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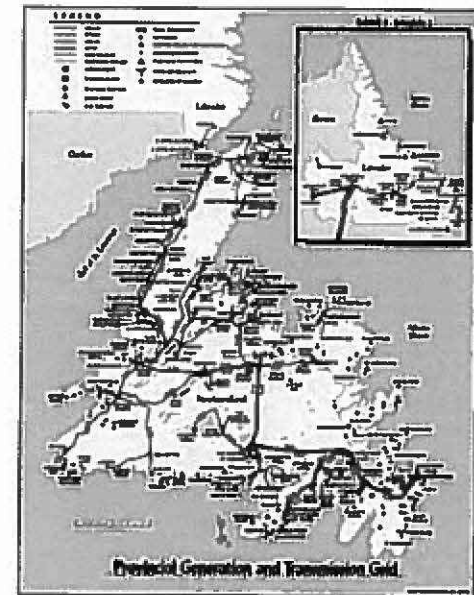


**NL Electricity Rates and the
Muskrat Falls Project**



NL Electricity System

- Four distinct electricity systems
 - Island Interconnected System (IIS)
 - L'Anse Au Loup System
 - Labrador Interconnected System (LIS)
 - Isolated Rural Diesel systems on Island and in Labrador
- Three primary customer rate classes
 - Domestic (residential)
 - General Service (business, municipalities, hospitals, schools)
 - Industrial (NARL, Kruger, Vale)





Electricity Rates

- Island interconnected domestic bills increased from 2001 to 2015 by approximately 41% (or 2.9% per year) nominally based on average monthly usage of 1,517 kWh
- Increase in the number of households and new commercial and industrial developments
- 85% of new homes built 2002 since are heated by electricity
- Demand is expected to continue to rise
- Electricity rates will increase with or without Muskrat Falls
- Increases will continue up to Muskrat Falls in-service



General Rate Application

- NLH filed amended an amended General Rate Application (GRA) with the PUB on November 10, 2014 seeking rate increases based on 2015 forecast of costs. Average proposed rates impacts at that time included:
 - IIS and L'Anse au Loup system retail customer increases of 2.8% and 2.6%, respectively
 - Island isolated diesel system domestic and GS customer increases of respectively 7.1% and 18.5-19.2%.
 - Labrador isolated customer increases of 11.4% for domestic and 18.5-19.2% for GS. (includes Northern Strategic Plan subsidy).
 - LIS retail rates increases of 1.9%.
- Interim rates were set on July 1, 2015 to allow NLH to begin recovering costs proposed in GRA. The PUB will finalize rates at conclusion of GRA.



General Rate Application

- Key pressures on increasing rates include:
 - Required purchase of new assets
 - Maintenance required for aging assets
 - Decline in fuel efficiency at Holyrood since 2007 which requires more fuel to generate electricity
 - NLH's higher rate of return on equity of 8.8%, an increase from 4.465% in 2006.
 - Higher cost of fuel compared to 2007.
- The GRA hearings are ongoing, with a decision expected in early 2016.
- Implementation of rates will likely occur by July 1, 2016.



Current and Proposed Electricity Rates

		Rates before GRA (Cents/ kWh)	Interim Rates in effect since July 1, 2015 (Cents/ kWh)	Proposed Rates in the Amended GRA (Cents/ kWh)
Island Interconnected	Domestic	13.0	12.4	13.4
	General Service (GS) (GS over 1000kVa-0-100 kW)	9.7-12.3	9.0- 11.7	10.0- 12.7
	Industrial	7.0	7.6	8.9
Labrador Interconnected	Domestic	4.7	4.7	4.7
	GS (GS over 1000kVa-0-10kW)	2.0-6.2	2.0-6.2	2.0-6.3
	Industrial	4.3	2.5	2.5
L'anse au Loup	Domestic	12.9/7.9**	12.3/7.5**	13.3/8.1* *
	GS (0-100kW/110-1000kVa)	11.5-12.9	10.8-12.4	11.8-13.3
Island Isolated	Domestic	14.6	14.0	15.6
	GS (0-10kW/ 10+ kW)	19.9/22.1	18.8/20.9	23.6/26.3
Labrador Isolated	Domestic	13.9/6.6**	13.3/6.5**	14.9/7.4**
	GS (0-10kW/10+kW)	19.4/21.4	18.4/20.3	23.0/25.5

* These rates are average rates for each group, which include energy rates as well as demand and basic monthly charges where appropriate. Individual impacts vary with consumption level. HST is excluded.

** These rate impacts factor in Government's NSP subsidy provided to domestic customers of L'Anse au Loup and Labrador Isolated Diesel Systems.

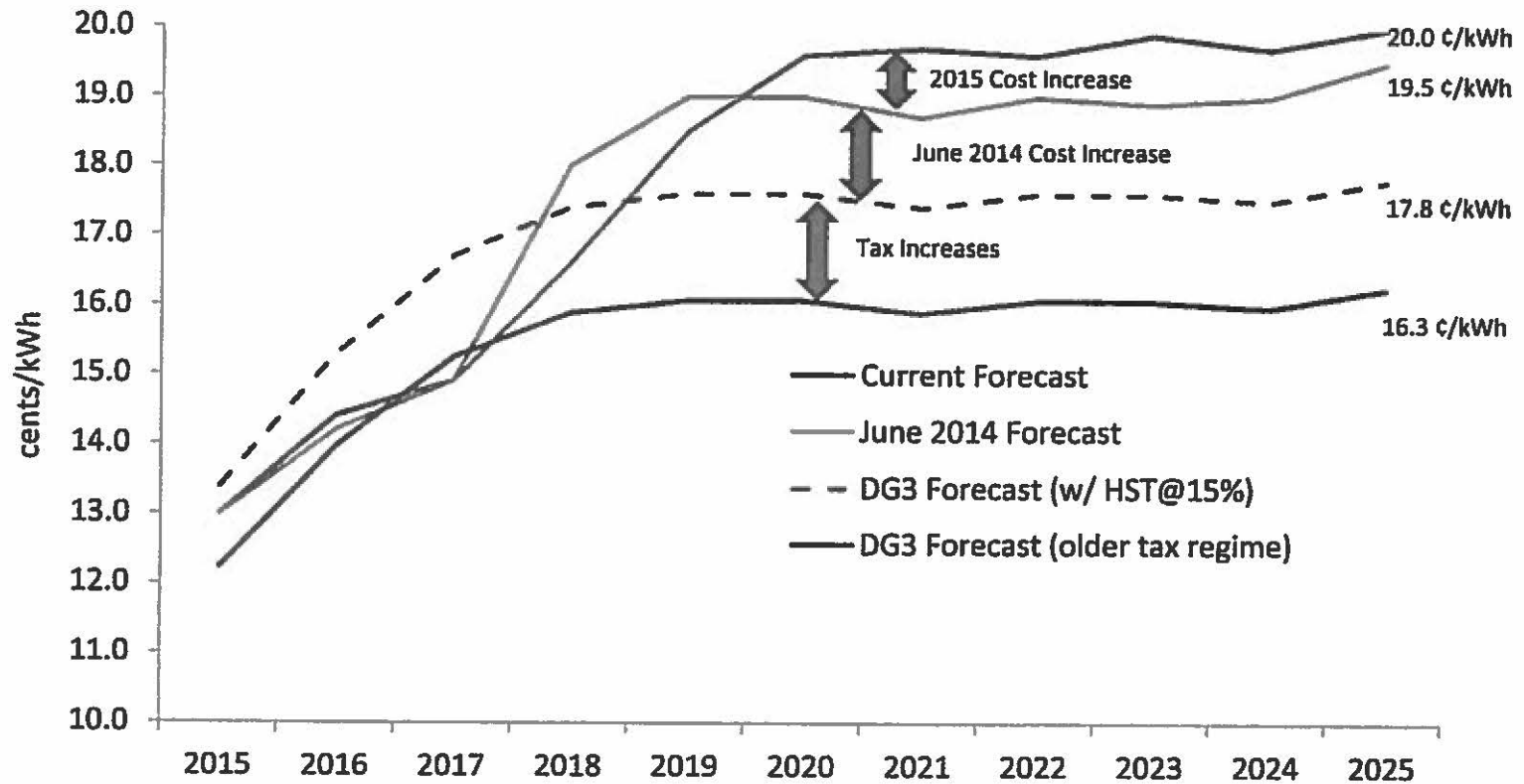


Muskrat Falls Project (MFP)

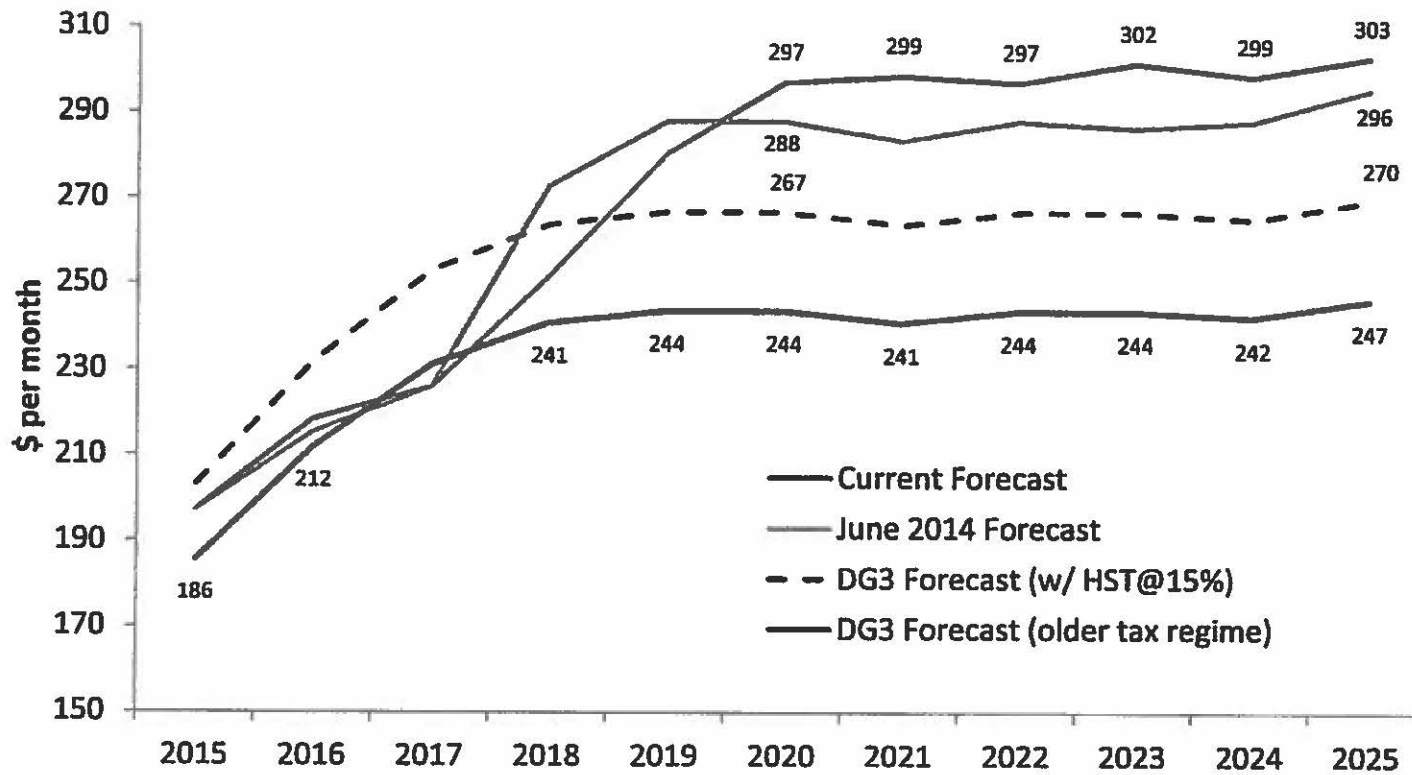
- MFP transmission and generation are scheduled to enter service in 2017 and 2018, respectively
- NLH will need higher revenue to meet its financial obligations under the Power Purchase Agreement with Muskrat Falls
- NP and NLH Island Interconnected and isolated customers' electricity rates will need to increase in 2018 to cover MF costs.
- The PUB does not approve MFP costs in rates as directed in Bill 61.



Present Domestic Rate Projections



Effect on Monthly Bills (Average Island Customer)



* Based on 1,517 kWh average monthly consumption



Potential Rate Easing Alternatives

There are three primary means to ease the impact of the required rate increases:

1. Defer increases by NLH borrowing funds to meet revenue shortfall and ratepayers repaying the debt over a longer period.
2. Allow the PUB to exercise its authority to determine whether any such mitigation is necessary and to determine how to do so.
3. Use future dividends from Nalcor revenue including or limited to export revenue through a government subsidy.

Alternative 1 Ratepayer Debt Deferral



- NL Hydro can borrow to reduce its revenue requirement from ratepayers once Muskrat Falls enters service.
- Ratepayers will repay the debt over a longer period of time (e.g. 5 to 15 years) to gradually increase rates.
- Higher cost alternative for ratepayers due to interest costs on new debt.
- Could negatively impact NL Hydro overall creditworthiness and Province's credit rating due to guarantee of NL Hydro debt.
- Regulators generally do not support future ratepayers subsidizing current ratepayers.

Alternative 2– Defer to PUB



- While MFP exempt from PUB oversight and costs are directed into rate base, PUB still has to set final rates for customers.
- Government could defer the rate easing decision to the PUB as the PUB has regulatory authority to assess merits of any rate application and impose appropriate mitigation.
- Mitigation would be funded exclusively by ratepayers.

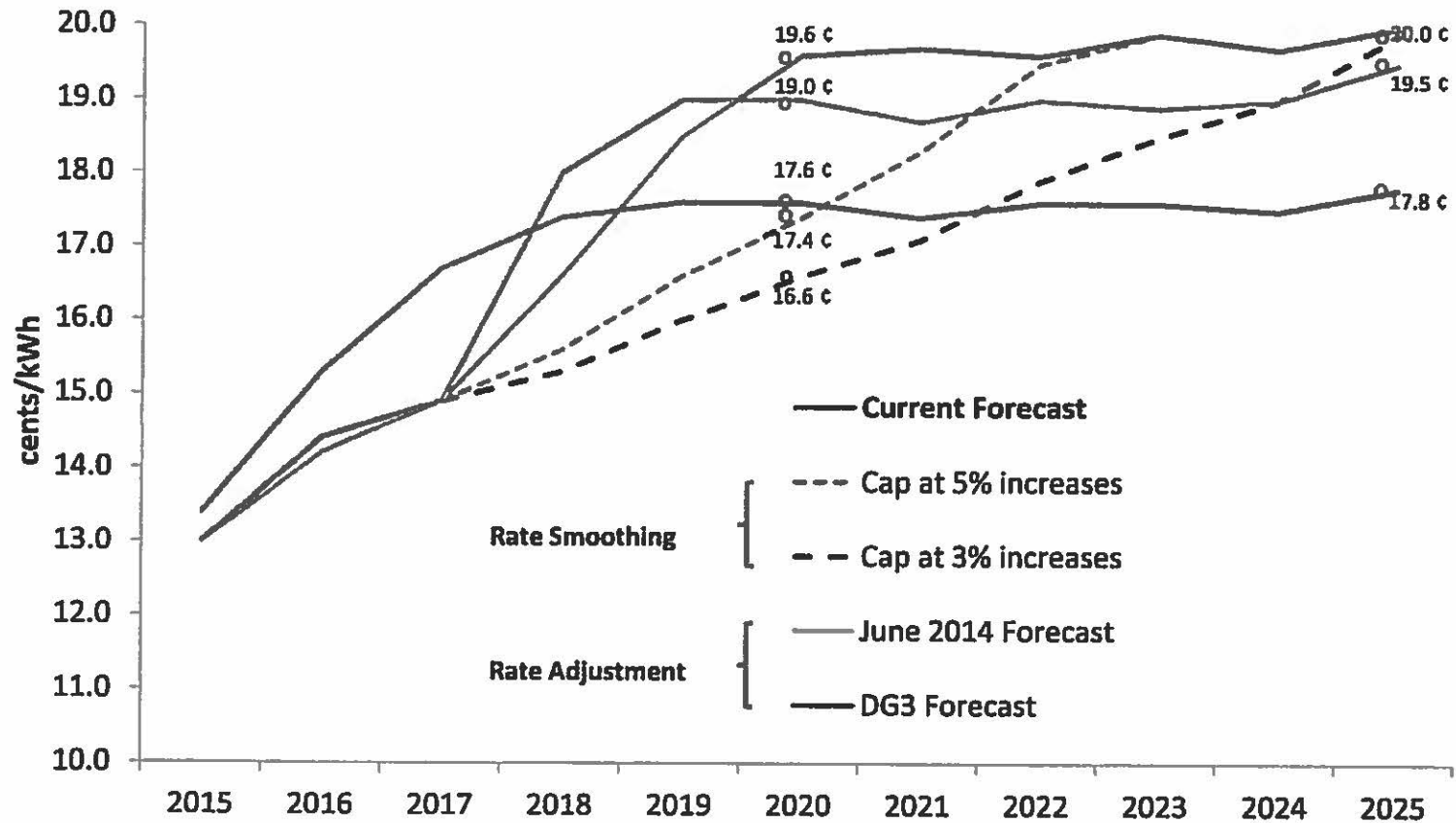


Alternative 3 – Rate Subsidy

- There are four options for a rate subsidy based on using future dividends projected to be available from Nalcor.
 - Option 1: Cap retail rate increases at 5% per year until 2022.
 - Option 2: Cap retail rate increases at 3% per year until 2025.
 - Option 3: Set rate increases to equal those previously announced at DG3 in 2012.
 - Option 4: Set rate increases to equal those forecast in June 2014.
- Options 1 & 2 are rate smoothing (time limited) which provide for a transition period to reach projected MF rates. Options 3 & 4 are rate adjustments (project life) where rates are kept artificially low for the project life.



Alternative 3 – Rate Subsidy



* Based on 1,517 kWh average monthly consumption

Implementation of a Rate Subsidy



- Potential sources of funding include:
 - Government's return on incremental equity investment required to cover cost overruns on the Labrador-Island Link.
 - **Muskrat Falls export sales.**
 - **Upper Churchill recall export sales.**
 - Muskrat Falls water power rental fees.
 - NL Hydro regulated dividends.
 - Upper Churchill water power rental royalty.
 - Upper Churchill preferred dividends.
- Rate smoothing is preferred to rate adjustment as it is time and cost limited
- A rate subsidy will reduce planned future revenue to Government from Nalcor



**Newfoundland
Labrador**

**Muskrat Falls
Overview and Status Update
Fall 2015**



Muskrat Falls Project

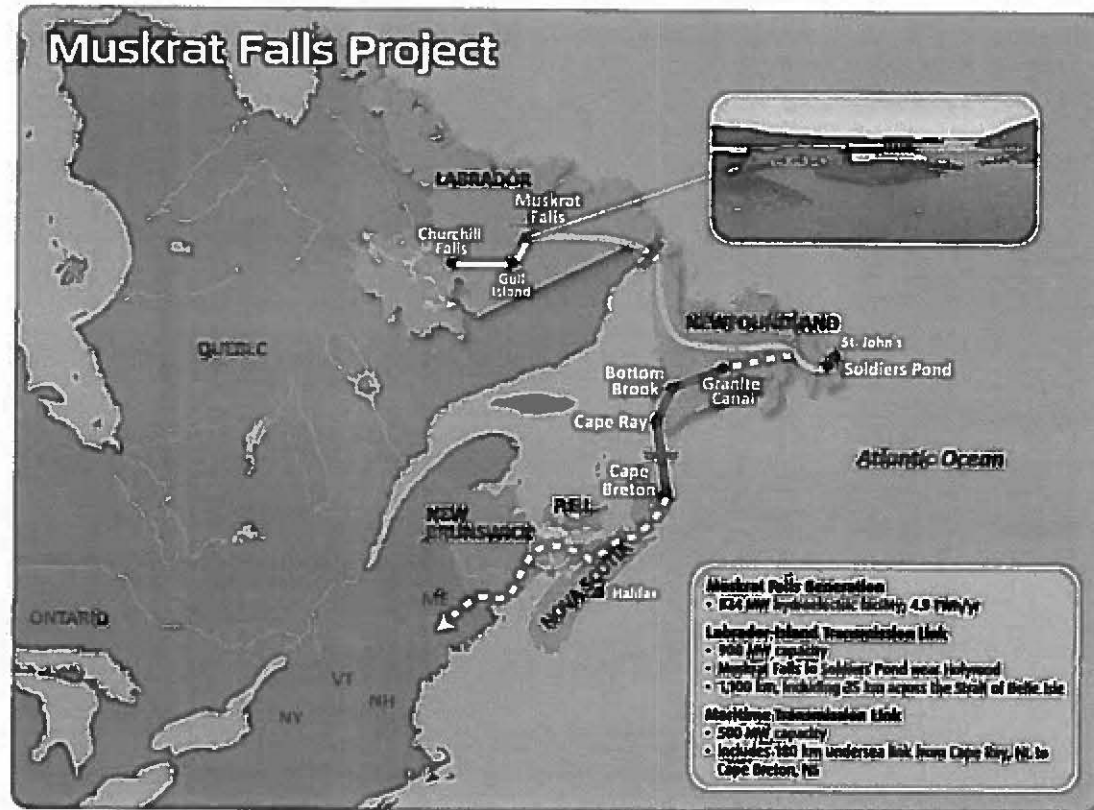




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Project Benefits

- Meets domestic energy needs
- 98% renewable energy supply in NL
- Long-term rate stability
- Interconnection of North American grid
 - Access to export markets
 - Enhanced reliability
- Federal loan guarantee benefit to province of ~ \$1 billion
- GHG reduction



Summary of Muskrat Falls Project

- Project sanctioned in December 2012
- Construction began in 2013
- Actual project progress at August 2015 was 33.5% versus planned progress of 43.3%, a variance of 9.8%
- New Project schedule baselines being established as Project budget was adjusted in September 2015. Milestone Dates are under review
- Power available from LIL in 2017, and from MF generation in 2018
- Current facilities capital budget is \$7.65B (increase from \$6.99B estimate in June 2014 and \$6.2B at DG3).
- As of August 2015, additional interest and other financing costs estimated at \$1.4B
- Project expenditures through September 2015 totaled \$3.456B:
 - MF Generating Facility (\$1.813B), LTA (\$0.504B) and LIL (\$1.138B)



MF Cost Summary

Muskrat Falls Project: Sub Project	DG3	June 2014	September 2015
Muskrat Falls Generating Facility	\$2.901B	\$3.371B	\$3.685B
Labrador-Island Transmission Link	\$2.609B	\$2.786B	\$3.089B
Labrador Transmission Assets	\$0.691B	\$0.831B	\$0.877B
Muskrat Falls Capital Cost Budget Total	\$6.20B	\$6.99B	\$7.65B

- **Cost Drivers**
 - Competitive market factors
 - Design changes during construction
 - Contractor performance and additional project management



Summary – Project Schedule

August 2015 Oversight Committee Report

Muskrat Falls Project: Sub Project	August 2015			Variance June 2015	Variance March 2015
	Planned Schedule Progress	Actual Schedule Progress	Variance		
Muskrat Falls Generating Facility	48.8%	34.8%	-14.0%	-14.3%	-11.7%
Labrador-Island Transmission Link	33.4%	27.1%	-6.3%	-5.5%	-1.4%
Labrador Transmission Assets	57.1%	51.8%	-5.3%	-2.1%	1.0%
Total	43.3%	33.5%	-9.8%	-9.3%	-6.2%

Muskrat Falls Project (MFP) Components



Muskrat Falls Generating Facility

- 824 megawatt (MW) hydroelectric development at Muskrat Falls

Labrador Transmission Assets (LTA)

- Two 315 kilovolt (kV) High Voltage alternating current (HVac) transmission lines between Muskrat Falls and Churchill Falls

Labrador-Island Transmission Link (LIL)

- 1,100 km long High Voltage direct current (HVdc) transmission line between Muskrat Falls and Soldiers Pond

* Maritime Link is separate from MFP

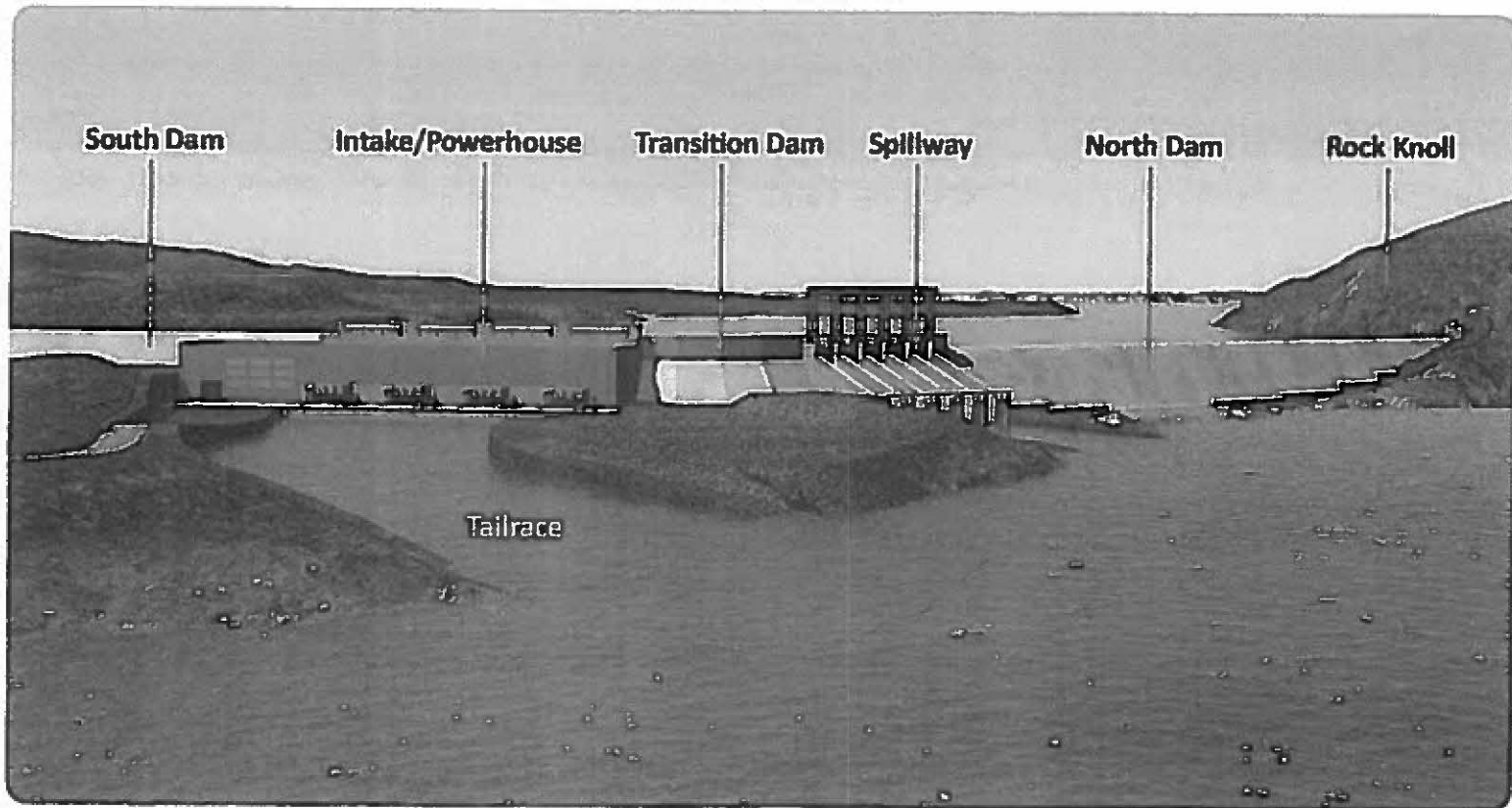


Muskrat Falls Generating Facility

- 824 MW hydroelectric generation facility on lower Churchill River
- ~30 km west of Happy Valley-Goose Bay
- Includes two dams and a powerhouse
- Second-largest hydroelectric facility in Atlantic Canada and the province when complete
- 560,000 m³ of concrete is required to build the structures at Muskrat Falls – equivalent to 3 Hebron gravity-based structures (GBS)
- Powerhouse structure will be taller than the Confederation Building
- Turbine efficiency at Muskrat Falls will be one of the highest ever obtained in North America



Muskrat Falls Generating Facility



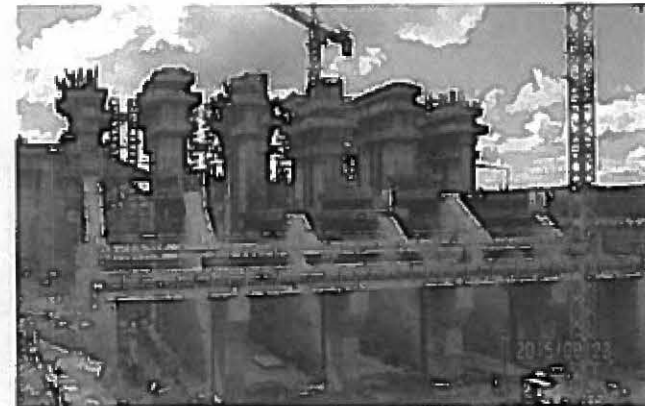
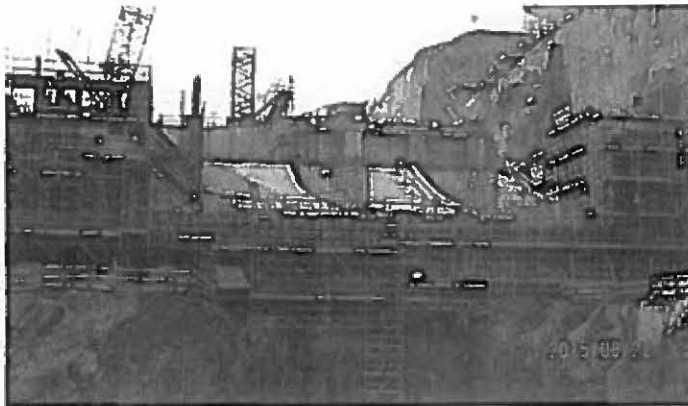


Muskrat Falls Generating Facility – Current Status

- As of August 2015, actual progress for the facility was 34.8% compared to planned progress of 48.8%
- Variance mainly due to:
 - a change in the North Spur Works Ready for Diversion Milestone from November 2015 to September 2016
 - progress on the Powerhouse and Intake continuing to fall behind Astaldi's original schedule
 - progress on the Reservoir Preparation slowing
- Stabilization of North Spur is progressing well; geotechnical conditions are as expected
- Discussions are ongoing with Astaldi to determine timelines for completing remaining work on Powerhouse and Intake
- Critical Path for River Diversion in 2016 remains on track, however, risk of delays are high due to powerhouse concrete placement rates
- Focus now on installing Spillway Gates in preparation for River Division in 2016 which is on the Critical Path



North Spur, Powerhouse and Spillway





Labrador Transmission Assets

- Two 315kV HVac transmission lines from Muskrat Falls to Churchill Falls, ~ 250km each
- New switchyard at Churchill Falls and connecting to an extension to the existing 735kV switchyard
- New switchyard at Muskrat Falls



