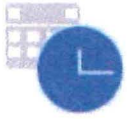


May 23 2014 Briefing deck presented by Project team to CEO \$7.27 to \$7.5B range

The briefing deck was prepared seeking alignment on a recommended AFE revision by appraising leadership on the current management cost outlook.

The deck considered use of Management Reserve for short term requirements (i.e. up to/through early 2016) of \$7.27B and a longer term requirement of \$7.5B in 2016.

A meeting call email and management outlook spreadsheet is also included in the section.



meeting with Ed-cap costs
Calendar Entry

Fri 05/23/2014 1:00 PM - 2:00
PM

Location: 6th flr

Description

MAY 23rd 2014

\$7.5B





**cost review-----check the deck
Calendar Entry**

**Fri 05/23/2014 9:30 AM - 10:30
AM**

Location: my office - torbay rd

Required: Brian Crawley/NLHydro@NLHydro, Ed Bush/NLHydro@NLHYDRO, George Chehab/LCP/NLHydro@NLHYDRO

Description



**pre -meeting - cost update
Calendar Entry**

**Fri 05/23/2014 12:00 PM - 1:00
PM**

Location: my office - hydro Place

Required: Brian Crawley/NLHydro@NLHydro, Gilbert Bennett/NLHydro@NLHydro, James Meaney/NLHydro@NLHYDRO

Description

Sametime Contacts

Day-At-A-Glance

Fri, May 23, 2014

7:00
am

8:00

9:00

cost review----check the deck
my office - torbay rd
Paul Harrington

11:00

pre -meeting - cost update
my office - hydro Place
Paul Harrington

meeting with Ed-cap costs
6th flr

Astaldi Actions: Follow-on to Closure

2:00

3:00

4:00

5:00

AFE Revision Request and Management Outlook

23-May-2014

Boundless Energy



As presented to EJM by P. Huntington.



Confidential

Purpose

- Appraise leadership of the current management cost outlook
- Seek alignment on recommended AFE value

Current situation

• Contracts with firm bid price ⁽¹⁾	\$ 6.35 B ⁽²⁾
• Contracts without firm bid price (best estimate) ⁽³⁾	<u>\$ 0.64 B</u>
• Subtotal	\$ 6.99 B
• Mgt. reserve for short term requirements ⁽⁴⁾	<u>\$ 0.28 B</u>
• <i>Mgt. Outlook for short term requirements</i>	<i>\$ 7.27 B</i>
• Mgt. reserve for long term requirements ⁽⁵⁾	<u>\$ 0.23 B</u>
• <i>Mgt. Outlook for project duration</i>	<i>\$ 7.50 B</i>

(1) Firm bid price covers all awarded contracts and those where bids are substantially advanced

(2) Includes \$ 224 M of contingency

(3) Best estimate reflects trends for lessons learned and latest estimates

(4) Short term covers the period thru early 2016

(5) Not required before 2016, mainly covers increase in Owner's team cost



AFE and Outlook Recommendation

• Requested AFE ⁽¹⁾	\$ 6,999 M
• Mgt. Reserve – For short term ⁽²⁾	<u>\$ 272 M</u>
• Mgt Outlook – For short term	\$ 7,271 M
• Mgt Reserve – For long term ⁽³⁾	<u>\$ 230 M</u>
• Mgt Outlook – For Project duration	\$ 7,501 M

(1) Includes \$ 224 M of Contingency (4% of the AFE FTC)

