



VIA EFILE

August 11, 2016

**FORTISBC INC. CPCN CORRA LINN DAM SPILLWAY GATES
EXHIBIT A-3**

Ms. Diane Roy
Director, Regulatory Services
FortisBC Inc.
Suite 100, 1975 Springfield Road
Kelowna, BC V1Y 7V7

Dear Ms. Roy:

Re: FortisBC Inc.
Project No. 3698883
Application for a Certificate of Public Convenience and Necessity for Replacement
of the Corra Linn Dam Spillway Gates

Further to British Columbia Utilities Commission Order G-107-16 establishing the Regulatory Timetable with respect to the above noted application, enclosed please find the Commission's Information Request No. 1. In accordance with the Regulatory Timetable, please file your responses electronically with the Commission on or before Thursday, September 15, 2016.

Yours truly,

*Original signed by
Doug Chong on behalf of*

Laurel Ross

/dg
Enclosure

FortisBC Inc.
Application for a Certificate of Public Convenience and Necessity
for the Corra Linn Dam Spillway Gate Replacement Project (Project)

Table of Contents

	Page No.
A. SERVICES AND BENEFITS DERIVED FROM THE CORRA LINN DAM	1
B. CONTRACTING METHOD	2
C. COST ESTIMATE AND CONTINGENCY	4
D. ALTERNATIVES ANALYSIS.....	4
E. ENVIRONMENTAL AND SOCIAL IMPACTS.....	5
F. FINANCIAL MODEL	6
G. REPORTING REQUIREMENTS.....	7

A. SERVICES AND BENEFITS DERIVED FROM THE CORRA LINN DAM

- 1.0 Reference: APPLICATION**
Exhibit B-1, p. 10; FortisBC Inc.-2012-13 Revenue Requirements and Review of
Integrated System Plan (ISP) proceeding: Exhibit B-1-2, 2012 Long Term Resource Plan,
p. 45
Canal Plant Agreement

On page 10 of the Application FortisBC Inc. (FortisBC) states:

- that when the Corra Linn dam was commissioned in 1932, it had three 16 megawatt units;
- the purpose of the Corra Linn dam is to generate electrical energy from the portion of the Kootenay River flows allocated to FortisBC, and to regulate the level of the Kootenay Lake reservoir; and
- in 1976, BC Hydro commissioned the 580 megawatt Kootenay Canal Generating Station which benefits from the head and flood discharge capacity provided by the Corra Linn dam.

FortisBC stated that under the Canal Plant Agreement, BC Hydro determines the output of the Entitlement Parties' plants and takes all the power actually generated by the plants into its system. In exchange, the Entitlement Parties are contractually entitled to their respective "entitlements" of capacity and energy from BC Hydro.¹

The benefits FortisBC and its ratepayers derive from the operation of the Corra Linn facilities it is not clearly delineated in the Application.

¹FortisBC Inc., 2012-13 Revenue Requirements and Review of ISP proceeding, Exhibit B-1-2, 2012 Long Term Resource Plan p. 45.

- 1.1 What is the current generating capacity of the Corra Linn generating station for which the Corra Linn dam provides head?
- 1.2 In the past three financial years, what have been the annual revenue and/or avoided costs attributed to the operation of the Corra Linn facilities? Please provide a breakdown by source and state any assumptions made in calculating the values.
 - 1.2.1 Does FortisBC forecast the value of these benefits to materially change in the future? If yes, please explain providing the forecast value or value range.
 - 1.2.2 For any benefits directly received from British Columbia Hydro and Power Authority (BC Hydro), for how long is BC Hydro contractually obliged to provide these benefits to FortisBC?
- 1.3 In the past three financial years, what has the annual operating costs of the Corra Linn facilities been?
 - 1.3.1 Are the operating costs in anyway recovered from BC Hydro? If yes, please explain the nature of nature of the arrangement.
- 1.4 Given that BC Hydro benefits from the head and flood discharge capacity provided by the Corra Linn dam, has FortisBC considered asking BC Hydro for a contribution to the cost replacing the spillway gates? Please explain why or why not and provide any relevant sections of the agreements between FortisBC and BC Hydro.

