

Fred James

Chief Regulatory Officer

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February 13, 2019

Mr. Patrick Wruck
Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Wruck:

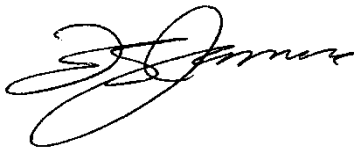
**RE: Project No. 1598907
British Columbia Utilities Commission (BCUC)
British Columbia Hydro and Power Authority (BC Hydro)
Salmon River Diversion Ceasing of Operations Project (Project)
Responses to BCUC Staff Information Request No. 1 for
Substantial Completion Report – F2019 (Report)**

BC Hydro writes to provide its responses to BCUC Staff Information Request No. 1.

In accordance with Directive 3 of BCUC Order No. G-96-17, BC Hydro is to file a final completion report 18 months to two years from substantial completion to allow time to obtain the Certificate of Compliance issued by the Ministry of Environment. BC Hydro is pursuing a risk-based Certificate of Compliance to address some contaminant at Patterson Creek. The risk-based approach will require one year of monitoring and the submission of a report to the Ministry of Environment. BC Hydro expects to file the Project final completion report on September 30, 2020, to allow time for this additional process.

For further information, please contact Geoff Higgins at 604-623-4121 or by email at bchydroregulatorygroup@bchydro.com.

Yours sincerely,



Fred James
Chief Regulatory Officer

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Enclosure (1)

British Columbia Utilities Commission Staff Information Request No. 1.1.1 Dated: January 23, 2019 British Columbia Hydro & Power Authority Response issued February 13, 2019	Page 1 of 1
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1.0 Reference: INTRODUCTION
Salmon River Diversion Ceasing of Operations Application
Substantial Completion Report, Section 1.2, p. 2
Contract award process

On page 2 of the Substantial Completion Report (Report), British Columbia Hydro and Power Authority (BC Hydro) states:
 As part of the Impact Benefits Agreement with the Wei Wai Kum and We Wai Kai First Nations related to the John Hart Replacement Project, BC Hydro agreed to co-manage improvements to fish passage at the Dam. As the intended rehabilitation project neared implementation, BC Hydro agreed to contract the Project works with Kwikw Construction Ltd Partnership (Kwikw), a joint venture between Ketza Pacific Construction (1993) Ltd and the Wei Wai Kum First Nation. This contract was awarded under a “direct award,” and in this situation BC Hydro typically contracts through an “Open-Book” process, in which BC Hydro staff and the contractor jointly review the proposed schedule of prices, including the underlying construction methodology, equipment utilization, expected productivity, and labour force to determine an acceptable bid price.

- 1.1.1 Please confirm if the Impacts Benefit Agreement required BC Hydro to award the contract for the Project works to a party associated with the We Wai Kai or Wei Wai Kum First Nations.

RESPONSE:

The Impact Benefits Agreement did not include a specific requirement for a direct award contract. The Impact Benefits Agreement included statements that “...BC Hydro and the First Nations will manage the Salmon River Adult Fish Passage Work...to consider and evaluate the options for the Salmon River Adult Fish Passage Work and to identify a preferred alternative... BC Hydro and the First Nations will work together to implement the Fish Passage Solution.”

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1.1.1 Please confirm if the Impacts Benefit Agreement required BC Hydro to award the contract for the Project works to a party associated with the We Wai Kai or Wei Wai Kum First Nations.

1.1.1.1 If confirmed, please explain what protections BC Hydro had in place if it determined none of the allowed contractors were suitable for the Project.

RESPONSE:

Please refer to BC Hydro’s response to BCUC Staff IR 1.1.2.

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1.1.1 Please confirm if the Impacts Benefit Agreement required BC Hydro to award the contract for the Project works to a party associated with the We Wai Kai or Wei Wai Kum First Nations.

1.1.1.2 If not confirmed, explain how the agreement influenced BC Hydro in the contractor selection process.

RESPONSE:

The statements in the Impact Benefits Agreement referred to in BC Hydro's response to BCUC Staff IR 1.1.1 and BC Hydro's broader commitment to support contracting, procurement, and business development opportunities for the First Nations in relation to the John Hart Generating Station Replacement Project also referenced in the Impacts Benefit Agreement, led BC Hydro to make a direct award to Kwikw. In addition, the direct award to Kwikw is in alignment with BC Hydro's indigenous contract and procurement policy. See the attachment to BC Hydro's response to BCUC Staff IR 1.1.3 for a copy of this policy.