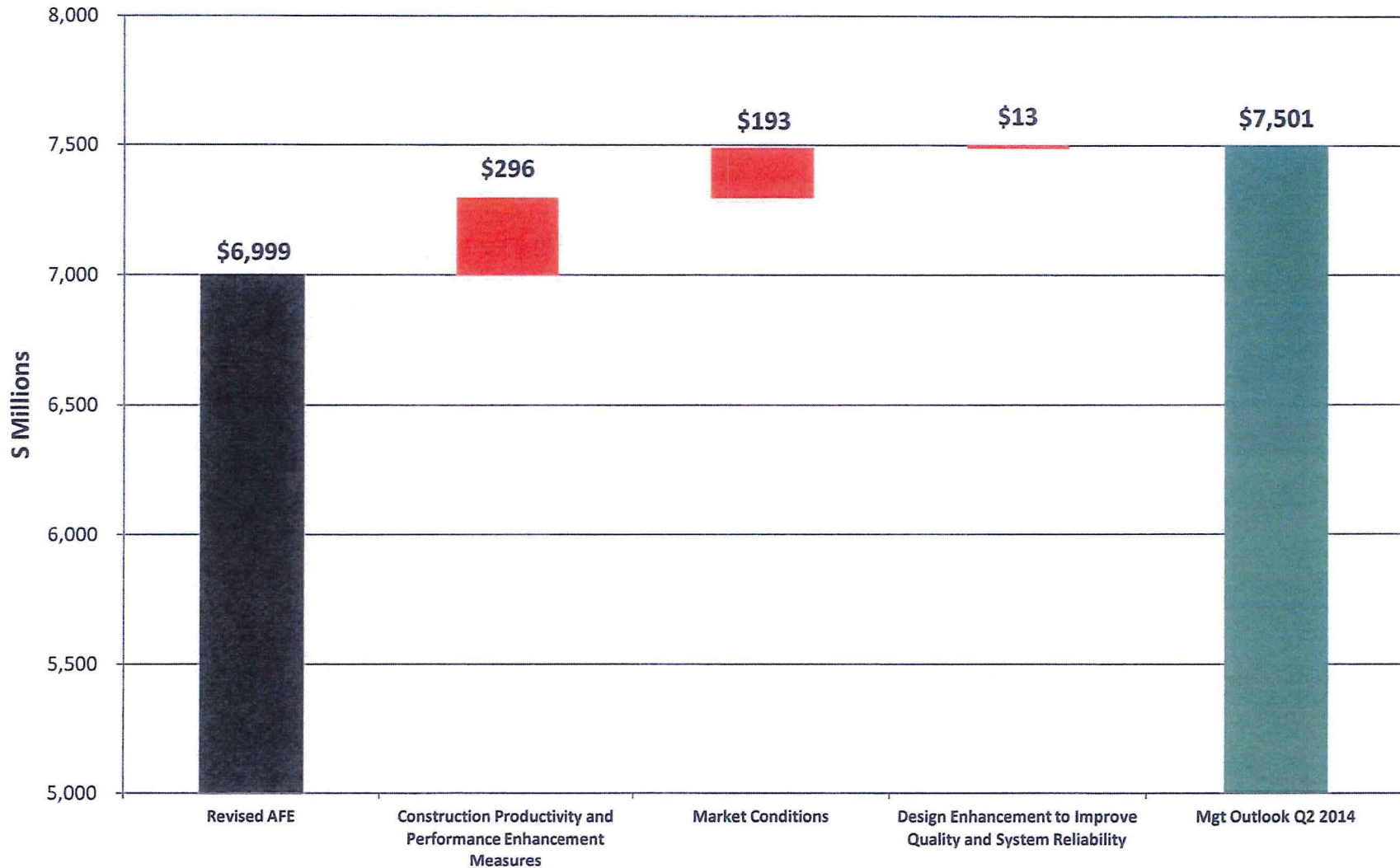
(2) Short term covers the period thru early 2016

