

Memorandum

To: McInnes Cooper, Counsel to Nalcor Energy for the Muskrat Falls Inquiry

Prepared by: Tanya Power, Project Controls Manager, Project Delivery Team, Lower Churchill Project

Date: April 9, 2019

Re: Summary of Management Outlook Cost Decks Located in Response to a Request from Inquiry Counsel

Purpose: In my interview on March 13, 2019, Inquiry Counsel Kate O'Brien asked me about the Management Outlook briefing decks provided to Grant Thornton by Paul Harrington. Ms. O'Brien indicated that Paul Harrington stated the cost and schedule information in those Briefing Decks was provided by the Project Controls Team. Although I did not become the Project Controls Manager until June 2016, and was not Project Controls Manager when the 2013, 2014 and 2015 Management Outlooks were produced, I was asked to locate the detailed backup. The following is what I have located in the project folders with respect to cost information.

Findings: Through discussions with the Lead Cost Controller, George Chehab, I understand that starting in June 2013 and continuing through Sept 2015, there were Management Outlook cost files prepared on a regular basis. In addition to the regular monthly cost reporting on awarded packages, the Management Outlook cost files included confidential information on packages for which bids were received (evaluation ongoing), as well as potentials for future bid packages based upon then current trends. In contrast to the regular monthly cost reports which were reviewed by the entire Project Management Team, the Management Outlook cost files were reviewed by a small group of Senior Management.

Following is a description of the files located, along with the FFC (Final Forecast Cost) noted in each file, as well as any meeting notices found related to the review of these packages. Where the files have been located by Nalcor counsel among those produced to the Inquiry or entered as exhibits the document or exhibit numbers are noted.

June 2013

- 3 files located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2013\June 2013
- File names:
 - o NAL1880253 "Cost summary June 2013" – Date modified July 11, 2013
 - FFC = \$6,977,851,579
 - o NAL1880254 "Cost summary June rev1 2013" – Date modified July 16, 2013
 - FFC = \$6,971,666,831
 - o NAL1880256 "FFC Review (From Jason) – June 2013" – Date modified July 24, 2013

- FFC = \$7,004,657,107 (Step Chart in file is \$7,003.3M)

The above detailed files are generally aligned with the July 2013 CEO Briefing on FFC, Exhibit p-1828 (communicated FFC of \$7.0B).

July 2013

- 1 file located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2013\July 2013
- File name:
 - NAL1880233 “FFC Review (July Preliminary) 2013” – Date modified July 24, 2013
 - FFC = \$6,971,854,714

August 2013

- 4 files located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2013\August 2013
- File names:
 - NAL1880162 “FFC Review (Aug Preliminary) 2013” – Date modified August 27, 2013
 - FFC = \$6,824,516,419
 - NAL1880160 “FFC Review (Aug Preliminary) 2013 rev 1” – Date modified September 4, 2013
 - FFC = \$6,815,776,419
 - NAL1880161 “FFC Review (Aug Preliminary) 2013 rev 2” – Date modified September 5, 2013
 - FFC = \$6,838,285,730
 - NAL1880163 “FFC Review (Aug) 2013” – Date modified September 11, 2013
 - FFC = \$6,949,099,286

Meeting notice found for September 6, 2013 titled FFC Review (Called by Jason Kean, with George Chehab, Lance Clarke and Paul Harrington invited). Printed by George Chehab on March 27, 2019; scanned by Tanya Power on March 30, 2019.

The above detailed files are generally aligned with the August 2013 CEO Briefing on FFC, exhibit P-1821, (communicated FFC of \$6.95B)

September 2013

- 1 file located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2013\September 2013
- File name:
 - NAL1880353 “FFC Review (Sep) 2013” – Date modified October 8, 2013
 - FFC = \$6,935,754,335

October 2013

- 1 file located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2013\October 2013
- File name:
 - o NAL1880307 "FFC Review (Oct) 2013" – Date modified November 19, 2013
 - FFC = \$6,814,586,731

December 2013

- 3 files located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2013\December 2013
- File names:
 - o NAL1880185 "Final cost report Dec 2013" – Date modified January 20, 2014
 - FFC = \$6,867,626,813
 - o NAL1880182 "Final cost report Dec 2013 rev 1" – Date modified January 31, 2014
 - FFC = \$6,971,012,248
 - o NAL1880184 "Final cost report Dec 2013 rev 2" – Date modified February 4, 2014
 - FFC = \$6,988,231,660

Meeting notice found for January 21, 2014 titled Meeting to Discuss Overall Project Cost (Called by Ed Bush, with George Chehab, Jason Kean, Paul Harrington and Ron Power invited). Printed by George Chehab on March 27, 2019; scanned by Tanya Power on March 30, 2019.

Note: All files noted above include a column for Management Outlook FFC as well as the budget set at Financial Close of \$6.5B. This is consistent moving forward into the 2014 files noted below.

