AGREEMENT**

**Reference: NEED FOR THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 4; Order G-278-19, Appendix A, p. 9  
Load/Resource Balance – Need for Energy**

On page 4 of the Filing, BC Hydro states that the effective date of the Forbearance Agreement was April 1, 2014.

On page 9 of the Reasons for Decision, attached as Appendix A to Order G-278-19 the BCUC states that “On February 14, 2019, the BC Government released its Comprehensive Review of BC Hydro Phase 1 Final Report...” and that the Phase 1 report states that “BC Hydro is currently forecast to be in energy surplus into the 2030s.”

1.4.2 Has BC Hydro updated its assessment of the need for energy since the Phase 1 Report?

**RESPONSE:**

**This also responds to BCUC IRs 1.4.2.1 and 1.4.2.2.**

**On October 3, 2019, BC Hydro updated our assessment of our need for energy as part of our Fiscal 2020 – Fiscal 2021 Revenue Requirements Application. Please see Appendix D of Exhibit B-15 of that proceeding (accessible via this [link](#)) for updated load resource balance tables.**

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**4.0 B. NEED FOR THE FORBEARANCE AGREEMENT**

**Reference: NEED FOR THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 4; Order G-278-19, Appendix A, p. 9  
Load/Resource Balance – Need for Energy**

On page 4 of the Filing, BC Hydro states that the effective date of the Forbearance Agreement was April 1, 2014.

On page 9 of the Reasons for Decision, attached as Appendix A to Order G-278-19 the BCUC states that “On February 14, 2019, the BC Government released its Comprehensive Review of BC Hydro Phase 1 Final Report...” and that the Phase 1 report states that “BC Hydro is currently forecast to be in energy surplus into the 2030s.”

1.4.2 Has BC Hydro updated its assessment of the need for energy since the Phase 1 Report?

1.4.2.1 If yes, please provide a copy of BC Hydro’s latest assessment of the load/resource balance for the BC Hydro system and an estimate of when additional energy resources will be necessary.

**RESPONSE:**

**Please refer to BC Hydro’s response to BCUC IR 1.4.2.**

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**4.0 B. NEED FOR THE FORBEARANCE AGREEMENT**

**Reference: NEED FOR THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 4; Order G-278-19, Appendix A, p. 9  
Load/Resource Balance – Need for Energy**

On page 4 of the Filing, BC Hydro states that the effective date of the Forbearance Agreement was April 1, 2014.

On page 9 of the Reasons for Decision, attached as Appendix A to Order G-278-19 the BCUC states that “On February 14, 2019, the BC Government released its Comprehensive Review of BC Hydro Phase 1 Final Report...” and that the Phase 1 report states that “BC Hydro is currently forecast to be in energy surplus into the 2030s.”

1.4.2 Has BC Hydro updated its assessment of the need for energy since the Phase 1 Report?

1.4.2.2 If no, please indicate when BC Hydro expects to undertake an updated assessment of the load/resource balance for the BC Hydro system and when an updated estimate that indicates the need for additional energy resources will be available.

**RESPONSE:**

**Please refer to BC Hydro’s response to BCUC IR 1.4.2.**

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**4.0 B. NEED FOR THE FORBEARANCE AGREEMENT**

**Reference: NEED FOR THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 4; Order G-278-19, Appendix A, p. 9  
Load/Resource Balance – Need for Energy**

On page 4 of the Filing, BC Hydro states that the effective date of the Forbearance Agreement was April 1, 2014.

On page 9 of the Reasons for Decision, attached as Appendix A to Order G-278-19 the BCUC states that “On February 14, 2019, the BC Government released its Comprehensive Review of BC Hydro Phase 1 Final Report...” and that the Phase 1 report states that “BC Hydro is currently forecast to be in energy surplus into the 2030s.”

1.4.3 Please discuss the value energy purchases from the Walden North hydroelectric facility provide to BC Hydro in the context of (i) BC Hydro’s forecast load/resource balance as it existed at the time the Forbearance Agreement was executed; and (ii) BC Hydro’s most recent load resource balance forecast. Provide the market price of energy and any other assumptions used in the response.

**RESPONSE:**

**This also responds to BCOAPO IR 1.2.5.**

**BC Hydro is providing part of this response in confidence to the BCUC, in order to protect the IPPs’ commercial interests. The public disclosure of the redacted information could also impact BC Hydro’s commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).**

**At the time the financial analysis was done for the Forbearance Agreement, the energy load resource balance indicated that for the 2012 mid Load Forecast, BC Hydro would have sufficient energy resources until fiscal 2017. For periods prior to need, BC Hydro valued energy at market and for periods where energy resources were needed, BC Hydro valued firm energy at the reference energy price and non-firm energy at market. The value of the energy purchases to BC Hydro at that time was \$█/MWh (\$2014 levelized energy price). Please also refer to BC Hydro’s response to BCOAPO IR 1.3.1.**

**Based on BC Hydro’s most recent load resource balance forecast (filed with the BCUC in October 2019, as part of BC Hydro’s Load Forecast Evidentiary Update), the first year of energy deficit is in fiscal 2029. In 2018, BC Hydro adopted the use of market price as a conservative interim assumption for evaluating energy during**



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**surplus and deficit periods. Using this approach and the market price of energy from 2014, the value of energy would have been \$23/MWh (\$2014).**

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**5.0 B. NEED FOR THE FORBEARANCE AGREEMENT**

**Reference: NEED FOR THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 4  
Termination Rights**

On page 4 of the Filing, BC Hydro states that the Walden North EPA "...had an initial 20-year term with an evergreen provision allowing the contract to continue from year-to-year unless terminated by either party after providing six months' notice."

BC Hydro further states that "Under the Forbearance Agreement, BC Hydro agreed to forbear from exercising its termination rights under the evergreen [Walden North EPA] in consideration for a forbearance payment."

1.5.1 Please discuss the factors BC Hydro considers when determining whether to exercise termination rights like those provided under the Walden North EPA.

**RESPONSE:**

**This response also responds to BCUC IR 1.5.1.1.**

**EPAs with "evergreen" provisions, and termination rights like those provided under the Walden North EPA, were included in a limited number of EPAs executed prior to 2003. These types of agreements are now the exception, and other than the Walden North EPA and one other EPA, there are no other EPAs that include an "evergreen" provision with respect to the term of its contract.**

**These agreements with an "evergreen" provision have an initial contract term (e.g., 20 years) and when the initial contract term ends, the agreement then continues on a year to year basis until the agreement is terminated by a party with the required notice as provided in the agreement. The agreement cannot be terminated without cause prior to the initial contract term ending.**

**Generally, as each of these pre-2003 EPA approached the end of its initial contract term, or subsequent to the end of its initial contract term, BC Hydro's practice was that a termination notice would be issued to an IPP pursuant to the terms of the EPA. The issuance of a termination notice generally occurred in the process of EPA renewal discussions under which the parties could explore whether there was the potential to reach agreement on a cost-effective EPA. BC Hydro focused first on renewing the EPAs for larger hydroelectric projects since this would reduce the total IPP portfolio cost faster than the renewal of agreements for smaller projects. As a result of such negotiations, some of these EPAs were renewed, all of which were at lower prices than under the original contract.**

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However, some EPAs were terminated without renewal when it was generally apparent that the IPP would not be able operate at pricing that would be cost-effective to BC Hydro.

The Walden North IPP facility was one of the larger hydroelectric projects with a pre-2003 EPA and therefore BC Hydro may have prioritized renewal discussions with this party. However, as a result of the Forbearance Agreement, BC Hydro's costs related to this IPP facility were already being offset in part due the forbearance fee.

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**5.0 B. NEED FOR THE FORBEARANCE AGREEMENT**

**Reference: NEED FOR THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 4  
Termination Rights**

On page 4 of the Filing, BC Hydro states that the Walden North EPA "...had an initial 20-year term with an evergreen provision allowing the contract to continue from year-to-year unless terminated by either party after providing six months' notice."

BC Hydro further states that "Under the Forbearance Agreement, BC Hydro agreed to forbear from exercising its termination rights under the evergreen [Walden North EPA] in consideration for a forbearance payment."

1.5.1 Please discuss the factors BC Hydro considers when determining whether to exercise termination rights like those provided under the Walden North EPA.

1.5.1.1 Please provide a detailed explanation of how each of the factors identified above would apply to the Walden North EPA, absent the Forbearance Agreement.

