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October 6, 2016

VIA ELECTRONIC MAIL

British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: Ms. Laurel Ross, Acting Commission Secretary and Director

Dear Sirs/Mesdames:

Re: FortisBC Inc. ("FBC") Application for a Certificate of Public Convenience and Necessity for Replacement of the Corra Linn Dam Spillway Gate, Project No. 3698883

We are counsel to the Commercial Energy Consumers Association of British Columbia (CEC). Attached please find the CEC's second set of Information Requests with respect to the above-noted matter.

If you have any questions regarding the foregoing, please do not hesitate to contact the undersigned.

Yours truly,

OWEN BIRD LAW CORPORATION

Christopher P. Weafer

CPW/jlb
cc: CEC
cc: FBC
cc: Registered Interveners

COMMERCIAL ENERGY CONSUMERS ASSOCIATION OF BRITISH COLUMBIA

INFORMATION REQUEST #2

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

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21. Reference: Exhibit B-5, CEC 1.2.3

2.3 What are the circumstances that likely caused the three spillway gates to have worse condition than other gates? Please explain.

Response:

During a visual inspection of the 14 spillway gates, three of the spillway gates 10, 11 and 14 were noted to be in worse condition than the other 11 spillway gates due to the level of corrosion observed. The rate of corrosion is not a linear phenomenon and over the 84 year life of the spillway gates, gates 10, 11 and 14 may have corroded faster than the other gates. The level of corrosion noted, however, was not significantly different between the 14 spillway gates, i.e. the three gates inspected only appeared visually different due to the non-linear corrosion rate.

21.1. Please confirm or otherwise clarify the CEC's interpretation of the above that although the 3 gates appeared visually to have experienced more corrosion than the other gates, the actual level of corrosion may be similar between the gates and this level of corrosion is sufficient to require replacement.

22. Reference: Exhibit B-5, CEC 1.4.2 and 1.4.2.1 and 4.3

4.2 Did FBC undertake a competitive tendering process in the engagement of the engineering firm HMI?

Response:

FBC did not undertake a competitive tendering process in the engagement of HMI.

Response:

As described in Section 6.1 of the Application, HMI was selected based on their experience as a contractor to BC Hydro for similar spillway gate rehabilitation project currently underway, their extensive experience and reputation within Canada on similar projects, and their ability to complete the scope of the project. FBC considered that they had appropriate engineering experience and qualified engineering resources necessary to complete the scope of work.

4.3 What is the total expected cost of the preliminary engineering and support for the development of the Project Cost Estimate?

Response:

The total expected cost of the preliminary engineering and support done by external consultants for the development of the Project Cost Estimate is approximately $507,000, which is line 1 from Table 6-2 of the Application.

22.1. Does FBC's standard practices normally require a competitive tendering process for projects (cost estimates) of this size? Please explain and provide any threshold levels that FBC normally employs in its decision-making.

22.2. Are there costs associated with a tendering process that were saved by selecting HMI based on their experience? If so, please provide FBC's estimate of these costs.

23. Reference: Exhibit B-5, CEC 1.18.1

18.1 Is HMI able to provide evidence of a strong track record in appropriately estimating project contingencies?

Response:

HMI is unable to disclose specific contingency estimates and actuals from other projects that it has been involved in because of the confidentiality of their customers' information. However, HMI is an established engineering and construction firm that has successfully executed complex projects in the past that are similar to the Corra Linn Project. FBC selected HMI to complete the AACE class 3 estimate based on their current experience with BC Hydro as explained in the Application, Section 6.1. HMI was first selected by BC Hydro in 2008 with the contract extended in 2010 and again renewed in 2016. FBC also sought the opinion of the consulting firm Hatch Ltd. whose personnel have worked closely with HMI over the past 10 years on the BC Hydro's spillway gate project. Hatch confirmed the technical and design capabilities of HMI.

23.1. The CEC does not require any customer information. Would HMI be able to provide high level dollar values and % variances for the contingencies in its last 10 projects?

23.1.1. If so, please provide.

23.1.2. If no, please explain why not.

24. Reference: Exhibit B-3, BCUC 1.2.3

Response:

FBC would like to clarify that the alliance terminology used in the Application was meant in a general sense to describe the relationship with the contractor. A more accurate characterization of the contracting model being contemplated by FBC with HMI is an Early Contractor Involvement (ECI) model, not an alliance model or solely one of the traditional project delivery methods such as Design Build Tender. The ECI model seeks to balance risk, price and control of a project. In its strictest sense it is a hybrid of both a Design Build project delivery method (where the contractor is selected at the early stages of a project as a collaborative partner) and an Open Book pricing system. FBC reiterates that a contract has not been established with HMI and their involvement to date has been limited to assistance in the preparation of the Class 3 estimate for the Project.