Labrador Transmission Assets – Current Status

- As of August 2015, actual progress on the LTA was 51.8% compared to planned progress of 57.1%
- Slippage mainly due to transmission line installation
- Challenging geotechnical conditions and spring thaw caused severe working conditions, resulting in temporary lay-offs
- In September, work continued on foundation assembly and installation, tower assembly and erection, and conductor stringing
- Civil works and building services at MF switchyard continued with all transformer units shipped and arriving this fall
- First two units for CF switchyard arrived in September

AC Transmission Line from Muskrat Falls to Churchill Falls





Labrador-Island Transmission Link

- HVdc transmission system will include:
 - 1,100 km long, 60 m wide right-of-way running from central Labrador, crossing the Strait of Belle Isle (subsea cable), and extending to Avalon Peninsula
 - Converter station at Muskrat Falls and Soldiers Pond, switchyard and synchronous condenser at Soldiers Pond, and electrodes at L'Anse au Diable and Dowden's Point
 - Approximately 4,500 towers, 460,000 insulators and 6,000,000 meters of conductor



Labrador-Island Transmission Link – Current Status

- As of August 2015, actual progress was 27.1% compared to planned progress of 33.4%
- Slippage due to challenging geotechnical conditions and spring thaw causing severe working conditions and resulting in temporary lay-offs
- Right-of-way clearing, foundation assembly and installation, and tower assembly and erection continuing
- The first HVdc transmission tower for southern Labrador was erected in Forteau in September
- Construction commenced in September on the synchronous condenser building at Soldiers Pond
- In October 2015, conductor stringing for the transmission line began

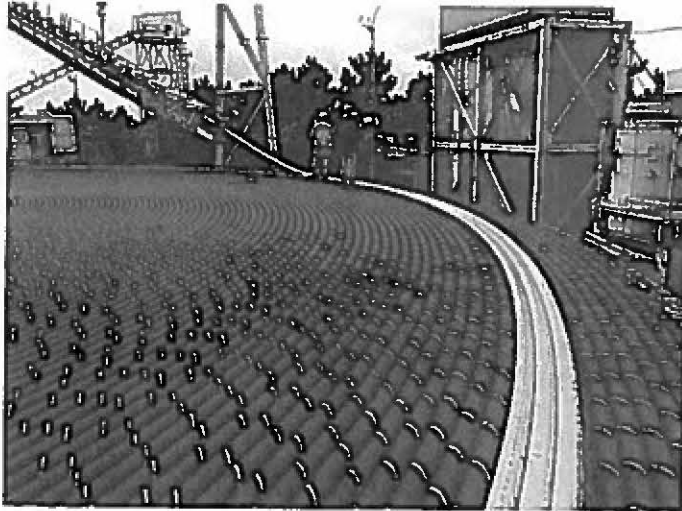


Labrador-Island Transmission Link – Strait of Belle Isle Crossing (SOBI)

- 35km marine cable crossing connecting transmission line from Forteau, Labrador to Shoal Cove, Newfoundland
- Includes 3 subsea marine cables along the seabed and 7 land cables
- Two of the three land cables for Shoal Cove were installed in September and land cables for Forteau arrived in September
- Installation of land cables will be completed this fall
- Following 3 years of manufacturing in Japan, the last of the three marine cables was completed in October 2015
- Marine cables will be placed along the sea floor and covered by rock berms to protect against marine traffic
- Installation is scheduled for 2016



SOBI Marine Cable and LIL





Employment and Industrial Benefits

- In September 2015:
 - 5,383 people were working on all Project components
 - 84% of the total persons employed were from NL
 - 4,358 people were working in Labrador – 1,230 were Labrador residents of which 489 self-identified as a member of a Labrador Aboriginal group
 - 640 women were working on all project components, 589 of which were NL residents
- Since project sanction, over \$975M had been spent with NL-based companies
- An estimated \$9M per week returned to provincial economy through local business, employment and wages



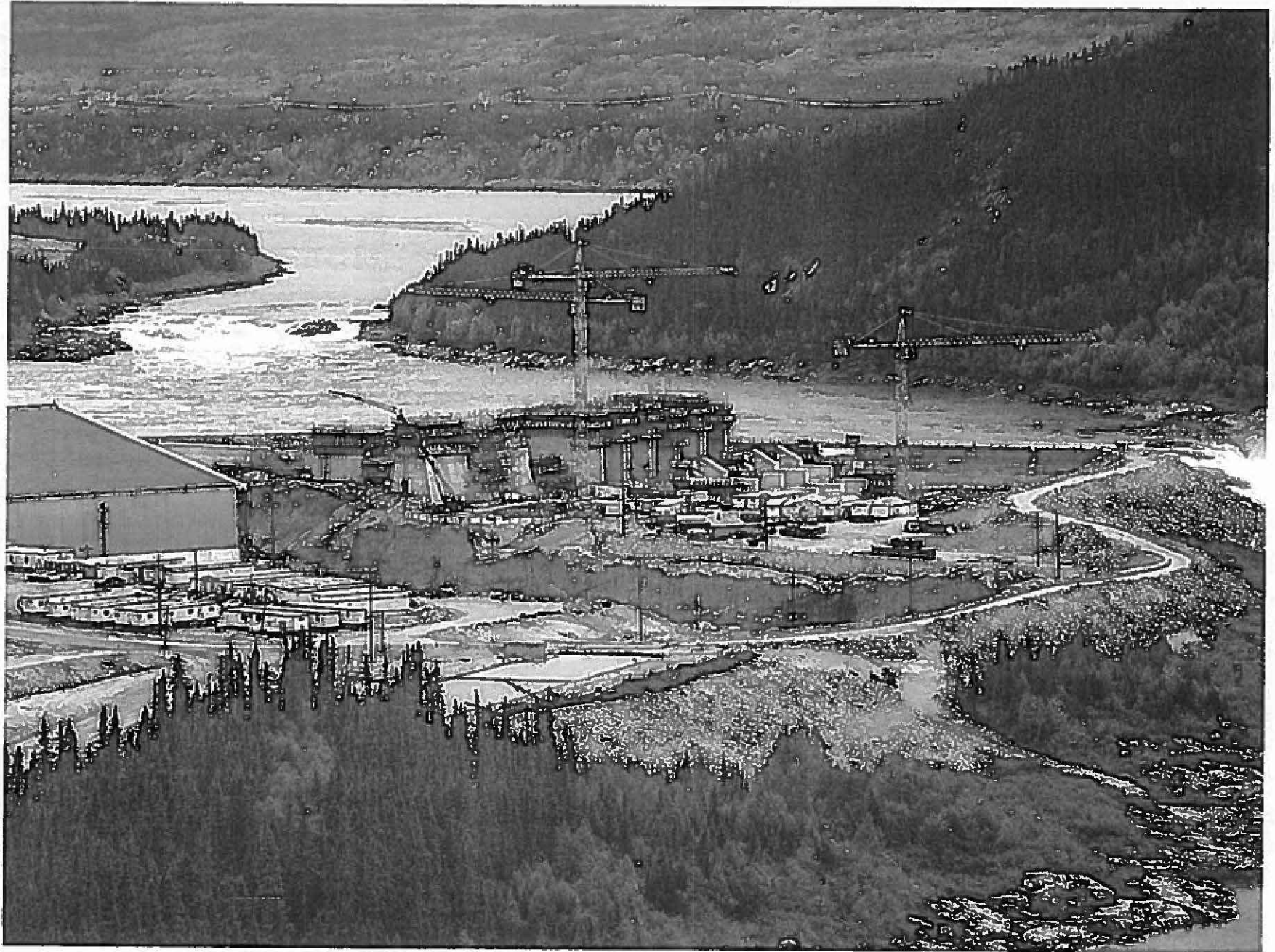
Muskrat Falls Project Oversight

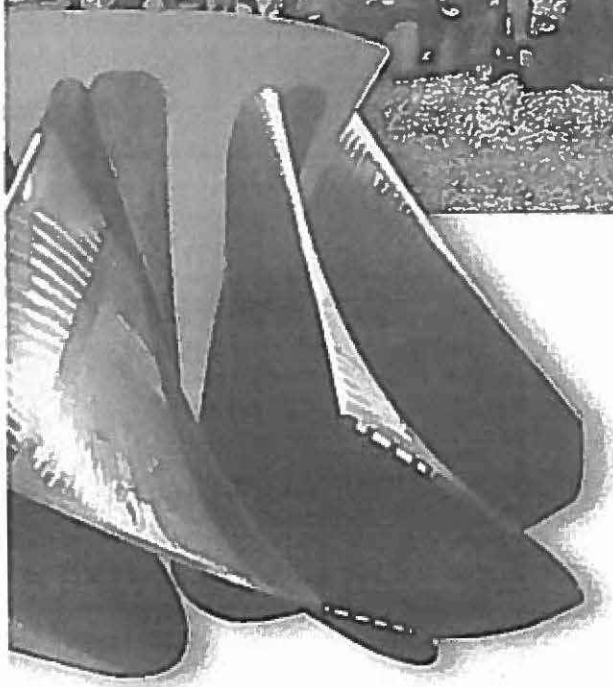
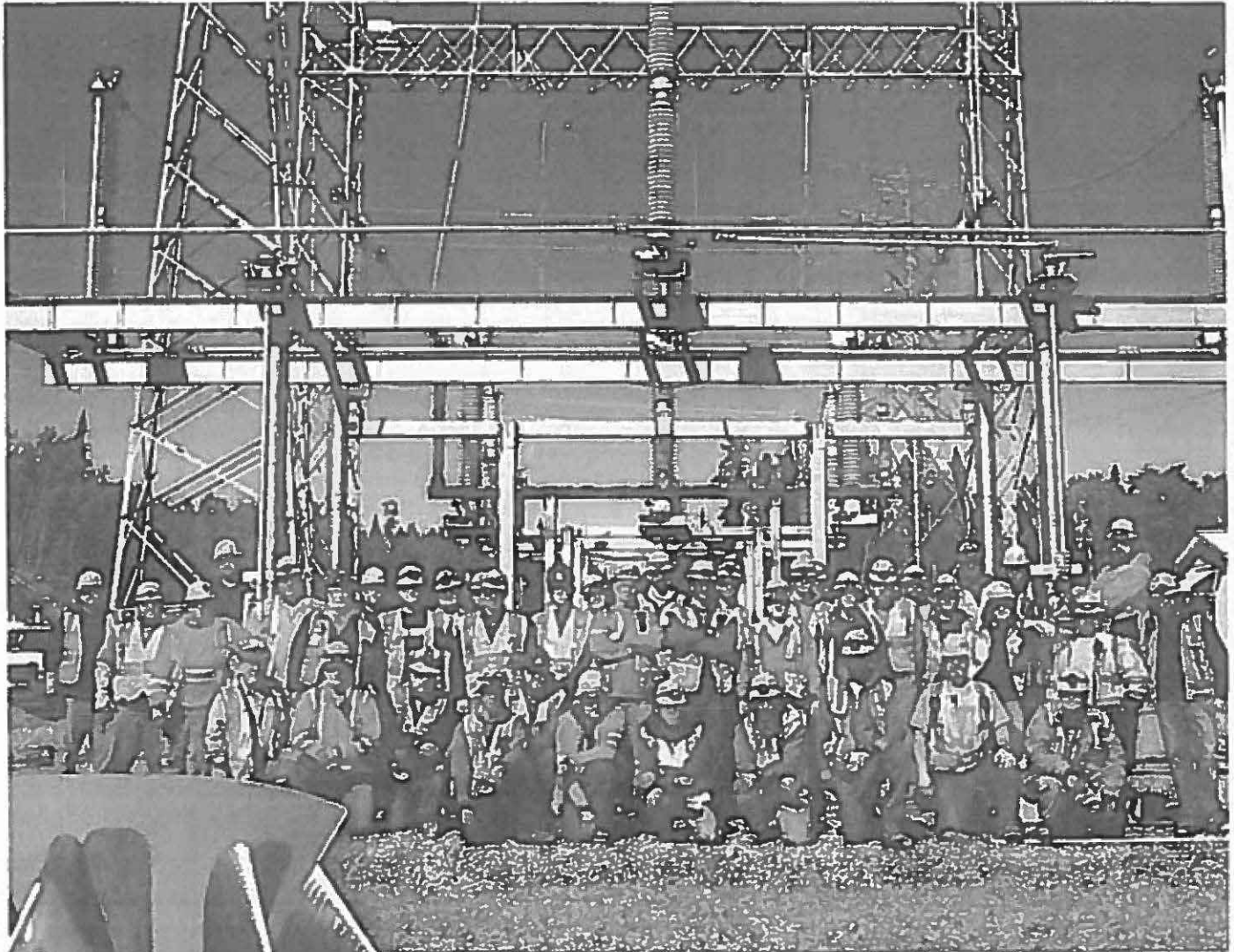
- Nalcor Oversight – Board of Directors, internal audit committee and external independent auditor
- NL Government Oversight – Muskrat Falls Project Oversight Committee composed of senior officials from NR, FIN, JPS, Executive Council, and chaired by the Clerk
- Independent Engineer – MHW Canada Inc. retained to ensure compliance with terms of Federal Loan Guarantee. In place for construction and into operations phase



Maritime Link (ML)

- In conjunction with the MF Project, the ML will export (and import as appropriate) hydroelectricity from NL to NS
- The ML includes ~350 km of overland transmission line and two subsea cables spanning 170 km beneath the Cabot Strait with a 500 MW capacity
- It will be owned and operated by NSPML, a subsidiary of Emera NL. After 35 years, ownership transfers to Nalcor. The asset projected life is 50 years
- In exchange for building the ML and providing Nalcor with transmission access through NS, Emera will receive approximately 20% of the energy from MF over its 50 year life (delivered over first 35 years of ML)
- As of June 2015, the total project cost estimate is \$1.577B, including escalation and contingency amounts
- Commissioning and first power forecasted for 2017





The Power of Teamwork

Working Together to Deliver the Lower Churchill Project.

Kiewit provides the project management, resources and equipment to complete quality work on-time and within budget. We will partner with you to deliver a project that meets your goals.

Construction driven. Outcome certain.

About Kiewit

With more than 130 years of construction experience, Kiewit has delivered some of North America's largest and most complex projects. Our corporation brings a workforce of 30,000 construction staff, and one of the largest and most modern privately-owned equipment fleets in North America. In 2014, we had an annual review of more than \$10 billion.

Full Project Delivery

We are competitive as a local contractor, self-driven and uniquely positioned for large, complex projects in the construction industry. We ranked fifth in Engineering News-Record's (ENR's) list of Top 400 Contractors for 2015. Regardless of the complexity or challenge, our network of decentralized offices, backed by a multi-billion dollar organization, allows us to tackle projects of any size, in any market and any project delivery method.

Mega Project Experience

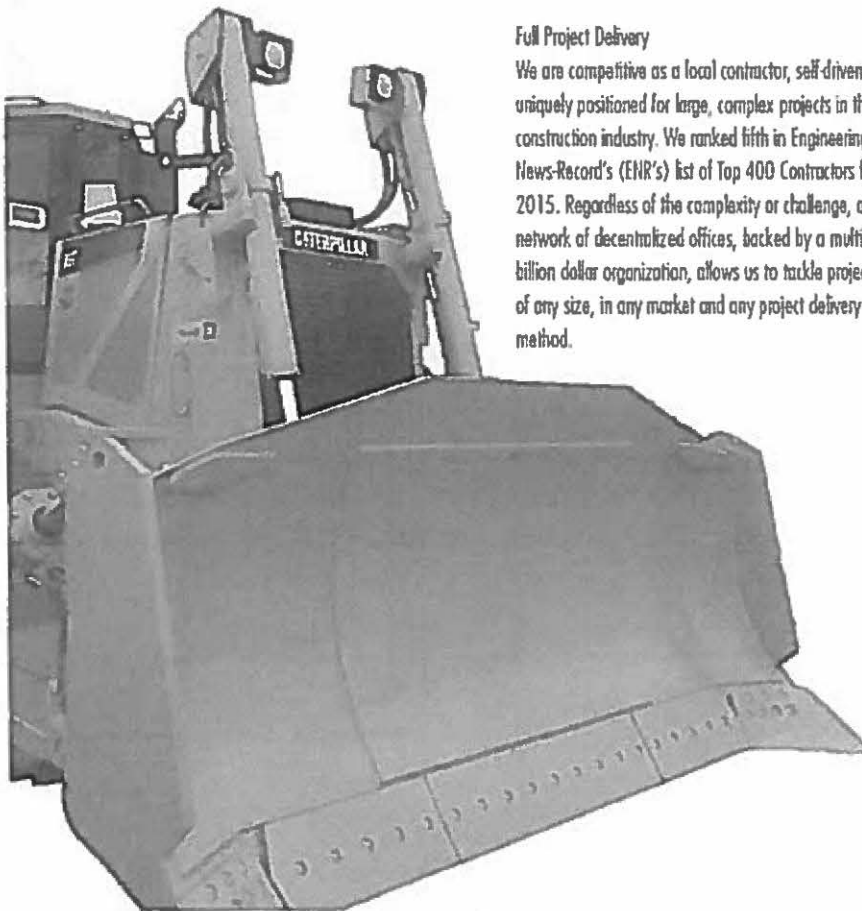
Kiewit has constructed numerous oil, gas and chemical facilities such as the \$2.5 billion Hebron Gravity Base Structure in St. John's, Newfoundland. Regardless of a project's scope, Kiewit works to meet our clients' needs in the timeliest and most cost-efficient way, while remaining focused on quality and safety. Kiewit brings the resources and expertise needed to meet the unique challenges of mega projects.

Strong Leadership

Success as a national contractor is attributed to a decentralized management style. District offices operation in a local market, under direction of a district manager. Decisions rest in the hands of the people closest to the work; people with extensive knowledge about the local labour force, material suppliers, and subcontractors; people who are residents of the area in which they work.

Construction Management

We have developed a reputation for establishing positive working relationships with owners and project stakeholders. We achieve success by partnering with our clients to focus on critical early opportunities to optimize design, construction and procurement activities. We use established tools and process to plan and manage our projects.



EXPERIENCE & CAPABILITY

NAME	LOCATION	START DATE	COMPLETION DATE	CLIENT'S NAME	\$ VALUE	Workforce Peak
Atlantic Canada Experience						
IOC Expansion	Labrador City, NL	April 2010	July 2011	Rio Tinto	\$64M	
Long Harbour	Long Harbour, NL	March 2011	In progress	Vale	\$1.6B+	4,100+
Lower Churchill	Goose Bay, NL	December 2012	December 2013	Nalcor Energy	\$113M	
Hibernia GBS	Bell Arm, NL	August 1993	March 1996	Hibernia	\$1.2B	3,000+
White Rose	Marystown, NL	March 2002	July 2004	Husky Energy	\$695M	900+
Voisey's Bay	Voisey's Bay, NL	July 2002	August 2005	Vale	\$231M	1,300+
Canaport LNG	Saint John, NB	May 2006	November 2007	Irving Oil & Repsol	\$200M	
Hydroelectric Experience						
New Post Creek	Smooth Rock Falls, ON	March 2015	July 2018	Ontario Power Generation	\$220M	
Pointe du Bois	Pointe du Bois, MB	January 2013	In-Progress	Manitoba Hydro	\$300M	
Upper Mattagami	Timmins, ON	December 2007	December 2010	Ontario Power Generation	\$215M	
Kakish Hydro Project	Port McNeill, BC	July 2012	April 2014	Brookfield	\$160M	

Kiewit in Ontario

- › In Ontario since 1949
- › Offices in Toronto and Oakville
- › Average 400 staff and 1,800 craft
- › Over \$2.2B of revenue in the past 5 years in the energy sector
- › Recently completed the Lower Mattagami Project in Northern Ontario, a \$1.7B EPC hydro power project, with First Nations workers

Kiewit in Quebec

- › In Quebec since 1969
- › Offices in Boisbriand, Montreal and Trois-Rivieres
- › Piping fabrication shops in Montreal and Trois-Rivieres
- › Average 400 staff and 1,200 craft
- › More than 20 million union manhours worked over the last 10 years – largest industrial contractor in Quebec

Kiewit in New Brunswick

- › In New Brunswick since 1964
- › Average 60 staff and 250 craft
- › Performed \$200M of work at the Canaport LNG terminal in 2008 to 2010 and performed the major Irving King of Cats refinery expansion

Kiewit in Newfoundland and Labrador

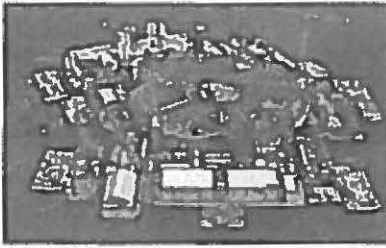
- › In Newfoundland since 1992
- › Offices in St. John's, NL
- › Offshore fabrication facilities in Marystown, NL
- › Currently building Long Harbour Processing Plant and Hebron GBS
- › Average 250 staff and 2,500 craft



37+ MILLION
worked hours in
Newfoundland
since 2011

● Kiewit Offices

MEGA Project Management

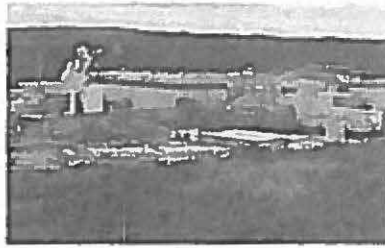


Hebron Gravity Base Structure | \$2.5+ billion
Bull Arm, NL

The Hebron Field uses a stand-alone, concrete gravity-based structure (GBS) production platform. The GBS will consist of a reinforced concrete structure designed to withstand the weight of the topsides, sea ice, icebergs, and meteorological and oceanographic conditions at the offshore Hebron Project Site.

Kiewit and Kvaerner are partners on this multi-billion dollar mega project to build the GBS structure including the mechanical outfitting of the utility shafts. It is designed to store a minimum of 1.2 million barrels of crude oil in multiple separate storage compartments.

Labour Agreements/Manhours/Staffing
Kiewit currently (December 2015) has 1,915 craft personnel and 265 staff personnel on hand for the project. A Project Labour Agreement governs the labour management actions. Under the Resource Development Trades Council of Newfoundland, there are 16 trade unions and Kiewit has a Memorandum of Understanding (MOU) with four. The MOUs address specialty needs including creation of two composite crews that allow trade personnel to work as a collaborative team.



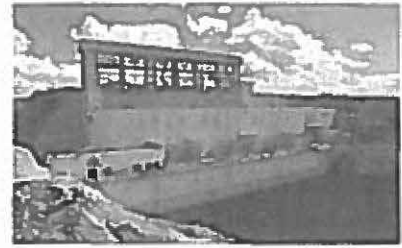
Long Harbour Nickel Processing Plant | \$1.6+ billion
Long Harbour, NL

Vale's Long Harbour Processing Plant is one of the largest in the world to use a new hydrometallurgical process that will refine 50,000 tonnes per year of nickel ore in a more economical and environmentally friendly manner. KBAC Constructors, a partnership between Peter Kiewit Infrastructure Co, Ganotec, BMA Constructors and GJ Cahill, is installing mechanical, piping, HVAC, electrical and instrumentation systems in the plant. The project includes installation of 7,600 pieces of equipment, 8,600 instruments, 91,000 meters of cable, 6,700 tonnes of steel and 98,000 meters of electrical cable across nine buildings on the plant site.

The town of Long Harbour and surrounding communities will benefit from several infrastructure upgrades as well as approximately 3,000 person years of employment from construction and 475 permanent positions.

Labour Agreements/Manhours/Staffing
Kiewit currently (December 2015) has 279 craft personnel and 79 staff personnel on hand for the Long Harbour project. Kiewit has provided 6,000,000 craft man-hours and more than 500 staff for the project.

KBAC Constructors will employ a mostly local workforce estimated to peak at 3,200 craft workers working under 16 Labour Agreements.



Lower Mattagami River Project | \$2.5 billion
Kapusksasing, ON

The Lower Mattagami River Project is the largest hydroelectric power generation initiative in nearly 40 years in Northern Ontario. The project provides an opportunity for employment and specialized training to First Nations.

Ontario Power Generation (OPG) selected Kiewit-Aloria, a Partnership (KAP) to administer the design-build project. This project includes construction of a new 271-MW station immediately adjacent to the existing plant and a new generating unit will be added to three other power generating stations along the Mattagami River: Little Long, Kipling and Hamon. The project required the excavation of 650,000 m³ of overburden and over 700,000 m³ of rock, as well as the placement of over 190,000 m³ of concrete over five years.

Labour Agreements/Manhours/Staffing
Kiewit peaked at 1,600 craft personnel and 350 staff personnel at Lower Mattagami River project. This is a remote project, with all personnel staying in a camp managed by KAP.

The camp is managed to provide a good rest environment to all craft and staff in order to maintain a healthy work/life balance. At peak, there was approximately 800 craft on site and living in the camp.

AT HEBRON

Construction of the 530 slipform required ramp-up of more than 2,000 workers, 24/7 construction, and 4 shifts with 1,400 people/shift. The team negotiated with labour unions to create a 6/1 schedule that accommodated demand for trade workers.

Local Benefits & Labour Strategy

Kiewit has worked in all provinces and territories in Canada, using local craft labour and foreman supervisory staff. We bring a focused approach to regional and local hiring and procurement which translates into regional benefits.

With over 20 years of construction experience in Newfoundland and Labrador, we have strong relationships with the provincial trade unions to retain local labour. We actively manage these relationships through early engagement of the unions, a clear understanding of the overall project goals and objectives, and a framework that promotes transparency and accountability.

Examples of our previous relevant experience working on projects with local benefits strategies/agreements, such as the Canada-Newfoundland and Labrador Atlantic Accord Implementation Acts are described below.

White Rose Topsides Project

The White Rose Topsides Project contract incorporated, challenging Regional Benefits requirements. AMKC a partnership between Kiewit and Aker Maritime (now Aker Solutions), exceeded the benefits commitment through:

- » Delivery of later portion of FEED (Front End Engineering Design) from St. John's, Newfoundland

& Labrador (this required approximately 50 specialist engineers including support staff for 9 months).

- » Execution of Detailed Design in St. John's (approximately 200 design engineers plus support staff for 18 months).
- » Generated all procurement activities from St. John's and Marystown for the full contract period.
- » Completed topside fabrication, testing and commissioning in Newfoundland & Labrador resulting in an over 85% execution rate in the province.
- » Developed a unique web site designed to initiate an early heads-up for upcoming procurement packages, allowing web vendor registration, listing prequalified bidders and listing successful bidders. This facilitated small vendors not only to seek partners as required early in the process, but also to offer their services to the successful larger package bidders.
- » Developed diversity initiatives in partnership with Husky Energy, directed at promoting under-represented groups in the oil and gas industry. Worked in close co-operation with the Women in Skilled Trades Committee, sponsoring the Techsploration program aimed at informing high school girls of opportunities. Supported the Women in Science and Engineering initiatives throughout the project with mentorship opportunities.

Hibernia Project

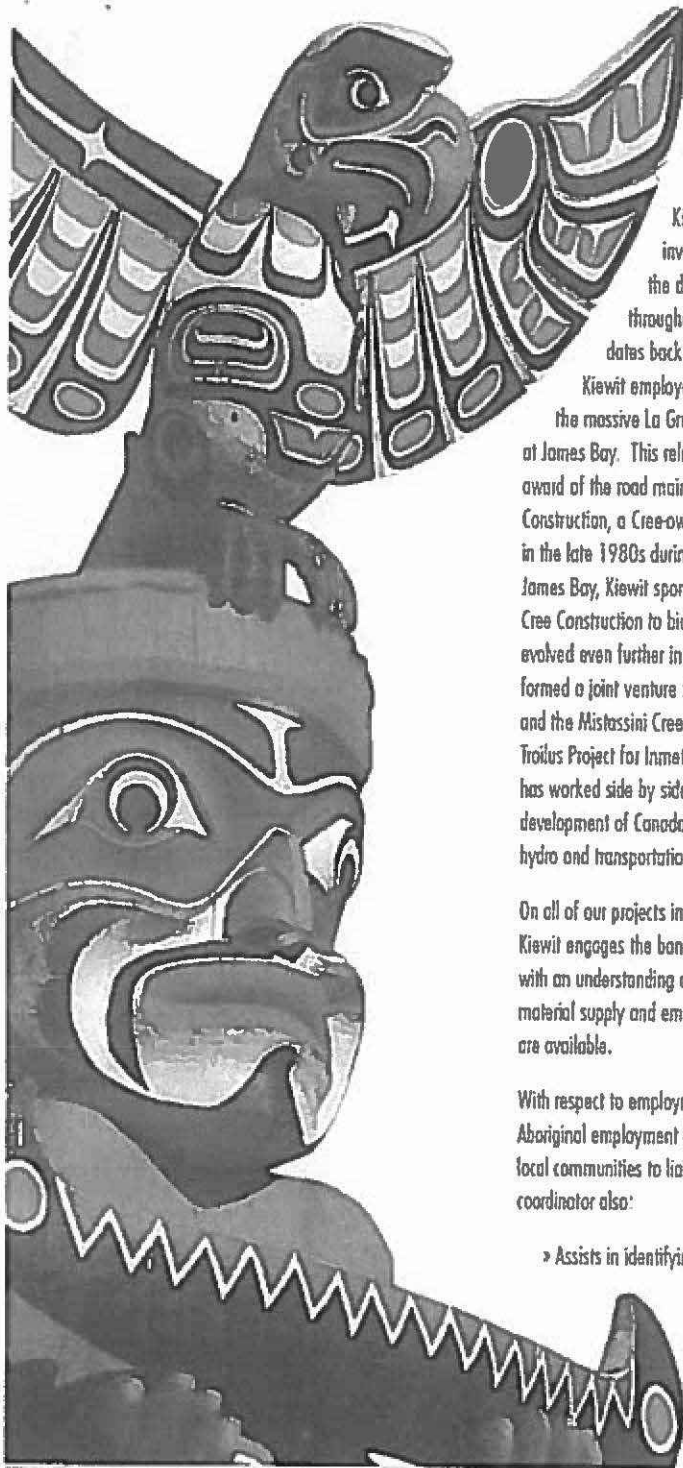
All work related to our scope on the Hibernia GBS construction at Bull Arm, Newfoundland, was executed with local partnership personnel, with the exception of some key management personnel. This work included the management of a 3,000 person workforce with over 90% local hires.

Voisey's Bay Nickel Mine

Kiewit executed a \$250 M infrastructure contract in Labrador. Due to its location, the Aboriginal Industrial Benefit Agreements and Adjacency Rules, the project was one of the most complex Industrial Relations Board (IRB) driven projects undertaken by Kiewit. First priority for hiring and procurement was for the Innu and Inuit people (with a target of 25% of the workforce), followed by the adjacent peoples, including the Metis and Labradorians, followed by Newfoundlanders and then other Canadians. There was a further delineation within the Innu/Inuit agreements – the hiring ratio had to be one-third Innu to two-thirds Inuit and within the Inuit, the more northern communities had first priority.