B. CONTRACTING METHOD

- 2.0 Reference: APPLICATION
Exhibit B-1, p. 45
Contractor selection**

On page 45 of the Application, FortisBC states that:

- it is evaluating the merits of a contractor alliance agreement which would make the contractor a member of the collaborative Project team and centralize responsibility for design and construction under one contract;
- under the alliance agreement, the Project achieves competitive market rates by tendering various construction and supply agreements; and
- alternatively, it may select a contractor based on a more traditional tender process.

- 2.1 What projects of comparable nature has FortisBC completed and what was the contracting method and budgeted and actual cost of each?
- 2.2 Please provide names of the Project Manager and Executive Sponsor for the Project. If the roles have not yet been assigned, when does FortisBC expect to assign them?
 - 2.2.1 Do the Project Manager and Executive Sponsor have experience managing similar projects? If yes, please provide details, specifically noting any projects where a contractor alliance was formed with the main contractor.
- 2.3 Please provide further detail on the nature of the alliance agreement being considered.
 - 2.3.1 Approximately what portion of the total contract amount would be competitively tendered to subcontractors?
 - 2.3.2 What are the contemplated bases of payment (units of work completed, day rates, etc.) for the portion of the contract not tendered to subcontractors? If there are multiple bases of payment, provide the approximate proportion of each.

- 2.3.3 What is the contemplated basis for contractor profit? What if any, cost or schedule penalty/incentive mechanisms are being considered?
- 2.3.4 Does FortisBC agree that for contractor alliance agreements the normal cost control balance between owner and contractor that exist in non-regulated setting does not exist in the regulated setting were prudent costs are assumed to be passed on to ratepayers? If not, please explain.
- 2.3.5 How would FortisBC control costs on the portion of the project expenses not tendered to subcontractors?
- 2.3.6 Is FortisBC planning on getting a qualified independent third party to review the cost estimate? If yes, when would this review be completed and would FortisBC be agreeable to file the review with the Commission as a compliance filing?
- 2.3.7 If the Project were to proceed with a contractor alliance, would FortisBC be agreeable to some sort of cost recover cap on the Project or other mechanism (possibly mirroring its PBR cost control incentives) that would further align its financial interests with ratepayers? If yes, please describe the nature of the mechanism(s) FortisBC would be agreeable to.
- 2.4 Please confirm that if FortisBC were to tender the main construction contract, it would be a fixed price contract. If, not please describe the nature of the tendered contract being contemplated.
- 2.5 For the scenario where the main construction contract is tendered, what is FortisBC's assessment of the competitive state of contractors qualified to perform the work? Approximately, how many qualified bidders would FortisBC expect to bid?
- 2.6 If FortisBC tenders the main construction contract, please describe the process that will be undertaken to review the tender documents.
 - 2.6.1 Would the process involve review and sign-off by a qualified third party?
 - 2.6.2 When would FortisBC expect to complete the review process?
- 2.7 Are the cost estimates provided in the application based on an alliance agreement or a traditional tender process?
 - 2.7.1 Would FortisBC expect the cost estimate to change if the other contracting method was assumed in developing the cost estimate? If yes, please provide a summary cost estimate (in the same format as Table 6-1 in the Application) for the other contracting method and describe the source(s) of the expected difference(s).
- 2.8 If there are any areas where the lack of definition of scope complicates tendering the main construction contract, please detail the areas of uncertainty, describe FortisBC's effort to date to define the scope in these areas and explain what would be required to fully define the scope in these areas.
 - 2.8.1 If scope definition is an issue for tendering, could these concerns be mitigated by including a payment based on unit quantities (such as cubic meters of cement) in areas of undefined scope?
 - 2.8.2 Are any of the embedded parts currently assumed to not need refurbishment or replacement that may upon detailed inspection? If yes, please describe the parts and comment on the possible inclusion of an option in a tendered contract dependent on the outcome of detailed inspections.
- 2.9 When does FortisBC plan on making a decision on the contracting method?

