RW Block Consulting

Memorandum

From: Derek Hennessey, Director, R.W. Block Consulting

To: Grant Thornton, Muskrat Falls Project Team

Date: November 1, 2018

Subject: Muskrat Falls – CT0327-001 Contract Review

The Grant Thornton Muskrat Falls Project Team ("Grant Thornton") requested that R.W. Block Consulting, LLC ("RWBC") review the CT0327-001 Contract between Labrador - Island Link Limited Partnership ("Nalcor") and Valard Construction LP ("Valard") for the Construction of 350kV HVdc Transmission Line on the Muskrat Falls project. The specific areas RWBC was requested to review were the structure of the contract, the financial security provisions in the contract, and Nalcor's claims settlement with Valard.

CT0327-001 Contract Summary

Amount (CAD$)	Component	Invoicing
$317,708,594.84	Segments 1 & 2	Unit price and Lump sum line items
178,040,088.88	Segment 3	Unit price and Lump sum line items
313,499,817.46	Segments 4 & 5	Unit price and Lump sum line items
$809,248,501.18	**Total**	
2,024,801.77	Optional Items	
$811,273,302.95	**Total – w/ Optional Items**	
$237,646,247.00	ROW Clearing and Access "Baseline"[1]	
$1,048,919,549.95	**Total – w/ Optional Items & ROW**	

Notes regarding contract pricing:

1. The "optional" items are not included in the total price identified in Appendix A – Schedule of Price Breakdown in Exhibit 2. Additionally, many of the option items have a quantity of "1" listed, so the order of magnitude of the total costs for these optional items may not be accurate.
2. The Right of Way ("ROW") clearing and access costs also do not appear to be included in the pricing identified in Appendix A – Schedule of Price Breakdown in Exhibit 2.
3. Section 11.0 – ROW Clearing and Access Works – General of Exhibit 2 is written in a manner that indicates the ROW Clearing and Access scope is included in the contract scope, yet the portions of Appendices of Exhibit 2 relating to the pricing that are referred to in paragraph 11.2 are listed as "Not Priced".

[1] Paragraph 11.6.6 of Exhibit 2 – Compensation to the CT0327-001 contract.

EVALUATION OF CONTRACT STRUCTURE

1. **Contract Pricing**
   The contract provisions contained the following components, which as designed, should have limited Nalcor's cost exposure (Article 12 – Compensation and Terms of Payment, Exhibit 2 – Compensation and Exhibit 3 – Coordination Procedures of the CT0327-001 contract):

   a. Lump Sum items – certain line-items had lump sum amounts which shifted the cost risk to Valard for the scope of those items.

   b. Unit Price items – certain items had unit prices which shifts the cost risk for performance to Valard on a unit basis, and Nalcor's risk is limited to increases in the number of units of work performed.

   c. Time and Material – Two items (for tower leg testing) in each of the segments' pricing breakdowns was identified as being reimbursed on a time and materials basis. Given the limited number of items, and the associated scope, this does not appear to be a significant cost exposure for Nalcor to retain.

   d. ROW Clearing and Access – The contract is not a clear as it could be with respect to identifying if the ROW Clearing and Access work is part of the contract's scope. As this scope is not priced, it does not appear to be included, though there are other aspects of the contract that describe this scope of work. Based on the contracting strategy identified in the March 31, 2014 Bidder Selection and Preliminary Award Recommendation document for the CT0327-001 contract, Nalcor excluded the ROW scope from the CT0327-001 contract.

2. **Request for Proposal (RFP) Performance Security**
   Section 7 in Appendix A2 – Commercial Instructions to the CT0327-001 RFP identified to the bidders on the CT0327-001 package what performance security they would have to provide if they were the successful bidder. Section 7 of Appendix A2 stated:

   - "a) a letter of credit"
   - "b) a parental guarantee" and,
   - "c) a performance bond and a labour and material payment bond."

   Paragraphs 7.1 and 7.2 of the specimen contract provided with the RFP identified that the performance bond and labour and material payment bond in the amount of 50% of the contract price would be required.

   The final contract, as will be discussed next, did not include a requirement for Valard to provide a performance bond or a labour and material payment bond.

