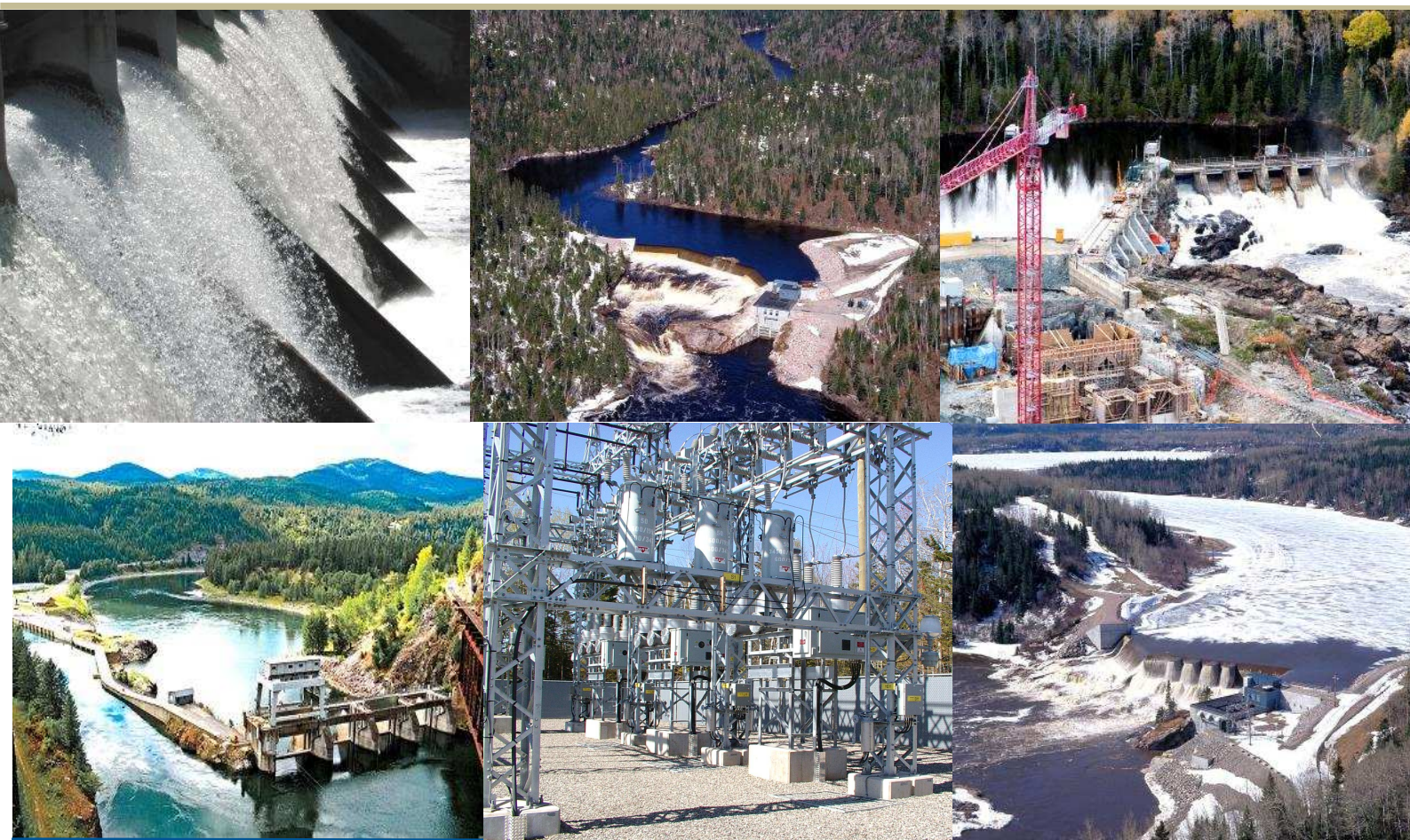


Detailed Engineering and Project Cost estimate

115 kV Substation





TETRA TECH

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Detailed engineering and cost estimate

January 30th, 2015

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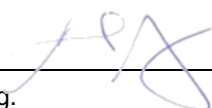
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Date
30/01/15

Approved by:



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Project Director

Date
30/01/15

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1.0 INTRODUCTION

Tetra Tech was established in Quebec in October 2010. The company acquired BPR and its subsidiaries to create, in 2013, Tetra Tech QC and its subsidiaries.

Following your request for proposal, Tetra Tech Company (Tetra Tech) is pleased to submit a proposal for a cost estimate of the project and for the detailed engineering to complete the project.