(3) Not required before 2016, mainly covers increase in Owner's team cost

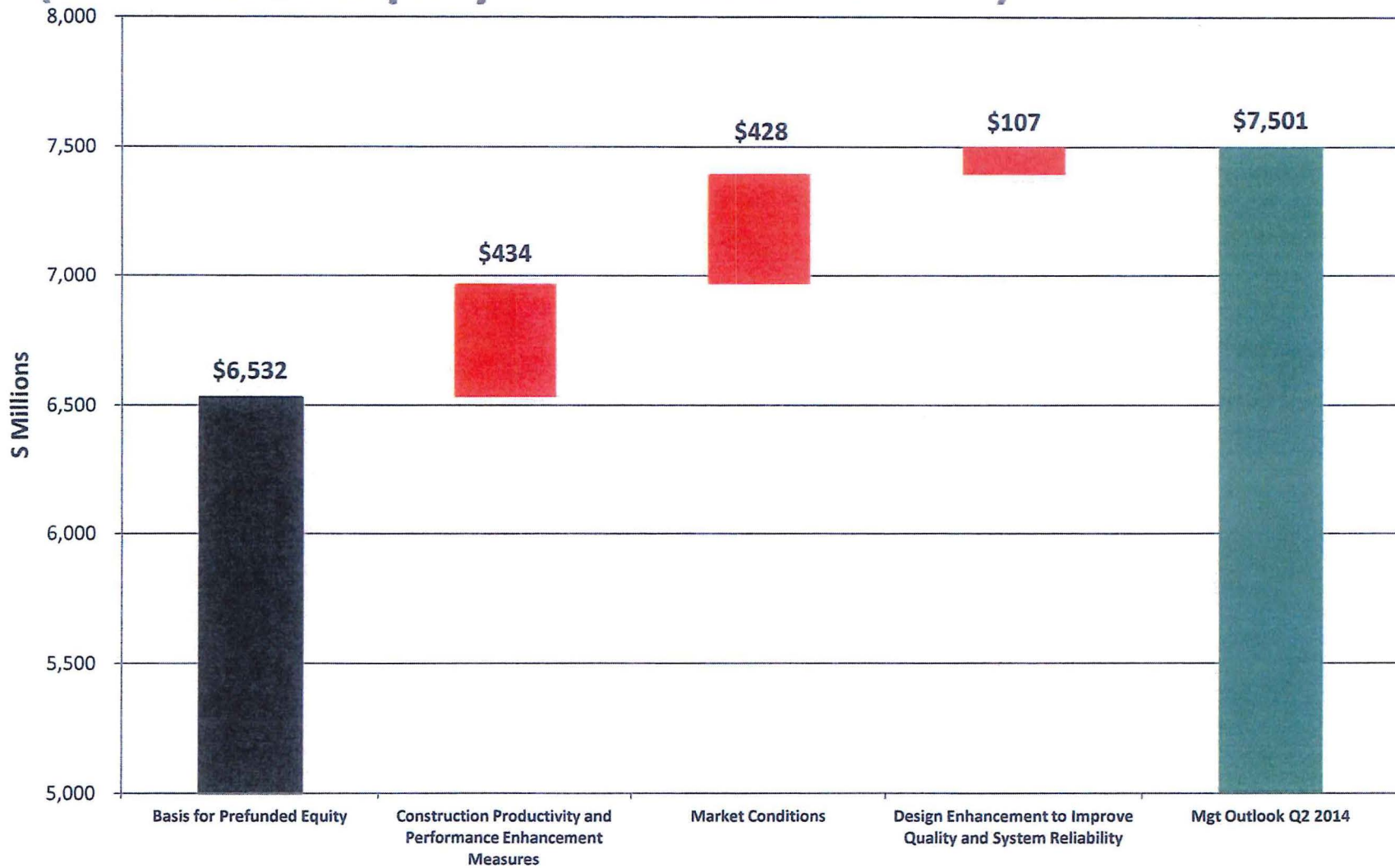
Risks and Mitigation Activities

Risks	Mitigation
System reliability changes	<ol style="list-style-type: none"> 1) Early identification of changes 2) Rigorous challenging in operability and change management reviews, jointly with operations team 3) Appropriate allocation of cost for change
Contractors performance (Astaldi, Vallard, Johnson's)	<ol style="list-style-type: none"> 1) Readiness reviews for key startup activities 2) Engagement of senior management 3) Increase Nalcor PM resources
Cost of un awarded scope	<ol style="list-style-type: none"> 1) Scope optimization – cost reduction 2) Enhanced contracting strategies and contracts models
Performance in service contracts, Owner's cost	<ol style="list-style-type: none"> 1) Optimize organization effectiveness 2) Aggressive and proactive management