Two of the principles of BC Hydro's policy are that awarded contracts must be at market-competitive prices, and that awarded contracts must meet expectations with respect to qualifications, safety and performance standards for the work. With respect to contracting with Kwikw, BC Hydro took several steps, prior to contract award, to ensure the contractor could successfully complete the work including:

- Conducted an assessment of qualifications.

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- **Conducted the contracting process in two stages where the first stage was the Open-Book Phase (this was conducted via a Consulting Services Agreement). During the Open-Book Phase, BC Hydro and Kwikw collaboratively assessed project risks and construction plans, which allowed BC Hydro to assess Kwikw's pricing for the work, and conclude that it met the 'market-competitive' requirement.**
- **Made commitments to Kwikw to ensure resources would be available to complete the work given the uncertainty with obtaining approvals to decommission the dam in context of the project timeline.**

If, after assessing a First Nation-Designated Business, BC Hydro concludes either that the contract will not be market-competitive, or that the designated contractor does not meet expectations for quality, safety, or performance, BC Hydro retains the option of pursuing a public procurement process.

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1.1.2 Please explain why an “Open-Book” process was used for this contract.

RESPONSE:

The Project entailed complex and challenging work with inherent uncertainties and risks, not least working with known contaminated materials in a fish-bearing stream. These risks could not be easily or economically transferred in a traditional fixed-price/fixed-scope contract. An Open-Book process was used for this contract to satisfy BC Hydro of contractor readiness to undertake the work, including qualifications, performance, available resources, and safety record, and to explore risk-sharing mechanisms, as well as to assess whether cost estimates were reasonable given BC Hydro’s knowledge of market conditions.

BC Hydro has successfully used Open-Book procurement on a number of projects, particularly in dam safety projects or where contracts have been directly awarded to First Nations-designated businesses.

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1.1.3 Please explain what guidelines BC Hydro’s procurement policy establishes for direct awarding contracts.

RESPONSE:

A copy of BC Hydro’s Indigenous contract and procurement policy which provides the guidelines for direct awarding contracts to Indigenous businesses is attached.

Indigenous contract and procurement policy at BC Hydro

Policy

Working together to build relationships that respect Indigenous peoples' interests is important to BC Hydro. One way we are supporting the long-term economic interests of Indigenous peoples in British Columbia is by committing to directed procurement opportunities for the benefit of Indigenous communities in support of our relationship agreements, impact benefit agreements and other arrangements with Indigenous groups.

Directed procurement opportunities may include the use of direct awards, select competitive procurements, and/or set asides. Contract opportunities for Indigenous businesses outside of these arrangements are also available through BC Hydro's general procurement processes. Directed procurement opportunities will be governed by the following principles:

1. Opportunities may be used to fulfill defined procurement commitments outlined in a relationship agreement, impact benefit agreement or similar arrangement with an Indigenous group;
2. Awarded contracts must be at market competitive prices;
3. Awarded contracts must meet BC Hydro's expectations with respect to qualifications, safety and performance standards for the work;
4. The contracting party may be the Indigenous group with whom BC Hydro has an arrangement, or may be a business designated by the Indigenous group to perform the work (a designated business partner); and
5. When identifying directed procurement opportunities BC Hydro will take into account company-wide business and operational factors such as security of supply, competitive market impacts, and ongoing program costs and efficiencies.

BC Hydro also supports the engagement of Indigenous communities, businesses and individuals through the terms of our contracts with contractors generally, and particularly where work is within a First Nations traditional territory. Where appropriate, BC Hydro will include targets and reporting requirements in our contracts with contractors to ensure that engagement requirements are being met.

In this Policy "Indigenous" means First Nation, Inuit or Métis.



Definition of Indigenous Business

"Indigenous Business" means any business arrangement in which Indigenous individuals and/or communities have an ownership or other interest, and includes any business entity identified by an Indigenous community as its designated business partner.

