From: jamesmeaney@lowerchurchillproject.ca
To: Nik Argirov (nik@argirovglobal.com); John Medland (jmedland@blairfranklin.com); Matthew Buffet
Subject: Fw: briefing (confidential & privileged)
Date: Wednesday, October 12, 2016 9:19:51 AM
Attachments: _.png
MF Project Astaldi Briefing for Canada 12 Oct 2016 FINAL.002.pdf

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please treat this accordingly

James Meaney
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You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?

----- Forwarded by James Meaney/NLHydro on 10/12/2016 09:18 AM -----

From: James Meaney/NLHydro

To: "Manzer, Alison" <amanzer@casselsbrock.com>

Date: 10/12/2016 08:36 AM

Subject: briefing (confidential & privileged)

Given you are legal counsel I don't mind sending to you direct. It's the broader group where there are concerns given access to information requests of late.

MF Project Astaldi Briefing for Canada 12 Oct 2016 FINAL.pdf

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Muskrat Falls Project
Astaldi Briefing for Government of Canada

Boundless Energy

October 12, 2016

nalcor energy
LOWER CHURCHILL PROJECT

Privileged and Confidential - In Contemplation of Litigation

Purpose

- To address the following questions posed by Natural Resources Canada as part of Enhanced Federal Loan Guarantee discussions relating to the Muskrat Falls contract with Astaldi:

1. Details on current Bridge Agreement including due diligence, monitoring, status, performance indicators. Due diligence includes Nalcor's assessment of technical and financial factors regarding Astaldi.
2. Framework for the pending agreement including principles and objectives (supported by due diligence approach). Current status, estimated time to complete and outstanding issues.
3. Next steps with Astaldi – what is overall approach to move them along toward contract completion beyond the pending Bridge Agreement.
4. Details on Plan B including approach, due diligence, status, timing and potential project impact (cost and schedule).

ASTALDI IN CONTEXT

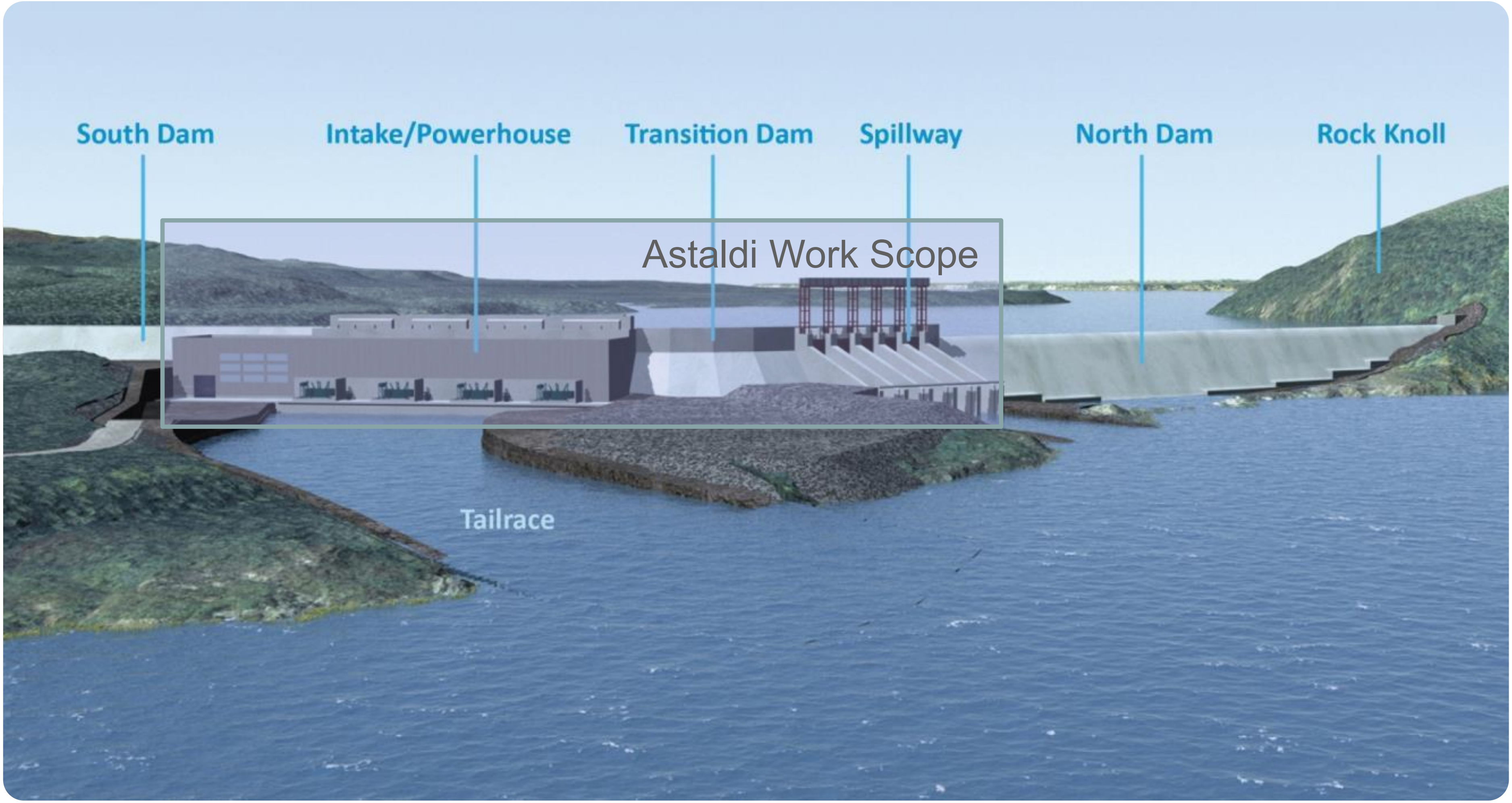
Contract Approach is Toward Larger Scopes that use Fixed-Pricing to the Extent Practical