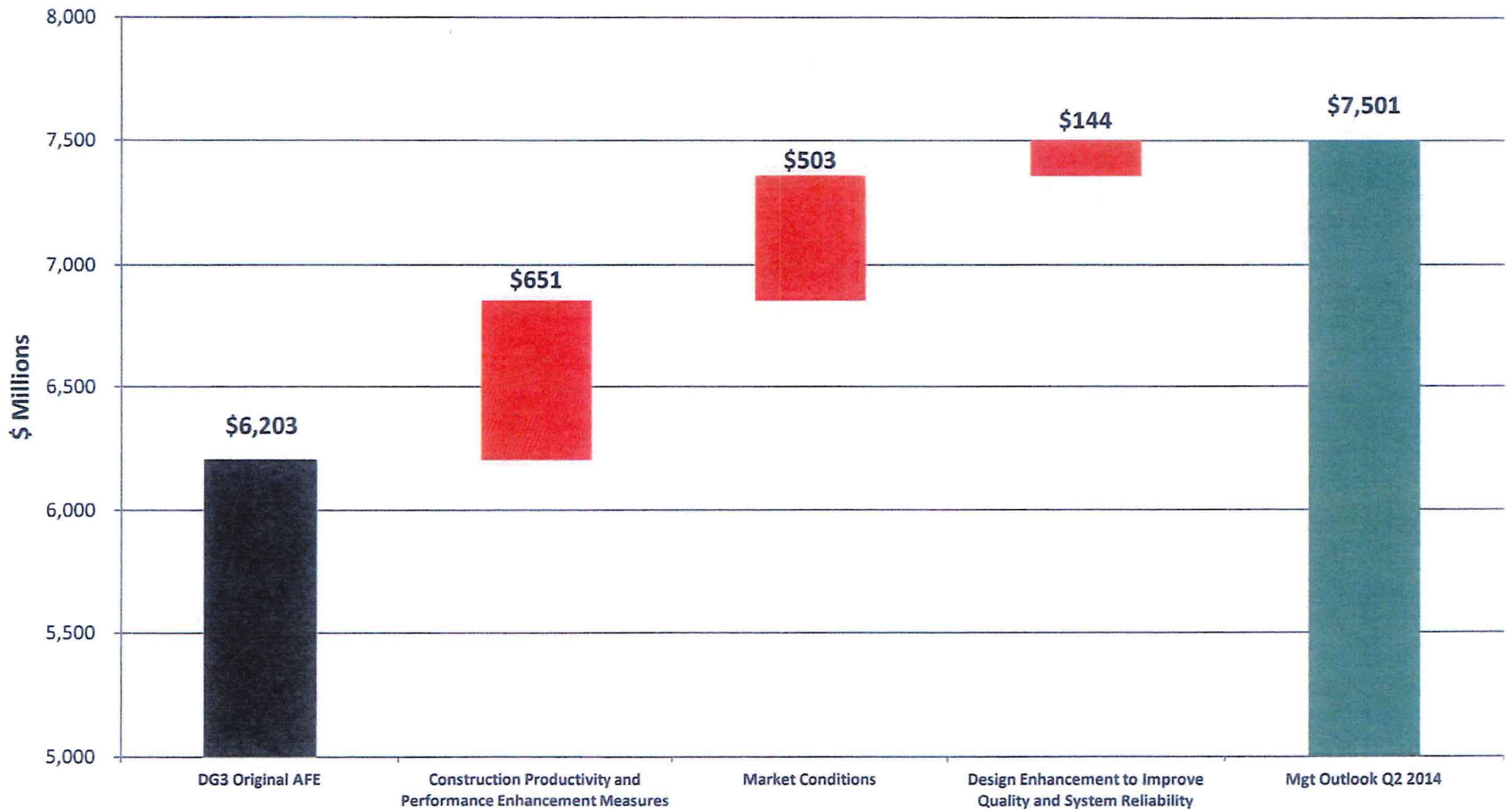
Cost Growth – Mgt Reserve Breakdown (Revised AFE to Current Outlook)

