

LCP 2015 Cost Update Chronology

February 13, 2015

- “Cost and Schedule Update” briefing presented to E. Martin by PMT.
- Attendees: E. Martin, P. Harrington, L. Clarke, B. Crawley, J. Kean, G. Bennett and J. Meaney
- PMT indicated \$7.49B AFE revision required to award upcoming contracts.
- **Proposed timeline - GNL consultation in April 2015, notify OC in May 2015, Board approvals in June 2015, notify Canada/IE in June 2015, and Public Update in July/August 2015.**
- Briefing deck not circulated. JM subsequently received PMT package prepared for MF Inquiry, which included the above noted briefing deck.

March 8, 2015

- “Muskrat Falls Project AFE Rev2” briefing presented by PMT to E. Martin
- Attendees: In person - E. Martin, P. Harrington, L. Clarke, B. Crawley; via phone – G. Bennett, J. Meaney
- Briefing deck not circulated. JM notes indicate \$7.499B revised AFE proposed, including \$166M contingency. JM subsequently received PMT package prepared for MF Inquiry, which included the above noted briefing deck. It noted the following:
 - Indicated revised AFE of \$7.499B required to award North & South Dam contract and remaining LIL ROW clearing contracts.
 - Recommended revised AFE’s be prepared in Mar/Apr 2015 with submission to Boards in June 2015 meetings. (**Board approval of the revised AFE’s would have also resulted in FFC update in monthly reporting to Canada/IE. LCP Board meetings where the AFE’s would be approved were scheduled for Jun 15/16).**
 - Cost increases resulting from schedule delays, acceleration or change in milestone dates was not included in the AFE revision (this would have included Astaldi impact).
- Additionally, N. Spur and Balance of Plant contracts had not been awarded at that time either.
 - N. Spur LNTP was signed 23-Dec-2012 and full contract award was 14-May-2015.
 - N/S Dam award had been targeted for Q2 2015 but actually did not happen until 29-Oct-2015.
 - BoP award had been targeted for Q3 2015 but got delayed until 16-Jun-2017 as a result of Astaldi situation.

March 9, 2015

- Email from P. Harrington to R. Power providing update on above noted March 8 meeting with E. Martin. Indicates the following, **“We have the OK from Ed to prepare the AFE and we will keep this under wraps until we get the AFE approved in June.”**

March 9/10, 2015

- Meetings with GNL, which included discussion on \$7.5B cost estimate.
- Nalcor Attendees: E. Martin, D. Sturge
- GNL Attendees: Mar 9 - D. Dalley (Minister), C. Bown, C. Martin, J. Mullaley; Mar 10 - P. Davis (Premier), J. Brown (PO), J. Mullaley, D. Dalley, C. Bown

April 20, 2015

- MF/LTA Construction Report issued for the period ending March 31, 2015. It noted, *“Overall, the CH0007 progress is tracking behind plan, however, Devco have been collaborating with the*

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Contractor in the implementation of organizational changes at the construction management level, and plans to improve production have been in development and ongoing since re-start of 2015 operations. A revised work plan and schedule is expected from the Contractor in April to address the recovery plan for CH0007, as well as to facilitate mitigation strategies for the remaining Muskrat Falls Generation Contractors. Similar commentary would be found in the Construction Report issued in May, June and July 2015. While the FFC was not updated during this period, this commentary was included in order to advise Canada/IE there was an expected impact relating to Astaldi's progress tracking behind plan, but it was still under assessment.

May 20, 2015

- J. Meaney attended Nalcor Leadership team meeting on behalf of G. Bennett. From JM notes, E. Martin indicated priorities included "MF Cost & Schedule Update / Rate Smoothing Plan – **next month or so?**" See the minutes from this meeting, item 7a.

May 22, 2015

- Email from J. Meaney to D. Sturge / A. Warren titled "MF Cost Update" regarding discussion underway about E. Martin doing a "two step" MF update – one in June based on \$7.5B estimate and then another a few months later to address impact of schedule delay.

May 25, 2015

- J. Meaney meeting with L. Clarke / J. Kean from PMT. They provided update that the AFE requirement was now \$7.6B, primarily driven by additional costs relating to the LIL DC line.

May 27, 2015

- Meeting in Toronto with representatives of Canada, Nalcor, Emera and MWH to resolve the continuity of IE services with N. Argirov departure from MWH and proposed sub contractor arrangements. Getting alignment between MWH and Argirov was challenging. There was significant concern expressed by Canada, Nalcor and Emera where executed IE drawdown certificate required to release funds for June 1, 2015 bond interest payments. This matter occupied significant time and effort from Nalcor, Canada, MWH and Argirov during a number of months in 2015, with the IE Consent finally being signed in Sep 2015.

June 5, 2015

- **From JM notes "LCP Cost Update Discussion with Ed" which includes comment "Need to have package together for GNL for next week."**

June 8, 2015

- GNL announces Provincial election to be held Nov 30, 2015.

June 15, 2015

- Meeting with J. Meaney, K. O'Neill, G. Bennett and P. Harrington to discuss revised timing for MF update, given AFE approval would not occur in June 15/16 LCP Board meetings. Plan was for E. Martin to do MF update at site, with a media tour as part of that.

June 16, 2015

- Nalcor/Astaldi CEO meeting. Commercial discussions with Astaldi were ongoing from June-December 2015 regarding Astaldi's recovery plan and the impact of their poor start in 2014 on the

overall cost/schedule under the CH-0007 contract. The need for greater clarity on this issue would have the most significant impact on any AFE / FFC revision.

