

November 20, 2017

Ontario Energy Board P.O.

Box 2319 27th Floor

2300 Yonge Street Toronto,

Ontario M4P 1E4

**Attention: Ms. Kirsten Walli, Board Secretary**

**Regarding: EB-2017-0048 2018 Cost of Service Application**

Dear Ms. Walli,

Please find attached Hydro Hawkesbury Inc’s responses to Board Staff’s oustanding IR’s as stated in our November 13th letter.

Yours truly,



Michel Poulin, General Manager

Hydro Hawkesbury Inc.

850 Tupper Street

Hawkesbury, ON

K6A 3S7

**Response to Interrogatories**

**2018 Cost of Service Rate Application**

**Hydro Hawkesbury Inc.**

**EB-2017-0048**

**November 13, 2017**

# Exhibit 2 – Rate Base

## 2-Staff-23

**Ref: Exhibit 2/ Section 2.1.2/ page 10/ Appendix H/ page 2 of the letter from Tetra Tech to Hydro Hawkesbury.**

* 1. Please confirm that Hydro Hawkesbury and its contractors did not update the estimate for the project’s contingency budget after the preparation of the Class 2 estimate, as can be inferred from the Table on p.10 of section 2.1.2.If the above inference is correct, please describe Hydro Hawkesbury’s rationale for not proactively updating the project contingency budget when it became first clear that material modifications would be required.
	2. Please describe the considerations behind selecting the value of 15% as a project contingency budget at the time of the original budget preparation by BPR/Tetra Tech, particularly since the April 15, 2015 letter from Tetra Tech to Hydro Hawkesbury states that the typical project cost variance for estimates of this precision is between -25% to +75%.
	3. Please confirm whether the information regarding the typical project cost variances at the “Order of Magnitude” stage was known to Hydro Hawkesbury, or the matter of selecting an appropriate value based on industry best practices at early stages of work estimation discussed with BPR? If it was known, please elaborate how the precision of the cost estimates and sensitivity analysis was used in the decision-making process.

Response:

1. HHI confirms that it did not update the estimate for the project’s contingency budget after the preparation of the Class 2 estimate, as can be inferred from the Table on p.10 of section 2.1.2.

Tetra Tech (BPR) provided the Class 2 estimate in April, 2015. A meeting was held June, 2016 between Hydro Hawkesbury, Stantec, Tetra Tech, and Infrastructure Ontario during which it was discussed that Tetra Tech would be producing an updated package to be tendered for completion of construction and an updated project cost estimate, prior to tender. Tetra Tech did not provide a revised cost estimate prior to tender, asserting that the Class 2 previously provided remained accurate. The contract was awarded to the lowest bidder (Eptcon) in September, 2016.

Eptcon’s total cost remained under Tetra Tech’s budget evaluation and therefore Tetra Tech confirmed that Eptcon’s price bid was below the budget and satisfactory. However, when Stantec prepared the drawdown certification report to request funds from Infrastructure Ontario in November 2016, it was discovered that Eptcon’s contract value exceeded what had been allowed for in the then-current budget.

After thorough review, Tetra Tech admitted that it had not considered past costs and expenses within its budget and therefore revisited the project budget and produced an updated estimate in January 2017, at the request of Infrastructure Ontario. The updated budget did not include any contingency.

As confirmed in its Jan. 31, 2017 letter “Letter\_Hydro\_Hawkesbury\_Cost\_Control\_2017-01-31\_rev01.pdf”, Tetra Tech had not accounted for the cost of previous construction activities and pre-purchased equipment in its 2015 Class 2 cost estimate.

Tetra Tech had certified all of the drawdown requests for funds from Infrastructure Ontario prior to Stantec’s involvement so they were fully aware of all of these costs, but just did not properly account for them in their estimate.

Once the outstanding work to complete the project had been clearly defined, i.e. when the tender documents were finalized in the fall of 2016, Tetra Tech should have revisited their April 2015 Class 2 estimate as they had originally committed to do, accounting for the $1.54M already spent and estimated value of the work left to complete, including testing and installation of equipment already purchased. Instead, Tetra Tech insisted that the April 2015 estimate they had prepared was still valid, leading HH to believe that they were confident that there was enough left in the budget to cover the remaining work.