Active LCP contractors with scopes >C$100 million account for ~67% of current AFE

	Name	Value[1] (C$M)	Scope	Contract type
LTA	Valard	270	T-line construction AC	Unit-rate installation contract
	Alstom	210	CF/MF switchyards	Lump sum EPC
LITL	Valard	890	T-line construction DC	Unit-rate installation contract
	Alstom	740	Switchyards, converter stations, synchronous condensers	Lump sum EPC
	Multiple	400	Clearing and access	50% unit-rate/lump sum, 50% reimbursable
	Nexans	150	Subsea cable	Lump sum EPC
MFG	Astaldi	1,140	Powerhouse, intake, and spillway, transition dams	Labor capped target-price /non-labor unit-rate
	Andritz	440	Turbines, generators, and gates	Lump sum EPC
	Barnard Pennecon	290	Dams	Non-labor unit-rate/reimbursable labor
	TBD	210[2]	Balance of plant	TBD
	Gilbert	140	North Spur stabilization	Reimbursable
	Johnsons	130	Reservoir clearing	Lump sum

1 Approximate budget values at June 2016, prior to AFE Rev3 rebaseline. Intent is to illustrate relative contract values.

Muskrat Falls Generating Facility



Muskrat Falls – Generation Site

Muskrat Fall – Generation Site

Powerhouse

Powerhouse

Powerhouse Intake

Powerhouse Intake

South Service Bay

Privileged and Confidential- In contemplation of litigation

Spillway

Site View from North Spur

ASTALDI PERFORMANCE

Astaldi Performance 2013-2016

- Exceedingly slow start in 2013-14
  - Astaldi ramp-up pace and missteps
  - Integrated Cover System (ICS) execution and consequential removal issues
  - Labor contract management opportunities missed
  - Astaldi mismanagement of the workforce allocation between production and support workers, particularly during 2014
  - Astaldi not realizing the productivity expectations in their bid
- Significant turnaround Summer 2015 onward, as a result of the Project Team's work with the Contractor,
  - ~230,000 cubic meters placed at end of September 2016
  - performed much better,
  - established, functioning team
  - potential for additional improvement