3. **Contract Performance Security**
   Article 7 – Performance Security of the contract outlines the various type of performance security instruments Valard needs to provide to Nalcor to guarantee their performance under the contract. These instruments required were:

   a. **Parent Guarantee** – A parent guarantee from Quanta Services, Inc. ("Quanta"), Valard's parent company, which guaranteed "the full and prompt performance, payment and observance by the Contractor of each and every acknowledgement, covenant, agreement, undertaking, indemnity, waiver, release and obligation of the Contractor contained in the Agreement (collectively, the “Guaranteed Obligations”).”

i. Paragraph 7.3 of the contract states “The Parent Guarantee shall provide that Quanta Services Inc. undertakes and guarantees that, if for any reason Contractor becomes unable or otherwise fails to carry out its obligations under this Agreement, Quanta Services Inc. shall provide such financial or other support as may be required by Company to ensure that all Contractor's obligations under this Agreement continue to be fulfilled.”

ii. Notionally, the parent guarantee would be for the full value required to complete the work, but a legal opinion should be sought to verify this.

b. **<u>Letter of Credit</u>**

Paragraph 7.3 of the contract states:

“Contractor shall deliver to Company on or before the Effective Date, a letter of credit issued by a bank listed in Schedule 1 to the Bank Act, S.C. 1991, c.46 as security for the proper performance of Contractor's obligations under this Agreement in the form and with the content specified in Exhibit 14 - Performance Security, the value and duration of which shall be:

(a) equal to eight percent (8%) of the total Contract Price of Part A of Appendix A - Schedule of Price Breakdown of Exhibit 2 - Compensation, until a Final Completion Certificate has been issued pursuant to Article 25.7; and thereafter

(b) equal to four percent (4%) of the total Contract Price of Part A of Appendix A - Schedule of Price Breakdown of Exhibit 2 - Compensation, during the warranty period set out in Article 17.”

c. **<u>Performance Bond</u>**

The final contract did not appear to require a performance bond from Valard.

d. **<u>Summary</u>**

i. The security Nalcor required from Valard was less than it required from Astaldi on the CH0007 contract. The CH0007 contract required:

1. A parent guarantee, which CT0327-001 also required,
2. A letter of credit worth 10% until final completion was achieved, compared with the 8% required by CT0327-001, and
3. A CAD $150,000,000 performance bond, and CT0327-001’s final contract removed the requirement for a performance bond.

ii. Contracts that require performance bonds, often require bonds in the amount of 100% of the project’s value. However, on very large projects (such as this) we have seen lower bonding requirements (such as 50% of contract value – which was the amount identified in the RFP), and other approaches such as Letters of Credit and Parent Guarantees. As such, Nalcor’s approach is consistent with approaches we have seen on other large contracts.

4. **Liquidated Damages for Delay**
Article 26 of the CT0327-001 agreement addresses Liquidated Damages. Paragraph 26.1 limits Valard's liability for Liquidated damages to 10% of the contract value. We noted the CH0007 contract limited the CH0007 contractor's liability for liquidated damages to 7.5% of the CH0007 contract value.

5. **Limitation of Liability**
A Limitation of Liability Article was not included in the CT0327-001 contract, but language that appeared to address the Limitation of Liability included in the CH0007 contract[2] was included paragraphs 21.14 and 21.15 of the CT0327-001 contract. Paragraph 21.14 appears to address indirect or consequential damages or losses and paragraph 21.15 appears to limit Valard's liability to 100% of the CT0327-001 contract value (the CH0007 contract limited liability to 50% of the contract value) but includes seven cases where the limitation of liability would not apply (the CH0007 contract included five cases, which are similar to five of the cases in the CT0327-001 contract). The seven cases where the limitation of liability would not apply are:

    (i) Claims for personal injury (including death) for which Contractor is liable to Company or has a duty to indemnify Company under this Agreement;
    (ii) Claims for property damage or loss for which Contractor is liable to Company or has a duty to indemnify Company under this Agreement, except for damage to or loss of the Work;
    (iii) Contractor's fraud, willful misconduct or gross negligence;
    (iv) Taxes, fines and/or penalties imposed by any Authority for which Contractor is liable under this Agreement;
    (v) Claims for infringement of patents and/or other intellectual property rights, or breach of the confidentiality provisions of this Agreement;
    (vi) Claims for any environmental damage or loss for which Contractor is liable to Company or has a duty to indemnify Company under this Agreement or resulting from a breach of this Agreement by Contractor; and
    (vii) any other Claims by a third party, including any Authority, for which Contractor has a duty to indemnify Company under this Agreement.

6. **Sole Source Award of CT0327-001**
Nalcor outlines its award recommendation for the CT0327-001 contract in "Bidder Selection and Preliminary Award Recommendation CT0327 - Construction of 350kv HVdc Transmission Line" (NAL1833354). This is a 1,000+ page document (including attachments), that contains much discussion on the bidder screening process, a two phase process was used where Phase I was a described as a "typical pre-qualification process" and Phase II was used to determined who would be allowed to bid on the contract. Eight firms advanced from the Phase I screening to Phase II, and of these eight firms (Section 5 - Phase II Evaluation Conclusions – Post CT0319) (pages 24 to 27):

[2] An attorney would have to review the language and opine if the language in the identified Articles and paragraphs of the two contracts address the same subjects.