Tetra Tech has excellent expertise in industrial fields and environmental protection. In fact, Tetra Tech is recognized as one of the leading firms in the environment field and is currently working for governmental authorities, including US EPA. In addition, Tetra Tech works closely with its industrial clients by assisting them to comply with various regulations; obtaining permits and certificates of approval; assessing industrial risks; and developing and implementing mitigation measures.

Many of Tetra Tech's worldwide business locations are situated primarily in North America so that our personnel may remain at the leading-edge of knowledge, particularly in the regulatory sector, and provide local support to our clients when needed.

The assigned team has Environmental, Emergency Planning and Engineering expertise.



2.0 SCOPE AND OBJECTIVES

To complete the 115kV rehabilitation project, Hydro Hawkesbury must make changes in the design of 115kV dead end structure and provide other document to complete the engineering that will be presented to Hydro One. Tetra Tech will provide a cost estimate of the project and detailed engineering services required for the modification of the 115kV dead-end structure and to complete the documents required for the completion of the project.

3.0 DELIVERABLES

3.1 Activities Included

The following documents/activities will be provided as part of the project:

3.1.2 Detailed engineering activities

- Dead-end structure steel drawing (1 drawing);
- Dead-end structure concrete base drawing (1 drawing);
- 145 kV load break switch short form specification including shop drawing approval;
- Modified layout (including major material list) drawings including grounding drawings (7 drawings);
- Three-line diagrams (2 drawings);
- Load break switch interconnection wiring diagrams (2 drawings);
- 8 hours for meetings, communications with different authority and technical assistance for Hydro One cover (Assistance only);
- 30 hours for construction assistance/support (conference call from Tetra Tech's office);
- Specifics around costs for the original containment structure and costs for the new one;
- Modified single-line diagram (1 drawing);
- Modified logical protection schemes (2 drawings);
- Cable list;
- Interconnection list.

3.1.3 Project cost estimate and schedule

- Cost estimate of the project (+/- 10%)
- Report explaining the differences between the original cost estimate and the final cost estimate
- Detailed schedule for completing the project (from now to the end of the project);
- Specifics around costs for the original containment structure and costs for the new one;

4.0 ASSUMPTIONS AND CLARIFICATIONS

- Hydro One will perform the required modifications to their 110 kV wooden dead-end structure to accommodate Tetra Tech's engineering. Tetra Tech will request that the height of conductors be raised.
- Hydro Hawkesbury will provide all Protection and Control drawings in electronic format (.dwg files).
- Prior to 2015 GE managed the Hydro One cover process. Tetra Tech will continue to provide assistance only.
- Hydro Hawkesbury will provide all equipment and labor costs known.
- Once bank hours for meetings and construction support (38 hours total) are used, all works related to meetings, communication and support will be charged at the following rates :

Specialist:	\$180/hr	Draftsman :	\$77/hr
Senior Engineer:	\$165/hr	Administrative Assistance :	68\$/hr
Senior Technician :	\$115/hr	Expenses :	Cost + 10%
Intermediate Engineer :	\$108/hr	Mileage :	0.45\$/km
Junior Engineer :	\$88/hr		

5.0 PROJECT SCHEDULE

Since this project is deemed a priority by Hydro Hawkesbury, work shall start within seven (7) days from the time a Purchase Order is received. Tetra Tech will be submitting a project schedule including all activities.

6.0 DOCUMENTS TO BE ISSUED

For each document issue included in the proposal, Tetra Tech will provide, at no additional charge, a hard copy in the format requested by the Client. Any original or additional copy issued at the request of the Client will be charged.

Document issues are as follows:

- One (1) issue for comments : Electronic submittal – PDF file
- One (1) issue for tender : Electronic submittal – PDF file
- One (1) issue for construction : Electronic submittal – PDF file

7.0 FEE PROPOSAL

7.1 FEES

The total project cost is \$62 000 (this amount does not include GST and travelling/accommodation fees). Our cost is based on our team working from our Montreal office.

7.2 FORM OF PAYMENT

- ▶ Monthly invoicing will be based on engineering progress.
- ▶ Invoices are payable within thirty (30) days of presentation of said invoice to the Client.
- ▶ No holdbacks are accepted.

7.3 VALIDITY OF THE PROPOSAL

This proposal is valid for a period of thirty (30) days.

8.0 ADDITIONAL SERVICES

The services listed below are available but not included in the present proposal:

- Site visit.
- Protective relay programming/settings.
- Infrastructure engineering (oil containment, drainage etc.).
- Interconnection wiring diagram (Electrical Wiring Diagram) other than load break switch EWDs.
- "As-built" drawings.
- Drafting of commercial clauses and purchase orders.
- All permits from various authorities.
- Full time field supervision.
- Substation's outdoor lighting.
- Laboratory and analysis fees.