**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.5.1.**

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**5.0 B. NEED FOR THE FORBEARANCE AGREEMENT**

**Reference: NEED FOR THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 4  
Termination Rights**

On page 4 of the Filing, BC Hydro states that the Walden North EPA "...had an initial 20-year term with an evergreen provision allowing the contract to continue from year-to-year unless terminated by either party after providing six months' notice."

BC Hydro further states that "Under the Forbearance Agreement, BC Hydro agreed to forbear from exercising its termination rights under the evergreen [Walden North EPA] in consideration for a forbearance payment."

1.5.2 Please discuss the opportunity cost associated with BC Hydro's decision to waive its termination rights for the period of time prescribed in the Forbearance Agreement.

**RESPONSE:**

**BC Hydro is providing part of this response in confidence to the BCUC, in order to protect the IPPs' commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).**

**In 2014, BC Hydro was not obligated to exercise its termination rights under the Walden North EPA. Further, agreeing to forbear from exercising these rights cannot be implied to mean that BC Hydro would have terminated the Walden North EPA absent the Forbearance Agreement. However, assuming the existing EPA had been terminated and an EPA with a term of [REDACTED] had been executed, based on the existing EPA price less the forbearance fee, BC Hydro's opportunity cost was \$[REDACTED]/MWh (\$2014 levelized energy price).**

**As indicated in the table shown in BC Hydro's response to BCOAPO IR 1.3.1, the \$[REDACTED]/MWh is based on the energy LRB indicating resource deficits starting in fiscal 2017; whereas the energy cost for the existing EPA price offset by the forbearance fee was \$[REDACTED]/MWh (\$2014 levelized energy price).**

**This cost of energy was significantly lower than the price for a similar project under the Standing Offer Program which was BC Hydro's next best available resource at that time.**

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**6.0 C. QUALITATIVE ASSESSMENT**

**Reference: QUALITATIVE ASSESSMENT  
Exhibit B-1, pp. 6-7, UCA section 71(2)  
Consistency with section 71(2)**

On page 6 of the Filing, BC Hydro states that:

Section 71(2) of the UCA provides that the BCUC may determine whether or not a filed energy supply contract is in the public interest.

Section 71(2.21) of the UCA describes the factors and criteria that the BCUC is to consider when assessing whether or not an energy supply contract filed by BC Hydro, in this case the Forbearance Agreement, is in the public interest. The BCUC is to consider:

- The interests of both current and future BC Hydro customers;
- British Columbia's energy objectives as set out in section 2 of the Clean Energy Act (CEA);
- The most recent Integrated Resource Plan (IRP);
- The quantity, availability and price of the energy to be supplied under the contract; and
- The quantity, availability and price of any other form of energy that could be used instead of the energy to be supplied under the contract.

BC Hydro further submits that:

...of the factors and criteria to be considered under section 71(2.21), the only ones that could be viewed as applicable to consideration of the Forbearance Agreement are... The interests of both current and future BC Hydro customers; and British Columbia's energy objective (f), "to ensure the authority's rates remain among the most competitive of rates charged by public utilities in North America"...

- 1.6.1 Please provide an analysis of whether the Forbearance Agreement, considered in concert with the provisions of the Walden North EPA, is consistent with the public interest considerations outlined in section 71(2) of the UCA.

**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.1.2 where BC Hydro explains that the Commission's review and powers under section 71 in this proceeding apply only to the Forbearance Agreement and not the original EPA.**

**Please also refer to BC Hydro's response to BCUC IR 1.2.4 where BC Hydro considered the application of the factors in section 71(2.21) of the *Utilities Commission Act* to the Forbearance Agreement.**

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**7.0 C. QUALITATIVE ASSESSMENT**

**Reference: QUALITATIVE ASSESSMENT  
Exhibit B-1, p. 5; *Clean Energy Act*, Section 2(l);  
Order G-278-19, Appendix A, p. 11  
BC Energy Objectives Consideration**

On page 5 of the Filing, BC Hydro states that:

In February 2016, the Walden North project was acquired by CCPLP, which is comprised of Cayoose Creek Development Corporation and Innergex. The Sekw'el'was Cayoose Creek Indian Band (Cayoos Creek Indian Band) is the sole beneficial shareholder of Cayoose Creek Development Corporation [(CDCC)]. Cayoose Creek Indian Band is part of the St'at'imc Nation. The original Walden North EPA, Forbearance Agreement and Diversion Agreement were assigned to CCPLP at that time.

Section (2)(l) of the Clean Energy Act (CEA) states that one of BC's energy objectives is "to foster the development of first nation and rural communities through the use and development of clean or renewable resources".

On page 11 of the Reasons for Decision, attached as Appendix A to Order G-278-19, the BCUC references a previously proposed EPA renewal with the Walden North independent power producer (IPP) and states that:

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,<sup>49</sup> as well as a share of net income or loss earned by the CCPLP over the term of the 40-year EPA renewal.<sup>50</sup>

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.<sup>51</sup>

1.7.1 Please describe any material differences between the environmental and indigenous and neighbouring community benefits associated with the Walden North EPA and the Forbearance Agreement versus the benefits associated with the Walden North EPA renewal filed with the BCUC in 2018.

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**RESPONSE:**

This also responds to BCUC IRs 1.7.2 and 1.7.3.

BC Hydro is providing part of this response in confidence to the BCUC, in order to protect the IPPs' commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).

If the Walden North EPA renewal had been accepted, the Walden North IPP was planning to undertake certain refurbishments to its generating facility and had also planned to do certain tailrace upgrade work. It is BC Hydro's understanding that these plans are on hold and any benefits this may have provided to the IPP or the community has not materialized. Please refer to BC Hydro's response to BCUC IR 1.12.1 and BCUC IR 1.13.1.

In addition, it is BC Hydro's understanding that under the Cayoose Creek Power Limited Partnership Agreement between Cayoose Creek Development Corporation (CCDC) and Innergex Renewable Energy Inc., CCDC (and its shareholder, Cayoose Creek Indian Band) [REDACTED]. If the EPA had been renewed, the income that CCDC would have earned over the life of the 40-year Walden North EPA would have been determined by the net income (including capital gain) or the net loss (including capital loss) of Cayoose Creek Power Limited Partnership, and by the allocation of such amounts among the limited partners of Cayoose Creek Power Limited Partnership.

BC Hydro does not have further information with respect any changes in the IPP's partnership agreement nor does BC Hydro have information with respect to any income the Cayoose Creek Indian Band may earn in relation to the Walden IPP.



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**7.0 C. QUALITATIVE ASSESSMENT**

**Reference: QUALITATIVE ASSESSMENT  
Exhibit B-1, p. 5; *Clean Energy Act*, Section 2(l);  
Order G-278-19, Appendix A, p. 11  
BC Energy Objectives Consideration**

On page 5 of the Filing, BC Hydro states that:

In February 2016, the Walden North project was acquired by CCPLP, which is comprised of Cayoose Creek Development Corporation and Innergex. The Sekw'el'was Cayoose Creek Indian Band (Cayoos Creek Indian Band) is the sole beneficial shareholder of Cayoose Creek Development Corporation [(CDCC)]. Cayoose Creek Indian Band is part of the St'at'imc Nation. The original Walden North EPA, Forbearance Agreement and Diversion Agreement were assigned to CCPLP at that time.

Section (2)(l) of the Clean Energy Act (CEA) states that one of BC's energy objectives is "to foster the development of first nation and rural communities through the use and development of clean or renewable resources".

On page 11 of the Reasons for Decision, attached as Appendix A to Order G-278-19, the BCUC references a previously proposed EPA renewal with the Walden North independent power producer (IPP) and states that:

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,<sup>49</sup> as well as a share of net income or loss earned by the CCPLP over the term of the 40-year EPA renewal.<sup>50</sup>

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.<sup>51</sup>

1.7.2 Please describe any changes to the environmental and/or indigenous and neighbouring community benefits associated with the Walden North hydroelectric facility that have taken place since issuance of Order G-278-19.

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**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.7.1.**

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**7.0 C. QUALITATIVE ASSESSMENT**

**Reference: QUALITATIVE ASSESSMENT  
Exhibit B-1, p. 5; *Clean Energy Act*, Section 2(l);  
Order G-278-19, Appendix A, p. 11  
BC Energy Objectives Consideration**

On page 5 of the Filing, BC Hydro states that:

In February 2016, the Walden North project was acquired by CCPLP, which is comprised of Cayoose Creek Development Corporation and Innergex. The Sekw'el'was Cayoose Creek Indian Band (Cayoos Creek Indian Band) is the sole beneficial shareholder of Cayoose Creek Development Corporation [(CDCC)]. Cayoose Creek Indian Band is part of the St'at'imc Nation. The original Walden North EPA, Forbearance Agreement and Diversion Agreement were assigned to CCPLP at that time.

