

Muskrat Falls Project Cabinet Update

September 21, 2015

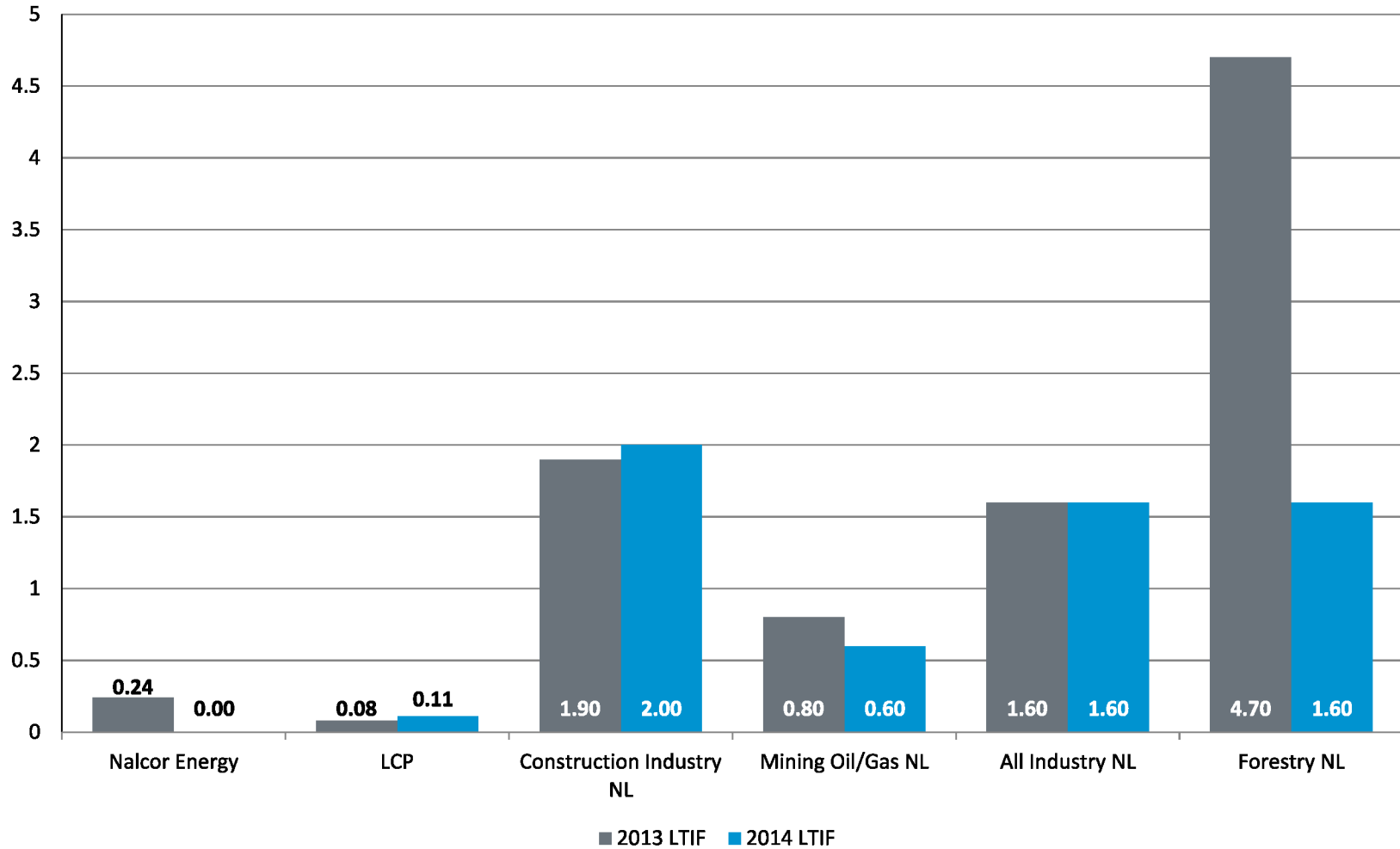
Boundless Energy



Agenda

1. Safety Moment
2. Project Progress
3. Cost Challenges
4. Project Benefits and Value
5. Why Muskrat Falls Remains the Best Option
6. Communications Approach