All hiring and procurement IRB requirements were met including the 25% of workforce requirement for the Innu/Inuit peoples – this was facilitated by specialized job training on-site, as generally the Aboriginals lacked training and work experience. Additional safety training led to zero recordables safety incidents for the





Aboriginal Engagement

Kiewit has a long and rich history involving Aboriginal peoples in the development of major projects throughout Canada. Our involvement dates back to the early 1970s, when

Kiewit employed Cree personnel for work on the massive La Grande River Hydro Electric project at James Bay. This relationship continued with the award of the road maintenance contracts to Chisasibi Construction, a Cree-owned company. Subsequently, in the late 1980s during Phase II construction of James Bay, Kiewit sponsored a joint venture with Cree Construction to bid dyke work. This relationship evolved even further in the mid 1990s, when Kiewit formed a joint venture team with Cree Construction and the Mistassini Cree to bid on work related to the Trailus Project for Inmet Mining. Since then, Kiewit has worked side by side with Aboriginal people in the development of Canada's most challenging mining, hydro and transportation projects.

On all of our projects involving Aboriginal peoples, Kiewit engages the band leadership to provide them with an understanding of the feasible subcontracting, material supply and employment opportunities that are available.

With respect to employment, Kiewit typically hires an Aboriginal employment and training coordinator from local communities to liaise with band members. The coordinator also:

- » Assists in identifying job skills required.

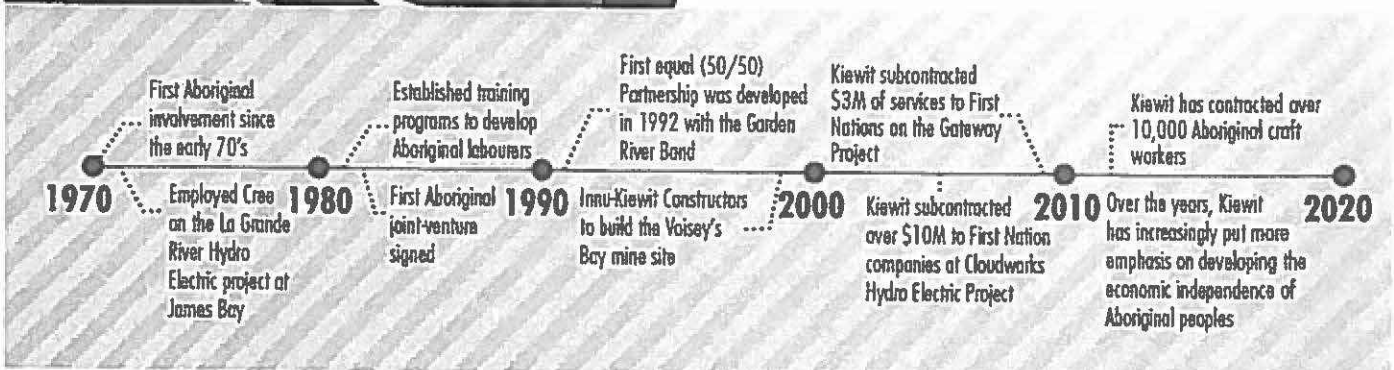
- » Analyzes existing skills and employment goals of Aboriginal individuals.
- » Identifies gaps between skills required and members' existing skills.
- » Provides assistance with the sourcing of the training programs from third parties.
- » Monitors the training program.

Our approach to implement and monitor Aboriginal employment also includes:

- » Determining employment opportunities for Aboriginal people across the employment spectrum, through the construction phase of the project and in the associated businesses.
- » Integrating Aboriginal prioritization into the job requisition process.
- » Assisting in the design and implementation of a tracking system for job placement for members and for credits to the person years target.
- » Monitoring employment levels.

In addition to employment opportunities, Kiewit provides effective on-the-job training. All employees receive regular training in safety, quality, environmental compliance, production, planning and leadership.

Kiewit has a proven track record of Aboriginal inclusion, as demonstrated by the loyal following of Aboriginal workers who have chosen to continue their career with Kiewit after their first project has reached completion.



Nobody Gets Hurt.

Safety is a core value and a part of our culture. Kiewit is committed to the highest standards of safety performance possible consistent with sound construction practices. This commitment has resulted in our company having one of the best safety records in the industry.

Our Commitment to Safety

Anticipating, Recognizing and Controlling Safety Risks

We believe that attention to detail and planning is critical to the success of all aspects of a project — including safety. A site specific safety plan is developed for all of our projects. This plan will form the basis of our safety efforts and emphasizes proactively identifying and addressing safety risks. We accomplish this by developing written work plans for every operation, including both self-performed and subcontracted work.

Each work plan identifies the task, the step-by-step method of completing the task and all needed tools and supplies. The plan also includes a hazard analysis of potential safety issues that may be encountered while performing the operation. The work plan and hazard analysis are reviewed, discussed and signed-off by the crews and foremen. This rigorous planning process forces workers to think through each operation, which leads to better safety and quality outcomes.

On our projects, we begin every morning with our "Stretch and Flex" program along with a review of our "Play of the Day", which focuses on our crews task for the day and the safety and risk factors associated with the task. The project team performs unscheduled safety-only walks. This is an opportunity to observe operations first hand to verify that we follow safety procedures. Our "Craft Voice in Safety" (CVIS) provides a

platform to ensure all craft have an equal voice in safety, working in partnership with management to take a proactive approach on relationship building, empowering our peers to support safety through prevention, education and awareness with the ultimate goal of "Nobody Gets Hurt". Perhaps the most important component to our safety performance is our company's culture. Safety is the first item on the agenda of every project meeting and safety is constantly emphasized in company communication and at company gatherings. Exemplary safety performance is routinely recognized both formally and informally. Kiewit employees know how important safety is to our company and they act accordingly.

Safety Resources

Every project has a designated Safety Coordinator who is responsible for the execution of the safety plan. As a minimum each coordinator has OSHA 10 and 30 hour safety training. The safety coordinator delivers a mandatory project specific safety orientation for new personnel, conducts safety inspections and provides follow-up safety reviews at daily and weekly meetings.

Kiewit dedicates a great deal of resources to training, especially safety training. No one is allowed on a jobsite without undergoing safety training. All of our staff must complete a safety training course when they are initially hired. This training is then supplemented through our in-house Kiewit University advanced safety courses, safety seminars and weekly jobsite safety meetings.

Our on-site safety effort is supported by our Area Safety Committee. This committee consists of the Area Safety Manager, a project executive, a project manager, superintendent and front line supervisors. They visit all our projects to conduct a through safety audit. During the audit, they perform a safety walk and interview supervisor and craft personnel to confirm that Kiewit and OSHA safety guidelines are being met, maintained and discussed.

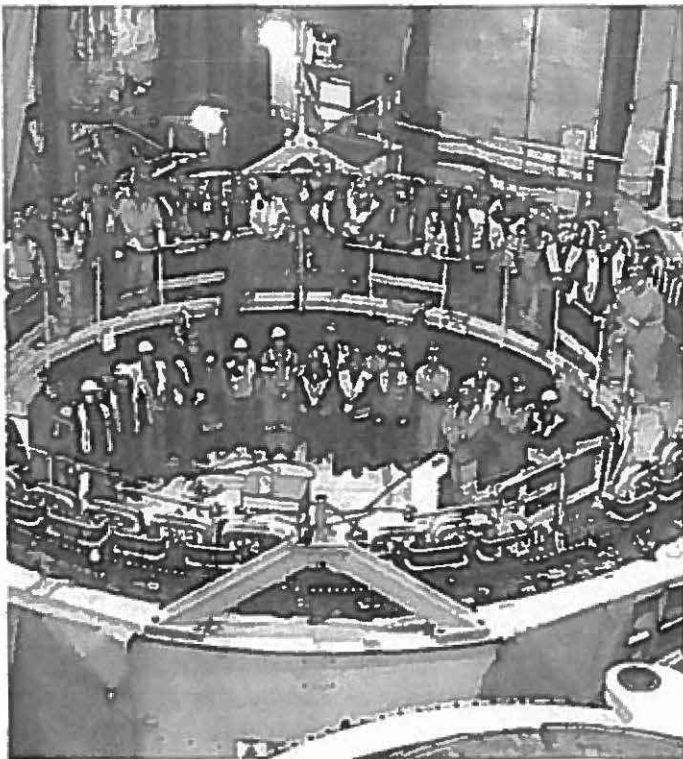


Working Towards a Solution

Kiewit worked closely with Exxon Mobil to turn around the Hibernia project, finishing on time and below budget. Starting with a senior management team site visit, Kiewit evaluated the project and partnered collaboratively with Exxon Mobil to plan and execute a winning strategy. Kiewit managed the site construction operations, integrating key existing management and field supervisors with Kiewit personnel. We supplemented existing equipment as needed and

ordered materials for construction at Exxon Mobil's cost. Exxon Mobil oversaw operations and provided QA/QC staff.

We performed the project under a cost reimbursable contract with a fixed initial fee for meeting budget and profit plus fee on staff costs. Kiewit received incentives for achieving milestones and shared project cost savings with Exxon Mobil.



Why Kiewit?

Project Delivery Mode

Our one-stop approach includes fulfillment of regulatory requirements through to construction support and management including oversight for all suppliers and construction partners. Our innovative value-improving practices will result in reduced interfaces, significantly reduced project risks and optimized project control.

Project Management

The proximity of our St. John-based project team to the project site will provide better systems integration, along with centralized and improved schedule and supplier management.

Partnering with First Nations

Lessons Learned from Kiewit 50/50 joint-venture partnerships will pave the way for an effective working relationship with the Aboriginal peoples.

Knowledge of Local Labour Market

The combined engagement of local partners will help maximize local labour content and benefits agreements.

Tim -

Re: Corporate Governance
Nalcor

Pls find attached materials
provided by Nalcor on
Corporate Governance.

NOTE the skills materia

Thanks



Some Useful Guidance from New Brunswick

New Brunswick Electricity Act

When making appointments to the Board, the *Electricity Act* requires the NB Power Board to

- a) use a merit-based and objective approach
- b) ensure that the board of directors as a whole has the necessary skills and qualifications to carry out its functions,
- c) provide to the Lieutenant-Governor in Council a description of the recruitment, assessment and selection processes used and the results of those processes,

NB Power Governance

The NB Power Board maintains a skills matrix as a tool to assist it in seeking the optimum mix of experience, competency and specific expertise as it chooses candidates. The skills matrix also takes into account other attributes that would add to the diversity of NB Power's Board including: gender diversity, language diversity and familiarity with New Brunswick's First Nations communities.

In order to fulfill its responsibilities under the *Electricity Act*, the NB Power Nominating, Governance and Shareholder Relations Committee established a board recruitment process that utilizes the services of an external search firm in selecting qualified candidates to fill vacancies.

The Committee provides the search firm with criteria established for directors and the background and mix of existing directors as indicated in the up-to-date skills matrix. The recruitment activity typically consists of a national advertising strategy, as well as the search firm identifying prospective candidates who have the desired attributes being sought.

The search firm then compiles a list of potential candidates for Committee consideration. The Committee interviews a short list of prospective candidates and makes a recommendation to the Board. The Board Chair is responsible for recommending to the Minister of Energy & Mines a choice of potential candidates and their respective terms.

Corporate Governance Model

Boundless Energy



January 13, 2016



Purpose / Overview

- To provide an overview of the current corporate governance model at Nalcor:
 - Benefits of Strong Corporate Governance
 - Evolution of Corporate Governance Practices
 - Corporate Governance Model
 - Director Skill / Experience Matrix
 - Key Board Focus Areas

Benefits of Strong Corporate Governance

- Nalcor has made significant progress in formalizing and improving the quality of its corporate governance and public accountability activities over the past 7-8 years.
- The company is now moving to the next phase of its development and the time is right to consider the improvements required to bring the corporate governance and accountability model to the next level.
- Key Benefits:
 - Provide confidence to key stakeholders that a strong corporate governance model exists to provide oversight of Nalcor and its subsidiaries on behalf of the Shareholder
 - Provides comfort to the Province's financiers and lenders that strong governance exists related to key energy assets that create a heritage fund of significant future value to the Province
 - An effective corporate governance process to enable the Shareholder and Management to advance the organization to the next level in its development
 - Increased ability to execute the vision of Nalcor and have continuity of the vision required to implement and execute on the long-term strategy and investments
 - Bring depth of knowledge, contacts, advice to the company to make the company better.

Evolution of Corporate Governance Practices



Corporate Governance Framework

- It is common practice that the corporate governance needs and requirements in an organization evolve over time – particularly in organizations like Nalcor that are undergoing significant growth and change
- In 2006 the Board undertook a review of existing corporate governance practices and benchmarked itself against general best practices in other leading crown corporations and publicly-traded corporations
- The focus of the review was to prepare the governance structure for the new phase in its evolution that the company was entering
- A Corporate Governance Committee of the Board was created and this Committee worked with senior management to undertake the review
- The review highlighted a number of opportunities for improvement, all of which have been implemented by the Board
- The remaining outstanding items include those related to the appointment of directors, specifically:
 - The process to identify and appoint directors
 - Compensation levels for directors

Corporate Governance Framework

- The corporate governance review initiated by the Board in 2006 focused on the following five primary areas:
 - 1) Determining and defining roles of the Board, Committees of the Board and Management (the “What”)
 - 2) Ensuring we were doing all the right things to ensure the appropriate Board Composition (the “Who”)
 - 3) Determining how the Board should effectively and efficiently operate (the “How and When”)
 - 4) Identify the key supporting policies, procedures, and other infrastructure required to achieve success.
 - 5) Framework to ensure the company is demonstrating its public accountability.

Current Status

	Status
Determining Roles	
Board Mandate and Charter	Complete
Committee Mandates	Complete
Corporate Governance Committee	Complete
Board and Management Roles	Complete
Board Composition	
Director Independence / Conflict of Interest	Complete
Director Skills/Experience Matrix	Complete
Director Appointment Process	Outstanding
Subsidiary Boards	Complete
Board Operations	
Meeting plans, frequency, structure	Complete
Understanding the Business	Complete
Quality and timeliness of Board Materials	Complete
Board Self-Assessment	Complete
In-Camera Sessions	Complete
CEO and Management Performance	Complete

Current Status (continued)

	Status
Supporting Policies, Procedures & Infrastructure	
Code of Ethics	Complete
Whistle-Blower Process	Implementation In Progress
Internal Audit	Complete
External Audit	Complete
Independence Guidelines	Complete
Director Orientation	Complete
Director Education	Complete
Director Compensation	Outstanding – data for selection of other entities provided in KBRS report
Audit Committee	Complete
Pre-Approval of Non-Audit Services	Complete
Public Accountability	
Annual Consolidated Financial Statements	Complete
Quarterly Financial Statements	Complete
Management Discussion and Analysis (MD&A)	Complete
Timeliness of Financial Reporting	Complete – meeting timelines established for public companies
Annual General Meeting	Complete
Annual Report	Complete
Transparency & Accountability Report	Complete

Corporate Governance Model



Factors Influencing Corporate Governance Model

- The corporate governance model currently being used by Nalcor was designed to reflect the following considerations:
 - High level of integration and commonality of interests between various legal entities
 - Need to ensure strategic alignment between the legal entities
 - Need to respect the specific accountabilities of each subsidiary Board
 - Desire to protect assets in one entity from potential risks created in another entity
 - Minority ownership by HQ in CF(L)Co. (and Shareholders Agreement in place)
 - Emera minority ownership interest in Labrador-Island Link (LIL)
 - Need to ensure tax-exempt status of Nalcor and subsidiaries is protected
 - Compliance with Nalcor legislation impacting certain corporate governance issues
 - Conditions imposed by LCP Financing and Federal Loan Guarantee Agreements

Key Characteristics of Corporate Governance Model

- To address the factors influencing corporate governance, a corporate governance model evolved that reflects the following features:
 - Thirteen separate legal entities, each with a separate Board of directors
 - At least two external directors independent from the Nalcor Board or any other subsidiary on all new subsidiaries created
 - For most Board's the CEO is the only internal director
 - in a limited number of subsidiaries there are some managements representatives on the Board
 - Cross appointment of directors from the parent company Board on Boards of most subsidiary companies
 - Common Board chair for most of the legal entities
 - High degree of commonality of the Officers amongst the legal entities
 - "Super-independent" directors on several LCP subsidiary Boards to satisfy financing requirements
 - Separate Audit and Safety, Health and Environment Committees for CF(L)Co as required by the Shareholders' Agreement
 - Common Committee structure at Nalcor level supporting all other subsidiary boards (Audit; Corporate Governance; Compensation; Safety, Health, Environment & Community)

Director / Skill Experience Matrix



Director Skill / Experience Matrix

- In late 2014 Nalcor engaged Knightsbridge – Robertson Surette (“KBRS”) to develop a matrix of the required skill sets that should be considered in making director appointments.
- The process recommended by KBRS with respect to the appointment of new directors is two-fold:
 - Core competencies expected in all directors
 - Specific functional expertise, industry expertise, geographical coverage, cultural and gender diversity
- The Core Competencies identified by KBRS include:
 - Strong conceptual skill and intellectual insight
 - Nalcor values orientation
 - Judgment and risk assessment savvy
 - Sophistication and sensitivity in dealing with multi-stakeholder environments
 - International orientation
 - Board level contributor and /or senior business leadership acumen
 - Diversity

Director Skill / Experience Matrix

- In assessing whether the Board has the appropriate coverage of diversity, geographic, functional and industry experience, KBRS developed a matrix that included the following considerations:

<p>Geographic Considerations:</p> <ul style="list-style-type: none"> Newfoundland and Labrador Maritimes Quebec Ontario Western Canada Europe New England Texas / US Oil & Gas Regions Other – USA Other 	<p>Functional Experience:</p> <ul style="list-style-type: none"> Large Construction Projects Large Operations Accounting / Financial Reporting Financing / Capital Markets Commercial Law Technology Electricity Markets Geology / Subsurface / Exploration Human Resources Government Relations / Public Affairs International Markets Other
<p>Diversity:</p> <ul style="list-style-type: none"> Cultural Gender Other 	<p>Industry Experience:</p> <ul style="list-style-type: none"> Oil & Gas Electricity Energy Marketing / Transportation Regulated Utility Finance / Banking / Private Equity Construction Consulting / Law Government Other
<p>Other Considerations:</p> <ul style="list-style-type: none"> ICD Designation Large Public / Crown Board Experience 	

Key Board Focus Areas



Profile of New Directors

- In considering new directors, the following factors should be considered:
 - A target board of 8-10 directors
 - Some geographic coverage from outside NL
 - Start to bring some diversity to the Board
 - Start to get some broader industry / functional area coverage based on the KBRS work
 - Recruit some directors with experience in large company Boards

Common Focus Areas

- The Parent company Board and subsidiary Boards have the following common focus areas:
 - Annual Budget (Operating & Capital)
 - Annual Audited Financial Statements
 - Quarterly Financial Statements
 - Annual Financial Risk Management Plan (if applicable)
 - Five-Year Corporate Plan
 - Corporate Strategy
 - Understanding Key Risks
 - Emerging Business Issues
 - President's Report (actual performance against corporate plan)
 - Financial Performance (actual performance against budget)
 - Appointment of Officers
 - New Debt Financing
 - Key Commercial Arrangements

Focus Areas Specific to the Nalcor Board

- The following focus areas are specific to the Nalcor Board:
 - Quarterly and Annual MD&A
 - Annual Report
 - Business Unit Reports
 - Board Committee Reports
 - Relationship with External Auditor, including:
 - appointment of external auditors,
 - annual external audit plan, and
 - establishment of audit fees for the group
 - Oversight of Internal Audit Activities
 - Key Accounting Policies to be adopted by the group
 - Financial Risk Management Policy to be adopted by the group
 - Enterprise Risk Management Framework and Policies to be adopted by the group
 - Compensation Framework and Policies to be adopted by the group
 - Corporate Governance Model and Policies for the group
 - Corporate Strategic Planning Process
 - Annual Corporate Financing Plan
 - Annual Transparency & Accountability Report
-

Murphy, Tim

From: O'Connor, Nancy
Sent: Wednesday, December 16, 2015 3:28 PM
To: Ball, Dwight; Parsons, Kelvin; Murphy, Tim; Miles, Peter; Buckle, Joy
Subject: Background on the discussion regarding the bond performance for Muskrat Falls

Hi,

Just looping back with you on this.

Further to some chatter about Anthony Germaine digging about investments. This is where it stems from based on my understanding. The appropriate departments have this information as well.

Thanks

Nancy

From: KONEill@nlh.nl.ca [mailto:KONEill@nlh.nl.ca]
Sent: Wednesday, December 16, 2015 2:14 PM
To: O'Connor, Nancy
Subject: Background on the discussion regarding the bond performance for Muskrat Falls

Hey Nancy,

Dawn asked me to send along some background information to you on this topic.

Following a Globe & Mail article this week (see below) NTV reached out to Nalcor, Dept. of Finance and DNR asking for a comment about the poor-performance of the bonds for the Project.

Dept. of Finance is not planning to comment and it's my understanding the DNR will leave it to Nalcor to respond with a statement.

Here is our draft statement that I'm currently circulating for review and comment. I'll forward the final once I have signoff.

Diana Quinton at DNR is looped in on our planned response and she will also receive the final statement before we issue.

Since this is the first time I'm using your gov't email address can you please confirm you have received my email?

Thanks
Karen

Proposed response to NTV:

In December 2013 Nalcor Energy secured \$5 billion of debt financing at a fixed average interest rate of 3.8% for a fixed term by issuing a series of long-term bonds bearing an AAA credit rating through the guarantee

provided by the Government of Canada. The performance of these bonds in the markets do not have any impact on the favorable terms or repayment obligations Nalcor Energy has secured for these bonds nor is it related to any views the market may have on the Muskrat Falls Project.

As noted in the recent Globe & Mail article, there are various macro economic factors that could be driving the performance of these bonds. The performance could be related to the fact that financial markets have been under pressure in the last few months driven by persistent market illiquidity, concerns over the Chinese economy, and the continued oil crisis caused by the lack of cooperation of OPEC members.

In comparing the change in interest rate spreads on the bonds acquired for the Muskrat Falls Project financing since December 2013 (which in turn impacts their price) to those they are typically benchmarked against, the change has actually been comparable. The spreads on these bonds is consistent with the movement of both Canada Mortgage Bonds in the 10-year term and the 30-year term Government of Ontario bonds.

<http://www.theglobeandmail.com/globe-investor/canadian-provincial-bond-selloff-spreads-to-less-liquid-securities/article27750621/>

Canadian provincial bond sell-off spreads to less-liquid securities

JOSH WINGROVE

Bloomberg News

Published Monday, Dec. 14, 2015 5:13PM EST

Dwight Ball won a commanding election victory two weeks ago in oil-producing Newfoundland with a pledge to stoke the province's economy and open the books on its flagship energy project. Bond investors aren't as optimistic as voters. Bonds for the \$7.7-billion Muskrat Falls hydroelectric dam and a pair of related transmission lines, though federally guaranteed, are among the five worst performers this quarter among the top 50 provincial issuers on the Bank of America Merrill Lynch index.

While Mr. Ball's Liberal election platform is bullish on Newfoundland's economy and power sector, the projects have run into setbacks in recent months, including a cost overrun and subcontractor insolvency. That has been compounded by contagion from general weakness across Canadian provincial bonds, only now rippling through to smaller, less-liquid holdings such as the three connected to Muskrat Falls.

"You've seen a very quick reversal" to match pricing with, likely, very little actual trading, said Heather McOuatt, portfolio manager at Franklin Bissett Investment Management, which manages \$5-billion in fixed income. "The trajectories are in line with what I'd expect with just a catch-up trade."

The Canadian provincial bond market is down 1.6 per cent since July, led largely by Ontario, on selling pressure driven by the Chinese yuan devaluation in August and a subsequent search for liquidity, Ms. McOuatt said. The smaller bonds related to Muskrat Falls were spared at first, but have since joined the rout.

Muskrat Falls is an 824-megawatt generation facility in Labrador; 1,600 kilometres of transmission lines known as the Labrador Island Link would connect it with the existing Churchill Falls project and the island of Newfoundland, while the Maritime Link would hook it up to Nova Scotia.

The dam is a massive project for the Atlantic province of 528,000 people – Muskrat Falls’ cost exceeds the provincial government’s total annual budget, which sits at \$7.2-billion this fiscal year. Nalcor Energy Corp., a utility owned by the Newfoundland provincial government that is developing the project, announced on Sept. 29 costs had risen 10 per cent.

Canadian provincial bond spreads widened in the third quarter of 2015 largely because of external factors, said Avery Shenfeld, chief economist at CIBC World Capital Markets. That included a higher risk premium in global markets on non-sovereign debt, driven by a boost in liquidity of corporate bonds and a slowing global economy, which increases credit risks, he said.

Canadian federal government bonds still trade at historically low yields, Mr. Shenfeld said. “Even with wider spreads, high-grade provincial and corporate bonds are also still being bought at relatively low rates,” he said.

On Nov. 30, Newfoundland voters delivered what polls had long projected – a landslide victory for the Liberals, who won 31 of 40 districts, and an end to the Progressive Conservative government that approved the Muskrat Falls project. Mr. Ball chided Nalcor for cost overruns during the campaign and pledged to “open the books on Muskrat Falls.” The Liberals also committed to “minimizing its burden” on taxpayers and detail funding.

“We continue to make steady progress in all areas of the project across the province,” Nalcor spokeswoman Karen O’Neill wrote in an e-mail response.

Nancy O’Connor, a spokeswoman for Mr. Ball, declined to comment, saying his administration hasn’t yet been briefed on the matter. The government takes power today.

The federal guarantee – agreed to by Prime Minister Justin Trudeau’s predecessor, Stephen Harper – is supporting the value of the bonds amid uncertainty, Ms. McOuatt said. Mr. Trudeau has hinted at doing the same for other projects, campaigning on a promise to use the government’s “strong credit rating and lending authority to make it easier and more affordable for municipalities to build the projects their communities need.”

The bar will remain high on such projects, Ms. McOuatt said.

“I don’t foresee them getting involved with too much of these types of things in the future, if they’re not of this scale and same sort of significance,” she said.



Karen O'Neill
Communications Manager
Lower Churchill Management Corporation
Nalcor Energy - Lower Churchill Project
t. 709.737.1427 c. 709.690.2012
e. koneill@nalcorenergy.com
1.888.576.5454

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?

Murphy, Tim

From: Mullaley, Julia
Sent: Friday, December 18, 2015 10:58 AM
To: Murphy, Tim; Parsons, Kelvin
Subject: FW: Staffing by line of business - Nalcor

Please see below. This had come up as a question during the briefings with the transition team. If you require further or additional information, please let me know. Thanks.

Julia

From: King, Tracy
Sent: Friday, December 18, 2015 9:20 AM
To: Mullaley, Julia
Subject: FW: Staffing by line of business - Nalcor

Julia,
I understand during the transition period there was some question as to the staffing levels at Nalcor. Please see the information provided below. If you require further or additional information, please let me know.

Tracy

Tracy King
Assistant Secretary to Cabinet
Cabinet Secretariat, Executive Council
Government of Newfoundland and Labrador
(709) 729-2850

From: Bown, Charles W.
Sent: Thursday, December 17, 2015 3:10 PM
To: King, Tracy <TracyKing@gov.nl.ca>
Subject: Fw: Staffing by line of business - Nalcor

Sent from my BlackBerry 10 smartphone on the Bell network.

From: DawnDalley@nalcorenergy.com
Sent: Thursday, December 17, 2015 3:09 PM
To: Bown, Charles W.
Subject: Staffing by line of business - Nalcor

Company	Estimate
Churchill Falls	314
NL Hydro	868
Non-Reg Hydro	40
LC	69
Oil and Gas	22
Bull Arm	3
Energy Marketing	18
Nalcor	127
Total	1460

Murphy, Tim

From: Bown, Charles W.
Sent: Saturday, December 19, 2015 7:11 PM
To: Murphy, Tim
Subject: Re: Monday Announcement - Key Messages

Got it.. Ty.
 Charles

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Murphy, Tim
Sent: Saturday, December 19, 2015 6:50 PM
To: Bown, Charles W.; Coady, Siobhan; Ball, Dwight
Cc: Parsons, Kelvin; O'Connor, Nancy; Mullaley, Julia; Miles, Peter
Subject: Monday Announcement - Key Messages

Here are my Comms related notes:

- Given recent cost increases and schedule slippage on the MF project, it is prudent for the NL Government to review the project's cost and schedule to determine if there are any critical risks going forward.
- The TOR for the review has been posted on the NL Government website.
- This type of due diligence is typical in major capital projects. It also addresses our platform commitment to "open the books on Muskrat Falls".
- EY has been selected to do this work given they recently completed a study of MF project cost and schedule controls, so their learning curve will be extremely limited thereby enabling the review to be completed expeditiously.
- The review will take two months and will be completed by early March. The final report, including Nalcor's response, will be presented to the Muskrat Falls Oversight Committee and be released to the public.
- We are conscious that Nalcor is focused on MF project execution and we don't want that focus to change. That's why we want the work completed expeditiously.
- A key driver to do this work relates to planning for our 2016-17 budget. We want to confirm the funding and time required to complete the MF project and inform the public. We need to ensure that any risks from a financial perspective are reflected in the Fiscal framework going forward.
- We have advised the Nalcor Board Chair and CEO of the planned review and they have committed to full cooperation (TBC).
- The MF project is of critical importance to the province.

- The cost of this review will be between 750K-1M. We believe this is an essential investment given the scale of the MF Project and its implications on the Government's overall budget.

Sent from my BlackBerry 10 smartphone on the Bell network.

EY

~~change call to present~~
~~substances - avoid 10:15 or~~
~~time~~

P. Mills:

H+K Knowlton

Kiewit came to H+K - NL contract

Patrick Lamore (CAN) - was senior VP with SNC Lavalin.

Len of work on NL

SNC was EPC on MF - RE was with SNC

like to have audience with someone

how to get MF back on track.

- Local (B) has contacted CB.

• Nuclear likely not receptive too
 did it before with this project

• afraid to approach Nuclear / afraid of officials.

→

CB - met S&P

will release report based on
 con.

- feeds into reg scheduling
 windows next 2 weeks

- assess open in June

- may put us on reg watch -

ON eq.

7-9 yrs

StP - but don't graduate in ON - not best model

Even ship will be impacted with fiscal fix
- set pre-sign off

- to bus. cte - group. + grow economy.

PM - think about text message.

Executive Council
Natural Resources
December 21, 2015

Media Advisory: Announcement of the Review of Muskrat Falls Project

The Honourable Dwight Ball, Premier of Newfoundland and Labrador, together with the Honourable Slobhan Coady, Minister of Natural Resources, will make an announcement today (Monday, December 21) regarding a review of the Muskrat Falls Project. The announcement will take place in the Media Centre, Ground Floor, East Block, Confederation Building, beginning at 2:00 p.m.

- 30 -

Media contacts:

Nancy O'Connor
Director of Communications
Office of the Premier
709-789-1825
nancyoconnor@gov.nl.ca

Diana Quinton
Director of Communications
Department of Natural Resources
709-729-5282, 631-8155
dianaquinton@gov.nl.ca

March 1

→ to end of December.
what about Astaldi piece?