Section (2)(l) of the Clean Energy Act (CEA) states that one of BC's energy objectives is "to foster the development of first nation and rural communities through the use and development of clean or renewable resources".

On page 11 of the Reasons for Decision, attached as Appendix A to Order G-278-19, the BCUC references a previously proposed EPA renewal with the Walden North independent power producer (IPP) and states that:

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,<sup>49</sup> as well as a share of net income or loss earned by the CCPLP over the term of the 40-year EPA renewal.<sup>50</sup>

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.<sup>51</sup>

1.7.3 Please estimate the net present value (NPV) of the income the Cayoose Creek Indian Band would earn under the Walden North EPA and Forbearance Agreement beginning in 2021 assuming (i) the Walden North EPA and Forbearance Agreement remain in effect; (ii) the Forbearance Agreement is declared unenforceable and the Walden North EPA remains in effect; and (iii) the Forbearance Agreement is declared unenforceable and the

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Walden North EPA is terminated. Please provide supporting calculations and describe all key assumptions used.

**RESPONSE:**

**Other than the information provided in BC Hydro's response to BCUC IR 1.7.1, BC Hydro has no further information as to the financial benefits the Cayoose Creek Indian Band may receive in relation to the Walden North EPA.**

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**8.0 C. QUALITATIVE ASSESSMENT**

**Reference: QUALITATIVE ASSESSMENT  
Exhibit B-1, p. 4  
BC Energy Objectives Consideration - Diversion Agreement**

On page 4 of the Filing, BC Hydro states that:

- BC Hydro wanted to maintain the incremental generation and environmental benefits it received as a result of the Diversion Agreement and without the EPA the Diversion Agreement would terminate... therefore [BC Hydro] entered into the Forbearance Agreement with an effective date of April 1, 2014.

1.8.1 Please discuss any impacts to the Diversion Agreement that would be likely to result if the Forbearance Agreement was declared unenforceable, either wholly or in part.

**RESPONSE:**

**If the Forbearance Agreement is declared unenforceable by the BCUC, either wholly or in part, the Diversion Agreement continues so long as the Walden North EPA is in effect.**

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**9.0 C. QUALITATIVE ASSESSMENT**

**Reference: QUALITATIVE ASSESSMENT  
Exhibit B-1, p. 3  
BC Energy Objectives Consideration - Transmission System  
Capability**

On page 3 of the Filing, BC Hydro states that “The Walden North project is a run-of-river hydroelectric facility on Cayoosh Creek about five kilometers west of Lillooet, British Columbia.”

1.9.1 Please describe any reliability benefits the Walden North hydroelectric facility provides to (i) the local transmission system serving Lillooet and surrounding communities; and/or (ii) the bulk electric system.

**RESPONSE:**

**The Walden North IPP does not provide reliability benefits to either the local transmission system serving Lillooet and surrounding communities, nor to the bulk electric system.**

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**9.0 C. QUALITATIVE ASSESSMENT**

**Reference: QUALITATIVE ASSESSMENT  
Exhibit B-1, p. 3  
BC Energy Objectives Consideration - Transmission System  
Capability**

On page 3 of the Filing, BC Hydro states that “The Walden North project is a run-of-river hydroelectric facility on Cayoosh Creek about five kilometers west of Lillooet, British Columbia.”

1.9.2 Please describe any limitations on the transmission system in the Lillooet area that restrict BC Hydro’s ability to deliver electricity generated in the region to customers and whether these are year-round limitations, or limitations that are restricted a certain portion of the year.

**RESPONSE:**

**This also responds to BCUC IR 1.9.2.1 and BCUC IR 1.9.2.2.**

**There are no limitations on the transmission system in the Lillooet area that restrict BC Hydro’s ability to deliver electricity generated to customers in that region that would trigger system upgrades.**

**During times when temperatures in the area are particularly high, and in certain system conditions, there may be restrictions with respect to BC Hydro’s ability to transmit generation out of the Bridge River area. Such restriction is not attributable to specific generating facilities and relates to the total generation in the area. Accordingly, there are no potential transmission system upgrade costs associated with the Walden North IPP.**

**We also note that depending on weather and certain system conditions, some operational constraints may arise in this area which may restrict the amount of generation from Walden North. For example, under certain ambient temperatures or during transmission equipment outages the output of Walden North may be limited.**

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**9.0 C. QUALITATIVE ASSESSMENT**

**Reference: QUALITATIVE ASSESSMENT  
Exhibit B-1, p. 3  
BC Energy Objectives Consideration - Transmission System  
Capability**

On page 3 of the Filing, BC Hydro states that “The Walden North project is a run-of-river hydroelectric facility on Cayoosh Creek about five kilometers west of Lillooet, British Columbia.”

1.9.2 Please describe any limitations on the transmission system in the Lillooet area that restrict BC Hydro’s ability to deliver electricity generated in the region to customers and whether these are year-round limitations, or limitations that are restricted a certain portion of the year.

1.9.2.1 Please describe how electricity generated at the Walden North hydroelectric facility may contribute to and/or exacerbate any transmission system limitations identified in the area. Include the magnitude of any impacts.

**RESPONSE:**

**Please refer to BC Hydro’s response to BCUC IR 1.9.2.**



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**9.0 C. QUALITATIVE ASSESSMENT**

**Reference: QUALITATIVE ASSESSMENT  
Exhibit B-1, p. 3  
BC Energy Objectives Consideration - Transmission System  
Capability**

On page 3 of the Filing, BC Hydro states that “The Walden North project is a run-of-river hydroelectric facility on Cayoosh Creek about five kilometers west of Lillooet, British Columbia.”

1.9.2 Please describe any limitations on the transmission system in the Lillooet area that restrict BC Hydro’s ability to deliver electricity generated in the region to customers and whether these are year-round limitations, or limitations that are restricted a certain portion of the year.

1.9.2.2 Please provide an estimate of any congestion costs associated with the Walden North hydroelectric facility.

**RESPONSE:**

**Please refer to BC Hydro’s response to BCUC IR 1.9.2.**

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**10.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 4  
Forbearance Payments**

On page 4 of the Filing, BC Hydro states the following:

- In anticipation of the expiry of the initial 20-year term, BC Hydro and the Walden North IPP began discussions in 2012 to explore the potential for an EPA renewal. At the time, a 10-year extension of the project was being proposed by the Walden North IPP. With respect to the EPA renewal, BC Hydro was unable to reach an agreement with the Walden North IPP because the upper limit of pricing BC Hydro was able to offer for a 10-year extension was not, as indicated by the IPP, adequate to recover its costs at that time.
- BC Hydro wanted to maintain the incremental generation and environmental benefits it received as a result of the Diversion Agreement and without the EPA the Diversion Agreement would terminate. However, BC Hydro also wanted to reduce the cost of the EPA.

1.10.1 Please confirm, or otherwise explain, that the net payments under the Walden North EPA and the Forbearance Agreement are sufficient for the Walden North IPP to recover its costs.

**RESPONSE:**

**BC Hydro is providing the requested information in confidence to the BCUC, in order to protect the IPPs' commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).**



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**10.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
 Exhibit B-1, p. 4  
 Forbearance Payments**

On page 4 of the Filing, BC Hydro states the following:

- In anticipation of the expiry of the initial 20-year term, BC Hydro and the Walden North IPP began discussions in 2012 to explore the potential for an EPA renewal. At the time, a 10-year extension of the project was being proposed by the Walden North IPP. With respect to the EPA renewal, BC Hydro was unable to reach an agreement with the Walden North IPP because the upper limit of pricing BC Hydro was able to offer for a 10-year extension was not, as indicated by the IPP, adequate to recover its costs at that time.
- BC Hydro wanted to maintain the incremental generation and environmental benefits it received as a result of the Diversion Agreement and without the EPA the Diversion Agreement would terminate. However, BC Hydro also wanted to reduce the cost of the EPA.

1.10.1 Please confirm, or otherwise explain, that the net payments under the Walden North EPA and the Forbearance Agreement are sufficient for the Walden North IPP to recover its costs.

1.10.1.1 Please provide the maximum forbearance payment the Walden North IPP could pay BC Hydro while continuing to recover its costs.