- One of them had a contract to provide staff augmentation services to Nalcor on the project, as was conflicted from bidding (and was not viewed by the team as being able to perform the overall scope of work).
- One of them the evaluation team indicated they had "great concerns" about their ability to execute in this jurisdiction.
- Five of them (two of the firms formed a joint venture to pursue the work) the evaluation team indicated they did not believe were capable of performing the scope of work.
- Only one of them, Valard, the evaluation team believed was capable of performing the work.

This analysis resulted in a single firm that the evaluation team would recommend be allowed to bid on the project. However, from a practical point of view it is not possible to competitively bid a project if there is only one bidder on the approved bidder list. Therefore, this contract was sole sourced[3], and was not bid (as "Bidder Selection and Preliminary Award Recommendation" would suggest). While the document name did not indicate this contract was sole sourced, the information contained within the document did indicate it was a sole-sourced, negotiated contract, award recommendation, specifically:

- **5.4 Lessons Learned from CT0319** – "....Only one entity demonstrated the capability to undertake the work, planning to almost exclusively self-perform thus removing risk…". (pages 22 and 23) The one entity they are referring to is Valard.
- **6.0 Available Options from Phase II Screening** – "…With consideration of the extensive bidder selection process that occurred during Phases I and II combined with the results of CT0319 HVac Transmission Line Construction and the conclusion that only one organization is truly qualified at this point in time to execute CT0327-001, LCMC believed there were practically three (3) available options to construct either CT0327-001 or the entire 1080km, each of which has pros and cons. They are:
  • Option 1: Re-test Market / Bid Entire Scope to potential bidders identified out of Phase I
  • Option 2: Pursue Open book Negotiated Agreement with Valard for Labrador, bid Island Portion
  • Option 3: Pursue Open book Negotiated Agreement with Valard for entire scope….."
  (page 28)

[3] We were provided a copy of an unsigned and undated "Contract Strategy" form for the CT0327-001 project that was presented as a sole source justification document. The section of this document that outlines the reasons for sole sourcing the CT0327-001 contract did not mention that the evaluation team believed this to be the only qualified firm to perform the work. The reasons listed for the sole source award were: 1) reduced pre-award timeline; 2) reduced number of pre-award hours for LCP; 3) reduced number of post-award administration hours for LCP; 4) contractor will gain efficiency from experiences gained on HVac line, and that these should result in reduced costs and improved schedule, and allows Nalcor to jointly develop risk mitigation strategies for risks such as labor shortages and working on multiple segments simultaneously. The rationale provided in the "Bidder Selection and Preliminary Award Recommendation CT0327 - Construction of 350kv HVdc Transmission Line" (NAL1833354) document appears to be more a compelling justification for the sole source award than the information contained in the undated CT0327-001 "Contract Strategy" form.

- **6.0 Available Options from Phase II Screening** – "it was decided to open discussions with Quanta/ Valard in an open book process to explore possibilities…." (page 32)
- **6.0 Available Options from Phase II Screening** – "….In initiating these discussions, LCMC prudently considered the outcome of the Phase I screening process, the complexity of the HVdc transmission line, and the above referenced considerations and learning. In assessing these, it was strongly felt that the most probable success path for LCMC would be to negotiate a fair and reasonable price with Quanta Services for the entire 1080km HVdc line given their marketplace dominance, capability and capacity to undertake the work in the relatively short timeline available but knowing throughout the process that the other options would still be available if needed. The open-book model would provide LCMC with true visibility into all estimate inputs, thereby allowing LCMC to strongly influence the price estimate for the work.

  These extensive open-book discussions led to a preliminary view of the potential cost and execution plan to undertake the entire HVdc scope being presented on 16-Dec-2013. In summary, Valard presented a sound execution plan with capacity demonstrated, there was good constructability and value-engineering input resulting in execution risk reduction, and they demonstrated an appreciation for the complexity of the undertaking." (page 32)
- **7.0 Recommended Contracting Strategy** – "With consideration of the pros and cons of the three (3) options reviewed in Section 6.0 and the outcome of the open book discussions, the LCMC considers that Valard Construction, as part of Quanta Services, is the only entity capable of constructing the entire HVdc transmission line or even the logistically challenging areas such as interior Labrador and Long Range Mountains…." (page 34)
- **7.0 Recommended Contracting Strategy** – "….As such, it is recommended to aggressively pursue the satisfactory conclusion of a Negotiated Agreement using the open-book price negotiations with Quanta Services that was initiated in October 2013 under a Non-Disclosure Agreement. In short, this option presents the least total risk exposure for LCMC, plus provides the greatest opportunity to reduce the overall price…." (page 34)

Based on the information presented by the evaluation team in the "Bidder Selection and Preliminary Award Recommendation CT0327 - Construction of 350kv Hvdc Transmission Line" (NAL1833354) document, if only one firm was capable of performing the work, that would be a reasonable justification for a sole source award.