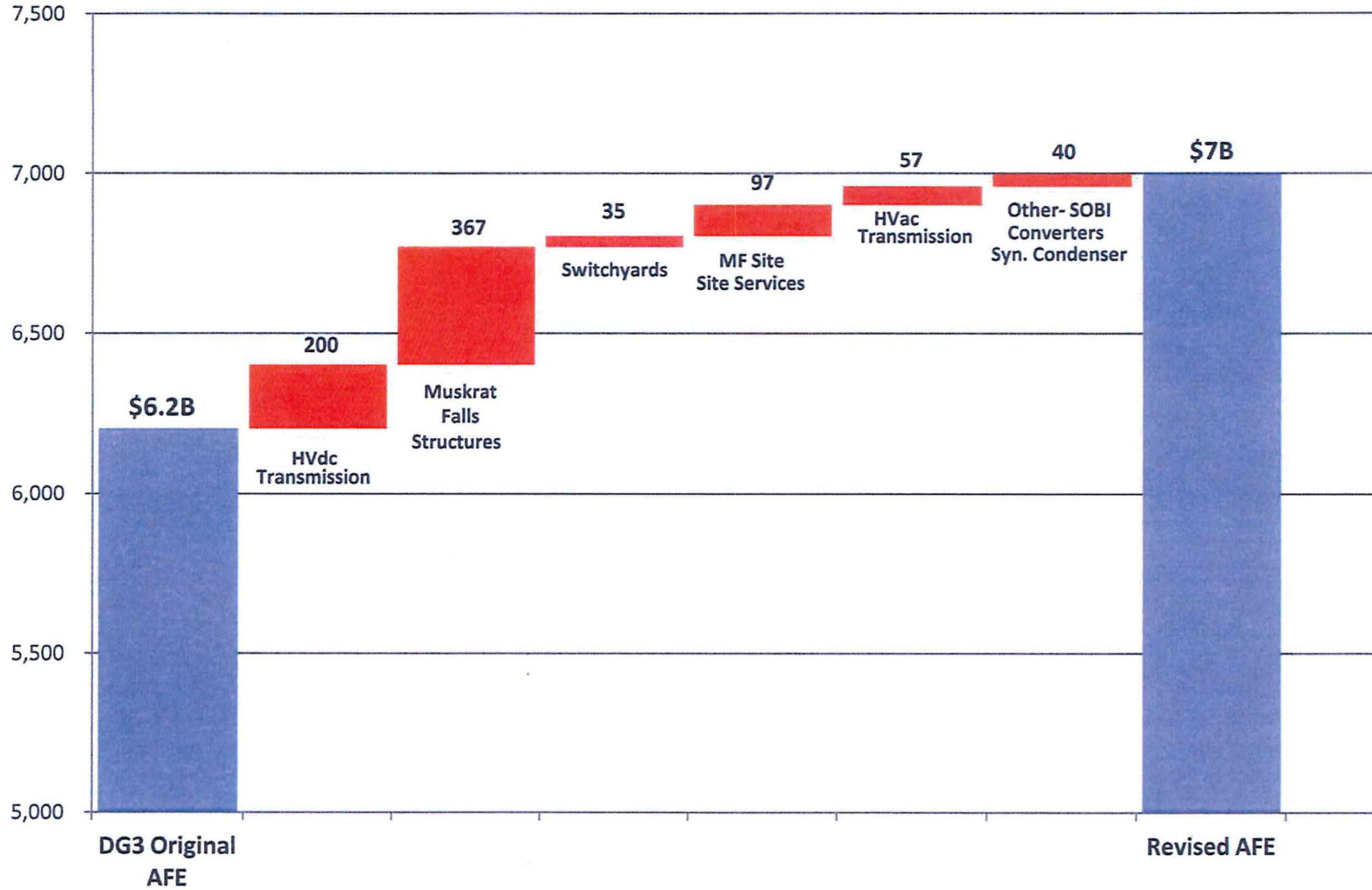


Cost Growth– Mgt Reserve included (Prefunded Equity to Current Outlook)



Cost Growth– Mgt Reserve included (DG3 Original AFE to Current Outlook)