**RESPONSE:**

**BC Hydro is providing part of this response in confidence to the BCUC, in order to protect the IPPs' commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).**

**Appendix A of the Forbearance Agreement describes the forbearance payment calculation. The forbearance payment to BC Hydro is dependent upon the amount of energy generated by the IPP, up to [REDACTED]. Illustrative examples are provided in Appendix A of the Forbearance Agreement.**

**BC Hydro does not have knowledge with respect to what the IPP currently requires in order to recover its costs related to its project.**

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**10.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 4  
Forbearance Payments**

On page 4 of the Filing, BC Hydro states the following:

- In anticipation of the expiry of the initial 20-year term, BC Hydro and the Walden North IPP began discussions in 2012 to explore the potential for an EPA renewal. At the time, a 10-year extension of the project was being proposed by the Walden North IPP. With respect to the EPA renewal, BC Hydro was unable to reach an agreement with the Walden North IPP because the upper limit of pricing BC Hydro was able to offer for a 10-year extension was not, as indicated by the IPP, adequate to recover its costs at that time.
- BC Hydro wanted to maintain the incremental generation and environmental benefits it received as a result of the Diversion Agreement and without the EPA the Diversion Agreement would terminate. However, BC Hydro also wanted to reduce the cost of the EPA.

1.10.2 Please explain whether forbearance payments represented the best available alternative for BC Hydro to reduce the cost of the Walden North EPA at the time the Forbearance Agreement was executed.

**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.1.3.**

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**11.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 6; Order G-278-19, Appendix 1, p. 15  
NPV Calculations and Scenario Analysis**

On page 6 of the Filing, BC Hydro states that

BC Hydro believes that the Forbearance Agreement is in the interests of both current and future BC Hydro customers because BC Hydro does not incur any costs under the Forbearance Agreement, and the agreement reduces the total costs otherwise payable to CCPLP by BC Hydro and its ratepayers by way of an offset against amounts invoiced to BC Hydro under the Walden North 1990 EPA.

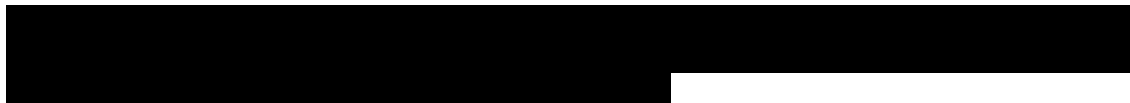
- 1.11.1 Please calculate the net present value (NPV) of (i) energy purchases under the Walden North EPA and (ii) payments received under the Forbearance Agreement, over the period when the Forbearance Agreement first became effective until January 1, 2021.

**RESPONSE:**

This also responds to BCUC IR 1.11.1.1.

**BC Hydro is providing parts of this response in confidence to the BCUC in order to protect the IPPs' commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).**

**BC Hydro understands this question is asking for the value of costs and payments from the effective date of the Forbearance Agreement (April 1, 2014) until January 1, 2021 since these values are in the past and are not projected, as would be the case for a net present value analysis. The values provided in this response are nominal \$.**



**The total payments received by BC Hydro under the Forbearance Agreement for this same period of time is approximately \$ [REDACTED].**

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The value of the energy for the same period assuming market price based on the BC Border sell price, and taking into energy generated at Seton resulting from the Diversion, is approximately \$ [REDACTED].

On an annual basis, BC Hydro's average purchases under the Walden North EPA were \$ [REDACTED] per year without the Forbearance Agreement payments and \$ [REDACTED] per year with the Forbearance Agreement payments. After consideration of the value of the energy, the average annual impact to ratepayers has been roughly 0.02 per cent (with or without the Forbearance Agreement payments). For clarity, the Forbearance Agreement payments are not material enough to change the rounding of the projected impact to ratepayers.

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**11.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 6; Order G-278-19, Appendix 1, p. 15  
NPV Calculations and Scenario Analysis**

On page 6 of the Filing, BC Hydro states that

BC Hydro believes that the Forbearance Agreement is in the interests of both current and future BC Hydro customers because BC Hydro does not incur any costs under the Forbearance Agreement, and the agreement reduces the total costs otherwise payable to CCPLP by BC Hydro and its ratepayers by way of an offset against amounts invoiced to BC Hydro under the Walden North 1990 EPA.

1.11.1 Please calculate the net present value (NPV) of (i) energy purchases under the Walden North EPA and (ii) payments received under the Forbearance Agreement, over the period when the Forbearance Agreement first became effective until January 1, 2021.

1.11.1.1 Please provide the impact to ratepayers of the two NPV calculations provided in response to the above.

**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.11.1.**

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**11.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
 Exhibit B-1, p. 6; Order G-278-19, Appendix 1, p. 15  
 NPV Calculations and Scenario Analysis**

On page 6 of the Filing, BC Hydro states that

BC Hydro believes that the Forbearance Agreement is in the interests of both current and future BC Hydro customers because BC Hydro does not incur any costs under the Forbearance Agreement, and the agreement reduces the total costs otherwise payable to CCPLP by BC Hydro and its ratepayers by way of an offset against amounts invoiced to BC Hydro under the Walden North 1990 EPA.

1.11.2 In each of the following scenarios, please provide the NPV and ratepayer impact for each of the Walden North EPA and the Forbearance Agreement beginning January 1, 2021:

- i) The Forbearance Agreement is determined to be in the public interest and therefore the Walden North EPA and the Forbearance Agreement remain in effect;
- ii) The Forbearance Agreement is determined to not be in the public interest and is declared unenforceable as of January 1, 2021, at which point BC Hydro chooses to terminate the Walden North EPA.
- iii) The Forbearance Agreement is determined to not be in the public interest and is declared unenforceable as of January 1, 2021, at which point BC Hydro chooses not to terminate the Walden North EPA.

In your response, please provide an Excel file that includes all assumptions and calculations to support these estimates.

**RESPONSE:**

**BC Hydro is providing parts of this response in confidence to the BCUC, in order to protect the IPPs' commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).**

**Although the existing Walden North EPA may be terminated at BC Hydro's discretion as early as 2024, it can continue for longer in accordance with its terms and the terms of the Forbearance Agreement. BC Hydro at this time has no plans to issue a termination notice for the Walden EPA. However, to be responsive, we**



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have evaluated the scenarios requested above for the period from [REDACTED] to [REDACTED], assuming the Walden North EPA is terminated on the earliest possible termination date. For each scenario below, the net present value of the costs is net of the estimated value of the energy generated, including energy generation at Seton resulting from the Diversion Agreement.

- (i) If the Forbearance Agreement is determined to be in the public interest and the agreement continues in effect with the Walden North EPA until [REDACTED], the net present value is \$ [REDACTED]
- (ii) If the Forbearance Agreement is determined to not be in the public interest and is declared unenforceable as of January 1, 2021, and assuming BC Hydro chooses to immediately issue a termination notice under the Walden North EPA, the net present value is \$ [REDACTED]. [REDACTED]  
[REDACTED] Please refer to BCUC CONF IR 1.2.1 which discusses the termination provisions of the Walden North EPA.
- (iii) If the Forbearance Agreement is determined to not be in the public interest and is declared unenforceable as of January 1, 2021, and assuming BC Hydro chooses not to immediately issue a termination notice under the Walden North EPA (but for the purpose of this response we assume the Walden North EPA is to terminate on the earliest possible termination date being [REDACTED]) the net present value is \$ [REDACTED]

As BC Hydro has no immediate plans to terminate the Walden North EPA, the scenarios above illustrate that the most-cost effective scenario (at this time) for BC Hydro and its ratepayers is to have the Forbearance. As requested, BC Hydro is confidentially attaching an Excel file that includes all assumptions and calculations for each of the scenarios noted above as Attachment #1 to this response. The Attachment is also being provided in confidence in order to protect the IPPs' commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).

Please also refer to BC Hydro's response to BCUC IR 1.11.1, which provides an illustrative rate impact for fiscal 2020 with respect to the of the expected annual costs associated with the Walden North EPA, and BC Hydro's response to BCSEA IR 1.3.1, where BC Hydro discusses that it not obligated to exercise its termination rights under the Walden North EPA.

**CONFIDENTIAL  
ATTACHMENT**

**FILED WITH BCUC  
ONLY**

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**11.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 6; Order G-278-19, Appendix 1, p. 15  
NPV Calculations and Scenario Analysis**

On page 15 of the Reasons for Decision, attached as Appendix 1 to Order G-278-19, the BCUC states:

[T]he 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 [Integrated Resource Plan (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.