Bridge Agreement – Key Points

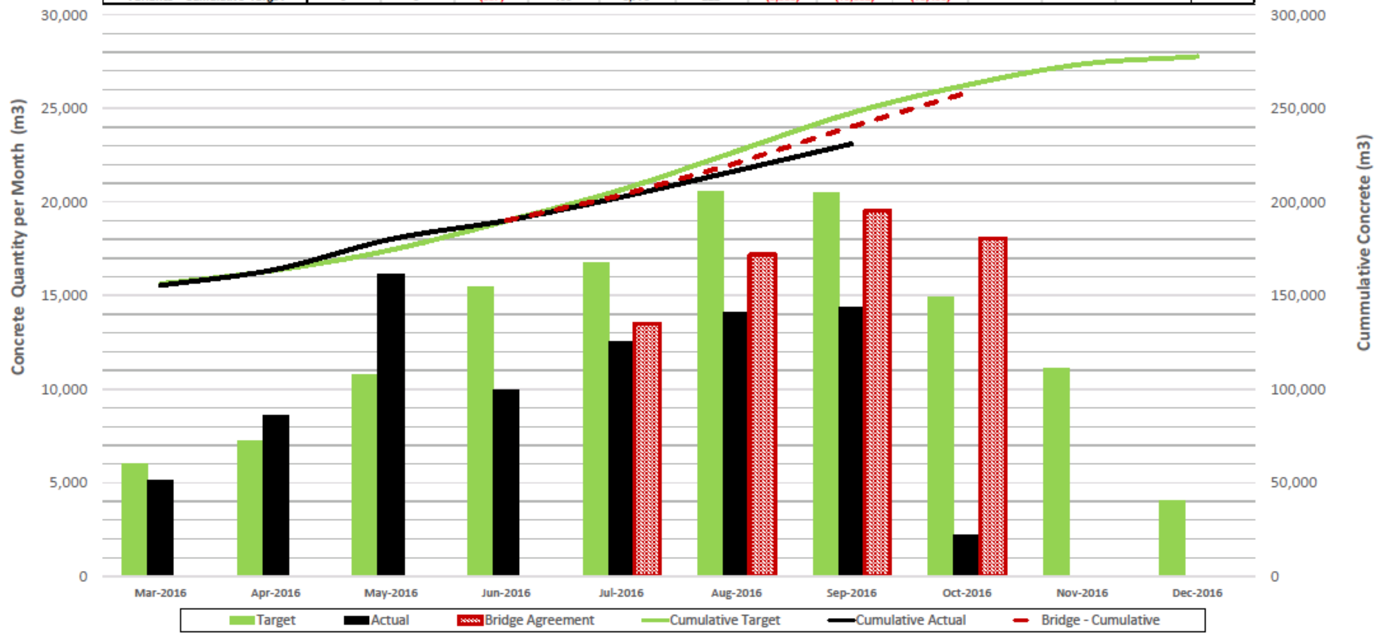
- The Bridge Agreement (BA) dated 27 July 2016 provides a method of increasing the Contract Price by $150 M
- The payment of the $150M is split as follows:
  - $140M based on Concrete volumes placed by area and month
  - $10M for steel erection within the period covered by the Bridge Agreement
- The BA includes provisions to handle shortfalls in production in one month that can be caught up in a following month
- The BA does not waive, compromise or release any right or remedy available under the CH0007 Contract and do not constitute any amendment or change to the terms and conditions of the original Contract
- The BA establishes October 28th 2016 as a date to achieve a commercially reasonable resolution of contractual/commercial matters, acceptable to both Parties. If that date is not met then Contractor shall continue to perform the Work and be paid as contemplated in the BA
- The advance payment reimbursement is suspended through December 2016 and deferred into 2017
- Liquidated damages are suspended through October 2016 and should a comprehensive settlement be agreed then those accrued to that may be waived
- Schedule basis for the BA is the May 2016 Control schedule Baseline Document
- Contractor has advise that cost at completion is $1.975 including a 7% gross profit. The BA acknowledges that the Parties do not agree as to the reason(s) and liability for the additional cost or as to the value of the Work at completion.