1. A ROM (rough order of magnitude) estimate is defined to be within -25% to +75%. This type of estimate is typically done during the preliminary stages of a project to verify the concept, confirm feasibility, etc. Once the design is completed in sufficient detail, a more precise cost estimate based on specified equipment/materials and labour is possible, such as a Class 2. The purpose of such an estimate is generally to predict tender bids. A 15% contingency is typical for a Class 2 cost estimate.
2. The accuracy of the ROM (rough order of magnitude) estimate produced by BPR was not known by or communicated to Hydro Hawkesbury

## 2-Staff-24

**Ref: Exhibit 2/ Section 2.1.2/ page 10/ Appendix H/ Table 1**

Based on the examination of the Table on p.10 of section 2.1.2 and the Appendices, it can be inferred that Hydro Hawkesbury did not anticipate retaining external consultants for the types of services ultimately provided by Stantec Ottawa, Stantec Montreal, and General Electric. While the submission explains that the services provided by Stantec Ottawa were retained at the request of Infrastructure Ontario (IO), it is less clear whether the services of other engineering and construction management companies, were originally expected to be performed by BPR/Tetra Tech, or were generally outside of the scope of work.

* 1. Please explain whether Hydro Hawkesbury’s original agreement with BPR/Tetra Tech, contemplated that the original contractor would provide the Construction Management and Engineering Project Management Support services ultimately performed by Stantec Montreal and General Electric, respectively.
	2. If the original agreement contemplated BPR/Tetra Tech performing these services, please explain why other contractors were ultimately retained to perform these tasks.
	3. If BPR/Tetra Tech was not expected to provide these services at the time of the original agreement, please describe Hydro Hawkesbury’s plans and budgetary allocations for these services at the time of seeking the OEB’s approval during the EB-2011-0173 proceeding.
	4. Please confirm whether the $273,442-revision to BPR/Tetra Tech’s fees budget between the original and the Class 2 estimate was expected to capture the cost of some or all activities ultimately performed by Stantec Montreal and General Electric.
	5. Please reproduce Table 1 in the Appendix H by adding a third column, to capture the latest available information on actual costs for each cost category identified by BPR/Tetra Tech. Where additional cost categories have been added since the time of the Class 2 estimate reparation, please clearly identify them as such and provide the latest available cost estimates.

Response:

1. Hydro Hawkesbury expected that the project would be managed by Tetra Tech, as per their 2012 fee proposal. Construction activities would be managed and coordinated by a qualified general contractor selected through a competitive tender/bid process.

1. HH engaged Sproule and ultimately GE because BPR was not effectively managing the project and HH felt that we needed outside assistance. Eventually, we hired Stantec because HH did not have confidence in some of the technical decisions made by BPR. HH wanted Stantec Ottawa to do a technical review of the project as well as perform the “Independent Engineer” scope of work mandated by IO. Stantec Montreal was then hired to perform Construction Management services as a result of Stantec Ottawa’s recommendation to HH, because it was clear that BPR was not capable of getting the project back on track. IO mandated further involvement by Stantec Ottawa when the project cost went up after the remaining work was awarded to Eptcon. This cost increase was the result of failure by BPR/TT to update the 2015 Class 2 estimate, as discussed in the response to 2-Staff-23(a).

HHI notes that it is not unusual to hire an engineer to perform a review of drawings and specifications, particularly if the owner does not have the technical expertise to internally review as it was the case for HH. Aside from Stantec Ottawa’s services, Sproule, GE’s engineering and PM, and Stantec Montreal should not have been required if BPR had fulfilled its duties and respected its mandate. These services should have been performed by BPR and the General Contractor selected following the tender-bid-award process that should have taken place in 2013.

1. HHI confirms that BPR was hired to provide these services as indicated in HHI’s 2012 IRM+ICM application EB-2011-0173.
2. Tetra Tech did not provide a breakdown of the engineering costs included within their Class 2 estimate in April 2015. At the time of the estimate, however, they had already invoiced Hydro Hawkesbury for approximately $214K (for preliminary and detailed engineering, as well as extras such as environmental approval assistance, containment design, emergency response plan, etc.) and they had submitted another proposal in January 2015 for additional design services for $62K, for a total cost of $276K. If additional engineering services other than those being provided by Tetra Tech were anticipated to be required by others, Tetra Tech did not account for these costs in the engineering portion of their Class 2 estimate ($273K).

We can therefore assume that no engineering services to be provided by others had been accounted for in the Class 2 estimate. Table 1 on page 3 of the attached (Class 2 estimate prepared by TT) specifically indicates that preliminary engineering is included in the $273K total.