7. **<u>Nalcor's Settlement with Valard</u>**

On June 30, 2017 Nalcor and Valard entered into Amending Agreement Number 2 to the CT0327-001 contract that settled a number of issues on the project.

The following is a summary of Valard's claims, as outlined by Nalcor in a presentation entitled "Quanta Valard Settlement Justification" dated June 7, 2017:

- Direct items and credit disputed - $220.1 million.
- Value of reimbursable Access and maintenance - $50 million.
- Extension of time claim - $139.9 million.

The following is a summary of how Nalcor has resolved Valard's claims, as outlined by Nalcor in a presentation entitled "Quanta Valard Settlement Justification" dated June 7, 2017:

- Direct items and credit disputed – resolving for $94.9 million of the $220.1 million claimed.
- Value of reimbursable access and maintenance – resolving for $15 million of the $50 million potential exposure.
- Extension of time claim – resolving for $0 of the $139.9 million claimed by changing the date which liquidated damages start to accrue.

These three items sum to $109.9 million.

The following is a summary of the settlement terms contained in Amending Agreement Number 2 to the CT0327-001 contract, which appear to incorporate Nalcor's outlined resolution to the issues:

- The Contract Price was changed to $1,078,000,000[4].
- The contract was changed from a unit price contract, to a lump sum contract.
- All issues and claims, by both parties, as of June 30, 2017 are included and settled by this agreement.
- Valard assumes all subsurface geotechnical risks.
- The target substantial completion date is November 15, 2017, but liquidated damages do not start to accrue until December 15, 2017.
- Valard would assume responsibility for creating and maintaining the access roads for the project through substantial completion of the project, and then turn them over to Nalcor in their "as-is" condition.
- Valard would assume all lost time costs associated with missing materials from Company free issued materials up to Final Completion.

Prior to Amending Agreement Number 2, the CT0327-001 contract had a revised contract value of $832,942,727[5], which is $245,057,273 less than the revised contract price of $1,078,000,000 identified in Amending Agreement Number 2[6]. The documents provided by Nalcor only explain $109.9 million of the $245.1 million increase in the contract value.

We did not have copies of Valard's actual claims to Nalcor, Nalcor's assessment of Valard's claims, Nalcor's $50 million estimate of access road construction and maintenance costs, or progress reports for the work as of the time of the settlement to assess. Therefore, we cannot validate the information provided in "Quanta Valard Settlement Justification" presentation or assess the status of the work as of June 30, 2017.

[4] We did not have access to the contract value after Amending Agreement Number 1 to validate the contract value increased by $109.9 million as outlined by Nalcor.

[5] NAL0439917 - Page 2 "CT0327-001 Construction of 350kV Hvdc Transmission Line Change Order Reconciliation"

[6] Our review of Amending Agreement Number 1 to the CT0327-001 contract indicated the contract value was unchanged as a result this agreement.

Based on the information provided in the Nalcor documents we were provided related to the $109.9 million of the settlement that was identified:

- The commercial settlement would appear to be reasonable, as the direct cost claim of $220.1 million was settled for $94.9 million, or 43% of the submitted value (assuming Nalcor had established entitlement for at least $94.9 million in additional payments).
- Reimbursing Valard $15 million for what Nalcor estimated as $50 million of costs associated with access road construction and maintenance would appear reasonable (assuming the $50 million cost exposure to Nalcor was estimated correctly).
- Eliminating the extension of time claim cost exposure of $139.9 million by changing the date liquidated damages start to accrue is reasonable, assuming this change does not negatively impact the overall project. Given the amending agreement was made within six months of the revised liquidated damages effective date, we assume the impact to the overall project could be fully assessed at the time the amending agreement was entered into.
- Converting the contract from a unit price to lump sum agreement, and having Valard assume all the geotechnical and missing Nalcor furnished material risk, would appear reasonable as there were only five months remaining until the target substantial completion date on a 39-month contract, so we would expect both parties to have a firm understanding of the remaining work.