1.11.3 Please provide BC Hydro's best estimate of the date when the next IRP will be complete.

**RESPONSE:**

**The filing date for the next IRP is being determined pursuant to a separate process currently in front of the BCUC. BC Hydro will be making submissions on this point in that proceeding on or before December 28, 2020.**

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**11.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
 Exhibit B-1, p. 6; Order G-278-19, Appendix 1, p. 15  
 NPV Calculations and Scenario Analysis**

On page 15 of the Reasons for Decision, attached as Appendix 1 to Order G-278-19, the BCUC states:

[T]he 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 [Integrated Resource Plan (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.

- 1.11.4 Please calculate the NPV and the ratepayer impact for each of the Walden North EPA and the Forbearance Agreement over the period beginning January 1, 2021 and ending on the IRP completion date provided in response to the above. In your response, please provide an Excel file that includes all assumptions and calculations to support these estimates.

**RESPONSE:**

**BC Hydro is providing a portion of this response in confidence to the BCUC, in order to protect the IPPs' commercial interests. The public disclosure of the redacted information could also impact BC Hydro's commercial interests and ongoing negotiations related to the Electricity Purchase Agreements (EPAs).**

**Please refer to BC Hydro's response to BCUC IR 1.11.3 which explains that the filing date for BC Hydro's next IRP is being determined pursuant to a separate process currently in front of the BCUC. Accordingly, BC Hydro cannot provide the information as requested.**

**However, please refer to BC Hydro's response to BCUC IR 1.11.2 which includes an Excel file supporting certain scenarios with and without the Forbearance Agreement up to [REDACTED] and BC Hydro's response to BCUC IR 1.11.1 which provides an illustrative rate impact for fiscal 2020 with respect to the expected annual costs associated with the Walden North EPA.**

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**12.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 3; Exhibit A2-1, p. 11; Order G-148-20, p. 2  
Capital Costs - Walden North Tailrace Culvert Upgrade**

On page 3 of the Filing, BC Hydro states that “The Walden North tailrace, owned by the IPP, was designed to channel flows from the Walden North powerhouse directly to BC Hydro’s Cayoosh Diversion Tunnel, with flows in excess of 1400 cubic feet per second diverted by a culvert back to Cayoosh Creek.”

Page 11 of Exhibit A2-1 states that “...the Walden North tailrace culverts need to be upgraded” and that BC Hydro intended to contribute towards to the cost of such work under a renewed EPA. Page 11 further states that if the Walden North EPA renewal did not proceed, BC Hydro would have no obligations to contribute to the tailrace upgrade project and that “In such circumstance, contributions from BC Hydro towards a Walden North tailrace upgrade project may be the subject of any new negotiations with the Walden North IPP.”

On page 2 of Appendix A to Order G-148-20, the BCUC states that the Walden North EPA renewal was terminated effective March 22, 2020.

**1.12.1 Please explain why the Walden North tailrace culverts needed to be upgraded and the urgency of the upgrade project.**

**RESPONSE:**

This also responds to BCUC IRs 1.12.2, 1.12.3, 1.12.3.1, 1.12.3.2 and 1.12.3.3.

**BC Hydro’s Cayoosh Diversion Tunnel has a capacity of 1400 cfs. The Walden North facility is currently unable to divert more than 900 cfs of water to Cayoosh Creek. If the Cayoosh Diversion Tunnel were to be closed, then the IPP’s tailrace culverts would have insufficient capacity to manage flows that are more than 900 cfs. This upgrade project would have enabled BC Hydro to safely close the tunnel at any time and for any period of time. In addition, in a scenario where BC Hydro may need to close the Cayoosh Diversion Tunnel, the IPP may experience reduced generation and/or may need to shut-down its operations. Hence, the flexibility to temporarily or permanently close the tunnel is a risk mitigation feature to avoid having to compensate the Walden North IPP for any losses (e.g., lost energy production) which might be claimed in relation to tunnel closures.**

**The IPP has not initiated the work required for the tailrace culvert upgrade project and BC Hydro is not aware of any plans by the IPP to complete the tailrace upgrade project at this time. There are no agreements in effect between BC Hydro and the IPP with respect to the IPP’s tailrace culvert upgrade project including any agreements that address whether BC Hydro would be providing any contributions to this potential project.**

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**12.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 3; Exhibit A2-1, p. 11; Order G-148-20, p. 2  
Capital Costs - Walden North Tailrace Culvert Upgrade**

On page 3 of the Filing, BC Hydro states that “The Walden North tailrace, owned by the IPP, was designed to channel flows from the Walden North powerhouse directly to BC Hydro’s Cayoosh Diversion Tunnel, with flows in excess of 1400 cubic feet per second diverted by a culvert back to Cayoosh Creek.”

Page 11 of Exhibit A2-1 states that “...the Walden North tailrace culverts need to be upgraded” and that BC Hydro intended to contribute towards to the cost of such work under a renewed EPA. Page 11 further states that if the Walden North EPA renewal did not proceed, BC Hydro would have no obligations to contribute to the tailrace upgrade project and that “In such circumstance, contributions from BC Hydro towards a Walden North tailrace upgrade project may be the subject of any new negotiations with the Walden North IPP.”

On page 2 of Appendix A to Order G-148-20, the BCUC states that the Walden North EPA renewal was terminated effective March 22, 2020.

1.12.2 Please provide a copy of any agreement(s) between BC Hydro and the Walden North IPP regarding the Walden North tailrace upgrade project, excepting the 2018 Walden North EPA renewal.

**RESPONSE:**

**Please refer to BC Hydro’s response to BCUC IR 1.12.1.**

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**12.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
 Exhibit B-1, p. 3; Exhibit A2-1, p. 11; Order G-148-20, p. 2  
 Capital Costs - Walden North Tailrace Culvert Upgrade**

On page 3 of the Filing, BC Hydro states that “The Walden North tailrace, owned by the IPP, was designed to channel flows from the Walden North powerhouse directly to BC Hydro’s Cayoosh Diversion Tunnel, with flows in excess of 1400 cubic feet per second diverted by a culvert back to Cayoosh Creek.”

Page 11 of Exhibit A2-1 states that “...the Walden North tailrace culverts need to be upgraded” and that BC Hydro intended to contribute towards to the cost of such work under a renewed EPA. Page 11 further states that if the Walden North EPA renewal did not proceed, BC Hydro would have no obligations to contribute to the tailrace upgrade project and that “In such circumstance, contributions from BC Hydro towards a Walden North tailrace upgrade project may be the subject of any new negotiations with the Walden North IPP.”

On page 2 of Appendix A to Order G-148-20, the BCUC states that the Walden North EPA renewal was terminated effective March 22, 2020.

1.12.3 To the best of BC Hydro’s knowledge, has the tailrace upgrade project been completed?

**RESPONSE:**

**Please refer to BC Hydro’s response to BCUC IR 1.12.1.**

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**12.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 3; Exhibit A2-1, p. 11; Order G-148-20, p. 2  
Capital Costs - Walden North Tailrace Culvert Upgrade**

On page 3 of the Filing, BC Hydro states that “The Walden North tailrace, owned by the IPP, was designed to channel flows from the Walden North powerhouse directly to BC Hydro’s Cayoosh Diversion Tunnel, with flows in excess of 1400 cubic feet per second diverted by a culvert back to Cayoosh Creek.”

Page 11 of Exhibit A2-1 states that “...the Walden North tailrace culverts need to be upgraded” and that BC Hydro intended to contribute towards to the cost of such work under a renewed EPA. Page 11 further states that if the Walden North EPA renewal did not proceed, BC Hydro would have no obligations to contribute to the tailrace upgrade project and that “In such circumstance, contributions from BC Hydro towards a Walden North tailrace upgrade project may be the subject of any new negotiations with the Walden North IPP.”

On page 2 of Appendix A to Order G-148-20, the BCUC states that the Walden North EPA renewal was terminated effective March 22, 2020.

1.12.3 To the best of BC Hydro’s knowledge, has the tailrace upgrade project been completed?

1.12.3.1 If yes, please provide: (i) the date the tailrace upgrade project was completed; (ii) the total cost of the tailrace upgrade project; (iii) BC Hydro’s contribution (if any) to the cost of the tailrace upgrade project; and (iv) any reliability and/or performance benefits achieved as a result of the upgrade.