Astaldi Performance against Bridge Agreement

CH0007-001 - Concrete Production

Data Date: 05-Oct-2016

Month	Jan-2016	Feb-2016	Mar-2016	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Total
Cumulative Concrete Placed	150,248	150,248	155,384	164,005	180,119	190,055	202,621	216,736	231,081	233,260			-
Monthly Concrete Target	0	0	6,033	7,261	10,798	15,494	16,725	20,529	20,488	14,918	11,126	4,066	127,438
Bridge Agreement							13,500	17,191	19,531	18,058	-	-	68,280
Monthly Concrete Placed	0	0	5,136	8,621	16,114	9,936	12,566	14,115	14,345	2,179			83,012
Variance - Monthly Target	0	0	(897)	1,360	5,316	(5,558)	(4,159)	(6,414)	(6,143)				
Variance - Cumulative Target	0	0	(897)	463	5,779	222	(3,938)	(10,352)	(16,495)				



- The Bridge Agreement volumes are shown as the red dotted line with the actual volumes placed as the black solid line.
- Note the impact of the Draft Tube #2 incident in May on subsequent month's production
- Astaldi are currently achieving 76% of the concrete volumes with an opportunity to catch up the shortfall in November and December

Monitoring and Performance Indicators

- Nalcor's site team are monitoring the concrete pours on a daily basis
- Reporting of concrete poured is provided by the Nalcor Site team daily
- Safety and Quality requirements are strictly enforced for all concrete pours
- Currently Astaldi are achieving 76% of the concrete volumes and can catch up on the shortfall in November and December

DUE DILIGENCE

Nalcor Actions to Address Astaldi Issues

- Engagement at highest levels of Astaldi and Nalcor continuously over last 2 ½ + years
- Nalcor support and leadership in implementing performance improving initiatives and organizational improvements
  - Planning and Execution
  - Labour Management
  - Leadership and supervision, etc.
- Nalcor Site Team augmented with senior Project Management personnel to provide on site decision making and support to Astaldi
- 2015/16 Status
  - Astaldi concrete production rate vastly improved and Construction management team fully functional.
  - Nalcor continues to provide support, guidance and leadership

[redacted]

[redacted]

Key Points with Respect to MFG and Astaldi as Analyzed by Westney

Key Points	Supporting Points
1 **A quality Astaldi site team is in place**	▪ Westney's review during the summer of 2015 revealed key improvements and production exceeding expectations
2 **Work-hours remaining for concrete installation is the largest cost-risk, with the worst-case likely occurring if Astaldi is replaced**	▪ Cost to completion is dependent on Astaldi's rate of concrete installation and associated work-hours required. The cost per work-hour is relatively certain
3 **Schedule risk** (and associated cost) **are directly tied to the rate of concrete installation**	▪ The schedule is dependent on rate of concrete installation and seasonal effect
4 **Significant additional costs will be incurred if Astaldi is replaced**	▪ A combination of the cost of replacement, time lost, and loss of productivity is likely >C$500 million
5 [redacted]	

[redacted]

[redacted]

[redacted]

Financial Forecast 2016-2020

(Source: Astaldi, July 2016)

Income Statement (€ Mln)	2015A	2016F	2017F	2018F	2019F	2020F
Revenues	2.855	3.076	3.289	3.454	3.730	4.028
Growth		7.7%	6.9%	5.0%	8.0%	8.0%
Core EBITDA	302	306	318	338	366	396
Income from SPVs	54	68	71	71	41	40
Total EBITDA	356	374	389	410	407	436
margin	12.5%	12.2%	11.8%	11.9%	10.9%	10.8%
EBIT	277	310	328	355	347	372
margin	9.7%	10.1%	10.0%	10.3%	9.3%	9.2%
EBT	113	154	182	205	232	252
margin	3.9%	5.0%	5.5%	5.9%	6.2%	6.3%
Net Result	81	95	108	122	140	151
margin	2.8%	3.1%	3.3%	3.5%	3.8%	3.7%
Statement of Financial Position (€ Mln)	**2015A**	**2016F**	**2017F**	**2018F**	**2019F**	**2020F**
Fixed asset	958	1,008	996	969	730	771
Net Working Capital	689	804	738	722	827	873
Funds	(22)	(28)	(38)	(38)	(38)	(38)
Total Invested Capital	1,626	1,784	1,696	1,653	1,519	1,606
Net Financial Position *(Net Debt)*	(989)	(1,073)	(898)	(757)	(507)	(470)
Net Worth *(Equity)*	637	711	798	896	1,011	1,136