C. COST ESTIMATE AND CONTINGENCY

**3.0 Reference: APPLICATION
Exhibit B-1, p. 59, Table 6-1
Capital Cost estimate**

- 3.1 Please confirm that the cost estimate provided in Table 6-1 is a median (P50) cost estimate. If not, please explain the likelihood assumptions that were made in developing the estimate.
- 3.2 What portion of the \$7.328 million project contingency is attributable to unknown risks?
- 3.2.1 On what basis was the unknown risk contingency estimated?
- 3.2.2 Does FortisBC have any reason to believe that the existing scope definition may not be adequate to complete the Project? If yes, what areas of scope may be inadequate? Please explain why they may be inadequate and why it is prudent to proceed without further defining the scope.
- 3.2.3 Is it FortisBC's intention to approve/release the unknown risk contingency with the initial Project budget approval? If yes, please explain why FortisBC believes it appropriate to do so instead of withholding the unknown risk contingency as a management reserve?
- 3.3 What, if any, are the potential cost savings (including contingency) that could be obtained by extending the schedule beyond the proposed December 2020 in service date? If there are potential cost savings, please discuss the practical implications of extending the in service date.

D. ALTERNATIVES ANALYSIS

**4.0 Reference: APPLICATION
Exhibit B-1, pp. 26–48
Identified alternatives**

On pages 26 through 28 of the Application, FortisBC states:

- it identified and considered four alternatives for the Project: Alternative 1, Do Nothing; Alternative 2, Deferral; Alternative 3, Gate Refurbishment; and Alternative 4, Gate Replacement;
 - it deemed Alternative 1 and 2 not to be feasible;
 - Alternative 3 would extend the expected life of the existing gate by approximately 11-25 years, therefore replacement of the spillway gates would need to be considered within the next 15 years; and
 - that Alternative 4 is preferred over Alternative 3 as it offers a lower long term cost and has a lower implementation risk.
- 4.1 What is the expected working life of the new gates as contemplated in Alternative 4?
- 4.2 For Alternative 3, please explain why the replacement of the gates would need to be considered within the next 15 years? What criteria would be applied to determine the need to replace the refurbished gates?
- 4.2.1 Are there any fundamental limits to extending the life of the existing gates through continued maintenance?
- 4.2.2 If the life of the existing gates can be substantially extended beyond 15 years, please discuss the future cost differences, if any, between continuing to maintain the existing gates and Alternative 4.

- 4.3 What are the expected remaining working lives of the Corra Linn dam structure and generating facilities?
- 4.3.1 Are any major maintenance or capital projects expected during this time? If yes, please describe providing the approximate timing and expected cost.
- 4.4 Have the design requirements changed since the original design of the Corra Linn dam that would impact the required number of gates?
- 4.4.1 Please discuss the feasibility of replacing some gates and de-commissioning others as an alternative. What if any, would the potential cost savings be from such an approach?
- 4.5 What would be the approximate cost to fully replace the spillway section of the Corra Linn dam with a modern design?
- 4.6 Has FortisBC submitted a safety hazard correction plan for the spillway upgrade to the provincial dam safety officer? If yes, what is the expected completion date stated in the plan.
- 4.7 Has FortisBC received any orders from the provincial dam safety officer relating to the Corra Linn spillway upgrade? If yes, please provide a copy of the order.

E. ENVIRONMENTAL AND SOCIAL IMPACTS

5.0 Reference: APPLICATION Exhibit B-1, pp. 48, 54 and 66; Appendix O Clearing of Project access and staging areas

On pages 66, 48 and 54 of the Application, FortisBC states:

- that it has identified 12 First Nations that have an interest in the Corra Linn area and that it does not believe any will be impacted by the Project;
- a new gravel road may be required to provide construction access; and
- the Project includes vegetative clearing for the access and laydown areas.

FortisBC's letter notifying First Nations of the Project, provided in Appendix O of the Application, does not appear to include a description of potential ground disturbing activities.

- 5.1 Have any of the notified First Nations provided feedback to FortisBC on the Project? If yes, please describe the nature and content of the feedback.
- 5.2 Please confirm that FortisBC has not specifically notified the 12 identified First Nations of the potential for ground disturbance during the Project.
- 5.3 Does FortisBC have a policy that considers the notification of potentially impacted First Nations of ground disturbances? If yes, what is the policy?
- 5.4 Have the areas to be cleared for the laydown area and gravel road been previously disturbed?
- 5.5 Does FortisBC plan to notify the 12 identified First Nations of ground disturbances and/or conduct an archeological survey prior to clearing land? If not, please explain why FortisBC considers it prudent to proceed without employing these mitigation strategies?