Statement of Indigenous Principles

BC Hydro is committed to respecting and supporting the interests of Indigenous Peoples in British Columbia.

BC Hydro's Statement of Indigenous Principles is a commitment to work together to build relationships and respect these interests.

All Employees and Contractors are to ensure these principles are understood and acted upon. The Statement of Indigenous Principles can be viewed here:

<https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/community/indigenous-principles-2017-update.pdf>

For more information

Phone: 604 528 7810

Toll free: 1 877 461 0161

Email: indigenous.procurement@bchydro.com



She Wolf gifted to BC Hydro by Art Thompson from the Ditidaht First Nation.



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1.1.3 Please explain what guidelines BC Hydro’s procurement policy establishes for direct awarding contracts.

1.1.3.1 In awarding the contract for the Project works, please identify how many pre-qualified contractors were engaged to submit proposals; how many proposals were received; and on what basis pre-qualified contractors were evaluated.

RESPONSE:

Since this was a direct award targeting Kwikw as the designated First Nations business, only Kwikw was invited to participate in the Open-Book process. BC Hydro assessed Kwikw’s ability to successfully carry out the work including, but not limited to, financial (bonding capacity and financial resources), health and safety, technical (experience, resources, methodology), environmental, schedule and cost.

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1.1.3 Please explain what guidelines BC Hydro’s procurement policy establishes for direct awarding contracts.

1.1.3.2 Please explain how the direct award process aligns with any non-discrimination obligations BC Hydro has, including Article 4 of the New West Partnership Trade Agreement and Articles 316 and 317 of the Canada Free Trade Agreement, if applicable.

RESPONSE:

Both the New West Partnership Trade Agreement and the Canada Free Trade Agreement provide exceptions for First Nations.

In the New West Partnership Trade Agreement this is described in Part V: Exceptions All Parties; A. General Exceptions, which excludes:

“1. Measures adopted or maintained relating to:

(a) Aboriginal peoples;”

In the Canada Free Trade Agreement a similar exception can be found at Part IV – Exceptions; Chapter Eight- General Exceptions; Article 800; Aboriginal Peoples which states:

“1. This Agreement does not apply to any measure adopted or maintained by a Party with respect to Aboriginal peoples. It

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does not affect existing aboriginal or treaty rights of any of the Aboriginal peoples of Canada under section 35 of the Constitution Act of 1982.

2. For greater certainty, nothing in this Agreement shall prevent a Party from fulfilling its obligations under its treaties with Aboriginal peoples, including land claims agreements.”

In the Comprehensive Economic and Trade Agreement a similar exception can be found at ANNEX 19-7 General notes 2(a) which states:

“2. This Chapter does not apply to:

(a) any measure adopted or maintained with respect to Aboriginal peoples, nor to set asides for aboriginal businesses; existing aboriginal or treaty rights of any of the Aboriginal peoples of Canada protected by section 35 of the Constitution Act, 1982 are not affected by this Chapter;”

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2.0 Reference: FINANCIAL SUMMARY
Salmon River Diversion Ceasing of Operations Application
Substantial Completion Report, Section 3, p. 7
Cost overruns

On page 7 of the Report, BC Hydro states:

The Expected Cost at the time of the Application was \$15.04 million, with an Authorized Cost of \$17.27 million. Final cost at completion is forecast to be \$19.97 million...

- 1.2.1 Please identify when BC Hydro received board approval to exceed the authorized cost of \$17.27 million, and explain what steps BC Hydro took to notify the British Columbia Utilities Commission of the cost overruns.

RESPONSE:

The President and Chief Operating Officer has the authority to approve project costs up to \$50 million, as delegated by the Board.

BC Hydro authorizes capital spending by way of an Expenditure Authorization Request (EAR). Typically, a new EAR is prepared and approved at each transition or gate between phases of a project's life-cycle: at completion of needs assessment and entry into the Identification phase, at completion of Identification phase and entry into Definition Phase, and finally at completion of Definition phase and entry into Implementation phase. Each of the EARs will typically request the funds to complete the scope of the next project phase.