January 2014

- 2 files located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2014\January 2014
- File names:
 - o NAL1880184 "Final cost report Dec 2013 rev 2" – Date modified February 4, 2014
 - FFC = \$6,988,231,660
 - o NAL1880418 "Final cost report Dec 2013 rev 3(Rebaseline for GC)" – Date modified February 26, 2014
 - FFC = \$6,988,231,660

Meeting notice found for February 4, 2014 titled Review of Cost Forecast (Management Outlook); (Called by Ed Bush, with George Chehab, Jason Kean, Paul Harrington and Ron Power invited). Printed by George Chehab on March 27, 2019; scanned by Tanya Power on March 30, 2019.

February 2014

- 1 file located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2014\February 2014
- File names:
 - o NAL1880405 "Management Outlook Feb 2014" – Date modified May 12, 2014
 - FFC = \$7,190,853,280

Meeting notice found for March 7, 2014 titled Management Outlook (Called by George Chehab, with Ed Bush, Jason Kean, Paul Harrington and Ron Power invited). Printed by George Chehab on March 27, 2019; scanned by Tanya Power on March 30, 2019.

NOTE: I have been informed by Nalcor legal counsel that exhibit P-1829 includes a presentation titled "Muskrat Falls Project Cost Update 5-Mar-2014" that has a section which referenced a \$7.5B forecast, but that Paul Harrington has confirmed that the correct date of this presentation should be March 5, 2015.

March 2014

- 1 file located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2014\March 2014
- File names:
 - o NAL1880368 "Management Outlook Mar Prel 2014" – Date modified March 24, 2014
 - FFC = \$7,157,301,749

Meeting notice found for April 14, 2014 titled Management Outlook (Called by George Chehab, with Ed Bush, Jason Kean, Paul Harrington and Ron Power invited). Printed by George Chehab on March 27, 2019; scanned by Tanya Power on March 30, 2019.

April 2014

- 1 file located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2014\April 2014
- File names:
 - o NAL1880369 "outlook april" – Date modified May 9, 2014
 - FFC = \$7,268,092,168

Meeting notice found for May 15, 2014 titled LCP Cost Update - Management Outlook (Called by Ed Bush, with Brian Crawley, George Chehab, Gilbert Bennett, Jason Kean, Lance Clarke and Paul Harrington invited). Printed by George Chehab on March 27, 2019; scanned by Tanya Power on March 30, 2019.

AFE Rev 1 Files

- 7 files located
- Location: T:\Project Controls\Cost LCP\Cost\AFE rev1
- File names:

Excel Files:

- NAL1878125 “AFE april” – Date modified May 14, 2014
 - FFC = \$7,504,596,710
- NAL1878123 “AFE april Rev1” – Date modified May 19, 2014
 - FFC = \$7,501,535,584
- NAL1878124 “AFE april Rev3” – Date modified June 12, 2014
 - FFC = \$7,501,535,584

PowerPoint Files:

- NAL1878128 “AFE revision – Mgt outlook May 2014 - Date modified May 22, 2014
 - FFC = \$7,501M
- NAL1878126 “AFE revision – Mgt outlook May 2014 rev1 - Date modified May 22, 2014
 - FFC = \$7,501M
- NAL1421956 “AFE revision – Mgt outlook May 2014 rev2 - Date modified May 23, 2014
 - FFC = \$7,501M
- NAL1878127 “AFE revision – Mgt outlook May 2014 rev3 - Date modified June 3, 2014
 - FFC = \$7,501M

The above detailed files located in the AFE Rev 1 folder are generally aligned with the May 2014 CEO Briefing on FFC, exhibit P-1831, (communicated FFC of \$7.5B).

Note: All files noted above include both the current Management Outlook FFC as well as the requested amount for AFE Rev 1 of \$6.99B. AFE Rev 1 was subsequently approved in June 2014 for \$6.99B.

September 2014

- 1 file located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2014\September 2014\Final
- File names:
 - NAL1879305 “Management outlook Sep 2014” – Date modified Oct 16, 2014
 - FFC = \$7,526,617,395 (without Astaldi – assumes all labour overruns will be covered by Astaldi; however, includes \$50M allowance for schedule incentives)
 - FFC = \$7,868,251,860 (with Astaldi – assumes all labour overruns will be covered by LCP)

Meeting notice found for Oct 17, 2014 titled Management Outlook (Called by Ed Bush, with George Chehab, James Meaney, Jason Kean, Paul Harrington and Ron Power invited). Printed by George Chehab on March 27, 2019; scanned by Tanya Power on March 30, 2019.