**RESPONSE:**

**Please refer to BC Hydro’s response to BCUC IR 1.12.1.**



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**12.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 3; Exhibit A2-1, p. 11; Order G-148-20, p. 2  
Capital Costs - Walden North Tailrace Culvert Upgrade**

On page 3 of the Filing, BC Hydro states that “The Walden North tailrace, owned by the IPP, was designed to channel flows from the Walden North powerhouse directly to BC Hydro’s Cayoosh Diversion Tunnel, with flows in excess of 1400 cubic feet per second diverted by a culvert back to Cayoosh Creek.”

Page 11 of Exhibit A2-1 states that “...the Walden North tailrace culverts need to be upgraded” and that BC Hydro intended to contribute towards to the cost of such work under a renewed EPA. Page 11 further states that if the Walden North EPA renewal did not proceed, BC Hydro would have no obligations to contribute to the tailrace upgrade project and that “In such circumstance, contributions from BC Hydro towards a Walden North tailrace upgrade project may be the subject of any new negotiations with the Walden North IPP.”

On page 2 of Appendix A to Order G-148-20, the BCUC states that the Walden North EPA renewal was terminated effective March 22, 2020.

1.12.3 To the best of BC Hydro’s knowledge, has the tailrace upgrade project been completed?

1.12.3.2 If the tailrace upgrade project has not been completed, but BC Hydro is aware of plans to undertake the work, please provide: (i) the expected completion date of the upgrade project; (ii) the estimated cost of the upgrade project; (iii) BC Hydro’s expected contribution (if any) to the cost of the upgrade project; and (iv) any risks to the reliability and/or performance of the Walden North hydroelectric facility prior to completion of the upgrade project.

**RESPONSE:**

**Please refer to BC Hydro’s response to BCUC IR 1.12.1.**

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**12.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 3; Exhibit A2-1, p. 11; Order G-148-20, p. 2  
Capital Costs - Walden North Tailrace Culvert Upgrade**

On page 3 of the Filing, BC Hydro states that “The Walden North tailrace, owned by the IPP, was designed to channel flows from the Walden North powerhouse directly to BC Hydro’s Cayoosh Diversion Tunnel, with flows in excess of 1400 cubic feet per second diverted by a culvert back to Cayoosh Creek.”

Page 11 of Exhibit A2-1 states that “...the Walden North tailrace culverts need to be upgraded” and that BC Hydro intended to contribute towards to the cost of such work under a renewed EPA. Page 11 further states that if the Walden North EPA renewal did not proceed, BC Hydro would have no obligations to contribute to the tailrace upgrade project and that “In such circumstance, contributions from BC Hydro towards a Walden North tailrace upgrade project may be the subject of any new negotiations with the Walden North IPP.”

On page 2 of Appendix A to Order G-148-20, the BCUC states that the Walden North EPA renewal was terminated effective March 22, 2020.

1.12.3 To the best of BC Hydro’s knowledge, has the tailrace upgrade project been completed?

1.12.3.3 If the tailrace upgrade project has not been completed and BC Hydro is not aware of any plans to undertake the upgrade work, please describe any resulting risks to the reliability and/or performance of the Walden North hydroelectric facility.

**RESPONSE:**

**Please refer to BC Hydro’s response to BCUC IR 1.12.1.**

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**13.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 3; Exhibit A2-1, p. 14  
Capital Costs – Other Walden North Upgrades**

On page 3 of the Filing, BC Hydro states that the Diversion Agreement

... sets out the rights and obligations of BC Hydro and the Walden North IPP with respect to the design, construction, operation and maintenance of the “Walden North Diversion” and enabled the diversion of Cayoosh Creek water into the Cayoosh Diversion Tunnel. Pursuant to the Diversion Agreement, the Walden North IPP maintains and operates the works that are used to divert water from the Walden North tailrace into BC Hydro’s Cayoosh Diversion Tunnel and the culverts that return excess water to Cayoosh Creek and a fish spawning area.

Page 14 of Exhibit A2-1 states that:

The IPP is planning to undertake certain refurbishments of the Walden North facilities once the Walden North EPA renewal has received Commission acceptance. The refurbishment includes a new sluice gate to manage gravel at the intake and associated work, penstock/manifold recoating, civil upgrades for the powerhouse and tailrace area and the decommissioning of an old penstock. The purpose of the refurbishment is to restore the facility to its original condition, and bring other aspects of the facility to current standards, but not to increase the generating capacity.

Page 14 further states that:

[the Walden North IPP] planned to complete the refurbishments during the period between August 2019 and November 2019. However, due to the delay of the regulatory review of the EPA, these dates will not be achieved. Depending upon the timing of the EPA approval, the refurbishments will likely be completed during the period between August 2020 and November 2020.

1.13.1 To the best of BC Hydro’s knowledge, have the refurbishments at the Walden North hydroelectric facility described above been completed?

**RESPONSE:**

**This also responds to BCUC IRs 1.13.1.1, 1.13.1.2 and 1.13.1.3.**

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**The IPP has not initiated the refurbishment work it had planned to undertake in 2019 and the IPP has indicated to BC Hydro that it has not yet identified any specific timing to undertake this work without an EPA renewal with BC Hydro being in place. BC Hydro does not have information from the IPP relating to its risks with respect the reliability and/or performance of the Walden North generating facility associated with not having undertaken this refurbishment work.**

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**13.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
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Capital Costs – Other Walden North Upgrades**

On page 3 of the Filing, BC Hydro states that the Diversion Agreement

... sets out the rights and obligations of BC Hydro and the Walden North IPP with respect to the design, construction, operation and maintenance of the “Walden North Diversion” and enabled the diversion of Cayoosh Creek water into the Cayoosh Diversion Tunnel. Pursuant to the Diversion Agreement, the Walden North IPP maintains and operates the works that are used to divert water from the Walden North tailrace into BC Hydro’s Cayoosh Diversion Tunnel and the culverts that return excess water to Cayoosh Creek and a fish spawning area.

Page 14 of Exhibit A2-1 states that:

The IPP is planning to undertake certain refurbishments of the Walden North facilities once the Walden North EPA renewal has received Commission acceptance. The refurbishment includes a new sluice gate to manage gravel at the intake and associated work, penstock/manifold recoating, civil upgrades for the powerhouse and tailrace area and the decommissioning of an old penstock. The purpose of the refurbishment is to restore the facility to its original condition, and bring other aspects of the facility to current standards, but not to increase the generating capacity.

Page 14 further states that:

[the Walden North IPP] planned to complete the refurbishments during the period between August 2019 and November 2019. However, due to the delay of the regulatory review of the EPA, these dates will not be achieved. Depending upon the timing of the EPA approval, the refurbishments will likely be completed during the period between August 2020 and November 2020.

1.13.1 To the best of BC Hydro’s knowledge, have the refurbishments at the Walden North hydroelectric facility described above been completed?

1.13.1.1 If yes, please provide: (i) the date the refurbishments were completed; (ii) the total cost of the refurbishments; (ii) BC Hydro’s contribution (if any) to the cost of the refurbishments; and (iv) any reliability and/or performance benefits achieved as a result of the refurbishments.

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**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.13.1.**

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**13.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 3; Exhibit A2-1, p. 14  
Capital Costs – Other Walden North Upgrades**

On page 3 of the Filing, BC Hydro states that the Diversion Agreement

... sets out the rights and obligations of BC Hydro and the Walden North IPP with respect to the design, construction, operation and maintenance of the “Walden North Diversion” and enabled the diversion of Cayoosh Creek water into the Cayoosh Diversion Tunnel. Pursuant to the Diversion Agreement, the Walden North IPP maintains and operates the works that are used to divert water from the Walden North tailrace into BC Hydro’s Cayoosh Diversion Tunnel and the culverts that return excess water to Cayoosh Creek and a fish spawning area.

Page 14 of Exhibit A2-1 states that:

The IPP is planning to undertake certain refurbishments of the Walden North facilities once the Walden North EPA renewal has received Commission acceptance. The refurbishment includes a new sluice gate to manage gravel at the intake and associated work, penstock/manifold recoating, civil upgrades for the powerhouse and tailrace area and the decommissioning of an old penstock. The purpose of the refurbishment is to restore the facility to its original condition, and bring other aspects of the facility to current standards, but not to increase the generating capacity.

Page 14 further states that:

[the Walden North IPP] planned to complete the refurbishments during the period between August 2019 and November 2019. However, due to the delay of the regulatory review of the EPA, these dates will not be achieved. Depending upon the timing of the EPA approval, the refurbishments will likely be completed during the period between August 2020 and November 2020.

1.13.1 To the best of BC Hydro’s knowledge, have the refurbishments at the Walden North hydroelectric facility described above been completed?