Safety remains a top focus



MF – A good investment for NL

- NL needs more power. Holyrood 45 yr old has to be replaced.
- Muskrat Falls provides the greatest long-term value to NL – it's a legacy project
- Significant value and cash flows will be generated returning substantial revenue to the Province - over \$30 billion over project life
- Investment in an asset we own: “buy vs. rent”
- Interest rates locked in at historic lows & Loan Guarantee will save > \$6 billion over life of project financing
- Significant construction benefits; jobs for NL's, and economic benefits for NL businesses
- Strategic investment establishing critical transmission access.
- Total value to the province remains strong.

Project Progress



Generating Facility Current Status

- Slower than expected start to powerhouse by Astaldi.
 - Nalcor leadership has been critical in successfully addressing Astaldi performance issues, and Astaldi now delivering strong performance
- Concrete placement in powerhouse tripled since May 2015
- River diversion through spillway on track for 2016
- Turbines and generators manufacturing on schedule
- Stabilization work progressing well at North Spur; geotechnical conditions as expected
- Reservoir clearing ahead of schedule



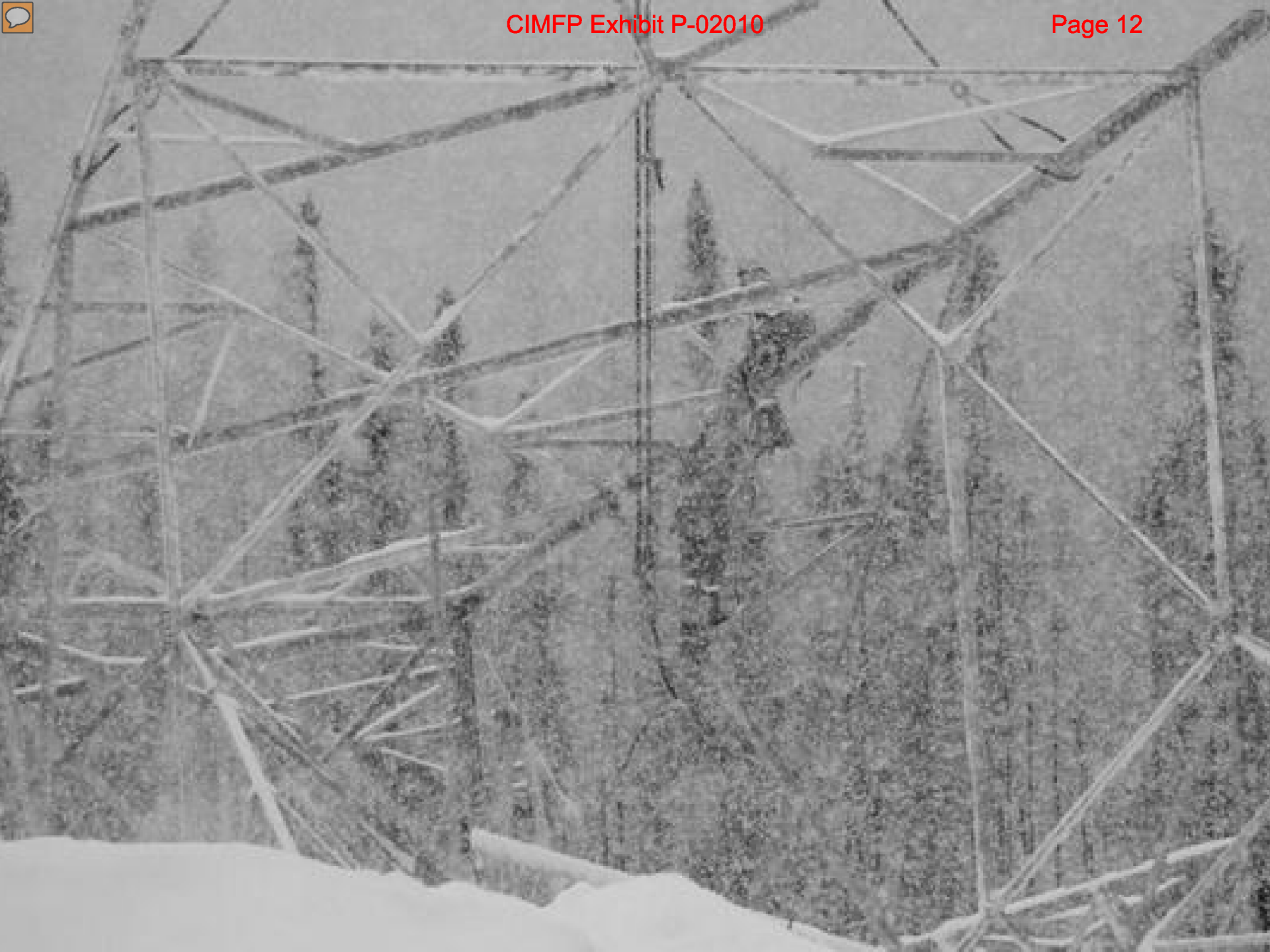


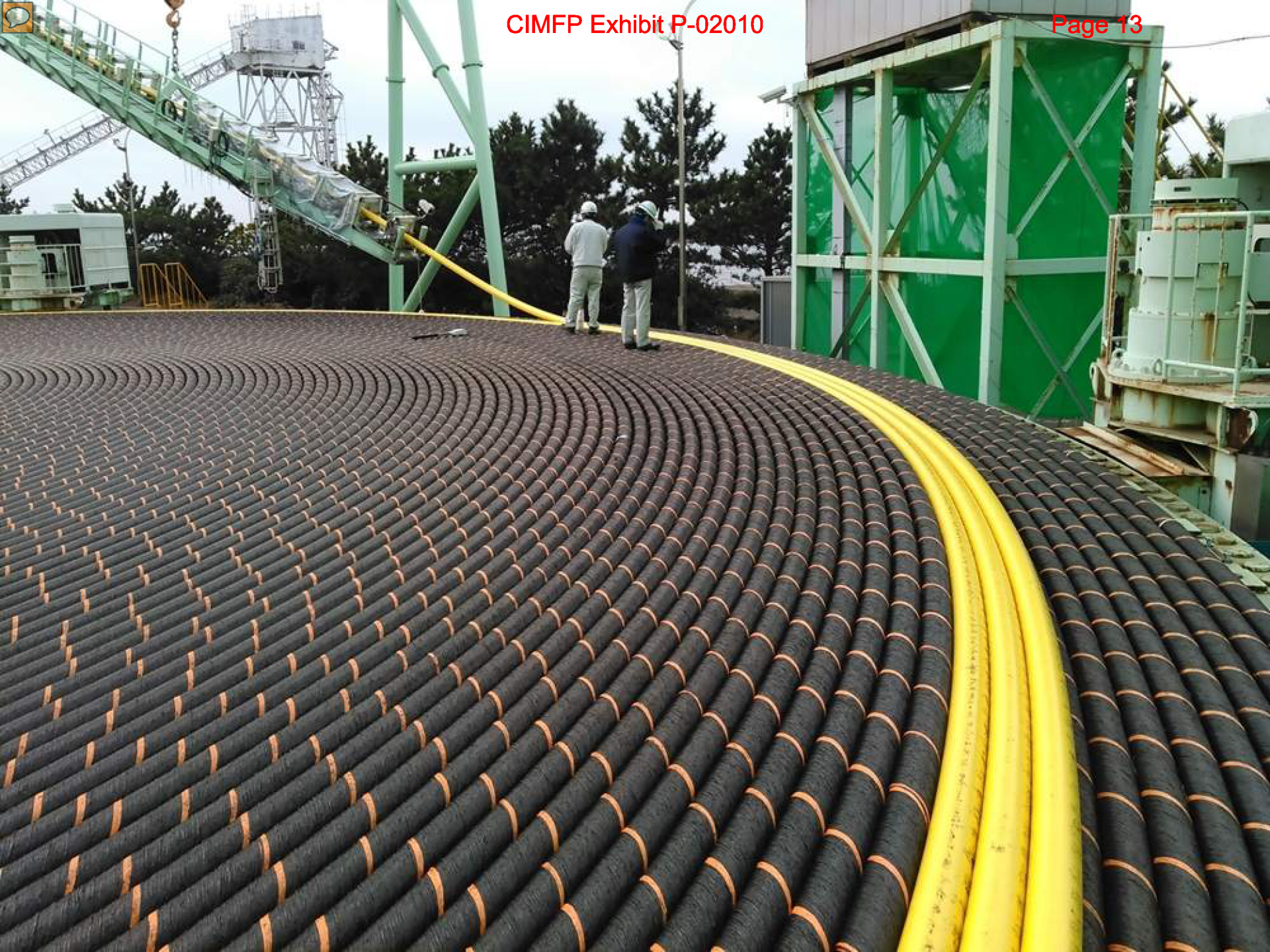


Transmission Current Status

- Muskrat Falls to Churchill Falls (AC)
 - 100% clearing complete; 54% of towers erected; 72% of towers assembled; 92% of foundations installed
 - Work will be substantially complete in 2015
- Muskrat Falls to Soldiers Pond (DC)
 - Approx. 67% cleared in Labrador; 32% cleared on the island; 79 towers erected in Labrador; 35% of towers assembled and 30% of foundations installed in Labrador; Start tower assembly on island in October 2015. On track for in-service in 2017
- Strait of Belle Isle Crossing
 - Land cables installed this fall. Marine cables 2016.
- Switchyard work and grounding sites underway and on track







Project Progress Summary

- Majority of project progressing as planned
- Construction well underway on all components: generation, transmission and associated infrastructure
- Work being performed safely, in an environmentally-responsible manner, and to a high quality.
- Powerhouse behind due to Astaldi slow start. First power from Muskrat Falls plant expected to be delayed with revised timeframe under review.
- The ability to transfer electricity to the island remains on track for 2017. Churchill Falls recall power and market power are available to displace Holyrood in 2017