Financial Forecast 2016-2020 (cont'd....)

(Source: Astaldi, July 2016)

Cash Flow (€/Mln)	2015	2016F	2017F	2018F	2019F	2020F
Self-financing		159	169	177	199	215
of which Constructions		121	137	155	206	226
of which Concessions		38	32	22	(7)	(11)
Net Working Capital		(114)	65	16	(105)	(46)
of which Constructions		(124)	64	15	(107)	(47)
of which Concessions		9	2	2	2	2
Operating Cash-Flow		45	234	193	94	169
Capex		(267)	(74)	(70)	(110)	(105)
of which Constructions		(48)	(51)	(55)	(59)	(64)
of which Concessions		(219)	(24)	(16)	(51)	(41)
Asset disposal		159	36	42	290	0
Cash-Flow		(63)	196	165	274	64
of which Constructions		(50)	150	115	40	115
of which Concessions		(13)	46	50	234	(51)
Dividends		(21)	(23)	(25)	(26)	(29)
Total Cash-Flow		**(84)**	**175**	**141**	**249**	**37**
NFP Year Opening		(989)	(1,073)	(898)	(757)	(507)
Total Cash-Flow		(84)	175	141	249	37
NFP Ending	(989)	(1,073)	(898)	(757)	(507)	(470)

[redacted]

Projected Covenant Analysis July 2016

(€ Million)

Per Astaldi July 2016 Forecast			**2016F**		**2017F**		**2018F**		
EBITDA			374		389		410		
Equity for Covenant			767		850		947		
Net Debt for Covenant			1,268		1,078		819		
Forecasted Ratios									
Debt/EBITDA			3.39x		2.77x		2.00x		
Debt/Equity			1.65x		1.27x		0.86x		
Covenant									
Debt/EBITDA			4.60x		4.15x		3.70x		
Debt/Equity			2.20x		1.80x		1.60x		
Revised with Potential MF Impact to Maintain Covenants									
Loss on MF	EUR		(60)		(75)		(125)		**(260)**
	CAD	*$*	*(87)*	*$*	*(109)*	*$*	*(181)*	***$***	***(377)***
EBITDA			314		314		285		
Equity for Covenant			730		803		869		
Net Debt for Covenant			1,328		1,153		944		
Forecasted Ratios									
Debt/EBITDA			4.23x		3.67x		3.31x		
Debt/Equity			1.82x		1.44x		1.09x		

Loss that could be sustained while maintaining reasonable headroom under covenants

ASTALDI PATH FORWARD & POTENTIAL OUTCOMES

Current Situation

- Astaldi has not taken any formal contractual or legal action, but has been constantly explaining their concerns to us, and seeking to negotiate a solution.
- They have a very significant problem.
- We have continued to work in a collaborative manner with both parties focused on improving project execution, which is occurring.
- This has been the preferred mode of interaction to date to ensure the work progresses
- Astaldi reached a point in July where they needed to address issues which are fundamentally impacting their company’s future.
- This resulted in Nalcor negotiating the Interim or “Bridge” agreement with Astaldi to ensure the construction season was not lost

[redacted]

[redacted]

[redacted]