8.1 TERMS AND CONDITIONS

1. **SERVICES.** TETRA TECH QE INC., shall provide professional services in accordance with the agreed upon scope of work.
2. **EXECUTION.** This Agreement becomes effective upon signatures by authorized representatives of the Client and TETRA TECH QE INC. and upon receipt by TETRA TECH QE INC. of a signed original or facsimile transmittal. If facsimile transmittal is initially sent to TETRA TECH QE, INC., Client will provide TETRA TECH QE INC. with a signed original for record as soon as practicable.
3. **INITIATION.** TETRA TECH QE INC. is authorized to proceed with services upon receipt of an executed Agreement or written Notice to Proceed.
4. **COMPLETION/TERMINATION.** This Agreement shall remain in force until completion and acceptance of the services or until terminated by mutual agreement. This contract may be terminated by the Client and/or TETRA TECH QE INC. upon 10 days written notice. In the event of such termination, TETRA TECH QE INC. will be paid the portion of the compensation (and fixed fee, if applicable) for services performed in accordance with the scope of services under the terms of this Agreement to the date of termination together with all costs arising out of such termination.

Continuing Service Agreements shall be reviewed annually for rates and shall remain in force until terminated in writing by either party, or otherwise stipulated contractually.
5. **STANDARD OF CARE.** Services provided by TETRA TECH QE INC. under this Agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances. TETRA TECH QE INC., makes no warranty or guaranty, either expresses or implied.
6. **INDEPENDENT CONSULTANT.** TETRA TECH QE INC. is and shall be at all times during the term of this Agreement an independent consultant and not an employee or agent of the Client.
7. **COMPLIANCE WITH LAWS.** TETRA TECH QE INC. will endeavor to comply with Federal, State, and local laws and ordinances applicable to the services to be provided under this Agreement.
8. **COLLECTION COSTS.** In the event legal action is necessary to enforce the payment provisions of this Agreement if Client fails to make payment within thirty (30) days of the invoice date, TETRA TECH QE INC. shall be entitled to collect from the Client any judgment or settlement sums due, reasonable attorneys' fees, court costs and expenses incurred by TETRA TECH QE INC. in connection therewith and, in addition, the reasonable value of TETRA TECH QE INC.'s time and expenses spent in connection with such collection action, computed at TETRA TECH QE INC.'s prevailing fee schedule and expense policies.