F. FINANCIAL MODEL

**6.0 Reference: APPLICATION
Exhibit B-1, p. 63
Revenue Requirement impact**

On page 63 of the Application, FortisBC states that the impact to customer rates in 2022 (when all assets have been entered into rate base) is an increase of approximately 1.49 percent over the 2016 approved revenue requirement.

However, Table 6-5 on page 63 of the Application shows FortisBC's phased inclusion into its rate base for each of the years between 2019 and 2021.

- 6.1 Please clarify whether there will be any rate impact in each of the years between 2019 and 2021 when portions of the Project will be brought into rate base.
- 6.2 If approved, please explain what impact this Project will have on FortisBC's current PBR plan. How does FortisBC propose to present the financial impact of this Project in its 2019 Annual Review for the current PBR plan?

**7.0 Reference: APPLICATION
Exhibit B-1, p. 62, Appendix K
Financial assumptions**

- 7.1 Please provide the assumptions for each of following financial parameters contained in Appendix K of the Application and provide a short description of its reasonableness and /or any additional references:
 - a) Property tax rate (Schedule 2);
 - b) Return on equity (Schedule 5);
 - c) Cost of debt (Schedule 3);
 - d) Cash working capital (Schedule 5).

Schedule 6 of Appendix K shows capital spending in each year between 2017 to 2021.

Table 6-5 on page 63 of the Application shows FortisBC's phased inclusion into its rate base for each of the years between 2019 and 2021. However in Schedule 7 of Appendix K, capital additions appear to commence in 2020.

- 7.2 Please confirm whether Schedule 7 should indicate capital "additions" of \$27.897 million in 2019 (as opposed to the "beginning balance" in 2020). If so, please clarify whether any financial schedule should be restated.

FortisBC evaluated its rate impacts associated with the Project over a 70 year period and states that the period was chosen based on the FortisBC 2014 Depreciation Study by Gannett Fleming for Reservoirs, Dams and Waterways (Account 332.00).

- 7.3 Please clarify whether the 70 year period over which the Project evaluation was made is equivalent to the expected life of assets in Account 332.00. If not, please explain otherwise.

In the 2016 Annual Review application, FortisBC proposed moving away from its current method of charging net salvage to accumulated depreciation at the time assets are removed from service. Instead FortisBC proposed to implement an alternative method of recovering net salvage over the useful lives of its assets starting in 2016. This method was approved in Order G-202-15.

On page 63 of the Application, FortisBC states that abandonment/removal costs related to the 14 existing Corra Linn Spillway gates are charged to accumulated depreciation.

7.4 Please explain whether the proposed accounting treatment is consistent with the previous Annual Review decision. If different, please explain why.

G. REPORTING REQUIREMENTS

8.0 Reference: APPLICATION Exhibit B-1, Appendix P-2 Draft C order

In Appendix P-2 of the Application, FortisBC proposes quarterly progress reports filed within 30 days of the end of each reporting period.

8.1 Please comment on the alternative of filing semi-annual progress reports with the additional requirement to provide, within 30 days of identification, notice to the Commission of expected cost variances resulting from any individual Project difficulties that are expected to result in cost increases greater than \$500,000 over the Project cost baseline.

8.2 What internal approval does FortisBC require before starting the Project? When is this approval expected?

8.3 If FortisBC were to tender the main construction contract, would it consider the following preconstruction reporting requirements appropriate:

- a) A summary (overall assessment, limits of review, areas of risk, recommendations, etc.) of the independent review of the tender construction drawings and specifications;
- b) A bidding process summary (qualified bidders list, bid amounts, bid evaluation summary, selected bid, justification if selected contractor is not lowest price bidder, and other information to allow the Commission to assess the fairness and competitiveness of the contracting process);
- c) An updated capital cost baseline (matching FortisBC's internal approved baseline) with the same breakdown provided in Table 6-1 in the Application and explanation and justification of any individual cost variances of \$500,000 or greater from the approved Certificate of Public Convenience and Necessity cost total; and
- d) A summary description of any significant Project risks that were not identified in the Application, including an assessment of the impact of each risk, the proposed risk mitigation strategy, and to the extent known, the financial and schedule impacts if the risk is realized.

8.3.1 Does FortisBC have any suggested changes to the above reporting requirements?