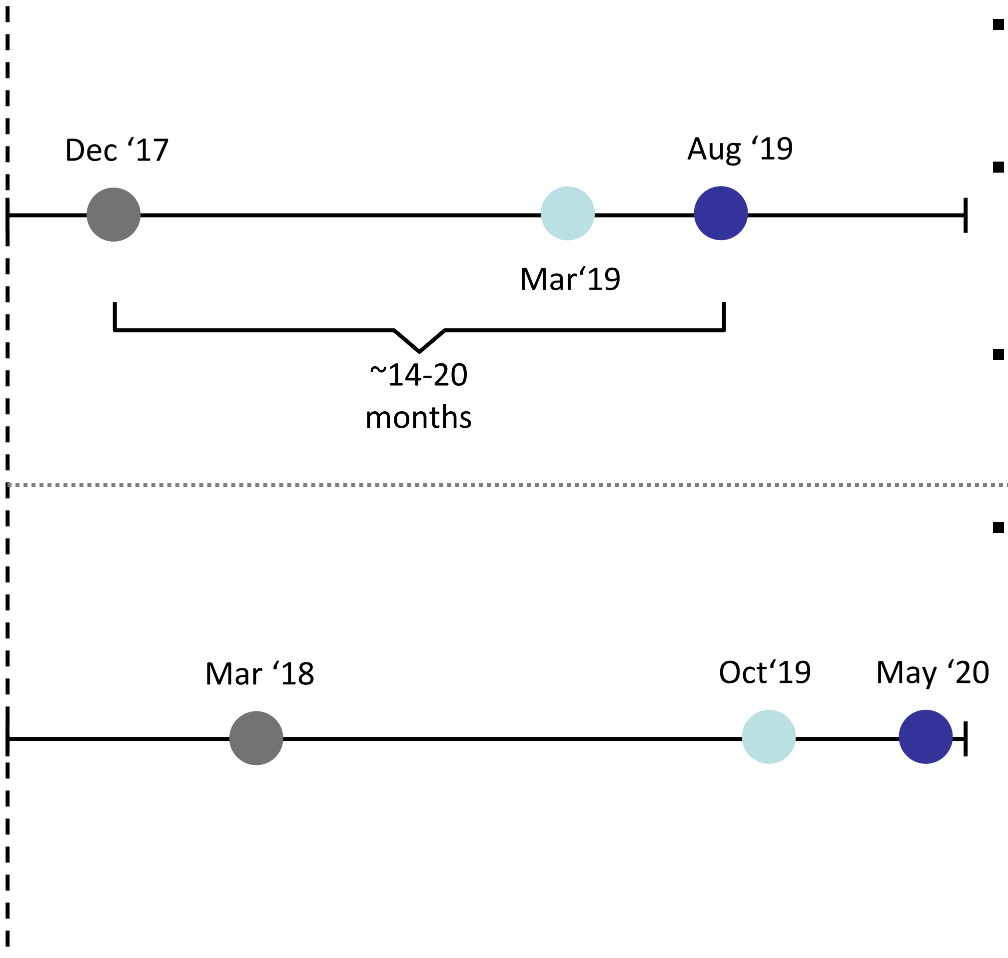
First Power Generation is ~14-20 Months Behind the Sanction Schedule, Greater Delay Possible with No Astaldi Deal

Sanction schedule | Bottom of Predictive Range (P25) | Top of Predictive Range (P75)

Range of cost outcomes

Schedule for first power generation (negotiated agreement with Astaldi)

Schedule for full power (negotiated agreement with Astaldi)



Details

- Sanction target aggressive and not reflective of productivity challenges
- Slow ramp-up by Astaldi resulted in unrecoverable time that is impacting MFG’s other contractors
- Potential for even greater delay if no deal is reached with Astaldi

- Until LIL/LTA complete and MFG full power achieved, Nalcor/NL must fund all project expenditures (including bond payments) with equity in accordance with the financing arrangements and long-term power supply and transmission related agreements with NLH

Commercial Principles (Nalcor Goals)

Astaldi must take on a large loss (To the extent they can survive)

- Have Astaldi take responsibility for their errors
- Have Astaldi share in the additional costs to complete from this point onward