9. **OWNERSHIP OF DOCUMENTS.** Drawings, specifications, reports, programs, manuals, or other documents, including all documents on electronic media, prepared under this Agreement are instruments of service and are, and shall remain, the property of TETRA TECH QE INC. TETRA TECH QE INC. will retain all common law, statutory, and other reserved rights, including the copyright thereto. TETRA TECH QE INC. shall not be held liable for reuse of documents or modifications thereof by the Client or its representatives for any purpose other than the original intent of this Agreement, without written authorization of and appropriate compensation to TETRA TECH QE, INC.
10. **SITE VISITS/OBSERVATION.** If included in the Scope of Work, TETRA TECH QE INC. shall visit the project and/or construction site at appropriate intervals to become generally familiar with the progress, quality of work (contractors' work), and to determine if the work is proceeding in general accordance with the Contract Documents. Visits to the project site and observations made by TETRA TECH QE INC. as part of services during construction under Agreement shall not make TETRA TECH QE INC. responsible for, nor relieve the construction contractor(s) of the obligation to conduct comprehensive monitoring of the work sufficient to ensure conformance with the intent of the Contract Documents, and shall not make TETRA TECH QE INC. responsible for, nor relieve the construction contractor(s) of the full responsibility for all construction means, methods, techniques, sequences, and procedures necessary for coordinating and completing all portions of the work under the construction contract(s) and for all safety precautions incidental thereto.
11. **EQUAL OPPORTUNITY EMPLOYMENT.** TETRA TECH QE INC. will comply with federal regulations pertaining to Equal Opportunity Employment. TETRA TECH QE INC. is in compliance with applicable local, state, and federal regulations concerning minority hiring. It is TETRA TECH QE INC.'s policy to ensure that applicants and employees are treated equally without regard to race, creed, sex, age, color, religion, veteran status, ancestry, citizenship status, national origin, marital status, sexual orientation, or disability. TETRA TECH QE INC. expressly assures all employees, applicants for employment, and the community of its continuous commitment to equal opportunity and fair employment practices.
- TETRA TECH QE INC.'s equal opportunity employment policy applies to all phases of employment, including recruiting, hiring, job assignment, supervision, training, upgrading, transfer, compensation, benefits, promotion, education, recreation, layoff and termination.
12. **INSURANCE.** TETRA TECH QE INC. will maintain the following levels of insurance during the term of this Agreement. The Client could be named as an additional insured on the Commercial General Liability and Automobile Liability insurance policies.
- a. Worker's Compensation (and Employer's Liability Insurance) — as required by applicable state statute.
 - b. Commercial General Liability — \$1,000,000 per occurrence for bodily injury, including death and property damage, and \$2,000,000 in the aggregate.
 - c. Automobile Liability — minimum of \$1,000,000 combined single limit for bodily injury and property damage.
 - d. Professional Liability (E&O) and Professional Pollution Liability and Contractors' Pollution Liability — \$1,000,000 each claim and in the aggregate.
13. **INDEMNIFICATION/HOLD HARMLESS.** TETRA TECH QE INC. shall indemnify and hold harmless the Client and its employees from any liability, settlements, loss, or costs (including reasonable attorneys' fees and costs of defense) to the extent caused by TETRA TECH QE INC.'s, negligent acts, errors, or omissions in services provided pursuant to this Agreement. Provided, however, that if any such liability, settlements, loss, or costs result from the concurrent negligence of TETRA TECH QE INC. and the Client, this indemnification applies only to the extent of the negligence of TETRA TECH QE INC.
14. **LIMITATION OF LIABILITY.** In recognition of the relative risks and benefits of the project to both the Client and TETRA TECH QE INC., the risks have been allocated such that the Client agrees, to the fullest extent permitted by law, to limit the liability of TETRA TECH QE INC. and its subconsultants to the Client and to all construction contractors and subcontractors on the project for any and all claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, so that the total aggregate liability of TETRA TECH QE INC. and its subconsultants to all those named

shall not exceed \$50,000 or the amount of TETRA TECH QE INC.'s total fee paid by the Client for services under this Agreement, whichever is the greater. Notwithstanding the foregoing, the Client warrants that its insurers and any third parties in contractual relationships with it shall not bring any claims against TETRA TECH QE INC. or its insurers in excess of the limitations and exclusions set out above and such claims shall in no event exceed the amount of the indemnities contemplated under Article 12. Such claims and causes include, but are not limited to, negligence, professional errors or omissions, strict liability, breach of contract or warranty.

Neither party will be responsible or held liable for any consequential, special, or incidental losses or damages.

15. **DISPUTES.** Any action for claims arising out of or relating to this Agreement and/or respective services shall be governed by the laws of the Province of Quebec. Venue shall be in Montreal - Superior Court. Mediation is an express condition precedent to the filing of any legal action. Unless the parties agree otherwise, the mediation shall be conducted pursuant to the Canadian Arbitration Association rules.
16. **ATTORNEY FEES.** Should there be any suit or action instituted to enforce any right granted in this contract, the substantially prevailing party shall be entitled to recover its costs, disbursements and reasonable attorney fees from the other party. The party who is awarded a net recovery against the other shall be deemed the substantially prevailing party unless such other party has previously made a bona fide offer of payment in settlement and the amount of recovery is the same or less than the amount offered in settlement. Reasonable attorney fees may be recovered regardless of the forum in which the dispute is heard, including an appeal.
17. **FORCE MAJEURE.** None of the parties to this Contract shall be considered to be in default of his obligations hereunder to the extent that fulfillment of said obligations is delayed, impeded or prevented by any unforeseen or unavoidable cause beyond the control of the parties and which is of the nature of a Force Majeure event. In no case shall a lack of financial means be considered as being a case of Force Majeure. In the event the Force Majeure event can be remedied, the time allotted for the fulfillment of the obligations is extended for such time as the superior force persists, and all the clauses hereof shall be amended accordingly.
18. **EXCLUSIVE REMEDIES.** "The Client and TETRA TECH QE INC. agree that their respective rights, obligations and liabilities as provided for in the Contract shall be exhaustive of the rights, obligations and liabilities of each of them to the other arising out of, under or in connection with the Contract or the Works. Accordingly, except as expressly provided for in the Contract, neither party shall be obligated or liable to the other in respect of damages or losses suffered by the other which arise out of, under or in connection with the Contract or the Works, whether by reason or in consequence of any breach of contract or of statutory duty or tortious or negligent act or omission.