December 2014

- 1 file located
- Location: T:\Project Controls\Cost LCP\Cost\Reconciliation\2014\December 2014
- File names:
 - o NAL1880392 "Management outlook Dec 2014" – Date modified Jan 15, 2015
 - FFC = \$7,516,299,091

Meeting notice found for Jan 14, 2015 titled Management Outlook – Dec 2014 (Called by George Chehab, with Anthony Embury, Ed Bush, James Meaney, Jason Kean, Paul Harrington and Ron Power invited). Printed by George Chehab on March 27, 2019; scanned by Tanya Power on March 30, 2019.

2015

- 9 files located
- Location: T:\Project Controls\Cost LCP\Cost\AFE rev2
- File names:

Excel Files (Leading up to AFE Rev 2 in Sept 2015):

- o NAL2767950 "LCP Cost break down (aligned with AFE rev6)" – Date modified Aug 13, 2015
 - FFC = \$7,743,765,755
- o NAL1878196 "Management outlook January 2015 rev8 (draft)" – Date modified July 27, 2015
 - FFC = \$7,626,330,930 (AFE Rev 2 forecast) + \$67,177,470 (potential trends not included in AFE Rev 2 value) = \$7,693,508,400
- o NAL1878197 "Management outlook January 2015 rev9 (JK for EM meeting draft)" – Date modified July 28, 2015
 - FFC = \$7,652,901,067 (AFE Rev 2 forecast) + \$232,690,551 (potential trends not included in AFE Rev 2 value – includes estimate of \$172M for MFL beyond Q2 2016) = \$7,885,591,618
- o NAL1878195 "Management outlook 2015 rev10" – Date modified Dec 15, 2015
 - FFC = \$7,652,901,067 (AFE Rev 2 forecast) + \$323,390,551 (potential trends not included in AFE Rev 2 value – includes estimate of \$172M for MFL beyond Q2 2016) = \$7,976,291,618

- NAL1878192 “Management outlook 2015 rev10 Final” – Date modified Sep 24, 2015
 - FFC = \$7,652,901,067 (AFE Rev 2 forecast) + \$323,390,551 (potential trends not included in AFE Rev 2 value – includes estimate of \$172M for MFL beyond Q2 2016) = \$7,976,291,618

PowerPoint Files (Leading up to AFE Rev 2 in Sept 2015):

- NAL1878207 “Project Cost Update AFE Rev 2 rev1 05-Mar-2015” – Date modified Mar 7, 2015
 - FFC = \$7,517M
- NAL2768425 “Project Cost Update AFE Rev 2 (aligned with rev 6) 15-Jun-2015” – Date modified Jun 17, 2015
 - FFC = \$7,599M
- NAL1878206 “Project Cost Update AFE Rev 2 (aligned with rev 9) 28-Jul-2015” – Date modified Jul 28, 2015
 - FFC = \$7,653M

Key qualifier notes contained in the presentations; as well as other risks noted in the final presentation dated in late July 2015: “Any cost increase resulting of schedule delays, acceleration or change in milestones dates for any of the contractors is not included in the AFE revision”, “Any cost increase for the Astaldi contract resulting of acceleration or change in LMAX value or other changes in the contract terms is not included in the AFE revision”, and “The MFL shortage is calculated based on 100% of the requirements until end of Q2 2016 and 50% of the requirements from Q3 2016 thru the end of the project.”

Microsoft Word Files:

- NAL2768424 “cost growth explanation (aligned with rev 6)” – Date modified Jun 17, 2015
 - FFC = \$7,599M

Emails located by George Chehab (PDFs created on March 21, 2019 by Tanya Power):

- NAL2757083 “Confidential: Variance between AFE rev 1 and rev 2” – Dated Feb 11, 2015 from George Chehab to Lance Clarke, Brian Crawley, Paul Harrington, James Meaney and Jason Kean
- NAL2767949 “Confidential: LCP cost breakdown and Pie chart” – Dated Jun 12, 2015 from George Chehab to Lance Clarke and Brian Crawley
- NAL2768423 “Confidential: Back up documents for the AFE revision” – Dated Jun 17, 2015 from George Chehab to Lance Clarke, Brian Crawley, Paul Harrington, Jason Kean and James Meaney – files emailed “Project Cost Update AFE Rev 2 (aligned with rev 6) 15-Jun-2015” and “cost growth explanation (aligned with rev 6)”

Meeting notice found for Jul 17, 2015 titled Discuss Rebaseline Latest (Called by George Chehab, with Jason Kean invited). Printed by George Chehab on March 27, 2019; scanned by Tanya Power on March 30, 2019.

Meeting notice found for Aug 3, 2015 titled review AFE (Called by George Chehab, with Jason Kean invited). Printed by George Chehab on March 27, 2019; scanned by Tanya Power on March 30, 2019.

The above detailed files located in the AFE Rev 2 folder are generally aligned with the February 2015 exhibit P-1822, March 2015 exhibit P-1830 and August 2015 CEO Briefings on FFC (communicated FFC of \$7.5B to \$7.6B).

Note: AFE Rev 2 was subsequently approved in September 2015 for \$7.65B.