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 – CH0007 Contract Review

The Grant Thornton Muskrat Falls Project Team ("Grant Thornton") requested that R.W. Block Consulting, LLC ("RWBC") review the CH0007 Contract between Muskrat Falls Corporation ("Nalcor") and Astaldi Canada Inc. ("Astaldi") for the Construction of Intake and Powerhouse Spillway and Transition Dams 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 decision to negotiate a revised contract with Astaldi.

CH0007 Contract Summary

Amount (CAD$)	Component	Invoicing
$507,598,340.87	Target Cost of Labour	
64,300,000	Max. Labour Cost Sharing Amount	
$571,898,340.87	LMAX	Invoiced as costs are incurred
35,531,883.86	Labour Profit (7% of Target Labor Cost)	Invoiced at percentage of completion of the concrete work
452,104,434.08	Lump Sum and Unit Price items	Lump Sum – Invoiced on percentage of physical completion Unit Price – Invoiced on completed units of work
29,057,891.00	Travel Allowance	Invoiced at actual travel allowance/ air transportation costs
$1,088,592,549.81	**Total (w/ LMAX)**	

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 CH0007 contract):

   a. Reimbursable Labour Maximum cost ("LMAX") – this concept established at maximum amount of reimbursable labour that NALCOR would be responsible for, while also providing an opportunity for cost savings if the labour productivity on the project was better than had been estimated by Astaldi.

   b. Labour Profit – The labour profit due to Astaldi for the reimbursable labour is calculated on the Target Cost of Labour, not the actual cost of labour, which translates to Nalcor not paying profit to Astaldi on any of the labour costs more than the target value.

c. Lump Sum items – certain items had the non-labour components negotiated as lump sum amounts which shifted the cost risk to Astaldi.

d. Unit Price items – certain items had the non-labour components negotiated as unit prices which shifts the cost risk (on a unit basis) to Astaldi, and Nalcor's risk is limited to increases in the number of units of work performed.

2. **Request for Proposal (RFP) Performance Security**
Section 7 in Appendix A2 – Commercial Instructions to the CH0007 RFP identified to the bidders on the CH0007 package what performance security they would have to provide if they were the successful bidder. Section 7 of Appendix A2 stated:

- "7.1 Performance Bonds and Labour and Material payment Bonds are not required for this Agreement and Articles 7.1, 7.2 and 7.3. of the Agreement shall not apply."
- "7.2 Pursuant to Articles 7.4 and 7.5 of the Agreement, Contractor shall provide a Parental Guarantee…."
- "7.3 Pursuant to Article 7.6 of the Agreement, Contractor shall provide a letter of credit, and the amount shall be ten percent (10%) of the Contract Price. The letter of credit shall be as security for the proper performance of all obligations of the Contractor under the Agreement. As specified in Article 7.6 the amount of the letter of credit shall be reduced to five percent (5%) of the Contract Price during the warranty period…."

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

a. **Parent Guarantee** – A parent guarantee from Astaldi S.p.A. 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 7.2 of the contract states "The Parent Guarantee required by Article 7.1 shall provide that Astaldi S.p.A undertakes and guarantees that, if for any reason Contractor becomes unable or otherwise fails to carry out its obligations under this Agreement, Astaldi S.p.A. 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.

iii. After executing the contract, the financial condition of Astaldi S.p.A. reportedly weakened significantly. A parent guarantee from a financially distressed firm has diminished value because the purpose of a parent guarantee is to provide the financial resources of a subsidiary's parent who is likely to be better capitalized.

b. **Irrevocable Letter of Credit No. 1** – CAD $102,429,255
   i. Value equal to the advance payment of 10% of the contract price.
   ii. Put in place with 10 days of executing the contract.
   iii. Nalcor makes advance payment within 30 days of receiving this LOC.
   iv. Remains in place until Nalcor has been credited the full value of the advance payment.
      1. Credits are provided through 15% reductions to the payment application values which start when the project is 20% complete (based on invoiced value/total contract value).
      2. Based on 15% reductions to all payments over 20% of the contract value, the LOC would be in place until the project was approximately 67% complete (based on invoiced value/total contract value).

c. **Irrevocable Letter of Credit No. 2** – CAD $100,000,000
   i. Put in place with 10 days of executing the contract.
   ii. Remains at CAD $100,000,000 until substantial completion.
   iii. At substantial completion, value is reduced to CAD $20,000,000.
   iv. Remains at CAD $20,000,0000 until final completion is achieved.

d. **Irrevocable Letter of Credit No. 3** – CAD $10,000,00)
   i. Put in place seven days before final completion.
   ii. Remains in place through the duration of the warranty period.

e. **Performance Bond** – CAD $150,000,000
   i. Put in place with 10 days of executing the contract.

f. **Summary**
   i. Maximum amount of Letters of Credit and Bonds:
      1. Through 67% complete (on a financial basis) – CAD $352,429,255
      2. Balance of project – CAD $250,000,000
   ii. Given the reported deterioration in Astaldi S.p.A., the value of verifiable security provided for the project is as stated above.
   iii. Since Nalcor also received a CAD $150,000,000 performance bond from Astaldi, in addition to the parental guarantee and a letter of credit for 10% of the contract value, it received more contract security than the RFP identified would be required.
   iv. 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%, or less, of contract value), 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, but as Astaldi S.p.A.'s reported financial deterioration has shown (which will be discussed later), Parent Guarantees are not one-for-one replacements for performance bonds.
   v. Additionally, the security Nalcor required from Astaldi was more than it required from Valard on the CT0327-001. The CT0327-001 contract required a parent guarantee and a letter of credit worth 8% (CAD $64.7 million) until final completion was achieved.