①

EY - Identifying risks - some as ② - Contingency not adequate

- ② re-scheduling - not until end of March at earliest
- ③ in some window

EY - how tie into o/s report

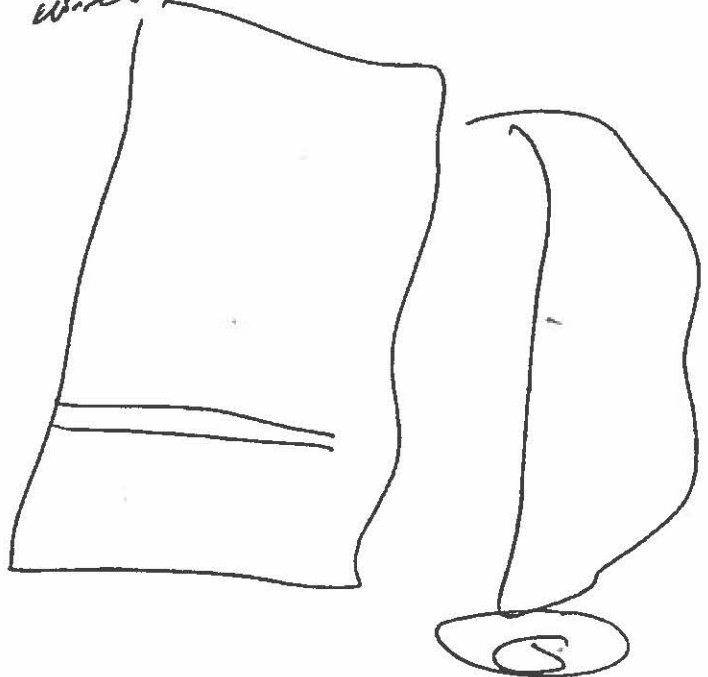
① release ^{could} val.d. on 7.365⁶, talk about risks on Cont & schedule - but not quantify it.

- ② will give EY est. of A impact per slides

JM - G doesn't have capacity to develop plan.

- o/s report
- EY
- Will not stop → analysis
- red to o/s. After stronger →
- New Ad members.

order changed in
work contingencies



- JM - Natcor never reported into Cab. Sec. Cai
 Always been Ed to Pramio via N.A.
- biggest role is on O/S ctree -
 - O/S ctree - depends on role & wants O/S ctree to plug.
 - NK & doesn't have capacity - need special expertise to validate (EY type expertise). - costs were huge (for EY) - EY used very selectively, given cost.
 - EY and TW Eng. go on site visits.
 - get high-level metrics as O/S ctree → EY asked to check inputs before O/S ctree reports on outputs.
 - O/S ctree can track metrics and trends → + Flip with Natcor
 - ctree works/meets only once monthly - EY on metrics
 - Does G want to go faster than that? Will cost millions.

Natcor/N.A. PD - have had lead on plans - (N) has done the execution
 amt. of work on (G.I)

→

G.I w.G - led by Gault - (N) part of it.

- Drafting Report - O/S ctree → 2 weeks or so.
- KP - if Pramio wanted to add to O/S ctree - external -
JM - no problem.

JM - role of AG/EY? on O/S ctree.

①

• O/Signt Ctte

Astaldi

Solvency
- walk - ~~begin~~ JPS
on Agreement

• G-Island

- Blackstone
- NS

• ET

• Re-baselining

• Stop / go →

• NSpor

• Board governance

• Enhanced Lt.

Is it "you
Necessary and
they need"?

Abernon / Valard.

Any link with G-Island.

If CEO not taking direction
from Board

Feb 15

O/Signt Ctte - do we have right composition.

Ken M - likely leaving Bd

KP - talking to # of people who did neg. projects

STACK FULL REVIEW
SUN AM DEC 20

Murphy, Tim

From: Mullaley, Julia
Sent: Friday, December 18, 2015 10:22 PM
To: Ball, Dwight; Murphy, Tim
Subject: Fw: Revised material and quote
Attachments: Muskrat Falls Project - Cost and Schedule Review.pptx

For further discussion tomorrow. Thanks.

Julia

Sent from my BlackBerry 10 smartphone on the Bell network.

From: David Steele <david.steele@ca.ev.com>
Sent: Friday, December 18, 2015 9:44 PM
To: Mullaley, Julia
Subject: Revised material and quote

Hello Julia,

Attached is a revised deck that provides for greater focus on reviewing the Project's cost and schedule, current state and forecast.

The fee range associated with this review is \$750K - \$1.25M, which is comprised of notable planning before-hand (between now to the second week of January) and 8 resources for the 2 month duration. *Start mid-J.*

We will do everything we can to contain fees. We are bringing our very best major capital project/infrastructure resources to this project, all very senior operators. This is what is required to ensure that you and the Premier get the comfort from this review on the Project's Schedule and Cost.

In addition, two of our major capital project/infrastructure leaders will be in town on Monday for internal planning. It would be great if we could get a few key talks from Government (perhaps you and/or Charles) together with them for initial conversations and direction setting. This could happen in the afternoon. Please let me know. Thank you.

Regards,

David

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David Steele | Partner | Advisory Services

Ernst & Young LLP
 Fortis Place, 5 Springdale Street, Suite 800, St. John's, Newfoundland and Labrador A1E 0E4, Canada
 Office: +1 709 570 8284 | Cell: +1 709 769 2080 | David.Steele@ca.ev.com
 Website: <http://www.ev.com>
 Melanie Brooks | Phone: 1 709 726 2840 | melania.brooks@ca.ev.com

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No deque :
 1A 650-950 m cost ↑ (higher prob)
 Sched ↑ 21-27 months
 1B 350-500 m ↑ cost (lower prob)
 large claim
 sched ↑ > 24 months

Opt 2

Deque 1 250-300 m (not certain it's enough)
 Not addit cost 430-575 m ↑
 12-18 months ↑ sched.

Opt 3

Fire A. Stadi:

650-950 m cost ↑
 21-27 months ↑ sched.

Ed
 Agree that withy deque - he is saying you &

Addit cost to Ast our cost bid (~~A 550~~) is 600-800
 12-18 months delay to ph comp. ^{4 pro m}
 work coll m

1. ~~Digit~~

1. from SUN mtg with Premier

1. Astaldi putting in claim, would seek,

Ed - thought w/in 1/2

Astaldi:

→ don't want ~~to~~ to walk

→ blame - feel it fair + & from process

expect low firm →

Muskrat Falls Program Review & Monitoring

Preliminary Estimate of Fees

December 18, 2105



Muskrat Falls Project – Program Review and Monitoring

Preliminary Estimate of Fees

The following is a preliminary estimate of fees for the various phases of Program Review and Monitoring activities:

Component	Range	FTE Consideration
Program Review (Initial – 6 week)	\$300K - \$500K	2 Partners 3 Senior Managers
Program Review (Deeper dive – 2.5 months)	\$750K - \$1.25M	2-3 Partners 4-5 Senior Managers
Ongoing Monitoring (per year)	\$1M – \$1.5M	2-3 FTE

The scope, duration and expectation for deliverables will be determined through collaboration with Government and EY and documented in an agreed Scope of Work (SOW). A final fee estimate with noted assumptions will be provided with the SOW.

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Briefing note: Muskrat Falls Program Review & Monitoring

December 18, 2105

- What good for what we got.

-



Muskrat Falls Project – Program Review and Monitoring

Building trust and confidence through transparency

Objectives and Overview:

- ▶ Independent program review and risk oversight is required to build stakeholder trust and confidence in the Muskrat Falls Project (the “Project”).
- ▶ Establishing an independent program review and on-going program monitoring are considered highly effective leading practices for major infrastructure programs.
- ▶ It will deliver a clear understanding of the Project’s current state and forecast for the future, including identification of opportunities to address critical risks.

Deliverables and Reporting:

- ▶ A report will be provided to the Provincial Government, covering:
 - ▶ The performance of the Project
 - ▶ The key risks and issues impacting the Project
 - ▶ Identification of opportunities for remediation or corrective actions, if necessary

Muskrat Falls Project – Program Review and Monitoring

Building trust and confidence through transparency

Scope and Activities

We recommend two scope components:

1. Program Review (up front)

- ▶ A comprehensive review of the Project status – both current and projected
- ▶ Identification of the significant risks and issues facing the Project
- ▶ Root cause analysis
- ▶ Performed in 2 phases:
 - ▶ Phase I (6 weeks) – interim results and observations, providing focus for Phase II
 - ▶ Phase II (2.5 months) – deeper dive into focus areas identified from Phase I
- ▶ Expected total duration of 4 months (i.e., January – April 2016)
- ▶ Additional interim reporting will be provided during the course of the review, as appropriate

2. Program Monitoring (ongoing)

- ▶ On-going assessment and monitoring of the Project through to completion
- ▶ Existing sources of assurance on the Project will be used as appropriate
- ▶ The scope and intensity of the monitoring will be determined based on the results of the Program Review and will consider any risks identified

The scope, duration and expectation for deliverables will be determined through collaboration with Government and EY and documented in an agreed Scope of Work.

Muskrat Falls Project – Program Review and Monitoring

Building trust and confidence through transparency

Potential focus areas for the Program Review:

1. Governance / Delivery Model

- ▶ Review and assess team structure
- ▶ Review decision making framework and processes
- ▶ Review contracting and procurement strategies and performance
- ▶ Review Project reporting

2. Project Status / Baseline

- ▶ Cost – assess processes / status / estimate to complete
- ▶ Schedule – assess processes / status / forecast to complete
- ▶ Scope – changes pending / approved and claims
- ▶ Scope, Cost and Schedule - identify mitigation / improvement opportunities
- ▶ Procurement / Contracting – assess controls / status / identify risks
- ▶ Quality management – assess processes / status / identify risks

3. Risk identification, quantification and mitigation

- ▶ Assess the status of critical risks identified and related risk management plans
- ▶ Assess the quantification of risk and contingency provisions in budgets and schedules
- ▶ Identify additional risks and other areas of concern
- ▶ Recommend opportunities to mitigate risks and define appropriate remediation plans

6 - *we*

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TM Copy

Briefing note: Muskrat Falls

Request for EY to Review and Monitor Project
Cost and Schedule

Assess

December 18, 2105

⑤ PPP??

① ~~AS base reviewed?~~ ✓

② ~~Legal reviewed?~~

③ ~~Fully assessed implications
on Reg of Nuclear~~

④ ~~Finser M. n.s. Coady & Bennett informed~~



Briefing note: Muskrat Falls

Request for EY to Review Project Cost and
Schedule

~~add to:~~ of Critical Risks

December 18, 2105

EY

Building a better
working world

Muskrat Falls Project Request for EY to Review Project Cost and Schedule

Objectives and Overview:

- ▶ An independent review ~~to deliver a clear understanding~~ of the Muskrat Falls Project's Cost and Schedule status (current state and forecast), including the identification of opportunities to address critical risks.

any

Reporting:

- ▶ A report will be provided to the Provincial Government covering:
 - ▶ The cost and schedule performance of the Project
 - ▶ The key risks and issues impacting the cost and schedule of the Project
 - ▶ Identification of opportunities for remediation or corrective action, if necessary

- Muskrat Falls letter

- release TOR.

and early March.

*- being worked with part study -
allow for 2 months completion.*

Muskrat Falls Project Request for EY to Review Project Cost and Schedule

Scope and Activity Overview

1. Cost & Schedule Review

- ▶ A comprehensive review of the status of the Project's cost and schedule – both current and projected
- ▶ Identification of the significant risks and issues facing the Project
- ▶ Root cause analysis
- ▶ Expected duration of 2 months
- ▶ Interim reporting will be provided during the course of the review, as appropriate

pl.s 11 may now to early JAN.

JAN 8th.

The scope, duration and expectation for deliverables will be determined through collaboration with Government and EY and documented in an agreed Scope of Work.

PH - in 2 months, if key urgent areas to address. - let us know what's going away.

- when finished

Prereq:

- ① Subjt. & from leaders
- ② budget.

review this is dealing with our biggest budget risks

Muskrat Falls Project

Request for EY to Review Project Cost and Schedule

Potential focus areas for the Cost & Schedule Review:

1. Project Status / Baseline

- ▶ Cost – assess status and estimate to complete
- ▶ Schedule – assess status and forecast to complete
- ▶ Scope – assess changes pending / approved and claims
- ▶ Scope, Cost and Schedule - identify mitigation / improvement opportunities
- ▶ Procurement / Contracting – assess and identify risks
- ▶ Quality management – assess and identify risks

- give range on cost

- in budget of O/S letter

- point to leaders

2. Risk identification, quantification and mitigation

- ▶ Assess the status of critical risks identified by the project and related risk management plans
- ▶ Assess the quantification of risk and contingency provisions in budgets and schedules
- ▶ Identify additional risks and other areas of concern that come to our attention while conducting the cost and schedule procedures outlined herein
- ▶ Identification of opportunities for remediation or corrective action, if necessary

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Permit fee ✓ ↗

→ Release report ✓
↳ Polar response.

- Write Ken M for Sunday

Done d.l.g., product o/s

Q. North Spur?

Q. Cost Ben step / so.

- Typical for large maps,
three types of access.

Ed M response
SUN +
MON

lowing out - cost ↑ to solid st. page.

- good project mgt. - ✓

① Invite Ken M. ✓

② Review Lams ✓

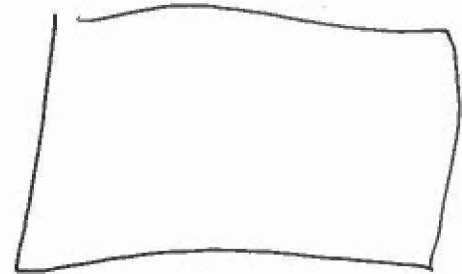
351 - 4429 Ken Marshall.

Spoken K + Ed - assessment of Nuclear
cooperation.

Tim M COPY

Lower Churchill Management Corporation
Corporate Office
500 Columbus Drive
P.O. Box 12800
St. John's, NL Canada A1B 0C9

Ms. Julia Mullaley
Clerk of the Executive Council
Cabinet Secretariat
Government of Newfoundland and Labrador
Confederation Building
St. John's, NL A1B 4J6



Dear Ms. Mullaley:

Re: Review of Muskrat Falls Project Cost and Schedule Management Processes and Controls

Lower Churchill Management Corporation (LCMC) has had an opportunity to review the recent Ernst and Young (E&Y) report commissioned by the Oversight Committee to review the cost and schedule management processes and controls implemented by LCMC for the construction of Muskrat Falls, the Labrador-Island Transmission Link, and the Labrador Transmission Assets.

External reviews are a valuable mechanism to confirm that appropriate practices are being applied and to identify opportunities for further improvement. We look at this review in the same light as previous work commissioned internally by the project team and the feedback provided by the Independent Engineer (IE). We also believe it is important to provide context for such reports, as there is often information and background that provides some additional insight into the rationale for certain project decisions and processes. This letter, in response to the E&Y report, was written from that perspective. The major points outlined by E&Y have been addressed below; they are listed and addressed individually in tables of concordance attached to this letter.



As noted in the report, LCMC has implemented a suite of project control processes for project cost and schedule, a Project Execution Plan, and coordination procedures for administering, controlling, and managing contractors' costs and schedules. Reporting is also issued to provide updates on cost and schedule for the project. The project management controls and processes were developed early in the project development for standard project management oversight within the company. At that time, Nalcor did not design for these materials to be used in a public oversight process. As you will see noted below, Nalcor recognizes the different requirements of internal oversight related to project leadership and decision making versus the requirements of the Oversight Committee and the company will adjust process controls and management to address the needs of the Oversight Committee; in particular, in providing cost and schedule risk reports at a time and level that allows the Committee to identify and quantify project cost and schedule risks.

Contractor management is an important and strategic consideration for the project team, as progress must be monitored, while at the same time avoiding claims arising from directing their activities. We acknowledge that E&Y noted that cost and schedule risks are subject to active and formalized management and that the project team has been staffed with resources experienced in cost and schedule management.

We concur with the key schedule management process and control issues highlighted by E&Y and have been actively working with our contractors to see them addressed.

The baseline documents identified in issue number 1 (baseline schedules and control documents) are contractor deliverables. As contractors are engaged, our approach is to provide feedback and comments so that deficiencies in these documents can be rectified by the applicable contractor before this information is incorporated into the Integrated Project Schedule (IPS). All approved baseline contractor schedules have been incorporated into the schedule, and issues arising from unapproved schedules are being addressed directly by the project team. The noted documentation gaps in the IPS development and management processes have not precluded development and management of the schedule, and they will be closed by year-end 2015.



A decision to re-baseline project cost and schedule is made at the project leadership level and not by the Project Control team. Consequently, it is not in their mandate and therefore not in their process or procedure. However, it is part of the Project Control team processes and procedures to monitor and report cost and schedule performance and provide the necessary management information to project senior management to take necessary action including: contingency draw-down status, comprehensive trend identification, trend analysis, mitigation plans and actions, and potential cost, schedule and quality impacts when appropriate analysis is completed.

Project senior management's decision to re-baseline cost or schedule and seek related Approval for Expenditure (AFE) is an internal project process based on an evaluation of trends in project performance and the underlying risks associated with project execution that remain after mitigation strategies have been implemented.

In response to E&Y's finding that the Oversight Committee's understanding of such conditions and processes is an important foundation as it conducts its oversight activities, Nalcor will add a formal alert process to the regular monthly interface meeting agenda with the Oversight Committee. This will provide a summary of potential emerging vulnerabilities and opportunity trends, associated mitigation activities and a range of potential cost, schedule and quality impacts, provided the necessary analysis has progressed to the point where such impacts can be quantified. In addition, Nalcor will provide the Oversight Committee with an outlook, if and when a re-baseline may occur, and the rationale for such a decision.

In relation to E&Y's comments regarding contingency forecasting, a comprehensive contingency analysis was undertaken at Decision Gate 3 (DG3). Subsequent contingency forecasting is based on an outcome of multiple inputs including actual contractor bids, detailed oversight of the contractor and procurement performance, all summarized into a comprehensive trend analysis process. This process highlights issues and opportunities early, incorporates mitigation activities and assesses potential impacts in the future. The current approach to contingency is both deliberate and planned and intended to drive the project team to control costs within tight limits. We believe it prudent to avoid



excessive contingencies which are reflective of our desire to deliver the project at the lowest possible cost.

E&Y noted that it did not review the project's DG3 documentation. The process used by LCMC to develop the DG3 cost estimate was, however, reviewed by the IE as part of its initial review. The IE noted in its November 2013 report that:

The cost estimating methodology employed by Nalcor utilizes a deterministic approach to calculate the project's direct and indirect costs and a risk-adjusted analytical technique to develop a contingency allocation for defined tactile risks. Finally, a separate escalation analysis has been developed to calculate and fund anticipated changes in forward price levels via an allowance into the capital budget. The IE notes that Nalcor follows standard estimating practices as put forward by the Association for the Advancement of Cost Engineering International (AACEI), including 69R-12, 58R-10, 18R-97, and 17R-97.

The approaches to contingency development contemplated by E&Y were undertaken at project sanction in December 2012. Our current approach, which we believe to be appropriate and prudent at this stage of project development, is to continue to engage in direct discussion on emerging risks and cost pressures and take management action when they have emerged. This discussion will be supported by the regular risk ranging and trend analysis documentation as previously noted.

E&Y has suggested thresholds for variance management, reporting and escalation are not defined and they expect them to be in place to assist in giving a clear indication of the severity of issues and need to escalate to the Oversight Committee. Nalcor has set the threshold for variance on any work as zero. Authority to expend funds beyond the approved amount for any work package does not exist, and additional funds must be acquired through the change control process before additional expenditures can be authorized. That being said, as we noted above, we are adding a process to our Oversight Committee interface which will address this suggestion by clearly indicating the type and severity of issues to the Oversight Committee.



In relation to the note that fully quantified risks or trends may not be documented for certain challenges, we note that the internal project risk management framework captures such risks; however, quantification of risks is a function of many variables and detailed analysis needs to be completed prior to quantification. This obviously takes time and resources and can only be completed when the analysis is reasonably progressed. The trends are assessed on an ongoing basis by project leadership, as indicated by E&Y in their previous comments.

In summary, we believe that continued focus on, and enhanced discussion of project risks that could materially impact cost and schedule, as well as their mitigation strategies, is a valuable and important oversight tool to ensure a rigorous focus on cost and schedule to project completion. While E&Y and the other external organizations that have reviewed LCMC's processes and practices have consistently concluded that appropriate controls for cost and schedule are in place, we appreciate and understand the unique needs of the Oversight Committee and the important role it plays in advising Cabinet and are adjusting our reporting and alert processes with the Oversight Committee as discussed above.

Sincerely,



Gilbert J. Bennett, P. Eng., FCAE
Vice President

cc. Mr. Ed Martin, CEO & President, Nalcor Energy



<p align="center">Table 1 - LCMC RESPONSE TO KEY FINDINGS AND OBSERVATIONS IDENTIFIED BY E&Y</p>	
<p>E&Y Comment</p>	<p>LCMC Response</p>
<p>1. Key project control processes have been developed, including:</p> <ul style="list-style-type: none"> a. Core project management and control processes for cost and schedule, including the development of an Integrated Program Schedule (IPS) for the program, identification of baseline, committed and incurred costs as well as linkage of cost and schedule baselines to change management processes and controls; b. A Project Execution Plan defining the basis of the schedule and the estimate, and key assumptions supporting Project baseline cost and schedule; and c. Coordination procedures for administration, execution control and management of the contractors' cost and schedule. 	<p>LCMC concurs with these observations.</p>

Table 1 - LCMC RESPONSE TO KEY FINDINGS AND OBSERVATIONS IDENTIFIED BY E&Y	
E&Y Comment	LCMC Response
<p>2. Project reporting summarizes key information on construction cost and schedule, including:</p> <ul style="list-style-type: none"> a. Schedule forecast and progress leveraging the IPS, including critical path and float review; and b. Cost forecasting, including Estimate to Complete, Estimate at Complete, variances and trends, as well as basic contingency forecasting. 	<p>LCMC concurs with these observations.</p>
<p>3. Nalcor's continued efforts to work with contractors on maintaining a disciplined approach to project management, control and reporting.</p>	<p>LCMC concurs with these observations.</p>
<p>4. Proactive measures were being taken to manage potential claims.</p>	<p>LCMC concurs with this observation.</p>
<p>5. Cost and schedule issues and risks arising during the Project were subject to active and formalized management.</p>	<p>LCMC concurs with this observation.</p>

Table 1 - LCMC RESPONSE TO KEY FINDINGS AND OBSERVATIONS IDENTIFIED BY E&Y	
E&Y Comment	LCMC Response
6. A matrix organizational structure had been established, responsible for managing the Project as a whole. Key roles in this organizational structure had been staffed with resources experienced in cost and schedule management.	LCMC concurs with this observation.

Table 2 - LCMC RESPONSE TO KEY SCHEDULE MANAGEMENT PROCESS AND CONTROL RISKS AND ISSUES IDENTIFIED BY E&Y	
E&Y Comment	LCMC Response
1. Certain baseline documents defining contractor schedules as well as the documents defining the control of project schedules were not yet complete.	The baseline documents identified (baseline schedules and control documents) are contractor deliverables. As contractors are engaged, our approach is to provide feedback and comments so that deficiencies in these documents can be rectified by the applicable contractor before this information is incorporated into the Integrated Project Schedule (IPS). All approved baseline contractor schedules have been incorporated into the schedule, and issues arising from unapproved schedules are being addressed directly by the project team. The noted documentation gaps in the IPS development and management processes have not precluded development and management of the schedule, and they will be closed by year-end 2015.
2. Contractors' schedule updates were not being systematically rolled up into the Nalcor Integrated Project Schedule (IPS) that forms the basis of the reporting to the Oversight Committee.	Please refer to the response to #1 above.
3. A completion date has not been established for finalizing an integrated baseline of contractor and IPS schedules to correct the issues noted in #1 and #2 above.	Please refer to the responses to #1 and #2 above.
4. The IPS development and maintenance process is not fully documented.	The level of documentation is sufficient to maintain the IPS; however, any documentation gaps will be addressed by year-end 2015.

Table 3 - LCMC RESPONSE TO KEY COST MANAGEMENT PROCESS AND CONTROL RISKS AND ISSUES IDENTIFIED BY E&Y	
E&Y Comment	LCMC Response
<p>1. The conditions and processes for re-baselining cost and schedule are not defined in the Cost Control processes and procedures. The OC understanding of such conditions and processes is an important foundation as it conducts its oversight activities.</p>	<p>A decision to re-baseline project cost and schedule is made at the project leadership level and not by the Project Control team. Consequently, it is not in the Project Control team’s mandate and therefore not in their process or procedure. However, it is part of the Project Control team’s processes and procedures to monitor and report cost and schedule performance and provide the necessary management information to project senior management to take necessary action including: contingency draw down status, comprehensive trend identification, trend analysis, mitigation plans and actions, and potential cost, schedule and quality impacts when appropriate analysis is completed. Project senior management’s decision to re-baseline cost or schedule and seek related Approval for Expenditure (AFE) is an internal project process based on an evaluation of trends in project performance and the underlying risks associated with project execution that remain after mitigation strategies have been implemented. These processes are designed for internal project utilization, and, in our experience, function well. In response to E&Y’s finding that the Oversight Committee understanding of such conditions and processes is an important foundation as it conducts its oversight activities, Nalcor will add a formal alert process to the regular monthly interface meeting agenda with the Oversight Committee. This will include providing a summary of potential emerging vulnerabilities and opportunity trends, associated mitigation activities and a range of potential cost, schedule and quality impacts, provided the necessary analysis has progressed to the point where such impacts can be quantified. In addition, Nalcor will provide the Oversight Committee with an outlook, if and when a re-baseline may occur, and the rationale for such a decision.</p>

Table 3 - LCMC RESPONSE TO KEY COST MANAGEMENT PROCESS AND CONTROL RISKS AND ISSUES IDENTIFIED BY E&Y	
E&Y Comment	LCMC Response
<p>2. Nalcor uses a relatively basic approach to its updating of forecasted contingency requirements, which in our experience is not consistent with the expected practices for a project of this scale and complexity. Given this, it is not clear whether the cost contingency as forecasted in reports for the Project will be adequate.</p>	<p>A comprehensive contingency analysis was undertaken at DG3. Subsequent contingency forecasting is based on an outcome of multiple inputs including actual contractor bids, detailed oversight of the contractor and procurement performance, all summarized into a comprehensive trend analysis process. This process highlights issues and opportunities early, incorporates mitigation activities and assesses potential impacts in the future. The current approach to contingency is both deliberate and planned and intended to drive the project team to control costs within tight limits. We believe it prudent to avoid excessive contingencies which are reflective of our desire to deliver the project at the lowest possible cost.</p>
<p>3. The Project does not define thresholds for variance management, reporting and escalation purposes. We would normally expect these to be in place as they assist in giving clear indications of the severity of issues and the need to escalate to key stakeholders, such as the OC.</p>	<p>Nalcor has set the threshold for variance on any work as zero. Authority to expend funds beyond the approved amount for any work package does not exist, and additional funds must be acquired through the change control process before additional expenditures can be authorized. That being said, as we noted above, we are adding a process to our Oversight Committee interface which will address this suggestion by clearly indicating the type and severity of issues to the Oversight Committee.</p>

Table 3 - LCMC RESPONSE TO KEY COST MANAGEMENT PROCESS AND CONTROL RISKS AND ISSUES IDENTIFIED BY E&Y	
E&Y Comment	LCMC Response
<p>4. Fully quantified risks or trends have not been documented for certain significant challenges on the project. The scale of potential challenges is also not quantified in the summary reporting made available to the Oversight Committee.</p>	<p>The internal project risk management framework captures such risks; however, quantification of risks is a function of many variables and detailed analysis needs to be completed prior to quantification. This takes time and resources and can only be completed when the analysis is reasonably progressed. The trends are assessed on an ongoing basis by project leadership, as indicated by E&Y in their previous comments. The scale of potential challenges will be addressed in the process we are adding to the Oversight Committee interface.</p>

Lower Churchill Project (Phase I) Federal Loan Guarantee




Newfoundland
Labrador

Project Background

- Newfoundland and Labrador (NL) requires more power due to increasing demands for electricity and aging infrastructure
- Lower Churchill Project – Phase I (LCP) positions NL as a leader in clean, renewable energy with 98% of NL's energy generated from renewables
- LCP stabilizes electricity rates for residents and is a strategic enabler for businesses and economic growth
- LCP will change the future of our province, Atlantic Canada and the rest of the country when it connects NL to the North American grid for the first time in the province's history
- LCP allows NL to take advantage of opportunities to sell clean, renewable power to other Canadian provinces as well as the North Eastern US
- LCP generates significant revenues and savings over the next 50 years delivering long-term value to NL, NS and Canada
- LCP provides significant economic and employment benefits to NL, NS, QC and Canada during construction

Key Messages



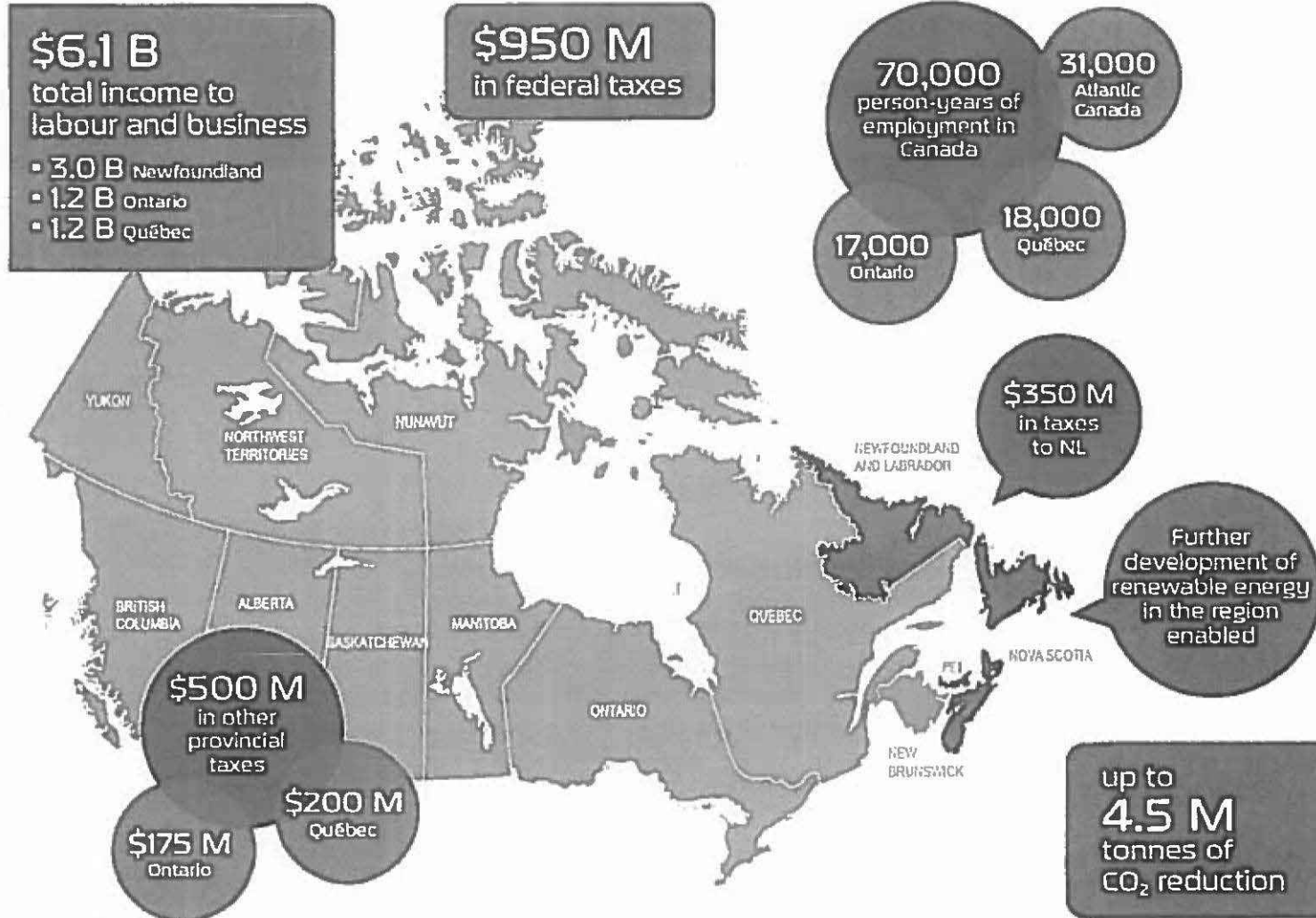
- An Enhanced Federal Loan Guarantee (FLG) strategically aligns with the new Government of Canada's platform commitments:

New Government of Canada Platform	Alignment with Enhanced FLG
Climate Change/COP21	NL is an environmental leader with 98% clean, renewable energy to meet provincial needs and available for export markets – NL will be tied for the leading position across all provinces for renewable energy and reduction of fossil fuel LCP represents a 4.5 million tonne reduction of CO ₂ and will enable further development of clean, renewable energy in the region
Stronger Federal-Provincial Partnerships	Demonstrates commitment to NL, and other Canadian provinces, of more effective Federal-Provincial working relationship – as Canada's cooperation provides meaningful support to a Province's fiscal management action plan NL not competing with Canada and provinces in tight, government debt markets
Infrastructure Investments / Clean Energy Infrastructure	Investment in green infrastructure creating \$6.1 billion total income to labour and business generating 70,000 person years of employment, \$950 million in federal taxes and \$850 million in provincial taxes
Renewed relationship between Canada and Indigenous peoples	Demonstrates support for strong Aboriginal partnerships as evidenced by NL and Innu Nation's <i>New Dawn</i> agreement

- It provides significant financing cost savings and economic benefit while maintaining Canada's key financial protections under the FLG -\$1.8 billion to \$4.4 billion savings to ratepayers with minimal potential cost impact to Canada

• No dollar value asks of Feds 3

Projected Benefits to Canada



January 11, 2016

Federal Loan Guarantee

- Background

- In December 2013, Nalcor (through funding trusts) completed financial close by issuing \$5 billion of AAA rated long term bonds guaranteed by Canada for the LCP – these proceeds were invested and are being drawn down monthly to fund Project expenditures
- Some of the key provisions of the FLG with Canada include:
 - Maximum debt levels (DER) for (i) the Muskrat Falls (MF) / Labrador Transmission Assets (LTA) component of the project is 65% and (ii) the Labrador-Island Link (LIL) is 75%
 - Minimum Debt Service Coverage Ratios (DSCR) of 1.4 times
 - Any amounts not financed through debt are to be financed by equity (supported by a formal guarantee from NL)
 - Debt is amortized over the repayment period (30 years MF/LTA; 35 years LIL) through semi-annual sinking funds contributions starting on December 1, 2018
 - Any forecasted cost overruns subsequent to financial close are to be wholly pre-funded with equity through the Cost Overrun Reserve Escrow Account (COREA) – current balance is \$450 million
- Since financial close, NL and Nalcor have maintained compliance with the provisions of all the agreements and commitments relating to the FLG

⇒ No Max:

€ 10m x 2



Federal Loan Guarantee

- Background (continued)

- A-rated, non-guaranteed LCP credit ratings were secured as a condition precedent to FLG – this was and continues to be based on the following:
 - The investment decision was made on the basis that the future requirement for electricity by NL was such that the financing is supported solely by the cash flow from domestic NL sales, through NL Hydro (NLH), and does not require any export sales
 - Given the above, a series of agreements were developed to ensure that the cash flow stream from NLH was unconditionally available to support the LCP financing
 - Implementation by the Province of a legislative and regulatory framework to ensure full cost recovery in a timely manner to support debt service
 - The equity portion of the financing will be provided to the Project’s entities by (i) Nalcor under Equity Support Agreements, and (ii) Emera under Nalcor/Emera Formal Agreements – all of this is backstopped by NL with formal unlimited Equity Support Guarantees

- All of these above features would continue under the proposed FLG enhancements

Cause feds to pay out:

Trigger guarantee:

- if Province defaulted.

- 5 yrs = delay - several yrs.

Federal Loan Guarantee

- Opportunity

Newfoundland
Labrador

get around \$30 now?

- In finalizing terms of the current FLG, there were opportunities missed at the Canada-NL political level for additional cooperation and benefit

- The level of low cost guaranteed debt was capped at \$5 billion based on cost estimates at that time
- Canada required any forecasted cost overruns subsequent to financial close to be wholly pre-funded with equity through the COREA, despite being provided unlimited Equity Support Guarantees by NL to fund whatever equity is required to achieve Project in-service
- Canada required a fixed date to start principal repayment through semi-annual sinking funds contributions - this did not provide flexibility in case of a delay scenario

- In the spirit of greater partnership between Canada and the Provinces, NL and Nalcor request to make three simple amendments (outlined on next slide) to the FLG that will:

- Continue to respect Canada's key financial protections (maximum DER, minimum DSCR, priority asset security and NL equity completion guarantee)
- Have minimal potential cost impact to Canada; *only, minimal admin cost.*
- Achieve the objective of minimizing the total incremental cost to all stakeholders of funding required for the Project; and
- Reduce the level of required NL equity funding and improve the timing in which the remaining NL equity is to be funded

Enhanced Federal Loan Guarantee



- Budget is trying to put here first.

1. Eliminate the COREA concept, thereby not requiring any future pre-funded equity payments and thus allowing the existing \$450 million COREA balance to be used as equity immediately

- COREA requires NL to borrow funds earlier than normally required - inefficient and more expensive
- Canada remains provided with unlimited Equity Support Guarantees by NL to fund whatever equity is required to achieve Project in-service
- defers timing of additional NL equity requirements

01/17/18
to 16-17
to National

2. Improve existing additional debt provisions to allow additional debt to be guaranteed by Canada and funded in the same way as the original \$5 billion

- by maintaining maximum DER and minimum DSCR, this additional debt would be at least \$1 - \$2 billion (depending on final costs)

3.7M
total
yarrow

3. Change sinking fund contribution requirement from fixed date starting in December 1, 2018 to date depending on LCP in-service with any deferred amount being amortized between in-service date and first bullet bond repayment

- sinking fund contribution is approximately \$50 million every six months

Improved timing and reduced NL equity requirements of the above generate net interest savings to NL of \$30 - \$90 million over next 2-3 years

- riskier
- more later?

clear to know what this was budget

of support ed of ...

→ could be more generous than other pro's deals.

Potential Benefits of Enhanced Loan Guarantee

- Canada demonstrates a more comprehensive regional partnership and assists in achieving key announced policies on reduction of greenhouse gas emissions, green infrastructure development and renewed relationship with Indigenous peoples, while maintaining key FLG financial protections with minimal potential cost impact to Canada
- \$1.8 to \$4.4 billion savings over life of the project (\$0.4 to \$0.9 billion on a present value basis) to ratepayers – from difference in cost of guaranteed debt versus equity
- \$1 to \$1.9 billion reduction over next 2-3 years in NL equity contribution to Nalcor – Canada's cooperation provides meaningful support to a Province's fiscal management action plan
- \$30 - \$90 million in net interest savings over next 2-3 years due to improved cash flow timing and reduced NL equity requirements
- The requirement not to pre-fund forecasted cost overruns results in NL not competing in tight, government debt markets with Canada and other provinces before funds are actually required by the Project

Cont. Feb. → 0/sightt RENONT
- 50000 slipping e

A Leading General Contractor, with a Global Presence

A leading Italian General Contractor and one of the most important players in the construction sector at global level, delivering value through a dual construction-concession approach, integrated with engineering and procurement.

Sectors



Key Milestones

TRANSPORT

- ✓ 5,000+ kms of railways and undergrounds, 15,000+ kms of highways and roads.
- ✓ 160+ kms of viaducts, 215+ kms of railway/road tunnels.
- ✓ 12 TBM (Tunnel Boring Machine).

WATER AND ENERGY

- ✓ 68 dams, 33 hydroelectric power plants, 60 aqueducts/ wastewater treatment plants.
- ✓ 110+ kms of hydraulic tunnels.
- ✓ Hydroelectric plants, adding to a total of 8,000MW installed capacity.

CIVIL AND INDUSTRIAL BUILDING

- ✓ 20 hospitals, for a total of 8,500+ beds.
- ✓ 18 airports.
- ✓ 6,202 parking spaces.

Global Presence (*)

- ✓ 3rd Contractor worldwide in Bridges
- ✓ 7th Contractor worldwide in Airports
- ✓ 8th Contractor worldwide in Hydro Plant
- ✓ 12th Contractor worldwide in Mass Transit & Rail
- ✓ 16th Contractor worldwide in Transportation
- ✓ 17th Contractor worldwide in Highways
- ✓ 25th Contractor worldwide in Buildings (Healthcare)

22nd Contractor in Europe and 85th Contractor worldwide in 2014 ENR Global Contractors List (*).

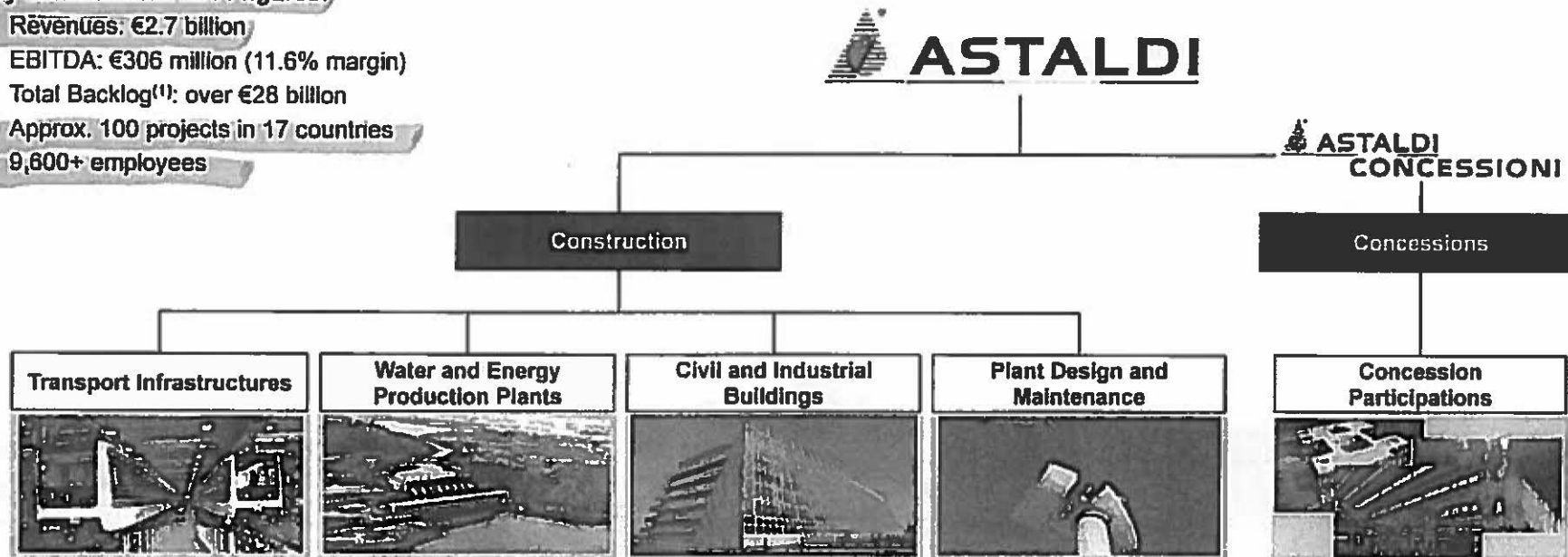
(*) 2014 ENR (Engineering News Record) Sourcebook – 2013 consolidated figures.

(**) 2015 ENR (Engineering News Record) Sourcebook – 2014 consolidated figures.

Key Figures and Business Lines

























Key consolidated 2014 figures:

- Revenues: €2.7 billion
- EBITDA: €306 million (11.6% margin)
- Total Backlog⁽¹⁾: over €28 billion
- Approx. 100 projects in 17 countries
- 9,600+ employees



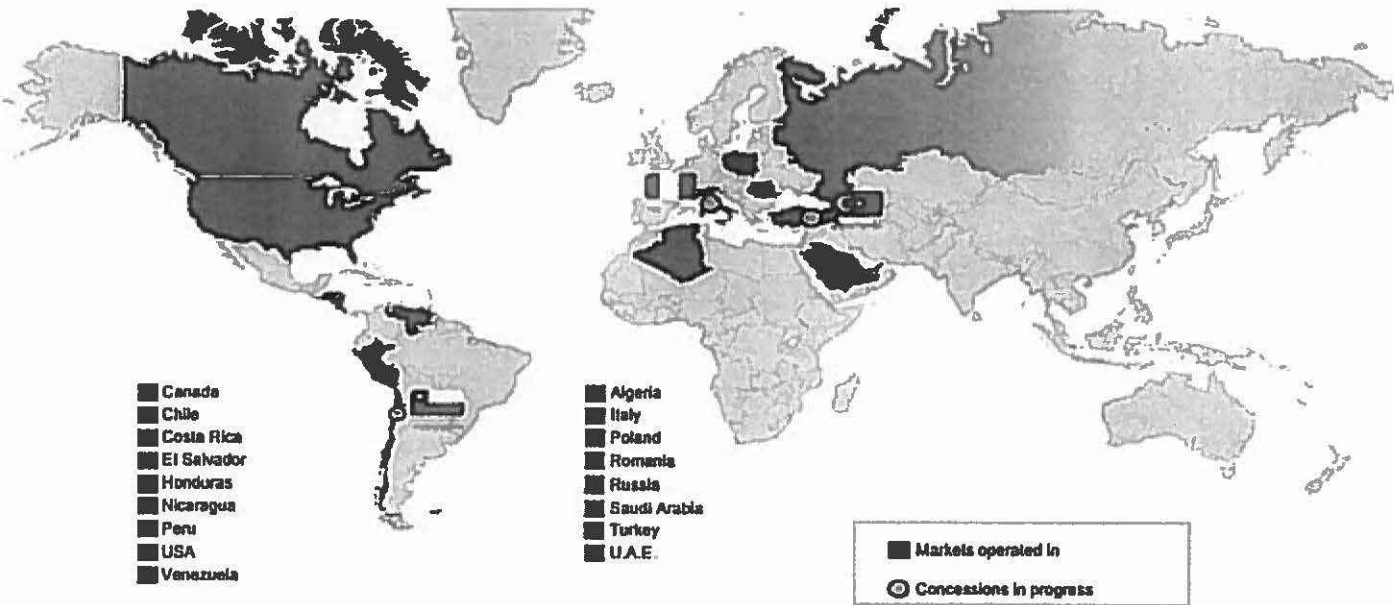
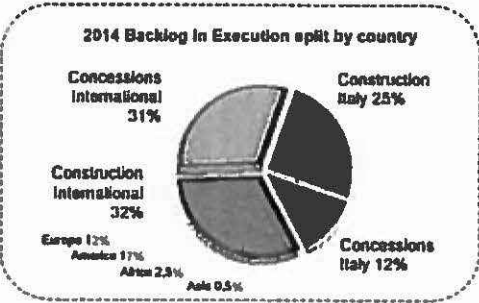
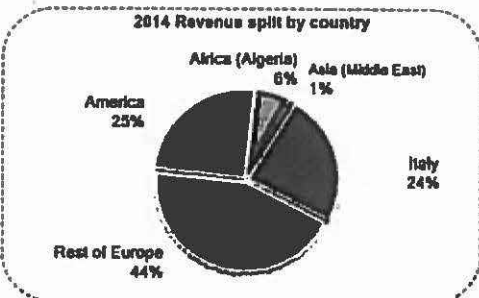
(1) Total backlog includes €13.8 billion of backlog in execution and €14.5 billion of orders in pipeline.

Proven Operational Track Record

COMPLETED WORKS			SUBWAY LINES IN PROGRESS	AWARDS-WINNING PROJECTS 		
 INTERNATIONAL PULJOVO AIRPORT IN SAINT PETERSBURG RUSSIA	 TURIN RAILWAY HUB ITALY	 NAPLES SUBWAY LINE 1, TOLEDO STATION ITALY		 ROME SUBWAY LINE C (LODI - SAN GIOVANNI) ITALY	 NAPLES SUBWAY LINE 1, TOLEDO STATION Italy <i>Leaf Award 2013</i>	 CHACABUCO HYDROELECTRIC POWER PLANT Chile
 HUANCZA HYDROELECTRIC PLANT PERU	 NEW HOSPITAL IN PRATO ITALY	 BOLOGNA CENTRALE N-S RAILWAY ITALY	 BUCHAREST SUBWAY LINE 5 ROMANIA	 MILAN SUBWAY LINE 5 Italy <i>Expressway Project Finance Awards 2007 - European Transport (Light Rail) Deal of the Year</i>	 POLO FIORITICO DI RHO-PERO S MILANO Italia <i>2007 International Architecture Award</i>	 NEW HOSPITAL IN VENICE-MESTRE Italy <i>2006 PFI Awards - EMEA PPP Deal of the Year</i>
 WARSAW SUBWAY LINE 2 POLAND	 SAN JACOPO HOSPITAL IN PISTOIA ITALY	 ROME SUBWAY LINE C (MONTE COMPATRI - LODI) ITALY	 MILAN SUBWAY LINE 4 ITALY	 CONCEPCION HYDRO PROJECT Honduras <i>1991 Ingersoll-Rand Hall of Fame</i>	 ISOLA 1&2 HYDROELECTRIC PROJECTS Democratic Republic of Congo <i>1976 Ingersoll-Rand Hall of Fame</i>	
 BRESCIA LIGHT RAILWAY ITALY	 JONICA NATIONAL ROAD ITALY	 MILAN SUBWAY LINE 6 ITALY	 BUCHAREST SUBWAY LINE 4 ROMANIA			

Global Presence

- More than 70% of revenues from outside Italy with increased contribution from Chile, Peru, Russia and Canada (in 2014)



Company Profile

1H-2015 Results

Appendix

Agenda

Company Profile

1H 2015 Results

Appendix



Russia | Pulkovo International Airport in St. Petersburg



Poland | Warsaw Subway Line 2

Main Topics

- **STRONG 1H 2015 RESULTS BENEFITING FROM A GOOD COMMERCIAL AND OPERATING PERFORMANCE**



- **Total Revenue +15.8%, at EUR 1.4 billion**
 - Operating revenue +18.3% at EUR 1.3 billion, mainly in Turkey, Russia, Canada, Poland
- **EBITDA +20.5%**, EBITDA margin at 12.9%
- **EBIT +18.8%**, EBIT margin at 10.1%
- **Net Income +82% at EUR 62.4 million**, of which approx. EUR 34 million from equity participation
- **Net Financial Position at EUR 1.1 billion**, with approx. EUR 130 million of investments

Main Topics

1H 2015 Results

Appendix

1H 2015 Results – Operating Performance

(EUR / million)	1 H 2015	1H 2014	Y/Y %	FY-15 GUIDELINES
Total Revenue	1,391.7	1,201.5	+15.8%	+10%
EBITDA	179.8	149.3	+20.5%	
EBITDA margin	12.9%	12.4%		
EBIT	140.3	118.1	+18.8%	
EBIT Margin	10.1%	9.8%		> 9%
Net Financial Charges	(85.1)	(77.5)	+10.0%	
Income from SPVs equity method evaluation	33.6	14.0	n.m.	
EBT	88.8	54.7	+62.3%	
Net income	62.4	34.3	+81.7%	≈ +10%

- Revenue boosted by foreign activities (+32.8%), mainly in Turkey, Russia and Canada
- Q2 2015 revenue coming from Italy seems to anticipate a recovery path for domestic market (+35% for 2Q 2015 vs. 1Q 2015)
- Margins supported by high quality orders in execution and by the release of provisions linked to projects, which have been delivered
- Net financial charges include EUR (27) million charge linked to fair value on the equity linked bond
- Net income benefits from EUR 33.6 million of effects mainly linked to SPVs equity method evaluation

H 2015 Results – Commercial Performance

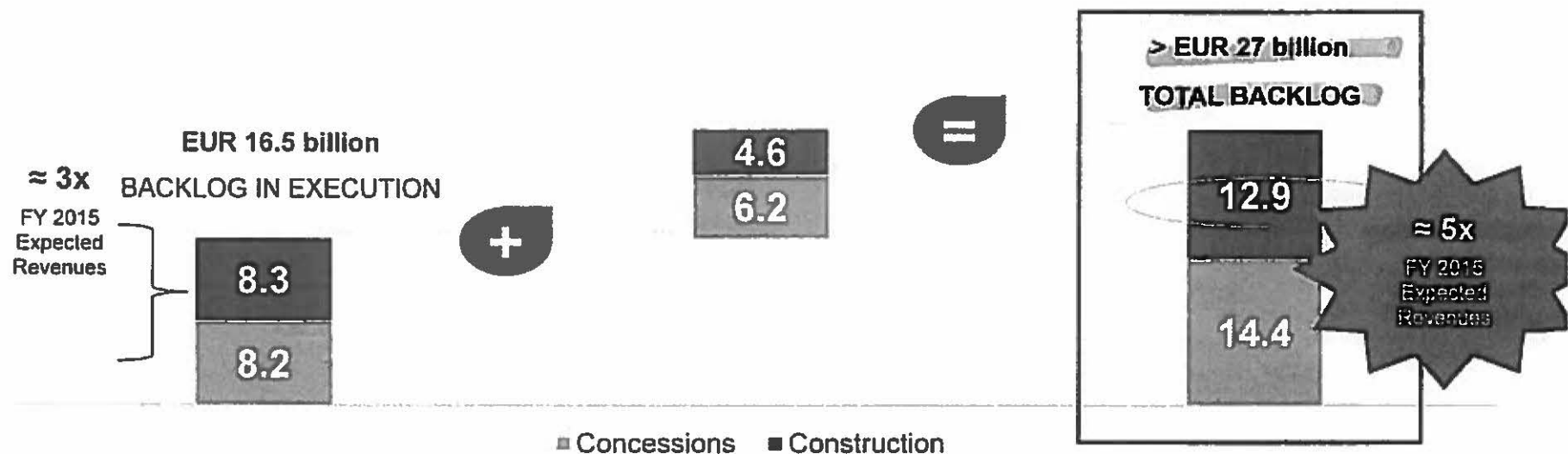
- **A DURABLE COMPETITIVE ADVANTAGE**



- **Astaldi with its effective business model, continues to prove an impressive commercial, financial and technical strength**
 - New contracts for EUR 5.3 billion to date
 - Financial closing reached for over EUR 6 billion no-recourse lines
 - Impressive performance on delivering complex projects
 - Astaldi is successfully executing some of the most complex engineering project at worldwide level
- **All this has laid the foundations for the next cycle of growth**

Astaldi with its Effective Business Model, Continues to Prove an Impressive Commercial, Financial and Technical Strength

- **TOTAL BACKLOG HAS REACHED OVER EUR 27 BILLION**
- Strong commercial network is creating the opportunity for a new durable, sustainable cycle of growth



No deque :
 CA 650 - 950 m cost ↑ (higher prob)
 Sched ↑ 21 - 27 months
 1B 350 - 500 m ↑ cost (lower prob)
 large claim
 sched ↑ > 24 months

Opt 2

Deque : 250 - 300 m (not certain it's enough)
 Not addit cost 430 - 575 m ↑
 12 - 18 months ↑ sched.

Opt 3

Fire Astadi:

650 - 950 m cost ↑
 21 - 27 months ↑ sched.

Ed
 Argue that willy more - he is saying you &

Addit cost to Ast over cost bid (~~A 55K~~) is 600 - 800
 12 - 18 months delay to ph compl. 1/2 prob a work will ~

1. ~~Debit~~

1. from SUN mtg with Premier

1. Astaldi putting in claim, no. 1000,

Ed - brought out in '12

Astaldi:

→ don't want ~~to~~ to walk

→ blow - feel & fire & from process

expect low firm →

Executive Council
Natural Resources
December 21, 2015

Media Advisory: Oversight Committee Releases Review of Management Processes and Controls Related to the Muskrat Falls Project

Today, the Muskrat Falls Oversight Committee released a review of cost and schedule management processes and controls related to the Muskrat Falls Project. The review, undertaken by Ernst & Young (EY), and Nalcor's response is available at (*insert web address*).

The Muskrat Falls Oversight Committee was established in March 2014 to formalize and strengthen existing oversight of the Muskrat Falls Project. In making its observations, the committee uses an extensive reporting framework, which includes project reports regularly generated by Nalcor, information specifically requested by the committee, and information required by the Independent Engineer.

- 30 -

Media contacts:

Nancy O'Connor
Director of Communications
Office of the Premier
709-789-1825
nancyoconnor@gov.nl.ca

Diana Quinton
Director of Communications
Department of Natural Resources
709-729-5282, 631-8155
dianaquinton@gov.nl.ca

Executive Council
Natural Resources
December 21, 2015

- Land-Fit for EY
- Consider

Responsible Management of the Province's Investment

Government Opens Books on Muskrat Falls Project

Today, the Honourable Dwight Ball, Premier of Newfoundland and Labrador, together with the Honourable Siobhan Coady, Minister of Natural Resources, announced that the Provincial Government will undertake an independent review of the cost, risks and schedule for the Muskrat Falls Project.

"Given recent cost increases and schedule slippage on the Muskrat Falls Project, it is prudent for the Provincial Government to review the project's cost and schedule to determine if there are any critical risks going forward. Ernst & Young LLP (EY) will undertake a comprehensive, independent review of this project to get a clear understanding of cost, schedule, and key risks. The consultant will also identify opportunities for corrective action, if necessary. This type of due diligence is typical in major capital projects and we are moving ahead with the work immediately."

- The Honourable Dwight Ball, Premier of Newfoundland and Labrador

The terms of reference for the review are available at (*insert web address*). The process will be completed in March. The final report, including Nalcor's response, will be presented to the government's Muskrat Falls Oversight Committee and will be released to the public.

"We have a mandate to open the books on the Muskrat Falls Project and starting with the review announced today, that is exactly what we intend to do. This review will ensure prudent, responsible oversight and will confirm the funding and time required to complete the project. We need to ensure that any risks from a financial perspective are reflected in our 2016-17 budget and the fiscal framework in the future. We have advised Nalcor of the planned review and they have committed to full cooperation."

- The Honourable Siobhan, Minister of Natural Resources

EY has recently completed a study of Muskrat Falls project cost and schedule controls available at (*provide web address*) and will complete this additional review.

QUICK FACTS:

- Today, the Honourable Dwight Ball, Premier of Newfoundland and Labrador, together with the Honourable Siobhan Coady, Minister of Natural Resources, announced that the Provincial Government will be undertaking an independent review of the cost and schedule for the Muskrat Falls Project.

- The terms of reference for the review are available at *(insert web address)*. The review process will be completed in March. The final report, including Nalcor's response, will be presented to the Muskrat Falls Oversight Committee and will be released to the public.
- EY is an independent consultant to the Muskrat Falls Oversight Committee with special skills in major capital projects. EY has extensive knowledge and understanding of the project and has recently completed a study of Muskrat Falls project cost and schedule controls available at *(provide web address)*.

- 30 -

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X

JAN 7/16

- Conf. on both sides.

EA: ✓ U.S. need clearly ✓ fully committed to giving 150%

✓ mid-project reviews very helpful. apply for us, need add value to project

- apply to build alignment w. the new G.

- SK in mid-campaign - abs. to motivate the CIT & all the workers. alignment can be energizing

- Fresh eyes to interpret transcripts & books - good ideas

- show contractors who is in charge - Nuclear abs. in charge
contractors waiting for check - no change on execution front

- EY had mandate - want EY to be successful.

- a value to EY - input to Nuclear.

up-front

① public nature of project is unusual - common. sensitivity
a. will talk REC - "will be higher than public P."
- have to deal with contractors pre review & going out.
(have to figure that out)

b. labour prod. a problem - can't say it - will staple it to a claim

- know it, how to manage it

c. commit to share everything but keep things moving as info. flow

- input for all contractors to see N + EY aligned

- report must be brutal but balanced - need to motivate all hands.

lit - will highlight great things project is doing and any
opport. for improvement.

Prem - whatever we can do to motivate team, let us know

* 7 people on ground next week. (MB)
- very experienced team (Canada/global)
10 weeks (JAN 18)

✓ prem. focused looking cost & sched. but be informed
of post - not an audit
- perf. improvement piece of work
informed by knowledge gained to date

✓ be very careful of contractual sensitivity / don't compare
intentionally
gave
look
characteristic

✓ will not produce compar. of cost & sched.
- it's about reasonableness of cost
& sched.

→
✓ SC: how to mitigate assoc. risks (not enough to
identify) Agreed.

McKenady: V&R for 16 yrs
lead OTC team.

Success: report on joint recs & findings; absolutely
no surprises would be best.

3

- Can't get mixed into the supply demand project.
 How work to be done: (Slide 2)

intensive 3 weeks, highly collab, info flow.

by end of JAN/early Feb. highlight areas of sign. F
 jointly - where our efforts should go - contain
 our rest of work

- access to data key

- access to content of past to guide way forward

hard stop end of Feb - open to Nuclear ideas on rec. actions
 - talk further about practical realities (Nuclear + EY) pre
 bigger group working.

C-Suite

Ed M:

① mitigation on jt basis - can't agree more
 but ② appreciate your validation of lot of work
 done. have transparently documented mitig.
 plans

② Finalize Sow 1st - clarity - rather than time
 (making progress) together now on

③ Access to Ed - yes. but not field people
 - try to Gilbert / Lance / Paul

Paul to "10th review", will make all info. avail.

I have no idea whether Astaldi is in a cash crunch to the magnitude that Ed and Ken will describe but the above information, which describes a fairly healthy company, is all publicly available online and took me less than an hour to find. I'm sure David Cochrane and James MacLeod and others will find it pretty easy as well.

This is the same company that you and your P&P colleagues will be asked by Ed Martin and Ken Marshall to write a cheque to for \$250-\$350 million from the public treasury – with no guarantee this will even be enough to satisfy Astaldi, plus it doesn't prevent the schedule slippage referenced above. To me, this situation is, in a word, preposterous. It would clearly be seen by the public as throwing good money after bad with no end in sight. It would be seen as rewarding bad behavior.

Can you imagine appearing before the people of the province to justify such a decision? The same people you have told for the past six weeks that our fiscal circumstance is dire, the same people who now believe that significant layoffs and program reductions are coming, the same people who will know in the next few days that five schools are closing. Can you imagine the reaction of Jerry Earle and other union leaders to news that Government can afford to write this cheque while at the same time Minister Bennett seems to think she can achieve \$200 million in concessions from unions – this year alone!