June 22, 2015

- Email from J. Meaney to G. Bennett / P. Harrington titled "Ed / Cost Update (confidential)" which read, "*I just spoke with Ed. **He is prepping for discussion with Minister this evening.** He asked me again about what was driving change from \$7.5 to \$7.6b. I let him know primary driver was LIL ROW clearing. I am not sure he is totally there on \$7.6b and was asking if contingency could go tighter given he had previously prepped the Province on lower amount back in spring. May need to circle back with George on our discussion from last Thursday and **revise amounts in latest cost update deck.** Just wanted to give you a heads up."*

June 25, 2015

- Execution of DER Letter Agreement between Canada and LCP ProjectCo's relating to cross over from 100% debt funding to pro rata debt/equity funding under PFA's and associated impact on NL FY 2015/16 Nalcor equity appropriation. This matter occupied significant time and effort from the Nalcor Finance and Canada teams in May/June 2015.

July 6-8, 2015

- Canada/IE site visit. Day 1 in St. John's, Days 2/3 at MF site. Attended by representatives of Nalcor, MWH, Canada and GNL OC.
- JM notes from Jul 8 debrief with Canada/IE/OC included commentary from IE noting powerhouse progress was behind, Astaldi recovery plan to come, and the powerhouse would be a focus of their schedule discussions with PMT next day. IE commentary was that progress on other project components, in particular the spillway which was a concern of Canada's, generally seemed to be going well.

July 15, 2015

- Canadian Premiers tour at MF site. It was determined E. Martin's MF update and media tour could not happen around that period due to the fact there would be significant overlapping logistical requirements, so plans were then made for E. Martin to provide the update in August.

July 24, 2015

- Email from K. O'Neill to J. Meaney and G. Bennett titled "AFE rollout schedule – proposed".
- Proposed LCP Board meetings Aug 12-14, Canada/IE update Aug 18 and public update Aug 20.

August 6, 2015

- Email response from K. O'Neill to J. Meaney titled "Re: LCP Update" indicating she had discussed with E. Martin to do update at MF site on Aug 25/26.

August 7, 2015

- K. O'Neil sends email to broad distribution of Nalcor management with proposed MF update schedule and preliminary draft of key messages.
- Proposed LCP Board meetings Aug 19-20, Canada/IE update Aug 19 and public update Aug 26 from MF site.

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- K. O'Neil sends email to E. Martin, C. Bown, G. Bennett, P. Harrington and J. Meaney with revised MF update schedule.
- Proposed LCP Board meetings Aug 20, Canada/IE update Aug 21 and public update Aug 26 from MF site.

August 14, 2015

- J. Meaney email to E. Martin with "AFE 2" summary based on info provided by J. Kean / LCP Project Controls. It reconciled the June 2014 \$6.99B AFE to May 2015 \$7.5B interim estimate to June 2015 \$7.6B interim estimate to proposed August 2015 AFE Rev 2 of \$7.65B.

August 18, 2015

- E. Martin and G. Bennett brief Premier and Ministers. MF update gets pushed to late Sept based on that discussion.

August 20, 2015

- Nalcor/LCP Boards briefed on \$7.65B cost update, rate mitigation, Astaldi situation, etc., with AFE approvals scheduled for September.

August 20, 2015

- MF/LTA Construction Report issued for the period ending July 31, 2015. It noted all the forecast dates for the MF Plant powerhouse related milestones were "Under Review" with commentary as follows, *"Overall, CH0007 production, while making significant improvements, continues to trend behind plan, however, Devco continue to collaborate with the Contractor in the implementation of organizational and production changes at the construction management level, and plans to improve production are being realized since re-start of 2015 operations. A review of the C1 (Muskrat Falls Generation) work plan is underway, **and implementation of an updated C1 schedule will remain on hold pending acceptance of agreed actions and mitigations plan.**"*

September 8 and 21, 2015

- MFC and LIL GPCo/LTC Boards approved revised AFE's totaling \$7.65B on Sep 8 and Sep 21, respectively.

September 21, 2015

- Emails from J. Meaney to D. Sturge / A. Warren indicating Cabinet briefing provided by E. Martin and G. Bennett did not go well. Cost update was put on hold. GNL was not prepared to deal with proposed discussion on rate mitigation and expressed concerns about timing of Nalcor update relative to OC reporting.

September 21-24, 2015

- Canada/IE site visit. Attended by representatives of Nalcor, MWH and Canada (in person and via phone). **At that time the plan was for public cost update to occur on Sep 23 at MF site, and Nalcor was going to update Canada/IE face-to-face on Sep 22.** On Sep 21 J. Meaney had to notify Canada (A. Kapoor) that their update would have to be delayed due to a change in the schedule for E. Martin's public update (this was based on Cabinet discussion noted above). It got rescheduled to Sep 28.

September 28, 2015

- Canada/IE briefed on \$7.65B cost update. Included preliminary discussion on Astaldi situation and potential impact on cost/schedule.

September 29, 2015

- Public update by E. Martin from MF site.

October 16, 2015

- Letter received from CBB on behalf of Canada expressing concerns over cost overruns that were reported to Canada/IE during Sep 28 update (\$7.65B). It proposed changes to reporting and communication protocols were required going forward, and they wished to meet in person to discuss further.

October 30, 2015

- Meeting in Ottawa between representatives of Nalcor, Canada and MWH to discuss items outlined in Oct 16 letter, including discussions on the Astaldi situation and potential cost/schedule impacts. This discussion was the starting point for what would eventually become the *“Ongoing Commercial Negotiations Caveat”* found in the 2015 and 2016 COREA certificates.

November 30, 2015

- Response from A. Manzer to X. Martis confirming Canada’s agreement to the *“Memorialization of discussions relating to the MF/LTA and LIL Projects – Communications Guidelines”* to address the items raised in the 16-Oct-2015 letter.

December 14, 2015

- Issuance of December 2015 MF/LTA and LIL COREA certificates which included the *“Ongoing Commercial Negotiations Caveat”*.