BACK UP

Mgt Outlook Summary

20-May-14

Category	Awarded contracts		Substantially advanced bids		Bids not received		Mgt. Reserve	Mgt Outlook	Remarks
	Total Exposure (1)	Potential Growth (incl. in exposure) (2)	Bid value (3)	Potential Growth (4)	Latest estimates (5)	AFE 6 = (1+3+4+5)			
MF									
A1 - Site Infrastructure (Accom complex/Admin/Access roads/Construction power/Telecoms construction)	288,814,416	500,000	0	0	14,096,054	302,910,470	165,285	303,075,755	
A2 - Civil works (Bulk excavation, North Spur, North and South Dams, Reservoir clearing)	274,408,599	2,000,000	0	0	279,282,144	553,670,743	50,789,514	604,460,257	
A3 - Concrete works (Spillway, PH, Intake, Transition dams)	1,191,218,777	96,661,227	0	0	0	1,191,218,777	21,574,151	1,212,792,928	Growth includes LMAX 64.3 M
A4 - Electro, hydro-mechanical works (T&G / Auxiliaries/ GSU's/ Collector lines/ Permanent Telecom)	449,916,721	20,840,000	0	0	91,038,628	540,955,349	45,216,931	586,172,280	
A5 - Site services	299,502,692	846,000	0	0	15,919,935	305,422,618	20,472,705	325,895,324	
A6 - Engineering, Project Management, Environmental, Aboriginal, Commercial, Insurance, Legal	475,841,661	0	0	0	0	475,841,661	95,763,345	571,625,006	Reserve includes the latest MFL review impact
SUBTOTAL MF	2,969,702,856	120,847,227	0	0	400,316,752	3,370,019,618	234,001,933	3,604,021,551	
LIL									
B1 - Converters/ Transition compounds/ Synch. Condenser/ Switchyards	521,023,570	26,430,000	237,130,753	11,858,023	3,517,934	773,530,280	2,638,451	776,168,731	
B2 - Electrodes / Island upgrades / Permanent Telecom	16,430,924	0	0	0	64,930,564	81,361,488	6,493,056	87,854,544	
B3 - DC line	187,458,638	12,453,217	853,428,259	21,038,366	155,039,010	1,218,964,273	114,228,312	1,331,192,585	
B4 - SOBI	360,326,174	0	0	0	0	360,326,174	0	360,326,174	
B5 - Site services and Infrastructure	88,422,607	500,000	0	0	8,000,000	76,422,607	3,245,000	79,667,607	
B6 - Engineering, Project Management, Environmental, Aboriginal, Commercial, Insurance, Legal	318,175,676	0	0	0	0	318,175,676	70,823,603	388,999,279	Reserve includes the latest MFL review impact
SUBTOTAL LIL	1,469,837,589	39,383,217	1,090,559,012	32,896,389	231,487,508	2,824,780,499	197,428,422	3,022,208,920	
LTA									
C1 - AC line	373,254,254	16,712,000	0	0	0	373,254,254	-3,271,608	369,982,646	FFC Includes (7.6) recouping for the cost of the HVGB line
C2 - Switchyards / permanent telecom	67,178,700	1,371,000	214,636,923	11,241,800	16,491,251	309,546,674	8,442,588	317,989,272	Total Exposure and Bid value include (13.25) recouping for the cost of the HVGB line
C3 - Site services and infrastructure	45,629,101	2,065,881	0	0	500,000	44,129,101	1,455,000	45,584,101	
C4 - Engineering, Project Management, Environmental, Aboriginal, Commercial, Insurance, Legal	77,984,104	0	0	0	0	77,984,104	63,764,991	141,749,095	Reserve includes the latest MFL review impact
SUBTOTAL LTA	562,044,159	20,148,881	214,636,923	11,241,800	16,991,251	804,914,133	70,330,981	875,305,113	FFC Includes (2.5) M recouping for the cost of the HVGB line
	5,001,584,504	180,379,325	1,305,195,935	44,138,189	648,795,521	6,995,714,249	501,821,335	7,501,535,584	

General Remarks:

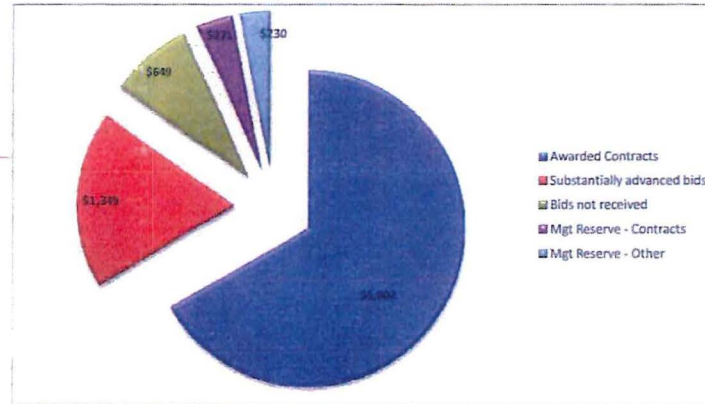
- 1) The AFE does not include any general contingency outside the Mgt Reserve (7) and the Potential Growth (2)&(4)
- 2) Impact resulting from System reliability enhancement is not included
- 3) Total Exposure = FFC (April) + Known Potential deviations highlighted under Trends & Assumptions

List of substantially advanced bids (Major Contracts - Includes Mgt Reserve):

- B1/C2 CD0502 - Switchyard (\$ 302 M)
- B1 CD0534 - Synch. Condenser (\$ 173 M)
- B3 CT0327 - DC line (construction) (\$ 877 M)

List of Bids not received (Major Contracts - Includes Mgt Reserve):

- A2 CH0008 - North Spur (\$ 111 M)
- A2 CH0009 - North and South Dams (\$ 209 M)
- B3 CT0327 - DC line (clearing) (\$ 232 M)
- A4 CH0031 - Mechanical and electrical Auxiliaries (\$ 130 M)
- A4/B2/C2 CD0510 - Permanent communication system (\$ 31 M)
- A4/B1/C2 SD0536 - Commissioning (\$ 28 M)
- A5 SH0051 - Maintenance services (\$ 24 M)
- B2 CD0509 - Electrode sites (\$ 33 M)
- B2 CT0342 - Island upgrades (\$ 16 M)



Mgt Outlook by Contracts status (Values in Millions)