1.13.1.2 If the refurbishments have not been completed, but BC Hydro is aware of plans to undertake the work, please provide: the expected completion date of the refurbishments; (ii) the estimated cost of the refurbishments; (iii) BC Hydro’s contribution (if any) to the cost of the refurbishments; and

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(iv) any reliability and/or performance benefits achieved due to the refurbishments.

**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.13.1.**



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**13.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit B-1, p. 3; Exhibit A2-1, p. 14  
Capital Costs – Other Walden North Upgrades**

On page 3 of the Filing, BC Hydro states that the Diversion Agreement

... sets out the rights and obligations of BC Hydro and the Walden North IPP with respect to the design, construction, operation and maintenance of the “Walden North Diversion” and enabled the diversion of Cayoosh Creek water into the Cayoosh Diversion Tunnel. Pursuant to the Diversion Agreement, the Walden North IPP maintains and operates the works that are used to divert water from the Walden North tailrace into BC Hydro’s Cayoosh Diversion Tunnel and the culverts that return excess water to Cayoosh Creek and a fish spawning area.

Page 14 of Exhibit A2-1 states that:

The IPP is planning to undertake certain refurbishments of the Walden North facilities once the Walden North EPA renewal has received Commission acceptance. The refurbishment includes a new sluice gate to manage gravel at the intake and associated work, penstock/manifold recoating, civil upgrades for the powerhouse and tailrace area and the decommissioning of an old penstock. The purpose of the refurbishment is to restore the facility to its original condition, and bring other aspects of the facility to current standards, but not to increase the generating capacity.

Page 14 further states that:

[the Walden North IPP] planned to complete the refurbishments during the period between August 2019 and November 2019. However, due to the delay of the regulatory review of the EPA, these dates will not be achieved. Depending upon the timing of the EPA approval, the refurbishments will likely be completed during the period between August 2020 and November 2020.

1.13.1 To the best of BC Hydro’s knowledge, have the refurbishments at the Walden North hydroelectric facility described above been completed?

1.13.1.3 If the refurbishments have not been completed and BC Hydro is not aware of any plans to undertake the work, please describe any resulting risks to the reliability and/or performance of the Walden North hydroelectric facility.

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**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.13.1.**

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**14.0 D. ECONOMIC ASSESSMENT**

**Reference: ECONOMIC ASSESSMENT  
Exhibit A2-1, p. 18  
Decommissioning Costs**

Page 18 of Exhibit A2-1 states that “BC Hydro has not assessed whether it might bear some legal responsibility in relation to the decommissioning of the Walden North IPP and potential impacts in relation to the diversion tunnel.”

1.14.1 Please provide any updates respecting BC Hydro’s legal responsibility relating to any future decommissioning of the Walden North IPP and the costs associated with such responsibilities.

**RESPONSE:**

**There is no further information available other than what has been provided by BC Hydro on page 18 of Exhibit A2-1.**

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**15.0 E. ALTERNATIVES TO THE FORBEARANCE AGREEMENT**

**Reference: ALTERNATIVES TO THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 3-4; Exhibit A2-1, pp. 9-10, 12-13  
Diversion Agreement**

On page 3 of the Filing, BC Hydro states:

The Walden North tailrace, owned by the IPP, was designed to channel flows from the Walden North powerhouse directly to BC Hydro's Cayoosh Diversion Tunnel, with flows in excess of 1400 cubic feet per second diverted by a culvert back to Cayoosh Creek. A Diversion Agreement dated November 14, 1990 (the Diversion Agreement) sets out the rights and obligations of BC Hydro and the Walden North IPP with respect to the design, construction, operation and maintenance of the "Walden North Diversion" and enabled the diversion of Cayoosh Creek water into the Cayoosh Diversion Tunnel. Pursuant to the Diversion Agreement, the Walden North IPP maintains and operates the works that are used to divert water from the Walden North tailrace into BC Hydro's Cayoosh Diversion Tunnel and the culverts that return excess water to Cayoosh Creek and a fish spawning area.

On pages 3 and 4 of the Filing, BC Hydro states that:

In 2001, the Department of Fisheries and Ocean provided guidance for BC Hydro and the Walden North IPP on the minimum discharges for Seton River and the prescribed Cayoosh Creek flows in order to support the dilution ratio of Cayoosh Creek to Seton Creek water below the Cayoosh confluence. This guidance was provided to facilitate salmon migration to spawning areas in the Bridge River system during the salmon migration period. In 2017, BC Hydro commissioned a study to assess the impact of the dilution ratio on salmon migration, and it was confirmed that maintaining the dilution ratio facilitates salmon migration during spawning.

Page 13 of Exhibit A2-1 states that:

The Cayoosh Diversion Tunnel was built by BC Hydro in approximately 1957 as part of the construction of the Seton Dam and generating station works. When the diversion tunnel was closed after that construction was completed, the salmon were observed delaying at Seton Generating Station's tailrace. Subsequently, studies found that salmon migration delays were caused by the closure of the Cayoosh Diversion Tunnel and the dilution of Seton River by Cayoosh Creek. These studies established dilution ratio targets for the Seton River that would allow for successful salmon migration. In the early 1980s, the diversion tunnel was re-activated to help maintain dilution ratios.

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- 1.15.1 Please explain what actions were taken to maintain dilution ratios in the early 1980s when the Cayoosh Diversion Tunnel was re-activated. In your response, please provide an estimate of the financial cost required to implement these actions, and whether such actions ultimately improved the dilution ratios.

**RESPONSE:**

This also responds to BCUC IRs 1.15.2 and 1.15.3.

To maintain dilution ratios in 1980s, BC Hydro utilized temporary structures, such as by building a temporary rock and gravel dam each year, to divert Cayoosh Creek water to the Cayoosh Diversion Tunnel. Evaluation conducted indicated that this approach was generally effective, but such temporary structures were lost on occasion due to overtopping. BC Hydro does not have a record of costs incurred to implement the temporary annual diversions in 1980s.

In addition, studies published in 1989 noted the following issues with the temporary dam structures - 1) building and removing temporary dams each year causes downstream siltation; 2) in high discharge years, a temporary dam could not be completed prior to the start of the sockeye migration period; and 3) there was potential erosion of valuable spawning beds and increased risk to the productivity of trout and other resident species under certain conditions.

Due to the limitations of temporary diversion measures, BC Hydro sought to implement a more permanent means of diverting Cayoosh Creek flows. This resulted in the Diversion Agreement with the Walden North IPP in 1990, and construction of the Walden North plant with a tailrace connecting to the BC Hydro Cayoosh/Seton Diversion Tunnel. While the permanent structure to divert Cayoosh flows into Seton Lake reduced Cayoosh flows into Seton River (and improved dilution ratios), it did not eliminate difficulties in providing target dilutions.

The Cayoosh dilution targets that were originally identified and implemented in the early 1980s continue to provide adequate dilution for migration of Gates and Portage sockeye salmon. Subsequent to the construction of the Walden IPP facility, and its associated diversion structures, the utility of the dilution targets was reaffirmed in a July 9, 2001 letter from the Department of Fisheries and Oceans that provided as follows:

“during the Gates Cr. Sockeye migration period of July 20-Aug 31, the Cayoosh Cr. discharge cannot exceed 20 per cent of the combined Cayoosh and Seton River discharges and during the Portage Cr. Sockeye migration period of September 28 – November 15, the Cayoosh Cr.

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**discharge cannot exceed 10 per cent of the combined  
Cayoosh and Seton River discharge.”**

**It is BC Hydro’s view that it is not a feasible alternative to revert to the temporary structures that were used in the 1980s, particularly because the Walden North IPP plant and associated diversion structures are constructed and operational.**

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**15.0 E. ALTERNATIVES TO THE FORBEARANCE AGREEMENT**

**Reference: ALTERNATIVES TO THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 3-4; Exhibit A2-1, pp. 9-10, 12-13  
Diversion Agreement**

On page 3 of the Filing, BC Hydro states:

The Walden North tailrace, owned by the IPP, was designed to channel flows from the Walden North powerhouse directly to BC Hydro's Cayoosh Diversion Tunnel, with flows in excess of 1400 cubic feet per second diverted by a culvert back to Cayoosh Creek. A Diversion Agreement dated November 14, 1990 (the Diversion Agreement) sets out the rights and obligations of BC Hydro and the Walden North IPP with respect to the design, construction, operation and maintenance of the "Walden North Diversion" and enabled the diversion of Cayoosh Creek water into the Cayoosh Diversion Tunnel. Pursuant to the Diversion Agreement, the Walden North IPP maintains and operates the works that are used to divert water from the Walden North tailrace into BC Hydro's Cayoosh Diversion Tunnel and the culverts that return excess water to Cayoosh Creek and a fish spawning area.