If additional funding is required before the next gate event it is requested by an EAR Revision – this would typically occur either due to an increase in costs, or because activities of a later phase are being advanced into an earlier project phase. Sometimes circumstances do not permit the preparation of an EAR Revision on a timely basis, or a gate event is already pending, making the EAR Revision moot; in this case an EAR Overspend Approval is prepared and approved on the understanding that an EAR Revision will follow in due course.

An EAR Overspend Approval was prepared for the Project in October 2017 and was approved by the President and Chief Operating Officer on October 26, 2017, for \$19.223 million. A subsequent EAR Revision was prepared in January 2018, and was approved by the President and Chief Operating Officer on February 3, 2018 for an expected amount of \$19.702 million and an Authorized Amount of \$20.132 million.

BC Hydro informed the BCUC of the cost increase in the Project's Substantial Completion Report filed on November 1, 2018.

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- 1.2.1 Please identify when BC Hydro received board approval to exceed the authorized cost of \$17.27 million, and explain what steps BC Hydro took to notify the British Columbia Utilities Commission of the cost overruns.
- 1.2.1.1 Please provide a copy of any BC Hydro board approvals for the additional costs incurred.

RESPONSE:

Please refer to BC Hydro's response to BCUC Staff IR 1.2.1.

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3.0 Reference: FINANCIAL SUMMARY
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Substantial Completion Report, Section 1.2, p. 5
Contractor supervision

On page 5 of the Report, BC Hydro states:

Field conditions encountered during construction rendered the proposed diversion unfeasible due to the increase in the volume of water to be handled and problems related to seepage under both the upstream and downstream coffer dams in their planned form and location. This resulted in water infiltration into the work area, including the contaminated portions of the Dam site. A new diversion scheme was developed in the field which included an extension of the diversion to discharge further downstream from the work site, and an elaborate pumping scheme to by-pass the site and draw down the local water table to reduce groundwater infiltration. BC Hydro estimates that the need to design and implement the new diversion and pumping methodology increased direct costs on the Project by \$3.39 million.

1.3.1 Please explain what oversight BC Hydro had during the design and construction stages of the river diversion.

RESPONSE:

As part of the BC Hydro's oversight of the Project, during the design and Open-Book phase, BC Hydro led extensive collaboration among the designer Kohn Crippen Berger + Hatch (KCB + H), the contractor (Kwikw), First Nations, Department of Fisheries and Oceans, and the Ministry of Forests, Lands, Natural Resource Operations and Rural Development. The purpose of the collaboration was to ensure the design would meet expectations of naturalized fish passage and to ensure readiness to undertake the construction. BC Hydro communicated lessons learned from the decommissioning of the Heber Diversion Dam to ensure that those lessons learned were considered in the design and construction planning.

Further, during the construction stage of the decommissioning, BC Hydro had oversight of the contractor and the work as follows:

- At least one representative from BC Hydro Contract and Construction Management was on site during all construction activities. During critical construction times, the staffing levels increased as needed to ensure adequacy of oversight.
- BC Hydro engaged KCB + H as the designer which included the responsibility for oversight of the works in accordance to the design.

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KCB + H had an Engineer on site during all critical activities with visits from the Professional of Record as needed during critical construction times.

- **BC Hydro also engaged KCB + H to provide professional environmental services in relation to contaminated materials. KCB + H had a Specialist on site during all periods of excavation related to contaminated sites.**
- **BC Hydro retained Ecofish Research to provide oversight for conformance with environmental requirements.**
- **When it became apparent that there were challenges with flow diversion, BC Hydro Engineering had representatives on site to lead the evaluation of risks and mitigation measures.**

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1.3.1 Please explain what oversight BC Hydro had during the design and construction stages of the river diversion.

1.3.1.1 Please explain how BC Hydro ensured the contractor took appropriate, cost-effective mitigation measures to address the water infiltration issues.

RESPONSE:

As noted in BC Hydro's response to BCUC Staff IR 1.3.1, BC Hydro provided oversight during construction. The professionals on site worked collaboratively with the contractor to ensure mitigation measures taken to address unforeseen conditions, including water infiltration, were cost-effective.

Much of the additional cost on the Kwikw contract was undertaken on a time-and-materials basis using pre-established rates and daily review and sign-off of timesheets to confirm appropriate costs were being charged. This is a common arrangement when dealing with additional work required due to found conditions or unanticipated scope.