4. **Liquidated Damages for Delay**

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

5. **Limitation of Liability**

Article 30 of the CH0007 contract outlines the limitation of liability to both parties. Paragraph 30.1.b identifies that neither party shall be liable for indirect or consequential damages or losses under the contract, and limits Astaldi's liability to Nalcor at 50% of the contract value, but does specify five cases where the limitation of liability would not apply:

(i) Claims for personal injury (including death) suffered by third parties
(ii) Claims for property damage or loss suffered by third parties;
(iii) Contractor's willful, deliberate or intentional breach of this Agreement;
(iv) Taxes, fines and/or penalties (including in respect of breaches of environmental laws) imposed by any Authority for which Contractor is liable under this Agreement; and
(v) Claims for infringement of patents and/or other intellectual property rights.

We noted that a Limitation of Liability Article was not included in the CT0327-001 contract, but language that appeared to address the same subjects[1] 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 the CT0327-001 contractor's liability to 100% of the CT0327-001 contract value, but includes seven cases where the limitation of liability would not apply (five are exactly the same or very similar to the five included in the CH0007 contract).

6. **Invoicing of Labour Costs**

The CH0007 contract did not link payment of reimbursable labour to the percentage of completion of the concrete work, which was how the labour profit was paid. Replicating the labour profit approach, the contract could have capped the cumulative labour payments to the percentage of completion of the concrete work times the LMAX value. An approach such as this would have required Astaldi to fund its proportionate share of any LMAX over-run as the costs were being incurred. While in our experience, we have not observed instances where payment on cost reimbursable contracts are linked to work put in-place, we deemed it appropriate to mention give the contractual approach to paying the labour profit, which is an indication there were concerns about the costs being incurred faster than the work was put in place.

7. **Decision to Negotiate with Astaldi**

Nalcor engaged four consultants[2] to assist with evaluating the best course of action for the project with regards to the CH0007 contract and Astaldi's weakening financial condition. One of those

[1] 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.

[2] Long International, Westney Consulting and sub-consultants, Cleveland Shaw Litigation Accountants and McInnis Cooper - NAL0277308 – Astaldi completions binder 1 - legal opinion extracted, page 2.

consultants was Westney Consulting Group ("Westney"), who prepared an analysis[3] of the various options for addressing the issues with Astaldi. Based on the information reviewed, it appears that Nalcor's decision to negotiate with Astaldi, as opposed to using the provided contract security (i.e. parent guarantee, letters of credit and bond) was based on the following:

a. [redacted] Once the LMAX was reached, Nalcor would have stopped paying for cost reimbursable labor, but Astaldi would have had to continue performing and funding the labor costs. Nalcor's concern was that at some point in time Astaldi's weak financial condition would eventually result in one of three outcomes that would expose Nalcor to "full cost to complete/replacement costs"[4] if Nalcor did not provide financial assistance to Astaldi.

b. Nalcor believed it would be less costly to negotiate with Astaldi, then to enforce the contract provisions. Negotiating with Astaldi was the only one of the six options[5] presented by Westney where Nalcor was not exposed to the "full loss" or "full cost to complete/replacement costs".

   This indicates that Nalcor may have believed the costs to complete would exceed the unpaid balance of the Astaldi contract plus the CAD $250 million to CAD $352 million in performance security Nalcor had, and also indicated Nalcor believed at that time that calling on Astaldi S.p.A.'s parent guarantee was unlikely to contribute to the completion costs, and that negotiating was the best avenue to extract as much value as possible from the parent.

c. Nalcor also considered the disruption replacing Astaldi would likely have on the project and factored this into its decision as well[6].

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[3] NAL1175676 – Presentation entitled "Astaldi Analysis and Path Forward" dated February 2016.
[4] Option No. 1, which indicates Nalcor would then be exposed to Option Nos. 4-6 with no control over the timing. NAL1175676 – Presentation entitled "Astaldi Analysis and Path Forward" dated February 2016, page 8.
[5] Option No. 2 - NAL1175676 – Presentation entitled "Astaldi Analysis and Path Forward" dated February 2016, page 8.
[6] Point No. 6 - NAL1175676 – Presentation entitled "Astaldi Analysis and Path Forward" dated February 2016, page 3.