On pages 3 and 4 of the Filing, BC Hydro states that:

In 2001, the Department of Fisheries and Ocean provided guidance for BC Hydro and the Walden North IPP on the minimum discharges for Seton River and the prescribed Cayoosh Creek flows in order to support the dilution ratio of Cayoosh Creek to Seton Creek water below the Cayoosh confluence. This guidance was provided to facilitate salmon migration to spawning areas in the Bridge River system during the salmon migration period. In 2017, BC Hydro commissioned a study to assess the impact of the dilution ratio on salmon migration, and it was confirmed that maintaining the dilution ratio facilitates salmon migration during spawning.

Page 13 of Exhibit A2-1 states that:

The Cayoosh Diversion Tunnel was built by BC Hydro in approximately 1957 as part of the construction of the Seton Dam and generating station works. When the diversion tunnel was closed after that construction was completed, the salmon were observed delaying at Seton Generating Station's tailrace. Subsequently, studies found that salmon migration delays were caused by the closure of the Cayoosh Diversion Tunnel and the dilution of Seton River by Cayoosh Creek. These studies established dilution ratio targets for the Seton River that would allow for successful salmon migration. In the early 1980s, the diversion tunnel was re-activated to help maintain dilution ratios.

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1.15.2 Please explain what changed between the early 1980s and the execution of the Walden North EPA that required BC Hydro to enter into the Diversion Agreement to maintain adequate dilution ratios. Identify any improvement to or deterioration to the dilution levels achieved that resulted from execution of the Diversion Agreement.

**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.15.1.**



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Page 13 of Exhibit A2-1 states that:

The Cayoosh Diversion Tunnel was built by BC Hydro in approximately 1957 as part of the construction of the Seton Dam and generating station works. When the diversion tunnel was closed after that construction was completed, the salmon were observed delaying at Seton Generating Station's tailrace. Subsequently, studies found that salmon migration delays were caused by the closure of the Cayoosh Diversion Tunnel and the dilution of Seton River by Cayoosh Creek. These studies established dilution ratio targets for the Seton River that would allow for successful salmon migration. In the early 1980s, the diversion tunnel was re-activated to help maintain dilution ratios.

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1.15.3 Please explain whether the actions taken to maintain dilution ratios in the early 1980s could be used to substitute for the absence of a Diversion Agreement. In your response, please include a summary of the guidance provided by the Department of Fisheries and Ocean for BC Hydro and the Walden North IPP on the minimum discharges for Seton River and the prescribed Cayoosh Creek flows in order to support the dilution ratio of Cayoosh Creek to Seton Creek water below the Cayoosh confluence.

**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.15.1.**

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**15.0 E. ALTERNATIVES TO THE FORBEARANCE AGREEMENT**

**Reference: ALTERNATIVES TO THE FORBEARANCE AGREEMENT  
Exhibit B-1, p. 3-4; Exhibit A2-1, pp. 9-10, 12-13  
Diversion Agreement**

Pages 9-10 of Exhibit A2-1 state the following:

- Without an EPA and Diversion Agreement, there are uncertainties regarding how the parties will manage water flows in relation to the diversion tunnel.
- The continuation of the Diversion Agreement enables BC Hydro to avoid the cost of an alternative diversion structure (in order to feed water into BC Hydro's diversion tunnel) if such a structure is required sometime in the future.
- Given the existing diversion structure is already in place and owned by the IPP, BC Hydro has not carried out an assessment of available options for building an alternative diversion structure at this time.
- BC Hydro has also not considered the alternative of negotiating a new diversion agreement in the absence of an EPA and BC Hydro does not have an estimate of what such an agreement might cost.

1.15.4 Please explain whether the costs and benefits of an alternative diversion structure were compared to the costs and benefits of extending the Walden North EPA and Diversion Agreement when the Forbearance Agreement was negotiated. In your response, provide any historical analyses or business cases that support this assessment.

**RESPONSE:**

**This also responds to BCUC IRs 1.15.4.1, 1.15.5 and 1.15.6.**

**As the existing diversion structures associated with the Walden IPP are directly connected to BC Hydro's Cayoosh Diversion Tunnel, are already constructed and operational, and are providing adequate dilution ratios for salmon, BC Hydro has not undertaken studies to explore if there are viable options for building an alternative diversion structure that would feed Cayoosh Creek flows into the Cayoosh Diversion Tunnel. It is BC Hydro's view that an alternative diversion structure may not be feasible due to costs, environmental considerations and the potential impact to the Walden North IPP's facility. As a result, BC Hydro has not expended resources to explore alternatives at this time particularly because there are no fees associated with the Diversion Agreement.**

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**When the Forbearance Agreement was negotiated in 2014, as part of a broader negotiation with ESI Power-Walden Corporation (then owner of the Walden North plant and counterparty to the Walden North EPA and Diversion Agreement), the costs and benefits of an alternative diversion structure versus costs and benefits of the continuation of the Walden North EPA and Diversion Agreement were not considered.**

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**15.0 E. ALTERNATIVES TO THE FORBEARANCE AGREEMENT**

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- Without an EPA and Diversion Agreement, there are uncertainties regarding how the parties will manage water flows in relation to the diversion tunnel.
- The continuation of the Diversion Agreement enables BC Hydro to avoid the cost of an alternative diversion structure (in order to feed water into BC Hydro's diversion tunnel) if such a structure is required sometime in the future.
- Given the existing diversion structure is already in place and owned by the IPP, BC Hydro has not carried out an assessment of available options for building an alternative diversion structure at this time.
- BC Hydro has also not considered the alternative of negotiating a new diversion agreement in the absence of an EPA and BC Hydro does not have an estimate of what such an agreement might cost.

1.15.4 Please explain whether the costs and benefits of an alternative diversion structure were compared to the costs and benefits of extending the Walden North EPA and Diversion Agreement when the Forbearance Agreement was negotiated. In your response, provide any historical analyses or business cases that support this assessment.

1.15.4.1 Please identify the criteria used to determine that the Forbearance Agreement was the best alternative available at that time.

**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.15.4.**

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**15.0 E. ALTERNATIVES TO THE FORBEARANCE AGREEMENT**

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Diversion Agreement**

Pages 9-10 of Exhibit A2-1 state the following:

- Without an EPA and Diversion Agreement, there are uncertainties regarding how the parties will manage water flows in relation to the diversion tunnel.
- The continuation of the Diversion Agreement enables BC Hydro to avoid the cost of an alternative diversion structure (in order to feed water into BC Hydro's diversion tunnel) if such a structure is required sometime in the future.
- Given the existing diversion structure is already in place and owned by the IPP, BC Hydro has not carried out an assessment of available options for building an alternative diversion structure at this time.
- BC Hydro has also not considered the alternative of negotiating a new diversion agreement in the absence of an EPA and BC Hydro does not have an estimate of what such an agreement might cost.

1.15.5 Please compare the costs and benefits of building an alternative diversion structure today against the costs and benefits provided by the existing works that are used to divert water from the Walden North tailrace into BC Hydro's Cayoosh Diversion Tunnel and the culverts that return excess water to Cayoosh Creek. In your response, include quantitative and qualitative costs and benefits of these alternatives as they relate to the environment, local economy, and Indigenous Communities.

**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.15.4.**

<b>British Columbia Utilities Commission</b> Information Request No. <b>1.15.6</b> Dated: <b>November 19, 2020</b> British Columbia Hydro & Power Authority Response issued <b>December 10, 2020</b>	Page 1 of 1
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- Without an EPA and Diversion Agreement, there are uncertainties regarding how the parties will manage water flows in relation to the diversion tunnel.
- The continuation of the Diversion Agreement enables BC Hydro to avoid the cost of an alternative diversion structure (in order to feed water into BC Hydro's diversion tunnel) if such a structure is required sometime in the future.
- Given the existing diversion structure is already in place and owned by the IPP, BC Hydro has not carried out an assessment of available options for building an alternative diversion structure at this time.
- BC Hydro has also not considered the alternative of negotiating a new diversion agreement in the absence of an EPA and BC Hydro does not have an estimate of what such an agreement might cost.

1.15.6 Please estimate the amount of time that would be required to build an alternative diversion structure.

**RESPONSE:**

**Please refer to BC Hydro's response to BCUC IR 1.15.4.**