Cost Challenges



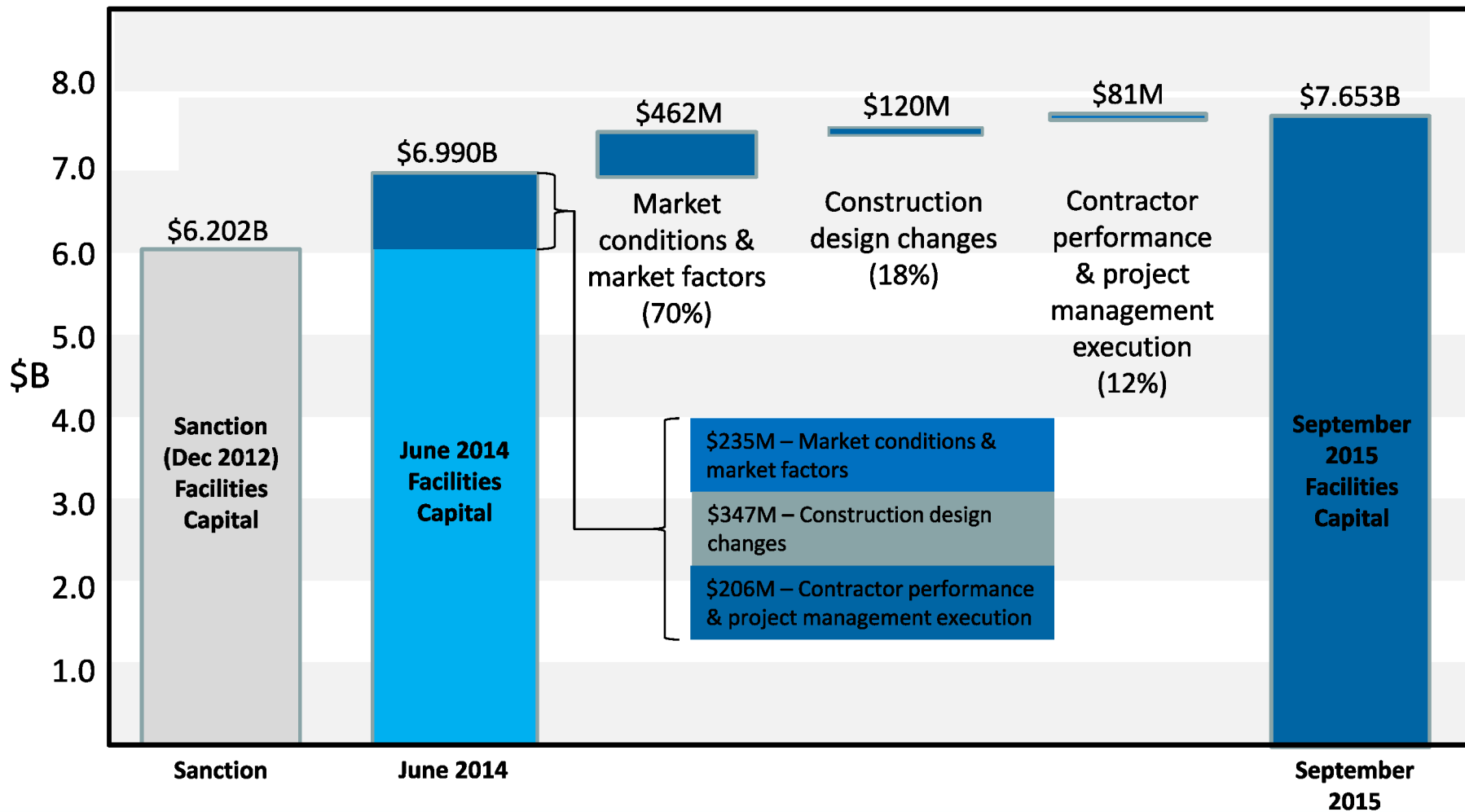
Cost Challenges

- Facilities capital costs are currently projected to grow by an additional 10.7%, (total since sanction including this 10.7% is 23.4%)
- Although the following amounts are not a part of “facilities capital”, they are partial offsets to overall project value which have occurred since sanction, equating to 13% (nominal) of facilities capital;
 - 8% (nominal) - \$500M nominal lower than budgeted financing costs,
 - 5% (nominal) - \$300M nominal higher than budgeted revenue from excess electricity sales

Cost Challenges

- Procurement of material and supplies, and selected NL execution work (such as SOBI drilling) comprising >50% (\$3.2B) of total facilities capital are overall within 2.5% of budgeted amounts
- Increase primarily related to execution of work in NL:
 - competitive market factors
 - construction design changes during construction
 - contractor performance and additional project management costs
- Additional costs and potential cost offsets and reductions associated with the powerhouse delay are under review
- With all major contracts now awarded or bids in hand, significant work completed/underway and majority of materials and supplies procured, remaining cost risk is becoming more and more limited.

Cost Profile from Sanction



Marketplace Conditions

- Extremely active construction industry, highly competitive labour market.
- Muskrat Falls is not unique –facing labour and productivity challenges
- Contractor perception of risk undertaking work in current market in NL - this is driving up costs
- Cost pressures reflected in latest contracts: North Spur, North and South Dams, Mechanical and Electrical Auxiliaries, some transmission line work
- Market pressures increasing capital costs, pricing, contracts for the project
- Decreasing value of Canadian dollar/foreign exchange

Construction Design Changes

- Design adjusted for some tower anchors, weight and type of foundations required for geotechnical conditions
- Winter roads added in addition to all season roads to more effectively advance clearing work fronts and installing bridges
 - Very severe weather conditions last winter impacting worker productivity, driving need for more workers/hours
 - Constructing permanent transmission infrastructure in challenging terrain and remote areas – bridges, roads
- Additional costs upfront, but long-term value and reliability such as long term access for maintenance, and more robust towers adding to long term reliability