Any deal is predacated on performance in the field

- Performance must stay within planned expectations and industry norms (No slowing down or stopping)
- There must be a heavy focus on improved efficiency
- Additional funds should be paid consistent with performance (e.g., after concrete installation)

We must maintain our strong contractual position whilst limiting future risk exposure

- Basic contract terms should remain in place
- As deemed necessary, new protections should be put in place, i.e. Insolvency protections, ownership change
- Securities will remain unchanged or increased
- Have Astaldi take future performance risk exposure
- Will seek a full waiver of claims
- Additional funds may have physical assets or revenue streams tied to them
- Future payments will be protected for local use

[redacted]

[redacted]

PLAN B OVERVIEW

Plan B Strategy

- A Nalcor team has been established to pursue the Plan B option
- The Nalcor team is led by a Nalcor Senior Manager and supported by technical and commercial expertise
- Step 1 of the Plan B strategy has been carried out and was developed in case of a termination of the Works by Astaldi. This consists of an action list that Nalcor would enact to secure the work site, all equipment and materials and to step in and ensure continuation of the Works whilst a replacement contractor could be mobilized
- Step 2 of the Plan B strategy was to approach proven Contractors under a Non Disclosure Agreement to determine if they had the capacity and willingness to bid as a Replacement Contractor
- Step 3 of the Plan B strategy is currently underway and is the accelerated bidding process wherein Nalcor is seeking how the potential Replacement Contractors would propose to plan, prepare and execute the Work

Plan B Strategy - Step 3

- Non-Public Request For Proposal process is underway
- Three qualified Canadian firms have confirmed they will submit proposals
- Two phases
  - Phase 1. Planning and Preparation Phase
    - Assess the status of construction and provide a switchout plan to supplement Nalcor's existing work
  - Phase 2. Execution Phase
    - Actual takeover of the powerhouse and intake project
- Phase 2 only triggered if required however selected Contractor will provide a fully developed Transition Plan as part of Phase 1 which will address all aspects of preparation, planning and execution including:- organization, retention of personnel, permits, environment management, systems, safety and security, planning , equipment and materials
- Submissions are due by mid October
- Submissions will inform the Astaldi value decision –i.e. provide key cost and schedule data to compare the CH0007 contract with and without Astaldi completing the Work

SUMMARY

Overall Strategy and Prognosis

- Nalcor's strategy is based on the following:
  - To continue to negotiate in good faith whilst Astaldi performance is deemed to be reasonable
  - Increases to the Contract Price will only be considered if Astaldi performance is acceptable
  - Payment of the increased Contract Price tied to measurable performance such as concrete placement or steel erection
  - Original Contract Securities are kept in place
  - Astaldi is contractually bound to complete the work and must take responsibility for actions and inactions which caused the increase in the estimated cost at completion. Nalcor will contribute to that cost but will not bear the full cost
- Prognosis is that by the end of 2016 the volume of concrete placed will be ~ 250,000 m^3 and if a second Bridging Agreement can be negotiated for a reasonable price then a further ~120,000 m^3 could be placed in 2017 for a total of ~370,000 m^3 out of the entire Powerhouse, Intake and Spillway volume of ~440,000 m^3.
- Resulting in ~50,000 m^3 remaining in the Powerhouse and Intake by the end of 2017 with Nalcor still holding the contract securities should Astaldi fail or walk away from the contract.

Where We Are Today: Solid Foundation in Place for Execution; Commercial Negotiations Active

Current performance

- **2015 production exceeded external advisor expectations**
- **2016 production has proceeded close to plan, exception of Draft tube issue, commercial positions will be hardening**
- **Astaldi year end and Nalcor preparation for 2017 season will drive timelines**

Next steps and key dates with Astaldi

	Details
Next steps	▪ Agree final production plan and cost for 2017 ▪ Evaluate Astaldi's financial capacity relative to the cost ▪ Determine acceptable Nalcor supplemental funding ▪ Attempt to negotiate agreement for 2017
Key dates	▪ Oct 31 – End of Bridge Agreement, Q3 for Astaldi ▪ Dec/Jan – Decision required to mobilize Plan B for 2017 construction season