Each of the traditional project delivery methods has advantages and disadvantages and is widely used in Canada. The ECI model, however, has evolved as a useful project delivery method for projects with unique characteristics and is therefore well-suited for one of a kind projects and where the site conditions pose unique challenges (such as the type of lifting required and access to the Project site in this case) that are best addressed by a knowledgeable contractor at the early stages. In the ECI model, because of the collaborative nature, there is

24.1. Is the ECI model widely used in Canada? Please explain.

24.2. Please provide a comparison of the 'Open Book' pricing model with the ECI model.

24.3. When does FBC expect to select its construction model?

25. Reference: Exhibit B-3, BCUC 1.2.3

Advantages of an ECI model

The main advantages of implementing an ECI model for the Corra Linn Project include:

- The Company can select a specialized design/construction firm at the early stages of the project development process based on qualifications, experience and reputation, thereby leveraging the contractor's experience and knowledge at the onset of the Project. Once selected, the contractor provides preconstruction services, such as finalizing scope, evaluating alternatives and finalizing the schedule, concurrently with the design and planning services.
- The design and planning services are performed collaboratively with input from the entire project delivery team to establish a target price for the Project.
- Provides the Company an opportunity to review and test all assumptions as to design, cost, risk and schedule at an early stage.
- Under the Open Book pricing system the contractor must operate in an open, transparent and collaborative manner with FBC's team.
- It includes an understanding that FBC will have the ability to exercise an option for the construction of the Project. That is, the Design Build Phase is only agreed to when both parties agree with the target price and risk allocation determined in the Open Book Phase.
- Because of the collaborative development of cost and the equitable allocation of risks, savings are shared and effectively both parties participate in any gains/losses eliminating the need for a penalty/incentive mechanism.
- Because of the collaborative nature of the model there is less room for dispute; therefore communications between the parties are improved and there is less risk of contractual disputes and Change Orders.

25.1. Please provide a list of the disadvantages of an ECI model.

25.2. Please provide an overview with details of the selection process that would be used to choose an ECI partner.

26. Reference: Exhibit B-3, BCUC 1.2.4

> 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.
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> Response:
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> Confirmed, if FBC were to tender the main construction contract, FBC anticipates that it would be a design build fixed price contract.

26.1. Could FBC reasonably use a contractor other than HMI for the ECI model? Please explain why or why not.

26.1.1. If yes, from approximately how many qualified companies could FBC expect to select from for obtaining an ECI partner? Please explain.

27. Reference: Exhibit B-3, BCUC 1.4.5

> 4.5 What would be the approximate cost to fully replace the spillway section of the Corra Linn dam with a modern design?
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> Response:
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> The cost to fully replace the spillway section of the Corra Linn Dam with a modern design was not contemplated and as such was not investigated. However, any design variation to the spillway section of the Corra Linn Dam, such as reducing the number of gates, or eliminating the gates and rebuilding the spillway to allow for overtopping is likely to be significantly more costly than the alternatives examined in Section 4.2 of the Application.

27.1. Please describe the differences between a 'modern design' and the design FBC is proposing.

27.2. Are there any environmental or other benefits that would accrue from using a modern design? Please explain and provide quantification of any benefits that are quantifiable.

27.3. Can FBC provide an order of magnitude quantification of the difference in costs that might arise if a 'modern design' were utilized? If so, please provide.

28. Reference: Exhibit B-8, BCOAPO 1.10.1 and 1.10.2

In the ECI model, the construction risks are collaboratively identified upfront and the risks are allocated to the party best able to manage or control the occurrence of the risk event, as indicated in the Risk Register at Confidential Appendix H.

Whereas, in the Design Build (DB) Tender, the contractor typically has full responsibility for all aspects of construction including: project management, managing, design and construction of the project, determining construction means and methods and selecting subcontractors and suppliers. The DB contractor would therefore best be able to manage all of the construction risks and allocates an amount in the lump sum contract price to account for the possibility of the risk occurrence. The owner pays for all risk allowances made by the DB contractor, regardless of whether the risk transpires or not.

Response:

In the DB Tender, the construction risk generally lies with the contractor and will form a component of their fixed bid price. In contrast, in an ECI model, FBC would bear some of the known construction risks, as shown in the Project Risk Register at Confidential Appendix H. In this approach risk quantification and the contingency amount is transparent. Please refer to the response to BCUC 1.2.3 and BCOAPO 1.10.1.

28.1. Is it the case that although FBC will bear some of the known construction risks under the ECI model, FBC would ultimately be better off because they would pay for all the risk allowances under the DB contract, but only pay if the risk transpires under the ECI contract? Please explain why or why not.

28.2. Does the contractor have a reduced incentive to manage risks under the ECI contract than they would under the DB contract? Please explain and take into consideration the requirement for the contractor to typically bid on the Design Build contract.