Construction Productivity & Performance

- 200+ contracts managed by the LCP project team
- Majority of contracts tracking on schedule, cost
- More project management required by our team on some contracts – additional costs but positive outcomes
- LCP hands-on with contractors for productivity, safety, environment, general project management – ultimately benefits outcome

Delivering benefits today and long term



MF delivering value to NL today

- Total project workforce 4,400
- 3,750 NL residents (85%)
- Over 40% from Labrador
- Over 500 women (11%)
- Over 400 workers from a Labrador Aboriginal group (169 Labrador Innu)
- 1.5 billion spent/invested in NL to date:
 - Over \$590M in wages to NL workers
 - Over \$870 million spent with ~500 NL businesses

WOMEN ARE PART OF SOMETHING **BIG**

AT MUSKRAT FALLS



WOMEN
IN RESOURCE
DEVELOPMENT CORPORATION

Learn more about
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nalcor
energy
LOWER CHURCHILL PROJECT

MF – Remains Best Project for NL

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Communications



Communication Approach

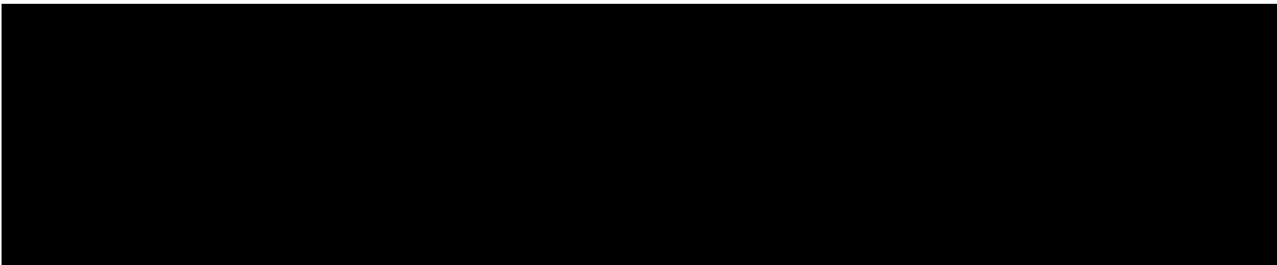
- Media tour on site: Tuesday & Wednesday
- Update to show site progress & benefits
- Project/cost update Wednesday afternoon at site
- Follow up with all major media – open line, TV news
- Supported by social media push of messaging and video release
- Stakeholder engagement & outreach
- Proactive letters to editor and email to stakeholders

Tone/Content

- Reframe discussion – broadening from cost and electricity rates
- Focus on broader jobs, benefits and long term value
- Minimize data – simplified messages
- Focus on three key themes
- Speak to supporters (60-70%)
- Speak directly to NLers with consistent message/voice through online mediums – social video release
- Direct stakeholder outreach/follow up
- Message discipline is critical

Message Platform

STRATEGIC INDEPENDENCE	STABLE ELECTRICITY	BENEFITS/VALUE
Building economic independence for our province’s – not repeating CF	Ensuring homes & businesses have long-term stable rates	This project remains the best option delivering value to NL
Controlling our energy future without relying on others	Our focus on delivering clean, reliable power to NL at competitive rates	Over 4000 NLers working today, employed on the project
Paying ourselves vs paying global oil companies.	Control over our electricity into the future.	Almost \$1.5B invested in our economy today – jobs & businesses - \$9M a week
Doing our part for climate change and avoiding future carbon costs	Loan guarantee delivered \$6 billion in rate savings for customers	Diversifying our economy Clean, renewable energy
We are transforming our province – putting billions into the economy		Over \$30B in value will be returned to NL
		Creating independence for our people through jobs & benefits



2015/09/21

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NR/DM
E Martin/Nalcor
Deputy Clerk
File

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A Presentation respecting Muskrat Falls Project - Cabinet Update was received from the President and Chief Executive Officer of Nalcor.

Julia Mullaley
Clerk of the Executive Council