Also not covered in the deck is what happens to our money if one of the 100 or so other major projects Astaldi is involved in runs into a similar overrun. And do any of the other proponents of any of these projects around the world share Nalcor's assessment of the dire cash flow situation, and are they writing big cheques as well? Can Ed and Ken guarantee you on Tuesday that this will be the last over-run or schedule slippage on the project (of course they can't)? Important questions, but all unaddressed.

While this memo will inform your thinking leading into Tuesday's discussion, you will note it doesn't address your options in response to the proposal Ed and Ken will pitch. That's because the collective we need to do much more analysis of the implications before we are in a position to provide you with that advice. This next decision and steps by you and your government on this project are critical, and the due diligence needs to be done to ensure the next

If we don't cut the cheque, Ed and Ken will tell you that the actual cost increase will be higher than the \$600-\$800 million (closer to \$1 billion) and the schedule slippage will be greater than 12-18 months (closer to 21-27 months) because Astaldi will slow its progress as a result of not getting its assistance. They will also tell you that the contract with Astaldi is "solid".

Ed and Ken will tell you about the analysis they have done which confirms for them that Astaldi is in a major cash flow crunch, and try to convince you the risk of Astaldi insolvency is real. What is not in the deck and what they may not tell you is the following:

1. Astaldi had revenues in 2014 of 2.7 Billion (Euros);
2. They have over 100 projects in 17 countries;
3. They have 10,000 employees worldwide;
4. In Astaldi's public presentation to financial analysts on their first half of 2015 results, they reported total revenue of 1.4 billion Euros (up 15.8%); they reported net income of 62.4 million Euros (up 82%); they reported a net financial position of 1.1 Billion Euros; and they reported new contracts they had secured valued at 5.3 Billion Euros. The punch line of the Astaldi presentation was "All this has laid the foundations for the next cycle of growth";
5. On December 3, 2015 Moody's reaffirmed the credit rating of Astaldi at B1 corporate family while at the same time changed its watch outlook from stable to negative. In reaffirming Astaldi's rating, here's a snippet of what Moody's said in its news release from just seven weeks ago: "Astaldi's B1 rating reflects the good visibility and predictability of its future revenue generation given the company's strong and relatively well diversified order backlog in execution, the company's geographically fairly well diversified order portfolio, its solid track record of execution and expectations of continued healthy operating margins, and a fairly immature but attractive investment portfolio in concessions"; and
6. In January 2016, a number of analysts from major banks offered their recommendations on Astaldi shares. One recommended buying shares, one recommended holding, a couple were neutral, a couple said reduce and one recommended selling.

CONFIDENTIAL

January 24, 2016

Premier,

This memo has been prepared as food for thought as you think about the discussion planned for P&P on Tuesday.

On Tuesday, Ed Martin and Ken Marshall will appear before you and your colleagues on the Planning and Priorities Committee of Cabinet. They will present a set of slides to you that they were reluctant to commit to paper. While they will use their own presentation skills to make their points, in essence this is what they will be telling you:

1. The Muskrat Falls project will incur a further 12-18 month delay to powerhouse completion;
2. The additional cost to Astaldi is anticipated to be in the \$600 million to \$800 million range; and
3. This schedule slippage and cost increase are the responsibility of Astaldi.

They will indicate to you that if Astaldi has to incur this additional cost, which is an estimate and may be higher, there is a risk of Astaldi insolvency. If that were to occur, the cost increase to the project will be much higher, accompanied by a longer time required for project completion.

Ed and Ken will pitch to you and your P&P colleagues their proposed solution which evidently has been vetted through various Nalcor Boards. They will recommend that the public treasury of the province cut a cheque in the order of \$250 million to \$350 million in assistance to Astaldi to offset their cash flow problems to reduce – but far from eliminate – the prospect of further cost increases or schedule slippages. They will also point out, as does their presentation deck on several slides, that this cheque amount may not be sufficient to satisfy Astaldi. So the cheque amount may very well be higher.

If we don't cut the cheque, Ed and Ken will tell you that the actual cost increase will be higher than the \$600-\$800 million (closer to \$1 billion) and the schedule slippage will be greater than 12-18 months (closer to 21-27 months) because Astaldi will slow its progress as a result of not getting its assistance. They will also tell you that the contract with Astaldi is "solid".

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6. In January 2016, a number of analysts from major banks offered their recommendations on Astaldi shares. One recommended buying shares, one recommended holding, a couple were neutral, a couple said reduce and one recommended selling.

decisions are made based on well-informed analysis. We have some ideas on who to engage to assist in that regard which we can discuss.

Tim Murphy

C.c. Kelvin Parsons

JAN. 25 / 16

CB/Prem / Min Joyce / AP.

Min 69 - good at on legal - don't counter-sue?Min 50 - knock on imports (Nalco + other contractors)EJ - implications of replacing Astaldi

Tom - O/Sight office advice (G.P. do)

How urgent / why now?

Legal.

~~ALL IN~~~~ALL OUT~~ NOT JUST
ASTALDI.

CFI (Co) → Board.

Prem - Ed :

Ed - A could argue NL productivity
- if they decide to slow (d) down
-

G. plan

Prem - what about VALARO?

- Nalor has vested interest

- " has put resources in (millions in Proj. mgmt.)

- "re-set" - complete trans line + ^{etc} need power to satisfy what we need + satisfy Emer.

✓ Conf. all tomorrow 30 min call. P&P

for @ / / / , questions



public sector can't bear brunt

NOTES for Premier → On Nalor in Cabinet.

MON. → E.J. not to Hodey Hr.
G.D. yes, with Premier

3:30 or
~~4:00~~ P&P

[After 1 - EM/KP list]

Conf call

January 25, 2016

Premier,

As you are aware, on Monday, January 18, 2016 Nalcor advised Government that they were entering into discussions with Astaldi with the objective of negotiating a solution to issues raised by Astaldi with respect to cost and solvency. I understand that Nalcor's intent was to reach an agreement in principle with Astaldi with final approval to be sought from Nalcor's Board of Directors and Cabinet. In general, standard process requires negotiating mandates for issues of this significance to be approved by Government in advance of entering good faith negotiations. While Nalcor had advised government of the performance issues with Astaldi and a potential quantum required to address the issue, to date, there have not been any detailed briefings or analysis provided by Nalcor to Government to support Nalcor's position/recommendation on this issue. As a result, Nalcor was directed to provide detailed information respecting the issue including due diligence performed to date, and an assessment of options.

A draft presentation was provided on Thursday, January 21, 2016 (revised Friday, January 22, 2016) outlining Astaldi performance to date, Nalcor's actions to address performance issues and Nalcor's position that while their contractual position is strong and issues are the result of Astaldi's actions, the implications of not supporting Astaldi could result in a very large exposure to the Project. The presentation further outlined the options considered with a recommendation that Nalcor work with Astaldi to reach a negotiated settlement which would require providing at least an additional \$250-300M to Astaldi. This recommendation was largely to address reported solvency concerns with Astaldi and ensure earliest completion of the project, estimated at 12-18 month increase in schedule. This amount does not include other additional costs to the project due to this extended timeline to project completion (eg. site services, impact on other contractors, project management, etc). Nalcor advises their assessment/due diligence processes included consultation with mega project risk consultants; project management advisors; a forensic accountant firm; construction lawyers; construction claims advisors and internal project managers.

As discussed over the last several days, there has been no independent analysis of the information provided by Nalcor and the level of information provided is not sufficient to render an informed decision. Given the significant policy and financial implications of this decision, a much deeper understanding of the issue and the due diligence undertaken by Nalcor in reaching its recommendation is required to ensure there is strong evidence to inform a decision by Cabinet and accountability of any decision to the public. However, Government is challenged to have independent analysis completed in a limited timeframe and this issue is further compounded by a lack of internal capacity to undertake this analysis given the highly technical nature and complexity of this issue.

It is therefore recommended that:

- Government consider immediately engaging the necessary expertise (to be identified) to complete an initial assessment of the issue including in particular, validating the urgency of the issue, the conclusion that there are concerns with the solvency of Astaldi and the related risks to the project. Further validation will also be required to assess the options and related legal and

- Energy contract implications.
- Loan guarantee implications

financial risks and to provide a recommendation on how to move forward to manage the project and mitigate risk.

- Further consideration be given to how this independent assessment would integrate with the current review being undertaken by EY on Project cost and schedule risks, of which Astaldi is included (this assumes that EY is not the expertise envisioned above).
- Internal legal counsel in Justice and Public Safety familiar with the various contracts and terms of the Federal Loan Guarantee (and related agreements) be immediately engaged to assess any potential impacts on the agreements.
- Risk of potential change in senior executive at Nalcor and the resulting impact on the project be considered and deliberate thought be given to an interim replacement to be prepared to move quickly if the need arises.

I am available to discuss further at your convenience.

Julia



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Ernst & Young LLP
Atlantic Canada
ey.com

Dieppe
11 Englehart Street
Dieppe, NB E1A 7Y7
Tel: +1 506 853 3097
Fax: +1 506 859 7190

Fredericton
527 Queen Street
Suite 110
Fredericton, NB E3B 3T2
Tel: +1 506 455 8181
Fax: +1 506 455 8141

Halifax
RBC Waterside Centre
1871 Hois Street
Suite 500
Halifax, NS B3J 0C3
Tel: +1 902 420 1080
Fax: +1 902 420 0503

Saint John
Red Rose Tea Building
5th floor
12 Smythe Street
Saint John, NB E2L 5G5
Tel: +1 506 634 7000
Fax: +1 506 634 2129

St. John's
Fortis Place
5 Springdale Street
Suite 800
St. John's, NL A1E 0E4
Tel: +1 709 726 2840
Fax: +1 709 726 0345

Mr. Craig Martin
Assistant Deputy Minister of Finance
Muskrat Falls Oversight Committee
Government of Newfoundland and Labrador
1st Floor East Block Confederation Building
Prince Philip Driveway, P.O. Box 8700
St. John's, NL A1B 4J6

29 September 2015

Review of Muskrat Falls Project Cost and Schedule Management Processes and Controls

Dear Mr. Martin,

EY has completed its review of Nalcor's cost and schedule management processes and controls as related to the Muskrat Falls Project ("engagement"). The engagement was performed in accordance with the statement of work dated 9 March 2015 between EY and Her Majesty in Right of Newfoundland and Labrador, and our procedures were limited to those described in that statement of work.

The field work for the engagement was completed in April and May 2015, and consisted of reviewing Project data and documentation, as well as structured interviews with Nalcor personnel. The Project reporting period under review spanned December 2014 to February 2015. The report resulting from our engagement is titled "Review of Muskrat Falls Cost and Schedule Management Processes and Controls" and is provided under this transmittal letter. As requested, our report is provided in two parts:

1. Executive Summary Report
2. Detailed Supplementary Report (this document)

The services provided by EY as summarized in this report are advisory in nature. They are intended to provide insight into Nalcor's Cost and Schedule management processes and controls, and related reporting. EY is not rendering an audit, review, examination, or other form of attestation as those terms are defined by the American Institute of Certified Public Accountants or Chartered Professional Accountants Canada.

Restrictions on the use of our work product

This report is prepared solely for use of the Government of Newfoundland and Labrador for the purpose of assessing cost and schedule management processes and controls for the Muskrat Falls Project. Ernst & Young LLP specifically disclaims any responsibility to any other party, and disclaims any responsibility for loss incurred through use of the report for any other purpose.

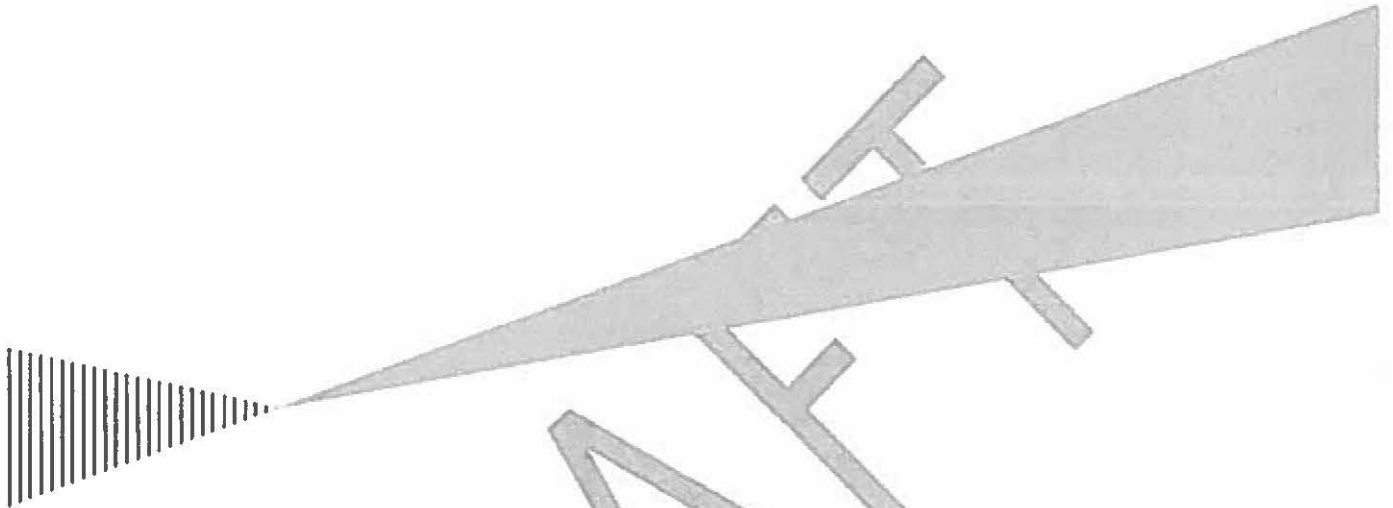
We appreciate the cooperation and assistance provided to us during the course of our work.

Yours very truly,

Ernst & Young LLP

Chartered Accountants

Ernst & Young LLP



**Report on the Review of Muskrat
Falls Project Cost and Schedule
Management Processes and
Controls**

Detailed Supplementary Report

30 October 2015



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working world**



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A. Executive summary

Background

The Government of Newfoundland and Labrador ("Government") has initiated oversight protocols for the Muskrat Falls Project ("Project"), a significant component of the Lower Churchill Project. This included establishing the Muskrat Falls Oversight Committee ("Oversight Committee"), which provides regular Project oversight reports to Cabinet.

The Oversight Committee is accountable to Cabinet for providing reliable and transparent oversight on the cost and schedule performance of the Project. The Oversight Committee is relying on the summary cost and schedule information produced by Nalcor as a key element in performing its mandate.

EY's Major Capital Projects practice was engaged to bring additional experience to assist the Oversight Committee in meeting its mandate. This report presents a summary of the results of EY's review of Nalcor's cost and schedule management processes and controls.

Review scope

The scope of the review included an assessment of the:

- Adequacy of Nalcor's cost and schedule management processes and controls as it manages and reports on the execution of the Project;
- Consistency of Nalcor's use of those processes and controls in key areas of the Project; and
- Extent of reliance the Oversight Committee could place on Nalcor's management reporting for cost and schedule forecasts.

The field work for the review was completed in April and May 2015, and consisted of reviewing Project data and documentation, as well as structured interviews with Nalcor personnel. The Project reporting period under review spanned December 2014 to February 2015.

A sample of five key contracts (the "Sample") was selected in conducting procedures for this review, whose aggregate value exceeds \$2.3 billion.

This report summarizes the work performed by EY, details of our key findings and recommendations for the Oversight Committee's consideration. The Oversight Committee has been briefed on these and other detailed findings from our review.

This report does not include a management response from Nalcor, as EY has not been engaged by Nalcor. This serves to preserve EY's independent reporting relationship to the Oversight Committee. The intention is that Nalcor will provide their management response directly to the Oversight Committee.

Review limitations

The following areas were excluded from the scope of the review:



- The estimating processes and cost baseline process were not assessed. The Oversight Committee indicated it intended to rely on the results of the DG approval processes (DG2 having been reviewed by MHI Consulting and DG3 having been reviewed by the Independent Engineer) and the approval of the narrow scope cost adjustments in the 30 June 2014 update.
- The accuracy of the forecasted costs or schedule dates for the contractors or Project as a whole.
- Change Management and Risk Management processes. The Oversight Committee indicated Nalcor's Internal Audit Department are assessing these areas and intends to assess Nalcor's Internal Audit reports for reliance purposes.

The services provided by EY as summarized in this report are advisory in nature. They are intended to provide insight into Nalcor's Cost and Schedule management processes and controls, and related reporting. EY is not rendering an audit, review, examination, or other form of attestation as those terms are defined by the American Institute of Certified Public Accountants or Chartered Professional Accountants Canada.

This report is prepared solely for use of the Government of Newfoundland and Labrador for the purpose of assessing cost and schedule management processes and controls for the Muskrat Falls Project. Ernst & Young LLP specifically disclaims any responsibility to any other party, and disclaims any responsibility for loss incurred through use of the report for any other purpose.

We understand that the distribution of this Detailed Supplement Report will be closely controlled as it includes certain potentially commercially sensitive information that might otherwise adversely impact the performance of the project were it released. An Executive Summary Report has also been provided for public information.

Summary of key findings

The following observations were noted during our review:

1. Key project control processes have been developed including an Integrated Project Schedule, Project Execution Plan and Coordination Procedures
2. Project reporting summarizes key information on construction cost and schedule
3. Nalcor continues efforts to work with contractors on maintaining a disciplined approach to project management, control and reporting
4. Proactive measures had been taken to manage potential claims
5. We saw evidence of active formalized management of cost and schedule issues and risks arising during the Project
6. A reasonable matrix organizational structure has been established staffed with resources experienced in cost and schedule management

However, issues and risks in cost and schedule management processes, controls, reporting and/or their deployment were also identified. The details are provided in Section C of this report.

We also recognize that Nalcor is using many conventional management processes and controls for the Project. However, while certain contractor Earned Value data is being collected, Nalcor is not reporting using a full Earned Value Management System across the whole of the project. Reporting on Earned



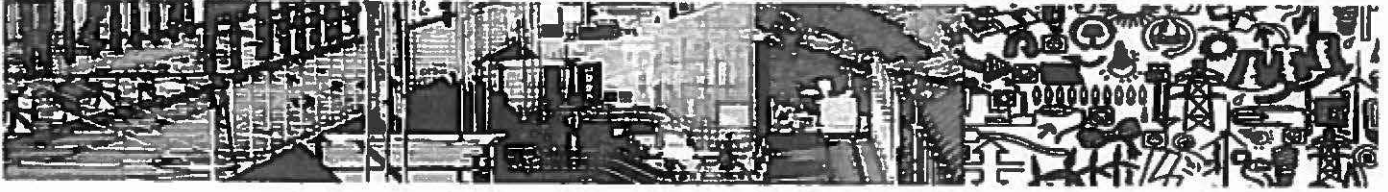
Value performance would however, provide additional useful data and information to the Oversight Committee on individual contractor and overall Project performance where available.

Until such time as the management process and controls risks and issues identified in this report and the supplement are addressed, the completeness and accuracy of Project cost and schedule status reporting to the Oversight Committee cannot be fully verified.

Key recommendations

In response to the risks and issues identified in this report, we recommend that the Oversight Committee:

1. Work with Nalcor to obtain management response for each of the findings noted in this report with defined corrective action, responsibility and anticipated completion dates. Given the volume of Project activity (burn), timeliness of action is critical. Therefore, the Oversight Committee should actively monitor status and verify completion of management response to its expectations.
2. Consider conducting detailed assessments of the cost and schedule status of the Project on an ongoing basis until Nalcor's corrective action addressing key risks and issues noted in this report is complete to the Oversight Committee's satisfaction. This ongoing assessment should include the basis and accuracy of the forecasts for completion at the contractor level, as well as the quantification of cost and schedule risk.



B. Approach

The Oversight Committee requested that EY review Nalcor's cost and schedule processes and controls for the Project. This review included assessing the methods for calculating and reporting cost and schedule progress, as well as an assessment of:

- Schedule and cost management processes, controls and reporting against leading practices and standards (PMBOK); and
- Implementation of and compliance with schedule and cost processes and controls for a sample of contractors.

The review activities included:

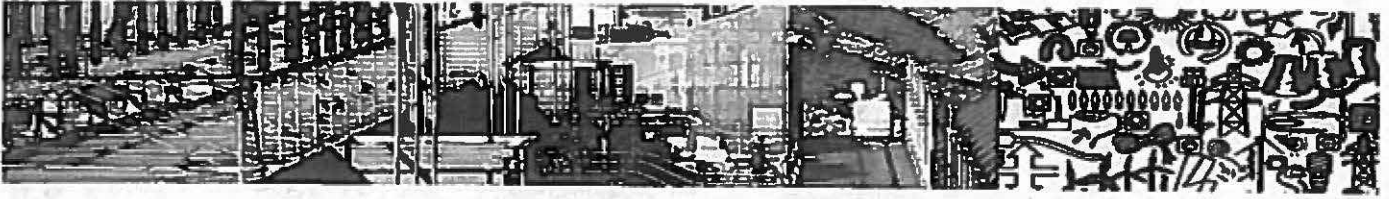
- Interviewing key staff from Nalcor's project controls team and senior management;
- Reviewing Project controls cost and schedule processes and procedures, and comparison with leading practices and standards; and
- Reviewing cost and schedule data and reporting for a sample of contractors.

The field work for the review was completed in April and May 2015, and consisted of reviewing Project data and documentation, as well as structured interviews with Nalcor personnel. The Project reporting period under review spanned December 2014 to February 2015.

The Sample of five key contracts was selected in conducting procedures for this review, whose aggregate value exceeds \$2.3 billion.

The list of data obtained in conjunction with the review is contained in Appendix A of the report.

EY would like to thank the members of the Government and Nalcor who participated in this assessment process. The list of individuals interviewed is contained in Appendix B of the report.



C. Detailed findings

The 'Detailed findings' section of the report is organized as follows:

- Schedule management process design
- Schedule management process compliance
- Cost management process design
- Cost management process compliance

D) Schedule management process design

Effective schedule management, monitoring and control processes allow the user to maintain an effective baseline plan and compare with progress to identify variances from that plan and corrective actions taken.

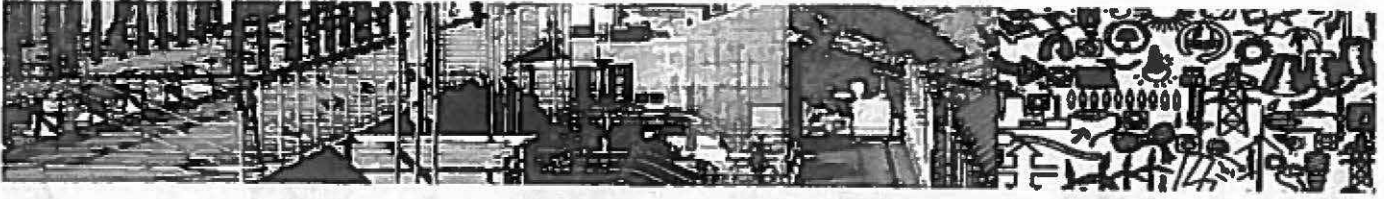
A range of conventional schedule control plans, processes and procedures have been developed. These include:

- An IPS document, including a description of the IPS structure, schedule assumptions, baseline as well as IPS progress/updating/reporting and critical path determination and IPS bar charts;
- A Project Execution Plan (PEP), where the function and structure of Project controls are defined;
- A PEP, which includes a summary of forecast schedule and the basis of that schedule forecast, including key assumptions, driving logic and project milestones;
- A Project Control Management Plan with a detailed section dedicated to planning and scheduling, including:
 - General strategies for achieving Project planning and scheduling objectives;
 - Schedule reporting and alignment requirements; and
 - Integration of detailed schedules of various contractors and suppliers.
- Planning and schedule process work flows. While the process steps remain at a high level, the map demonstrates functional responsibilities and handoffs. These work flows include key steps for:
 - Controlling the schedule at component level (i.e., Muskrat Falls Generation, Labrador Transmission Asset, Labrador Island Transmission Link), from contract award up to contract close out;
 - Developing components schedule baseline;
 - Updating the IPS; and
 - Reporting.
- Coordination procedures for administration, execution control and management of contractors' schedules (and cost);
- Trend analysis and change management processes used for forecasting time (and cost);
- An IPS focused on completion of the physical construction of the plant. However, management also indicated that schedules had been prepared for operational readiness and commissioning; and
- Project monthly reporting capturing key information to manage work on schedule, including:
 - Planned/earned/forecast progress;



- Variance;
- Critical path(s);
- Float watch; and
- IPS summary and construction progress.

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However, we observed that:

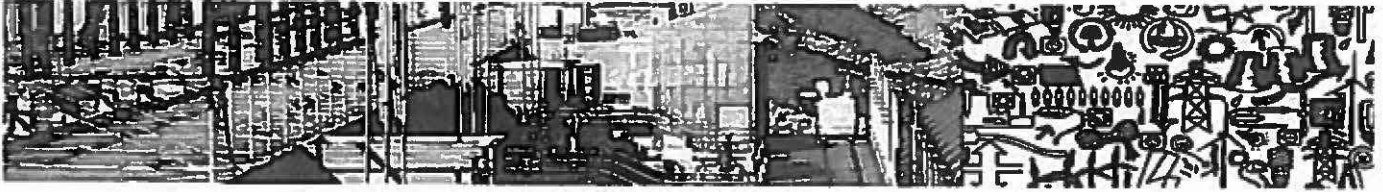
Detailed observations
1. The process used to update the status and recorded progress of the Project is not fully documented in the IPS. The process is complex and uses a number of manual inputs, tools (i.e., LCP database, IPS progress spreadsheet "Rosetta Stone") and monthly processing.
2. Variance thresholds for monitoring schedule performance are not defined. Control thresholds are used to indicate predefined scale of variation permissible before a documented corrective action plan must be put in place and the issues escalated to key stakeholders. Use of these thresholds would better inform the Oversight Committee.
3. The IPS Gantt charts do not show percent complete at the activity level, this limits the ability of the Oversight Committee to cross-check progress and forecasted end dates.
4. The IPS focuses on three domains, namely construction, commissioning and operations start-up. The IPS does not include information on three other domains, namely engineering, procurement and fabrication.
The logical relationships and the impact of delays in engineering, procurement or fabrication on construction schedule are not included in the IPS. Without these logical relationships between dependent activities and the construction schedule, it is not clear how such delays may impact construction and completion of the Project.

II) Schedule management process compliance

Nalcor has established a conventional organizational structure to support Project management and execution of processes and controls. Key roles in this organizational structure have been staffed with resources experienced in schedule management, monitoring and control.

We noted that:

- Nalcor regularly updates and maintains the IPS as its core schedule management tool and basis of reporting. IPS updates are performed using the established tools (IPS progress spreadsheet "Rosetta Stone", LCP database);
- Nalcor is working towards systematically integrating contractor schedule updates as a basis for the IPS updates. Contractors' schedules are regularly (i.e., monthly) reviewed by the Project Controls team and comments are made;
- The Project Controls team is well aware of the established processes as well as the planning and schedule workflows;
- Nalcor is making an effort to work collaboratively with contractors to encourage them to comply with project requirements; and
- An onsite Nalcor quantity surveyor validates contractor quantity and supports progress reporting for the IPS.



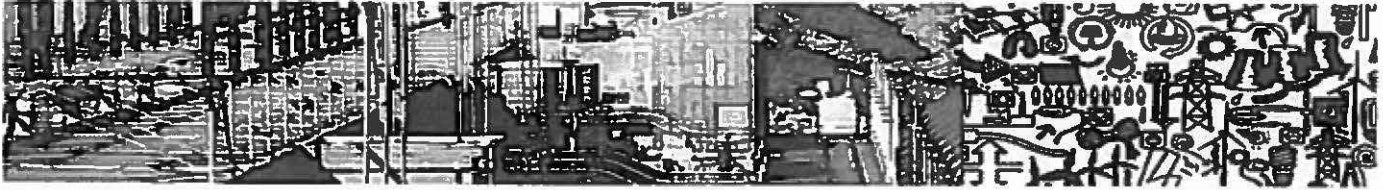
However, we observed that:

Detailed observations	
1.	<p>The process for integrated maintenance of the IPS and contractors' schedules is not fully deployed or consistently executed. Specifically:</p> <ul style="list-style-type: none"> a. SCBD and SDCP are incomplete and/or fail criteria, as per Nalcor's coordination procedures. These key documents describe the approach to planning and schedule control, including schedule development, analysis, forecasting, reporting, progress measurement and corrective actions; b. Of the contractors from the Sample, only two had complete SCBDs and SDCPs. The status of control schedule baselines, as per contractors' monthly December 2014 and January 2015 progress have been reported independent of this report to the Oversight Committee (independent reporting of the status details to the Oversight Committee was required due to commercial sensitivity); and c. The updated schedule control baseline from the Sample of contractors is not rolled up in the IPS. A timeline had not been established for completing the plans and finalizing an integrated baseline of contractor and IPS schedules.
2.	<p>From the Sample, one key contractor's most recent approved schedule (dated October 2014) does not fully comply with Nalcor's Coordination Procedure:</p> <ul style="list-style-type: none"> a. More than 10% of the contractor's scheduled activities have negative float. A significant number have a negative float of more than 80 days. Negative float indicates the inability to meet schedule milestones/deadlines including the required project completion date. As of 21 May 2015, schedule non-compliances remained to be rectified; and b. The contractor's monthly progress report has not been approved since July 2014. This typically indicates potential significant disputes between a client and contractor regarding the schedule forecasts and the accuracy and/or quality of their reporting. Consequently, such matters may not be included in the IPS and reported to the Oversight Committee.
3.	<p>Contractor's schedule corrective actions are not all implemented within the monthly reporting period following their identification by Nalcor. The result of a corrective action test performed on three contractors in the Sample has been reported independent of this report to the Oversight Committee. Independent reporting of the test details to the Oversight Committee was required due to commercial sensitivity.</p>
4.	<p>Reasonability checks revealed instances where progress reported in the IPS differed from the progress reported from contractors in the Rosetta Stone. Although the differences are not in themselves material, the reported progress may be viewed as subject to interpretation and not wholly objective.</p>
5.	<p>A target date for completion of corrective action on the schedule management and reporting challenges at the contractor level has not been established.</p>



In EY's experience, challenges with contractor schedules and their management are not uncommon in the major construction industry in Canada. However, the corrective action required is important for the Project as well as its oversight.

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III) Cost management process design

Project cost management typically includes processes for planning, estimating, budgeting, financing, funding, managing and controlling costs so that the Project can be completed within the approved budget. Cost control processes are set to monitor and report project performance against the cost baseline and identify variance from plan, and forecast potential impacts.

A range of conventional cost management processes have been substantially developed.