Proj	Package	Package Description	FPC (Amt)	FPC (%)	Other	O/CB	Present	Assumptions	Mgt Reserve	Mgt Reserve	AFE	AFE	Assumptions Description	Mgt Reserve Remarks
BL	010001	SOB1	302,014,204	347,725,174	12,000,000	0	0	347,725,174	3,412,981	3,412,981	350,238,174	350,238,174	9.1M transfer from C3 for civil works and buildings 0.5M additional funds required to finance the FPC civil works	
BL	010002	Other scope of work	2,697,990	3,412,981	0	0	3,412,981	3,412,981	3,412,981	3,412,981	3,412,981	3,412,981		
BL	010002	Other scope of work	58,378,795	11,662,893	0	0	11,662,893	11,662,893	11,662,893	11,662,893	11,662,893	11,662,893		
BL	010002	Other scope of work	11,418,285	11,662,893	0	0	11,662,893	11,662,893	11,662,893	11,662,893	11,662,893	11,662,893		
BL	010004	Historical	99,307,165	77,689,499	0	0	77,689,499	77,689,499	77,689,499	77,689,499	77,689,499	77,689,499		
BL	010004	Historical	68,086,004	77,689,499	0	0	77,689,499	77,689,499	77,689,499	77,689,499	77,689,499	77,689,499		
BL	010004	Historical	4,198,093	0	0	0	0	0	0	0	0	0		
BL	010004	Historical	166,993,722	0	0	0	0	0	0	0	0	0		
BL	010005	Contingency	220,949,222	0	0	0	0	0	0	0	0	0		
BL	010005	Contingency	62,872,814	0	0	0	0	0	0	0	0	0		
BL	010005	Contingency	88,627,851	0	0	0	0	0	0	0	0	0		
BL	010005	Contingency	150,049,125	0	0	0	0	0	0	0	0	0		
BL	010010	Owner's Team Admin Services, EPCM	304,868,105	304,868,105	0	0	304,868,105	304,868,105	304,868,105	304,868,105	304,868,105	304,868,105		
BL	010010	Owner's Team Admin Services, EPCM	275,842,828	304,868,105	0	0	304,868,105	304,868,105	304,868,105	304,868,105	304,868,105	304,868,105		
BL	010010	Owner's Team Admin Services, EPCM	26,015,277	275,842,828	0	0	275,842,828	275,842,828	275,842,828	275,842,828	275,842,828	275,842,828		
BL	010010	Owner's Team Admin Services, EPCM	606,638,648	706,247,092	0	2,513,710	706,247,092	706,247,092	706,247,092	706,247,092	706,247,092	706,247,092	recovery of the cost of HVGB line from HL HVGB	
BL	010020	Feasibility Engineering	1,435,827	18,244,723	105,759	0	18,244,723	18,244,723	18,244,723	18,244,723	18,244,723	18,244,723	Category closed, adjustments to align with final invoice	
BL	010020	Feasibility Engineering	673,187	23,799,162	-2,647,117	0	23,799,162	23,799,162	23,799,162	23,799,162	23,799,162	23,799,162	Category closed, adjustments to align with final invoice	
BL	010020	Feasibility Engineering	179,859	18,244,723	-26,089	0	18,244,723	18,244,723	18,244,723	18,244,723	18,244,723	18,244,723	Category closed, adjustments to align with final invoice	
BL	010020	Feasibility Engineering	219,810	23,799,162	0	0	23,799,162	23,799,162	23,799,162	23,799,162	23,799,162	23,799,162		
BL	010020	Environmental and Regulatory Compliance	9,629,749	20,311,995	0	0	20,311,995	20,311,995	20,311,995	20,311,995	20,311,995	20,311,995		
BL	010020	Environmental and Regulatory Compliance	15,729,194	26,300,524	0	0	26,300,524	26,300,524	26,300,524	26,300,524	26,300,524	26,300,524		
BL	010020	Environmental and Regulatory Compliance	769,910	709,697	0	0	709,697	709,697	709,697	709,697	709,697	709,697		
BL	010020	Environmental and Regulatory Compliance	30,544,833	47,736,895	0	0	47,736,895	47,736,895	47,736,895	47,736,895	47,736,895	47,736,895		
BL	010020	Aboriginal Affairs	1,827,453	2,244,469	0	0	2,244,469	2,244,469	2,244,469	2,244,469	2,244,469	2,244,469		
BL	010020	Aboriginal Affairs	1,827,453	11,223	0	0	11,223	11,223	11,223	11,223	11,223	11,223		
BL	010020	Aboriginal Affairs	169,302	197,717	0	0	197,717	197,717	197,717	197,717	197,717	197,717		
BL	010020	Aboriginal Affairs	12,745,126	16,747,104	0	0	16,747,104	16,747,104	16,747,104	16,747,104	16,747,104	16,747,104		
BL	010020	Commercial and Legal, Insurance	16,965,599	2,661,245	0	0	2,661,245	2,661,245	2,661,245	2,661,245	2,661,245	2,661,245		
BL	010020	Commercial and Legal, Insurance	15,817,077	3,141,296	0	0	3,141,296	3,141,296	3,141,296	3,141,296	3,141,296	3,141,296		
BL	010020	Commercial and Legal, Insurance	16,965,599	16,492,744	0	0	16,492,744	16,492,744	16,492,744	16,492,744	16,492,744	16,492,744		
BL	010020	Commercial and Legal, Insurance	24,443,915	45,620,666	0	0	45,620,666	45,620,666	45,620,666	45,620,666	45,620,666	45,620,666		
BL	010020	Unallocated Budget	10,720,249	9,104,363	0	0	9,104,363	9,104,363	9,104,363	9,104,363	9,104,363	9,104,363		
BL	010020	Unallocated Budget	108,659	108,659	0	0	108,659	108,659	108,659	108,659	108,659	108,659		
BL	010020	Unallocated Budget	481,962	81,962	0	0	81,962	81,962	81,962	81,962	81,962	81,962		
BL	010020	Unallocated Budget	10,015,243	9,129,877	81,962	0	9,129,877	9,129,877	9,129,877	9,129,877	9,129,877	9,129,877		
BL	010020	Unallocated Budget	0	9,211,839	0	0	9,211,839	9,211,839	9,211,839	9,211,839	9,211,839	9,211,839		

Mgt Outlook Details