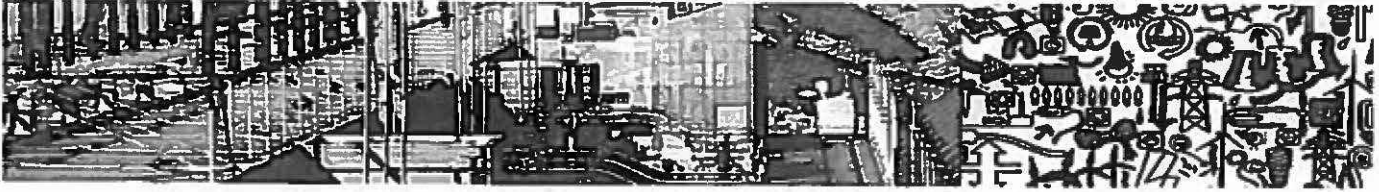
We noted that:

- Nalcor's LCP cost management processes are detailed in the PEP, Project Controls Management Plan and Procedure for Cost Control. These plans and procedures include a description of the:
 - Function and structure of the Project Controls group for cost management; and
 - Structure of the cost baseline, which includes the Project coding structure and work breakdown structure, Project commitment packages and packages dictionaries, and the Project process to establish and maintain budgets.
- A Project Control Management Plan with a detailed section dedicated to cost management, including:
 - Commitments and incurred cost monitoring process and cost/cash flow methodology;
 - Trending and forecasting processes used to calculate Forecast Final Cost (FFC) and assess variances. FFC is adjusted through a formal Forecast Change Notices mechanism. Early identification of potential variance is necessary to allow for an effective cost control system, and ultimately improve the accuracy of cost forecast;
- Cost control workflows have been drafted by the Project Controls team. These workflows describe the key steps at a functional level for each Interface Involved in the cost control processes. Workflows cover the following areas:
 - Commitments;
 - Incurred and cost flow; and
 - Forecast cost.
- Coordination procedures for administration, execution control and management of the contractors' cost (and schedule);
- Nalcor's monthly cost report captures key cost information, both at program and component level, including:
 - Original control budget (OCB);
 - Approved project changes;
 - Current control baseline (CCB);
 - Incurred cost;
 - Committed cost;
 - FFC, which is the sum of original commitment, approved changes, changes in progress, trends and unallocated budget/unawarded scope;
 - Variance from CCB and Trends; and
 - Contingency with related drawdown curve.



- An estimated contingency drawdown curve has been developed to forecast the usage of estimate contingency over the Project life.

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However, we observed that:

Detailed Observations
1. Cost variance thresholds are not defined. These thresholds are used to establish a permissible variation from budget before documented corrective action must be taken. Variance thresholds are also used to define what constitutes a variance requiring escalation for senior management's attention.
2. The conditions and processes for rebaselining are not defined in the Project's control processes and procedures. Management indicated that rebaselining of the program was at their discretion and dependent on a variety of factors including forecast and rate of drawdown on contingency.
3. Detailed checklists have not been developed for the use of Nalcor cost controllers to validate contractor costs and ensure review consistency.
4. The shape of the contingency curve is conventionally defined by aggregation of the forecasted materialization of estimate uncertainties or tactical risks. The current basis of the forecast contingency drawdown curve did not include quantified material risks. This shortcoming significantly limits the ability to compare the rate of realized cost risks versus original forecast, and assess the need for additional contingency or the rebaselining of the Project's cost and schedule.

iv) Cost management process compliance

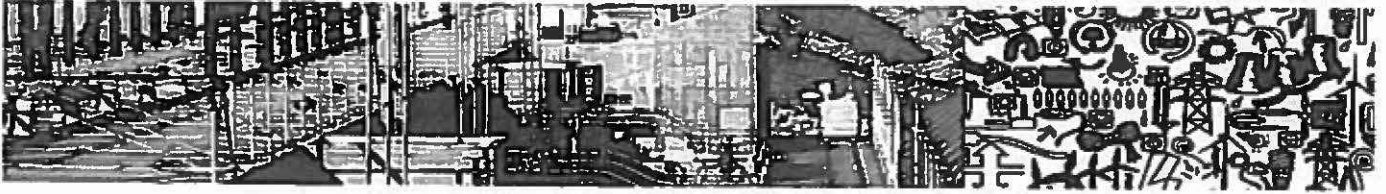
Nalcor has established a conventional organizational structure to support the management of the Project and execution of the processes and controls. Key roles in this organizational structure have been staffed with resources experienced in management, monitoring and control of the Project cost.

We noted that:

- A Cost Control team has been established with the mandate to provide the Project Management Delivery team with timely updated information on the Project cost status for analysis and control to deliver the Project within budget;
- Major activities performed under this mandate include: budgeting, reporting commitments and actual status, trending and calculating FFC;
- The Project has been divided into manageable sub-projects with their own budget code for accounts, funding authority and funding release mechanism;
- A cost baseline has been established and maintained;
- The FFC is calculated using data from Nalcor's cost management systems (including PM+, LCP tracker and PRISM);
- Contractors' costs are regularly reviewed by Cost Control teams and comments made are reported back to the contractors;
- Reasonability checks and variance analysis are performed by cost controllers to validate contractors' cost figures;
- Processes for Deviation Alert Notices and Trends are implemented and reported; and
- The Project Cost Control team is well aware of the established processes and cost-related workflows (although some are still in draft version).



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However, we observed that:

Detailed observations
<p>1. A trend, quantified risk and/or early identification of potential material variance have not been raised for the challenges with one key contractor included in the Sample, particularly related to progress delays. It is not clear how the quantification of the related cost risk has been communicated in reporting, limiting the understanding of the scale of the risk or issue.</p>
<p>2. Contractors' forecasts are not consistently used as a basis of the FFC. Alternative procedures are utilized including the use of a quantity surveyor who validates contractor quantity and supports progress reporting for the IPS.</p>
<p>3. FFC does not include trends for another contractor included in the Sample, as a different system is used to track costs.</p>

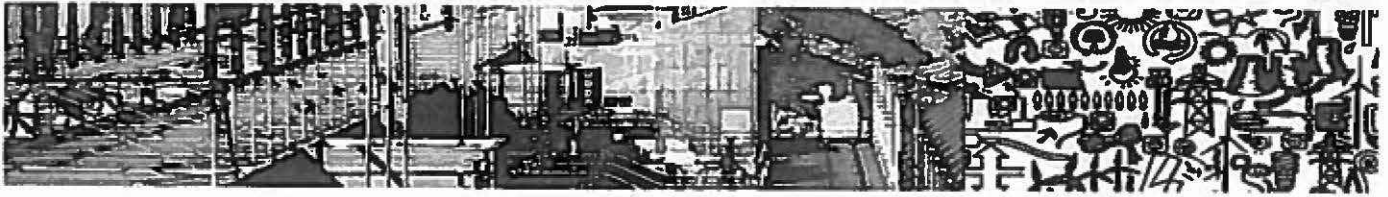
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Appendix A: Documentation reviewed

Documents reviewed as part of this engagement:

<p>Monthly Progress Reports dated December 2014 and January 2015 for the following sample of contractors:</p> <ul style="list-style-type: none"> - Alstom GD0502 - Andritz Hydro CH0032 - Nexans LC-SB-003 - Valard GT0327 	<p>Coordination procedures for the following sample of contractors:</p> <ul style="list-style-type: none"> - Alstom GD0502 - Andritz Hydro GH0032 - Astaldi GH0007 - Nexans LC-SB-003 - Valard GT0327
<ul style="list-style-type: none"> - C1 Progress to IPS rollup – Reporting MF Gen (C1) Progress to IPS; - IPS Progress Roll-up 2015 05 05; - IPS Progress weight factors 2015 05 05 	<ul style="list-style-type: none"> - LCP-LITL bar chart from IPS 2015 04 09; - LCP-LTA bar chart from IPS 2015 04 09; - LCP-MFG bar chart from 2015 04 09; - IPS LCP-PT-MD-0000-PC-SH-0001-01
<p>Cost reports dated December 2014 and January 2015 for the following sample of contractors:</p> <ul style="list-style-type: none"> - Alstom CD0502 - Andritz Hydro GH0032 - Astaldi CH0007 - Nexans LC-SB-003 - Valard GT0327 	<p>Schedule .xer file for the following sample of contractors:</p> <ul style="list-style-type: none"> - Nexans LC-SB-003 with January and February 2015 data - Alstom GD0502 with August 2014 data - Valard GT0327 with August 2014 data
<p>Control Schedule Baseline Document dated 27 January 2015 from Andritz Hydro CH0032</p>	<p>Control Schedule Baseline Document dated 06 February 2015 from Nexans LC-SB-003</p>
<p>Project Baseline Schedule dated 09 January 2015 from Andritz Hydro CH0032</p>	<p>LCP Monthly Progress Report dated December 2014 and January 2015</p>
<p>Integrated Project Schedule (IPS) - Monthly Schedule and Progress Analysis Project Based cut-off date 31 December 2014, 28 January 2015, 25 February 2015</p>	<ul style="list-style-type: none"> - Sample of Draw Confirmation Certificate - Sample of Draw Request and Funding Request - Sample of Construction Reports
<p>IPS Progress Rosetta Stone for the months of December 2014, January 2015 and February 2015</p>	<p>Material Contract Cost Summary dated December 2014 and January 2015</p>
<p>McInnes Cooper Reports dated January, February and March 2015</p>	<p>Contract Administration Plan_LCP-PT-MD-0000-CA-PL-0001-01</p>
<p>LCP-PT-MD-0000-PM-ST-0002-01_B1_Contracting Strategy</p>	<p>Decision Gate 3 Basis of Estimate LCP-PT-ED-0000-EP-ES-0001-01 Rev B2</p>
<p>Project Change Management Plan_LCP-PT-MD-0000-PM-PL-0002-01</p>	<p>Integrated Project Schedule_LCP-PT-MD-0000-PC-SH-0001-01</p>



Project Control Management Plan_LGP-PT-MD-0000-PC-PL-0001-01[1]	LGP Assurance Framework May 2013
Project Control Schedule Baseline Document_LCP-SN-CD-0000-PC-SH-0001-01	LCP-PT-MD-0000-CS-PL-0001-01_B2 Construction Management Plan
Project Execution Plan (Scope and Approach)_LCP-PT-MD-0000-PM-PL-0001-01_B3	Project Finance and Accounting Management Plan_LGP-PT-MD-0000-FI-PL-0001-01
Project Risk Management Plan_LCP-PT-MD-0000-RI-PL-0001-01_B1	Project Work Breakdown Structure and Code of Accounts_LCP-PT-MD-0000-PC-LS-0001-01
Revised Project Work Breakdown Structure and Code of Accounts_LGP-PT-MD-0000-PC-LS-0001-01_Rev B5	Work Planning Management Plan_LGP-PT-MD-0000-PM-PL-0003-01
<ul style="list-style-type: none"> - Astaldi CH0007 Monthly Progress Report dated 25-July-2014; - 2014 10 10 – ACI-MFC-0143 – Issue Of Revised Construction Schedule; - CH0007-Muskrat Falls – Execution Detailed Schedule v8.2 DD 28 SEP14 Official Submission 09.10.2014; - LTR-CH0007001-0283 – Baseline Control Schedule Conditional Acceptance; - Astaldi Execution Detailed Schedule – MFA-AT-SD-0000-PM-A02-0001-01 dated 10-October-2104 	<p>Project Controls Workflow/Procedure:</p> <ul style="list-style-type: none"> - LCP_Cost Control_Mar2015_DRAFT; - LCP_Planning & Scheduling_Component Baseline_Mar2015_DRAFT; - LCP_Planning&Scheduling_IPS_Mar2015_DRAFT; - LCP_Planning&Scheduling_Mar2015_DRAFT; - LCP_Reporting_Mar2015_DRAFT; - LCP-PT-MD-0000-PC-PR-0005-01_Cost Control Procedure_DRAFT
Organization Charts LCP-PT-MD-0000-PM-GR-0001-01	Project Cost Update to MWH – 22-Jul-2014
LCP Asset Schematic by Project	<ul style="list-style-type: none"> - LCP_Monthly PC Meeting_25-Mar-2015; - LCP_PCMeeting_BI-Weekly_Agenda_Feb2015



Appendix B: Interviews conducted

Interviews with the following Nalcor personnel were conducted:

#	Name	Title
1	Anthony Embury	Project Controls Manager
2	Carlos Fernandez	Deputy Project Controls Manager
3	Paul Harrington	Project Director
4	Jason Keane	Deputy General Project Manager
5	Ed Bush	Project Controls Lead – Muskrat Falls
6	Tanya Power	Project Controls Lead – HVdc Specialties
7	Nick Ternasky	Project Controls Lead – Overland Transmission
8	Georges Chehab	Lead Cost Controller
9	Brian Marsh	Sr. Cost Controller
10	Jill Hawkins	Cost Controller
11	Tara Dumaresque	Cost Controller
12	Tom Ghudy	IPS Sr. Planner
13	Andrew Whitty	Planner
14	Craig Freake	Planner SOBI
15	Greg Fleming	Project Manager SOBI Crossing
16	Jennifer Grandy	Stewardship Reporting Coordinator
17	Scott Gillis	Change and Interface Management Lead

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Ernst & Young LLP
Atlantic Canada
ey.com

Dieppe
11 Englehart Street
Dieppe, NB E1A 7Y7
Tel: +1 506 853 3097
Fax: +1 506 859 7190

Fredericton
527 Queen Street
Suite 110
Fredericton, NB E3B 3T2
Tel: +1 506 455 8181
Fax: +1 506 455 8141

Halifax
RBC Waterside Centre
1871 Hollis Street
Suite 500
Halifax, NS B3J 0C3
Tel: +1 902 420 1080
Fax: +1 902 420 0503

Saint John
Red Rose Tea Building
5th floor
12 Smythe Street
Saint John, NB E2L 5G5
Tel: +1 506 634 7000
Fax: +1 506 634 2129

St. John's
Fort's Place
5 Springdale Street
Suite 800
St. John's, NL A1E 0E4
Tel: +1 709 726 2840
Fax: +1 709 726 0345

15 vacancies

*• EY on island
• Sovereign in*

*John
EY
(Jm)*

29 October 2015

Mr. Craig Martin
Assistant Deputy Minister of Finance
Muskrat Falls Oversight Committee
Government of Newfoundland and Labrador
1st Floor East Block Confederation Building
Prince Philip Driveway, P.O. Box 8700
St. John's, NL A1B 4J6

*2025 % on Oversight
+ 1 yr 600-700 m*

Review of Muskrat Falls Project Cost and Schedule Management Processes and Controls

Dear Mr. Martin,

EY has completed its review of Nalcor's cost and schedule management processes and controls as related to the Muskrat Falls Project ("engagement"). The engagement was performed in accordance with the statement of work dated 9 March 2015 between EY and Her Majesty in Right of Newfoundland and Labrador, and our procedures were limited to those described in that statement of work.

The field work for the engagement was completed in April and May 2015, and consisted of reviewing Project data and documentation, as well as structured interviews with Nalcor personnel. The Project reporting period under review spanned December 2014 to February 2015. The report resulting from our engagement is titled "Review of Muskrat Falls Cost and Schedule Management Processes and Controls" and is provided under this transmittal letter.

The services provided by EY as summarized in this report are advisory in nature. They are intended to provide insight into Nalcor's Cost and Schedule management processes and controls, and related reporting. EY is not rendering an audit, review, examination, or other form of attestation as those terms are defined by the American Institute of Certified Public Accountants or Chartered Professional Accountants Canada.

Restrictions on the use of our work product

This report is prepared solely for use of the Government of Newfoundland and Labrador for the purpose of assessing cost and schedule management processes and controls for the Muskrat Falls Project. Ernst & Young LLP specifically disclaims any responsibility to any other party, and disclaims any responsibility for loss incurred through use of the report for any other purpose.

We appreciate the cooperation and assistance provided to us during the course of our work.

Yours very truly,

Ernst & Young LLP

Chartered Accountants
Ernst & Young LLP



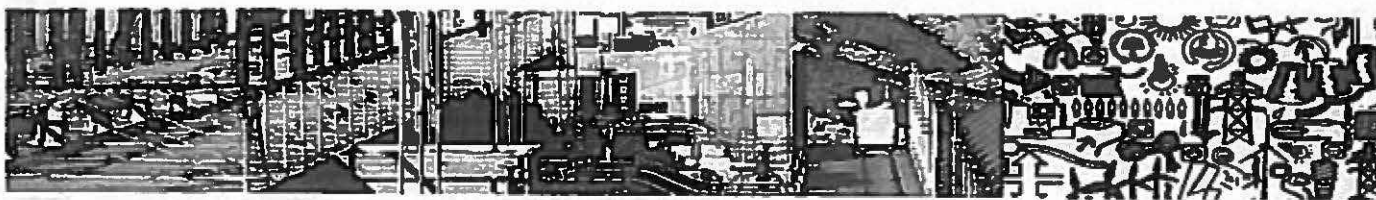
**Review of Muskrat Falls Project
Cost and Schedule Management
Processes and Controls**

Executive Summary Report

30 October 2015



**Building a better
working world**



Background

The Government of Newfoundland and Labrador ("Government") has initiated oversight protocols for the Muskrat Falls Project ("Project"), a significant component of the Lower Churchill Project. This included establishing the Muskrat Falls Oversight Committee ("Oversight Committee"), which provides regular Project oversight reports to Cabinet.

The Oversight Committee is accountable to Cabinet for providing reliable and transparent oversight on the cost and schedule performance of the Project. The Oversight Committee is relying on the summary cost and schedule information produced by Nalcor as a key element in performing its mandate.

EY's Major Capital Projects practice was engaged to bring additional experience to assist the Oversight Committee in meeting its mandate. This report presents a summary of the results of EY's review of Nalcor's cost and schedule management processes and controls.

Review scope

The scope of the review included an assessment of the:

- Adequacy of Nalcor's cost and schedule management processes and controls as it manages and reports on the execution of the Project;
- Consistency of Nalcor's use of those processes and controls in key areas of the Project; and
- Extent of reliance the Oversight Committee could place on Nalcor's management reporting for cost and schedule forecasts.

The field work for the review was completed in April and May 2015, and consisted of reviewing Project data and documentation, as well as structured interviews with Nalcor personnel. The Project reporting period under review spanned December 2014 to February 2015.

A sample of five key contracts (the "Sample") was selected in conducting procedures for this review, whose aggregate value exceeds \$2.3 billion.

This report summarizes the work performed by EY, our key findings and recommendations for the Oversight Committee's consideration. The Oversight Committee has been briefed on these and detailed findings from our review.

This report does not include a management response from Nalcor, as EY has not been engaged by Nalcor. This serves to preserve EY's independent reporting relationship to the Oversight Committee. The intention is that Nalcor will provide their management response directly to the Oversight Committee.

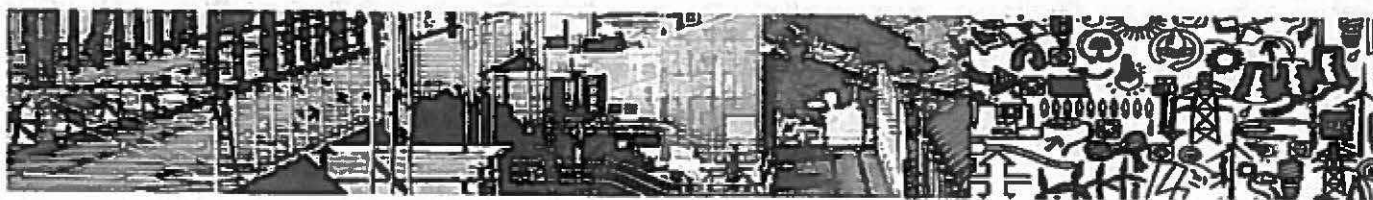
Review limitations

The following areas were excluded from the scope of the review:

- The estimating processes and cost baseline process were not assessed. The Oversight Committee indicated it intended to rely on the results of the DG approval processes (DG2 having been reviewed by MHI Consulting and DG3 having been reviewed by the Independent Engineer) and the approval of the narrow scope cost adjustments in the 30 June 2014 update.

Review of Muskrat Falls Cost and Schedule Management Processes and Controls

Prepared for the Muskrat Falls Oversight Committee



- The accuracy of the forecasted costs or schedule dates for the contractors or Project as a whole.
- Change Management and Risk Management processes. The Oversight Committee indicated Nalcor's Internal Audit Department are assessing these areas and intends to assess Nalcor's Internal Audit reports for reliance purposes.

The services provided by EY as summarized in this report are advisory in nature. They are intended to provide insight into Nalcor's Cost and Schedule management processes and controls, and related reporting. EY is not rendering an audit, review, examination, or other form of attestation as those terms are defined by the American Institute of Certified Public Accountants or Chartered Professional Accountants Canada.

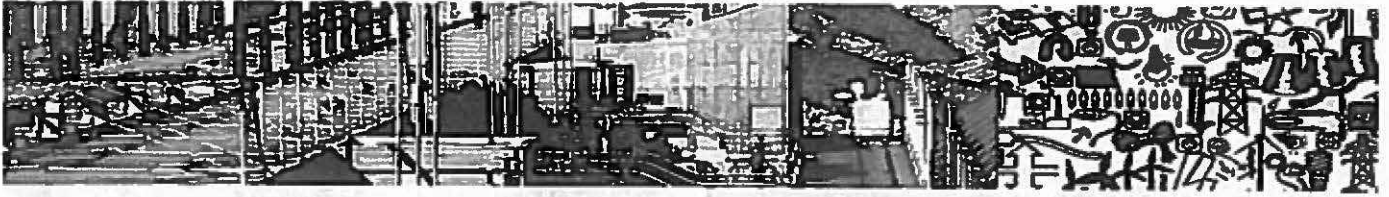
This report is prepared solely for use of the Government of Newfoundland and Labrador for the purpose of assessing cost and schedule management processes and controls for the Muskrat Falls Project. Ernst & Young LLP specifically disclaims any responsibility to any other party, and disclaims any responsibility for loss incurred through use of the report for any other purpose.

Fuller details of our observation are provided in a supplement to this report. We understand that the distribution of the supplement will be closely controlled as it includes certain commercially sensitive information that might otherwise adversely impact the performance of the project and its cost if this information was released.

Summary of key findings

The following observations were noted:

1. Key project control processes have been developed, including:
 - a. Core project management and control processes for cost and schedule, including the development of an Integrated Program Schedule (IPS) for the program, identification of baseline, committed and incurred costs as well as linkage of cost and schedule baselines to change management processes and controls;
 - b. A Project Execution Plan defining the basis of the schedule and the estimate, and key assumptions supporting Project baseline cost and schedule; and
 - c. Coordination procedures for administration, execution control and management of the contractors' cost and schedule.
2. Project reporting summarizes key information on construction cost and schedule, including:
 - a. Schedule forecast and progress leveraging the IPS, including critical path and float review; and
 - b. Cost forecasting, including Estimate To Complete, Estimate At Complete, variances and trends, as well as basic contingency forecasting.
3. Nalcor's continued efforts to work with contractors on maintaining a disciplined approach to project management, control and reporting.
4. Proactive measures were being taken to manage potential claims.
5. Cost and schedule issues and risks arising during the Project were subject to active and formalized management.
6. A matrix organizational structure had been established, responsible for managing the Project as a whole. Key roles in this organizational structure had been staffed with resources experienced in cost and schedule management.



The following observations summarize key aspects of management processes and controls not fully developed and deployed at the time of our review:

Key schedule management process and control risks and issues

1. Certain baseline documents defining contractor schedules as well as the documents defining the control of project schedules were not yet complete.
2. Contractors' schedule updates were not being systematically rolled up into the Nalcor Integrated Project Schedule (IPS) that forms the basis of reporting to the Oversight Committee;
3. A completion date had not been established for finalizing an integrated baseline of contractor and IPS schedules to correct the issues noted in #1 and #2 above.
4. The IPS development and maintenance process is not fully documented.

Key cost management process and control risks and issues

1. The conditions and processes for rebaselining cost and schedule are not defined in the Project's control processes and procedures. The Oversight Committee's understanding of such conditions and processes is an important foundation, as it conducts its oversight activities.
2. Nalcor uses a relatively basic approach to its updating of forecasted contingency requirements which in our experience is not consistent with the expected practices for a project of this scale and complexity. Given this, it is not clear whether the cost contingency as forecasted in reports for the Project will be adequate.
3. The Project does not define thresholds for variance management, reporting, and escalation purposes. We would normally expect these to be in place as they assist in giving clear indications of the severity of issues and the need to escalate to key stakeholders, such as the Oversight Committee.
4. Fully quantified risks or trends have not been documented for certain significant challenges on the project. The scale of potential challenges is also not quantified in the summary reporting made available to the Oversight Committee.

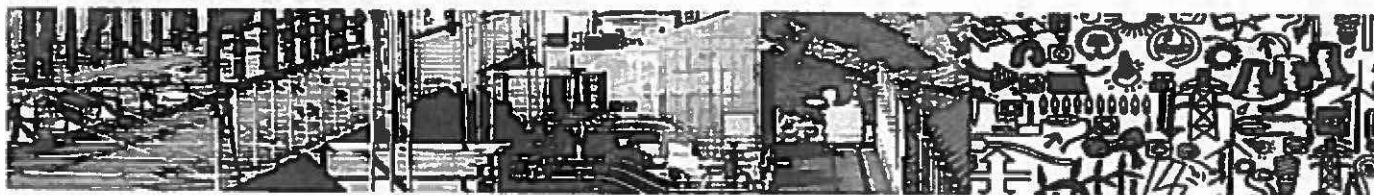
We recognize that Nalcor is using many conventional management processes and controls for the Project. However, while certain contractor Earned Value data is being collected, Nalcor is not reporting using a full Earned Value Management System across the whole of the project. Reporting on Earned Value performance would however, provide additional useful data and information to the Oversight Committee on both individual contractor and overall Project performance where available.

Until such time as the management process and controls risks and issues identified in this report and the supplement are addressed, the completeness and accuracy of Project cost and schedule status reporting to the Oversight Committee cannot be fully verified.

Key recommendations

We recommend that the Oversight Committee:

1. Work with Nalcor to obtain management response for each of the findings noted in this report with defined corrective action, responsibility and anticipated completion dates. Given the volume of Project activity (burn), timeliness of action is critical. Therefore, the Oversight



Committee should actively monitor status and verify completion of management response to its expectations.

2. Consider conducting detailed assessments of the cost and schedule status of the Project on an ongoing basis until Nalcor's corrective action addressing key risks and issues noted in this report is complete to the Oversight Committee's satisfaction. This ongoing assessment should include the basis and accuracy of the forecasts for completion at the contractor level, as well as the quantification of cost and schedule risk.

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Parsons, Kelvin

From: Secretariat, Cabinet
Sent: Monday, January 25, 2016 10:38 AM
To: Ball, Dwight; Bennett, Cathy (Minister); Burt, Paula; Byrne, Gerry; Coady, Siobhan; Haggie, John; Joyce, Eddie; Mullaley, Julia; Murphy, Tim; Parsons, Andrew; Parsons, Kelvin
Cc: Roberts, Edna; Connors, Heather; Power, Colleen (HCS); Glynn, Valerie; Manning, Rhonda; Jarvis, Carolyn B.; Haynes, Brenda; Murphy, Marina
Subject: Call In Numbers for Policy & Planning Briefing today

Information for Policy and Planning Briefing – if you are unable to make it:

Monday, Jan. 25, 2016 at 3:30 pm
The dial-in number 1-844-220-3466 (Outside St. John's) or 1-709-570-2074 (in St. John's)
The conference ID [REDACTED]

Jackie Barry
729-2921
jbarry@gov.nl.ca

From: Secretariat, Cabinet
Sent: Monday, January 25, 2016 10:09 AM
To: Ball, Dwight; Bennett, Cathy (Minister); Burt, Paula; Byrne, Gerry; Coady, Siobhan; Haggie, John; Joyce, Eddie; Mullaley, Julia; Murphy, Tim; Parsons, Andrew; Parsons, Kelvin
Cc: Roberts, Edna; Connors, Heather; Power, Colleen (HCS); Glynn, Valerie; Manning, Rhonda; Jarvis, Carolyn B.; Haynes, Brenda; Murphy, Marina
Subject: Policy & Planning Briefing

There will be a Policy & Planning Briefing today, Monday, January 25th. in the Premier's Boardroom at 3:30 pm. If for some reason you cannot attend please call in at 729-3968. Thanks.

Jackie Barry
729-2921
jbarry@gov.nl.ca

Cabinet Secretariat
Office of Executive Council

**Please do not reply to this email as this account is not monitored outside of regular working hours. Thank you.*

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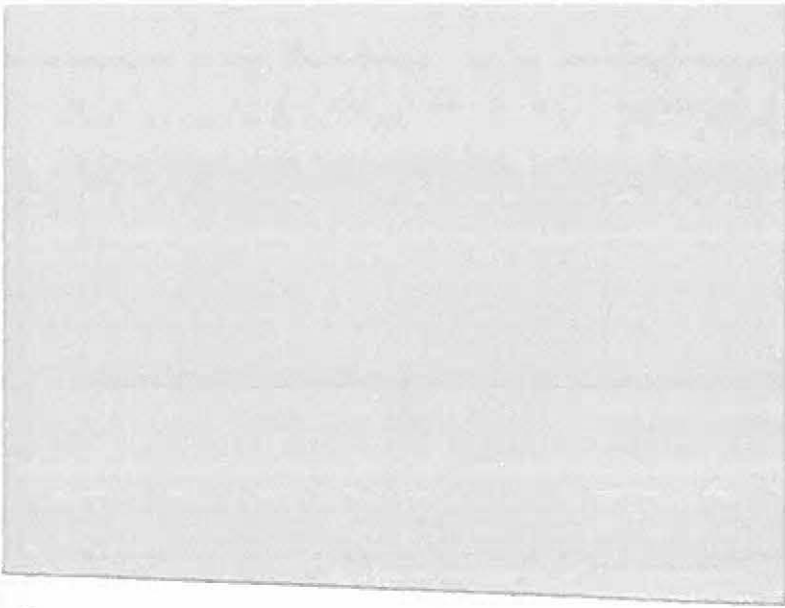
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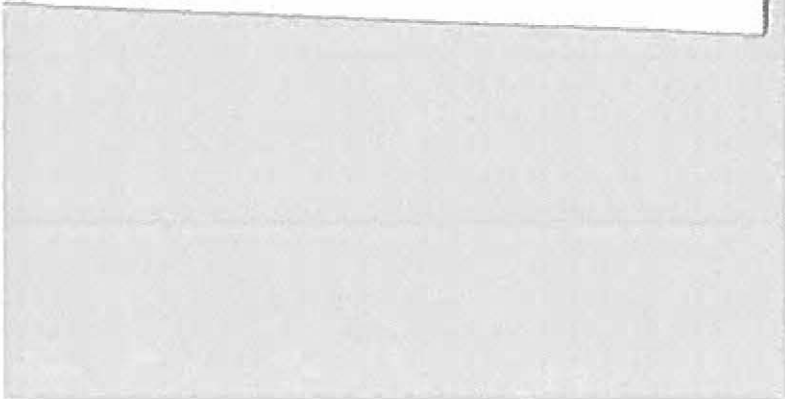
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dialogue with Prov.



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answer from a good
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Miles, Peter

From: Wayne Myles <wayne@mylesandcompany.com>
Sent: Friday, January 29, 2016 12:06 PM
To: Miles, Peter
Cc: Alexander (Sandy) MacDonald; docs docs
Subject: Blackstone/TDI meeting with the Premier & Minister of Natural Resources 3 February 2016 at 8:30 AM
Attachments: NL Meeting Bios_02.03.16.pdf

Good morning Peter.

As discussed, I am writing to confirm that our meeting on Wednesday February 3, will commence at 8:30 AM and will be held in the Boardroom of Cox & Palmer on the 11th Floor of Scotia Centre, 235 Water Street.

You have confirmed that the NL Government attendees will be:

Premier Dwight Ball
Minister of Natural Resources Siobhan Coady
Kelvin Parsons, Chief of Staff
Tim Murphy, Deputy COS
Peter Miles, Senior Advisor Economic Policy

I confirm that the attendees representing Blackstone and TDI will be:

Sean Klimczak, Senior Managing Director, Blackstone
Donald Jessome, CEO, TDI
Todd Singer, Senior VP, TDI
Wayne Myles, C&P
Alexander (Sandy) MacDonald, C&P

Attached you will find a brief BIO of each of Sean, Donald and Todd.

The proposed Agenda for the meeting is as follows:

- (1) Introductions**
- (2) Blackstone - TDI Overview**
- (3) Markets and the Gull Island Opportunity**
- (4) Hydro-Quebec involvement**
- (5) Next steps**

Peter, please let me know if there is anything else you would like to have or need prior to the meeting. Otherwise, I look forward to seeing you on Wednesday AM.

Also, please confirm receipt of this email and attachment.

Wayne Myles, QC
counsel Cox & Palmer
Mail: P.O. Box 7056 Station C, St. John's, NL Canada A1E 3Y3

Courier: Suite 1100 Scotia Centre 235 Water St. St. John's NL A1C 1B6
Direct Voice: 786-991-9007 **Cellular:** 709-685-0889 **Fax:** 709.738.8083
Email: wayne@mylesandcompany.com
Web: coxandpalmerlaw.com

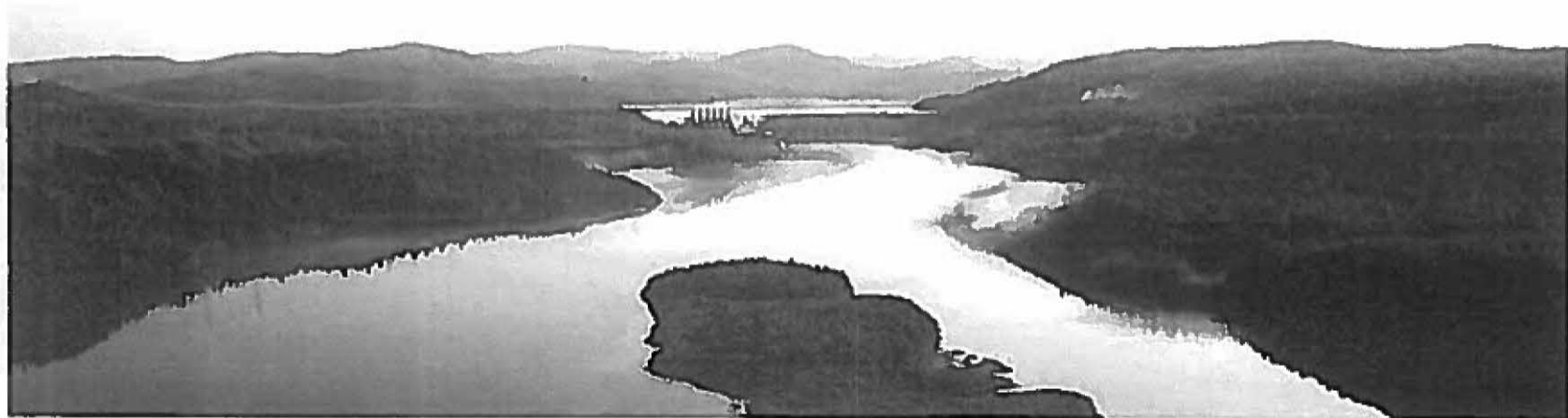
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Newfoundland and Labrador Meeting Bios

FEBRUARY 3, 2016



Executive Bios

Sean T. Klimczak, Senior Managing Director – Blackstone. Since joining Blackstone in 2005, Mr. Klimczak has been involved in the execution of several Blackstone investments, including various Sthe Global Investments (including Goreway, Bujagali, GNP Mariveles and SKS), Cheniere Energy Partners, Fistera, PQ Energy, Utility One Source, Meerwind, Transmission Developers, American Petroleum Tankers and The Weather Channel.

Before joining Blackstone, Mr. Klimczak was an Associate at Madison Dearborn Partners. Prior to that, Mr. Klimczak worked in the Mergers & Acquisitions department of Morgan Stanley & Company's Investment Banking Division.

Mr. Klimczak received a B.B.A. in Finance and Business Economics from the University of Notre Dame, where he graduated summa cum laude and was elected to Beta Gamma Sigma, and an M.B.A. with High Distinction from Harvard Business School, where he graduated with the highest academic standing in his class and was selected as a Baker Scholar, a John L. Loeb Fellow, a Henry Ford II Scholar and a William J. Carey Scholar. Mr. Klimczak serves as a director of Sthe Global, Cheniere Energy Partners, Fistera, PQ Energy, Utility One Source, Meerwind, Transmission Developers and The Blackstone Charitable Foundation.

Donald Jessome, Chief Executive Officer – Transmission Developers. Mr. Jessome has spent his entire career in the energy field, starting with 22 years at Emera Inc., a publicly traded company in Canada with \$5.3 billion in energy infrastructure assets centered on power and natural gas. Mr. Jessome worked in a broad range of areas while at Emera, including transmission & distribution operations and construction, integrated system planning, system operations, generation operations and fuel procurement, marketing and sales, and most recently Director of Asset Optimization and Power Trading for Emera Energy Inc. a wholly owned nonregulated trading and asset optimization company of Emera Inc. During this tenure Mr. Jessome has sat on numerous advisory boards, including his membership as one of the inaugural members of the NBSO Market Advisory Committee and a founding member of the CEA Power Marketing Committee. He has extensive knowledge of the power markets in the Northeast including ISO-NE, NYISO, IESO, TransÉnergie, NBSO, and PJM through his extensive marketing and trading experience with both the regulated and nonregulated business at Emera.

Prior to co-founding Transmission Developers Inc., Mr. Jessome joined Riverbank Power in 2008 as Vice President of Marketing and Trading to help the company develop its commercialization strategy for its 1,000 MW underground pump-storage technology, referred to as Aquabank™. This strategy included the development of economic models and programs for the sale of energy, capacity and renewable attributes for both the regulated and market-based energy markets. In addition, Mr. Jessome was responsible, along with the CEO, for raising equity financing for Riverbank's development plans. Mr. Jessome is a board member of Riverbank Power.

Mr. Jessome earned his undergraduate degree in Electrical Engineering from the Technical University of Nova Scotia (currently referred to as Dalhousie University) in 1987 and his Masters of Business Administration, with Distinction, from Saint Mary's University in 1999.

Todd Singer, Senior Vice President - Project Development & Finance, Treasurer – Transmission Developers. Mr. Singer is the Senior Vice President of Project Development & Finance, and Treasurer for Transmission Developers. He is a senior operating and finance executive with 20+ years of diverse corporate and investment banking experience. He has significant expertise in the alternative energy and power/utility industries. During his investment banking career, Todd was responsible for originating and executing over \$97 billion in capital markets transactions and \$3.6 billion in M&A transactions. Todd was formerly the founding principal of Brookdale Energy Advisors, a strategic and financial consulting business focused on alternative energy. In that role, he served as a consultant and head of strategy and corporate development for a wind energy storage company and as a consultant with the Natural Resources Defense Council in its Center for Market Innovation, where he was focused on energy efficiency finance.

Mr. Singer worked for over eight years as an investment banker at Morgan Stanley, where he was an Executive Director in Global Capital Markets. Following business school, Todd was also a consultant at Price Waterhouse Coopers and an investment banker at Bank of America. He also worked in advertising finance at Time Warner's Time Inc. subsidiary.

Todd received his Masters of Business Administration from Columbia Business School and his BS in Management with a minor in Art History from Bucknell University. Todd is on the Board of Directors of the Bucknell Alumni Association and was formerly the Co-Chair of the Bucknell Professional Networks, a 3,500-member network of alumni covering a broad range of industries and disciplines. He was also the founding Co-Chairman of the Bucknell Finance Network, a worldwide network of all Bucknell alumni working in finance. He is also a former Chairman of the Reunion Gift Committee and has been a guest lecturer at Bucknell.



Blackstone



GULL ISLAND / BLACKSTONE PARTNERSHIP

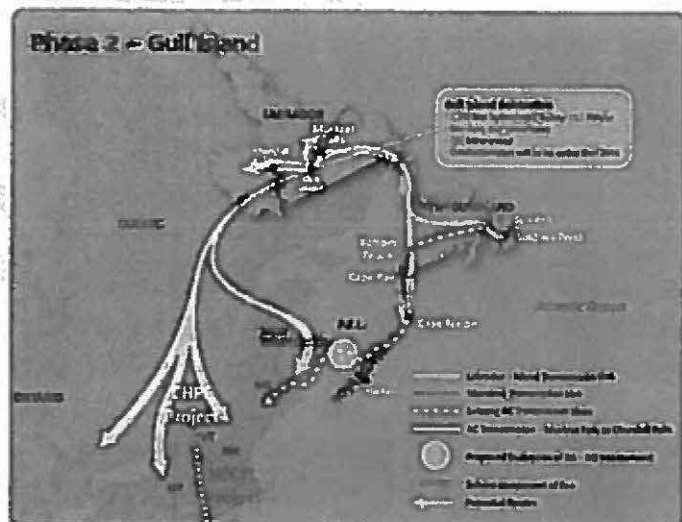
Opportunity: Create a Partnership between Blackstone and the NL Government to build Gull Island and export the majority of its power to the Northeastern United States.

Partnership Rationale:

- Gull Island is the best remaining hydro resource in North America, but requires long-term contracts to bring to fruition.
- The NL Government wants to increase hydro exports and is interested in finding partners to develop Gull Island.
- Blackstone is seeking to invest in large energy infrastructure opportunities.
- Blackstone has experience co-developing hydro outside of the U.S.
- Blackstone has the transmission Projects to connect Gull Island to U.S. energy markets.

Why Now?

- Thousands of megawatts of fossil-fuel and nuclear generation within the Northeast will retire over the next decade due to aging plants, carbon reduction goals and political will -- the region can't meet this demand through in-region supply.
- The New England and New York energy markets have developed an unprecedented appetite for long-term, base-load, clean power. These markets have some of the highest power prices in the U.S. and place a premium on clean power.
 - New England is seeking ~20 TWh/annually of clean power via long-term contracts through the Tri-State RFP and pending Energy Legislation
 - NYC will issue an RFP in 2016 for an additional 4-5 TWh/annually
 - MA, CT and NY must reduce emissions by approximately 80% by 2050
- TDI's transmission solutions in New York (Champlain Hudson Power Express) and Vermont (New England Clean Power Link) will be permitted by the end of 2015 and poised for construction in 2016. These transmission lines are supported locally and will provide uncongested access to the population centers in New York and New England.
- HQT is actively studying TDI's interconnection request to wheel power from Labrador through Quebec to the U.S. border.



ABOUT TRANSMISSION DEVELOPERS. TDI was founded in 2008 with the goal of developing unique energy transmission projects in an environmentally responsible manner. The company, headquartered in Albany, NY, uses HVDC cable to link clean, highly competitive generation resources with markets that need supply diversity, enhanced reliability and long term lower costs. TDI was acquired by the Blackstone Group in January 2010. More information is available at www.transmissiondevelopers.com.

Blackstone

BLACKSTONE OVERVIEW

Firm Overview

Blackstone is a premier global investment firm that strives to provide solutions that create lasting value for our investors, the companies in which we invest and society at large. The firm was founded in 1985 by Stephen A. Schwarzman, our Chairman and Chief Executive Officer, and Peter G. Peterson, who retired as Senior Chairman in 2008. They began with a modest balance sheet of \$400,000 but with a wealth of entrepreneurial ideas about creating a world-class investment business built on a foundation of uncompromising commitment to excellence. Their vision was to create a firm that put clients' needs first, that was independent and conflict-free, adhered to the highest ethical standards and sought to create long-term value for all stakeholders.

Today, Blackstone has more than 2,000 employees in 22 offices worldwide with portfolio companies employing more than 616,000 people across the globe, making us a major factor in economies around the world.

In June of 2007, Blackstone completed its initial public offering and is listed on the New York Stock Exchange under the symbol BX.

Alternative Asset Management Overview

Blackstone is the world's largest independent alternative asset manager, serving the investment needs of leading public pension funds, academic and charitable institutions and other investors for nearly 30 years. Our funds include private equity funds, real estate funds, customized hedge fund solution funds, credit-oriented funds and publicly traded closed end mutual funds. In addition, we provide investment advice and management services to institutional investors through a variety of separately managed accounts. The firm's goal is to deliver enhanced returns and capital preservation over the long term through a rigorous application of sharp intellect, skilled management and significant capital resources. This approach has led the firm to pursue diverse investment opportunities on a global scale. Total Assets Under Management were \$333 billion as of June 30, 2015.

Energy Commitment

Blackstone has a deep, long term commitment to energy and natural resources with significant greenfield and brownfield development experience.

- Active investor in the energy space:
 - \$2.4 billion energy fund raised in September 2012
 - \$4.5 billion energy fund raised in February 2015
- Purchased Transmission Developers, Inc. (TDI) in 2010 and is funding the development for both the Champlain Hudson Power Express and New England Clean Power Link projects. Blackstone is committed to providing 100% of the equity required for these projects which combined will cost approximately \$3.4 billion.
- In addition to TDI, companies in the Blackstone energy portfolio include:
 - Offshore MW: www.offshoremwllc.com
 - Fistera Energy: www.fisteraenergy.com
 - Onyx Renewable Partners: www.onyxrenewables.com
 - Sithe Global: www.sitheglobal.com

SITHE GLOBAL
 Providing energy solutions that create lasting value for our investors, the companies in which we invest and society at large.

Our focus is on providing energy solutions that create lasting value for our investors, the companies in which we invest and society at large. We do this by using extraordinary people and flexible capital to help companies solve problems. Our asset management businesses, with over \$330 billion in assets under management, include investment vehicles focused on private equity, real estate, public debt and equity, non-investment grade credit, real assets and secondary funds, all on a global basis. Blackstone also provides various financial advisory services, including financial and strategic advisory, restructuring and reorganization advisory and fund placement services. Further information is available at www.blackstone.com.

ABOUT BLACKSTONE. Blackstone is one of the world's leading investment firms. We seek to create positive economic impact and long-term value for our investors, the companies we invest in, and the communities in which we work. We do this by using extraordinary people and flexible capital to help companies solve problems. Our asset management businesses, with over \$330 billion in assets under management, include investment vehicles focused on private equity, real estate, public debt and equity, non-investment grade credit, real assets and secondary funds, all on a global basis. Blackstone also provides various financial advisory services, including financial and strategic advisory, restructuring and reorganization advisory and fund placement services. Further information is available at www.blackstone.com.



www.chpexpress.com
Albany, NY: (518) 465-0710
New York, NY: (212) 408-5190

CHAMPLAIN HUDSON POWER EXPRESS

The Champlain Hudson Power Express (CHPE) is a 1,000 MW high voltage direct current (HVDC) underwater and underground transmission line bringing clean, low cost energy from the U.S.-Canada border to New York City commencing operations in 2019.



This innovative project provides clean, low cost hydro power to fuel economic growth while providing significant environmental and consumer benefits to New Yorkers. Two five-inch cables will be buried under Lake Champlain and the Hudson River and along railroads and other public rights of way utilizing technology that has been commercially proven over the last 60 years. The lines will be in operation for over 40 years, reducing the need for aboveground transmission lines and providing New York State with a long term highly reliable supply of abundant clean energy.

Blackstone (NYSE: BX), the largest alternative asset manager in the world, will provide 100% of the equity required for the \$2.2 billion project.

BRINGING AFFORDABLE CLEAN ENERGY TO NEW YORK

PROJECT BENEFITS

- \$650 MM in annual savings for NY ratepayers
- 1,000 MW – enough power to serve approximately one million residential customers
- GHG reduction of 2.2 million CO2 tons per year
- Support for economic growth, creating 300 direct jobs during the 3.5 year construction period and another 2,000+ indirect jobs over the project life
- Significant annual tax payments to communities along route
- An unprecedented \$117 MM Environmental Trust established to improve aquatic environments where the project is located
- Blackstart capability – substantially increasing the electric systems ability to restart after catastrophic events such as Hurricane Sandy

PROJECT NEED

- Its hardened infrastructure will make NY's aging energy grid safer, more secure, and more reliable
- It will increase system security because the cable transmission system is underground / underwater
- It will add fuel diversity while reducing upstate / downstate transmission congestion
- It will provide a new source of energy to replace aging NY power plants
- It is consistent with public policy goals of increased renewable energy
- It will play a significant role in achieving New York's carbon emission goals - 30% reduction by 2030 and 80% reduction by 2050

PROJECT STATUS

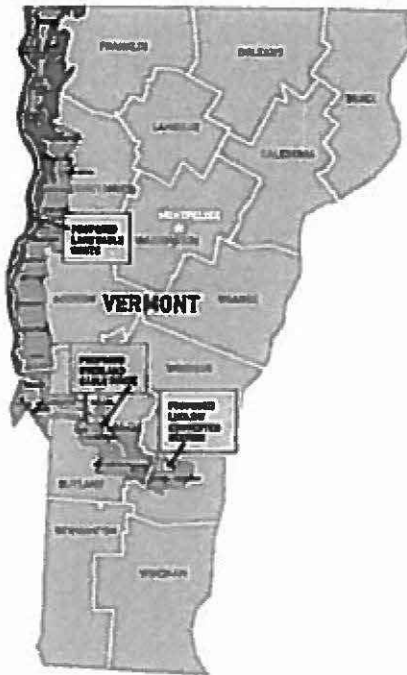
- Fully permitted:
 - NYS Article VII received April 2013
 - NYS Water Quality Certificate received January 2014
 - U.S. Department of Energy Final Environmental Impact Statement issued August 2014
 - Presidential Permit received October 2014
 - U.S. Army Corps Permit received April 2015
 - Authorizations by National Marine Fisheries, U.S. Fish and Wildlife Service, U.S. Department of State, U.S. Department of Defense, Federal Energy Regulatory Commission
- Financing, engineering, construction and manufacturing agreements structured, active discussions to finalize supply

ABOUT TRANSMISSION DEVELOPERS. TDI was founded in 2008 with the goal of developing unique energy transmission projects in an environmentally responsible manner. The company, headquartered in Albany, NY, uses HVDC cable to link clean, highly competitive generation resources with markets that need supply diversity, enhanced reliability and long term lower costs. TDI was acquired by the Blackstone Group in January 2010. More information is available at www.transmissiondevelopers.com.



www.necplink.com
 VT Office: (802) 477-3830
 NY Office: (202) 408-5190

NEW ENGLAND CLEAN POWER LINK



The New England Clean Power Link (NECPL) is a 1,000 MW high voltage direct current (HVDC) underwater and underground transmission line bringing clean, low-cost energy from the U.S.-Canada border into New England commencing operations in 2019.

This 154 mile long buried transmission Project is proposed within Lake Champlain and along public transportation corridors within the State of Vermont. The Project aims to bridge the substantial geographic gap between Canadian Supply and the vibrant New England energy market. NECPL is poised to be the first transmission solution in New England.

PROPOSED TIMELINE/ACCOMPLISHMENTS



Blackstone (NYSE: BX), the largest alternative asset manager in the world, will provide 100% of the equity required for the \$1.2 billion project.

The developers of NECPL are also developing the Champlain Hudson Power Express in New York.

PROJECT BENEFITS

- An estimated \$1.6 billion in energy cost reductions within New England in the first 10 years of operations
- Up to 3.3 million tons of CO2 reductions annually
- ~\$900 million in tax and lease payments to Vermont over 40 years
- ~\$500 million in electrical and environmental benefits to Vermonters through newly established funds over 40 years

PROJECT NEED

- 8,000 MW of existing capacity is set to retire in New England
- New England has aggressive emission reduction goals that require increased imports of clean power.
- New England has some of highest electricity rates in the U.S.
- The Region is becoming over reliant on Natural Gas which has resulted in winter price spikes.
- The New England Governors and Eastern Canadian Premiers are committed to increasing hydro imports into the Northeast

PROJECT STATUS

- All major permits expected in 2015, including:
 - Presidential Permit
 - VT State Siting Permit
 - US Army Corps Permits
 - VT Environmental Permits
- The Project has no opposition and Agreements have been executed with the key Vermont stakeholders
- Evaluating multiple commercial options for shipping power
- Equity financing secured; debt financing identified and available

ABOUT TDI NEW ENGLAND. TDI New England is a Blackstone portfolio company. Blackstone is a leader in alternative asset management with over \$279 billion under management. The developers have a strong track record of working in partnership with local communities, residents, elected officials, and other stakeholders to develop projects that meet unique energy needs of growing economies, combating climate change while minimizing local impacts. More information on the project and the company is available at www.necplink.com.

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Regulators approve \$1.2b Vermont power line

By **Jon Chesto** | GLOBE STAFF JANUARY 06, 2016

A proposed 154-mile power line that will bring electricity from Canada to New England was approved by Vermont regulators this week.

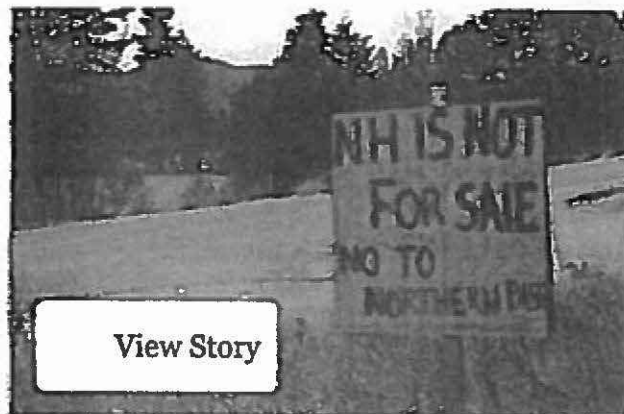
The \$1.2 billion New England Clean Power Link would stretch across much of Vermont, including under Lake Champlain, and be capable of delivering 1,000 megawatts of power to a region with high electricity costs.

Don Jessome, chief executive of the power line's developer, TDI New England, said the "certificate of public good" his firm received Tuesday from Vermont regulators is the most important state permit that the project needs. TDI New England expects to file a request with the Federal Energy Regulatory Commission later this year for that agency's approval. Construction on the project could begin in 2017 and be completed by mid-2019, he said.

Jessome said his company has received interest from seven electricity suppliers interested in shipping power along the line. He said his firm is currently reviewing their proposals but declined to name the companies or the generation sources.

The Clean Power Link is competing with another project to bring power from Canada, called Northern Pass, that is being funded by utility giant Eversource Energy. That project, however, has encountered stiff opposition along much of

its path in northern New Hampshire, where residents complained the mountain scenery would be ruined by unsightly transmission towers and power lines.



Power line project through White Mountains moves underground

Eversource Energy said it would put 60 miles of its 192-mile power line project underground, primarily where it passes through the White Mountains area.

In August, Eversource announced it would put about one-third of its 192-mile power line underground, primarily through the White Mountains.

The Vermont project, by contrast, would be entirely underground or underwater — about two-thirds would be under Lake Champlain. The line's potential invisibility has minimized the opposition. The Boston-based Conservation Law Foundation supports it, in part because of the promise of additional funds to clean up the lake.

In Massachusetts, the Baker administration has proposed legislation that would essentially compel the state's major utilities, Eversource and National Grid, to buy hydropower from Canada, which would help finance the construction of new power lines to import the electricity.

"The passage of our hydro legislation is critical to make any of these projects real," said Matt Beaton, the Massachusetts Secretary of Energy and Environmental Affairs. "The only thing we're looking for is the ability to test the marketplace to see which one of these projects can deliver in a cost-effective manner."

Governor Charlie Baker and other New England governors see Canadian hydropower as a crucial way to reduce air pollution and global warming caused by burning fossil fuels, and to replace electricity lost through the retirement of older power plants within the region.

A spokeswoman for Northern Pass said Eversource executives believe the project will be a key part of the solution to New England's energy challenges. She also said Northern Pass is the only power line to Canada with a committed energy supplier — in its case, Hydro-Quebec — lined up.

Jon Chesto can be reached at jon.chesto@globe.com. Follow him on Twitter [@jonchesto](https://twitter.com/jonchesto).

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SHOW 5 COMMENTS

Miles, Peter

From: Wayne Myles <wayne@mylesandcompany.com>
Sent: Thursday, January 07, 2016 12:33 PM
To: Miles, Peter
Cc: docs docs
Subject: Fwd: TDI NL project Re: Blackstone Meeting

Hello again Peter.

Further to our recent discussion, I wanted to mention that TDI/Blackstone received its Vermont state final approval Order and Certificate of Public Good on Tuesday for the New England Clean Power Link project. The story in the Boston Globe is worth a read. See:

<https://www.bostonglobe.com/business/2016/01/06/vermont-power-line-approval-could-give-momentum-baker-hydro-bill/ijvkmyGUm8IRIRJctOeTgI/story.html>

Among other things, it mentions TDI has received expressions of interest from 7 electricity suppliers in Canada.

Also, below is what the Governors of Vermont and Massachusetts had to say about the announcement.

I thought you would be interested and may want to pass the details on to the Premier and Minister.

Wayne Myles, QC
counsel **Cox & Palmer**
Mail: P.O. Box 7056 Station C, St. John's, NL Canada A1E 3Y3
Courier: Suite 1100 Scotia Centre 235 Water St. St. John's NL A1C 1B6
Direct Voice: 786-991-9007 Cellular: 709-685-0889 Fax: 709.738.8083
Email: wayne@mylesandcompany.com
Web: coxandpalmerlaw.com

Gov. Shumlin VT

FOR IMMEDIATE RELEASE
January 6, 2016

Gov. Shumlin Statement on TDI New England Approval

MONTPELIER – Gov. Peter Shumlin issued the following statement after the Vermont Public Service Board granted a Certificate of Public Good to TDI-New England for their proposal to construct a 1000 MW transmission line under Lake Champlain and underground from Benson to Ludlow.

“This is good news for Vermont and the region, which needs more clean, renewable energy and a way to get it to market. Thanks to the hard work of the Department of Public Service, this project would bring a huge benefit to Vermont. Through negotiations with TDI, the Department and other agencies have secured benefits that would total more than \$720 million if this project were to move forward. That would include over \$260 million to aid our cleanup efforts, restore habitats, and enhance recreational opportunities on Lake Champlain, over

\$100 million to promote additional clean energy development in Vermont, and \$136 million in savings for Vermont ratepayers.

“We know this isn’t the only transmission line proposal but the approval of this project is a positive step forward for Vermont, the region, and our shared energy future.”

Gov. Baker Mass

“I commend Governor Shumlin for his efforts to deliver cost-effective, low-carbon hydroelectric power to the New England region,” said Massachusetts Governor Charlie Baker. “Our administration remains committed to working with the Legislature and our regional partners to reduce greenhouse gas emissions, improve the reliability of the New England electric grid and reduce energy costs for residents and businesses through hydroelectric power and the exploration of other alternative forms of energy.”

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Feb. 3/16

Sean K - oversee B invests around world.

B - largest invest firm in world - not in stocks / in co's.

Energy - 8.5B energy fund - largest (he oversees)
focus on:

① help co's grow ② most active in backing new
constn projects

- done \$35B in greenfield over
past decade.

- many in partnerships with G or
G-partnered entities.

eg. largest constn project - Denver LNG
in USA

- Germany's largest offshore wind park.

Don - board document circulated.

- heard G-I all but "shovel ready" - needs a market,
stars are aligning.

- met with Nalco in port - met Sean 18 months
ago.

met HQ, Brookfield, Gas Metro
TDI a portfolio company of Mackstone.

- issue: how to get power to market.

1000 MW project - shovel ready - ^{approved} will connect PD to NYC

only permitted project between Can + US in last 8 years

✓ lot of jurisd. around us focused on GHG emissions &

Per - we need "shippers on our line" - connecting supply to
market.

- Oil keeps coming up. as pot. supplier to line.

- cont. discussions with Nalco

had open call to use of line - N interested in 400 MW (existing

TDI has interconnect request into PQ. - know the cost + how it would work.

have 2,000 MW of Extra capacity - up to 2,500 MW.

2 trans projects ready.

compelling value proposition.

includes southern US transmission.

* need the air side for it to work. built good relationships with HQ + admin.

- City of NY RFI for 100% renewable - but only project that can meet first call.

- with D in Boston yesterday

coming very soon. (start as early as 2017)

NY White Paper - 50% of renew. energy by 2030 -

Only way to do it - LI projects.

We have 2 LI projects to match.

① NE
② NY } big switch to renewable.

Q Why generation too? Why not

TDI in transmission D interested in generation - but a should ready GI project.

W - would be involved in full value chain

Sean - partnering with GNL on trans. not conditional on partner in generation.

- could collab. on both or either/or

① D could partner in Hudson GI

② transmission partner alone.

(4)

TOL has other uses (alternatives) - overprescribed in response to RFP TOL issued - transit's a reg.

Prep on LI contracts for FERC.

A - encouraged

TOL is toll highway to get from source to market.

Q. Energy rates in NY?

(A) - our est. is 8¢ US for wind + transmission

(10¢ US)

Q. Excess capacity in P.Q.

1,500 - 2,000 MW

1,000 MW (8 TWh) Northern Pass approved

pres. looking at Plan Nord, other projects

- plus an escalator over LI contract (eg, CPE)

✓ Made request to HQ to transmit from Lab to P.Q.

- avoid 2R to go through Quebec.

- not build new infra. - upgrades mostly to get from Lab through P.Q.

- in US - transmission will be underground.

✓ in 6 months - will be US process for LI supply of renewable energy.

Q. tariffs - 8¢/MWh - tariff remains same.

PR rate - trans access - "will want more than that" - invest?

Todd - looked at path through AC - 2x cost.

going through PR - opens up ON + AC market, and other

60m B invest to date since JAN 2010 - CHPE
 SUEK is permitting.

NY + NE competing for same resources (renewable energy)

NE CPC :

Slide 11 - MA Gov. Christie Baker

fully on side re use of power.

(Dec in AUG 2015)

- Strong support to get bill passed

- Nalco, TOI wanting to get bill passed.

Gov Role?

Pres Admin role involved?

Slide 15 - Partnership slide.

Q. Discussions with PR at pol. + level?

TOI not brought it up.

concern at this point.

Key next step → talk to PR (Cost Hydro 12 or GP2)?

have request to PR - to build trans or

Request - 1,000 MW from AC (2nd project)
 sourced from Labrador

It will be
 signif more
 space than
 that through
 AC.

(YES) have that.

P2 had studies for 1,000 MW (cost is \$2B)

- would study bigger, but realistic, earnest.

- Believe P2 can lower cost - N involved.

- Validate - "not gold plating their system."
but there are options to optimize.

Believe P2 getting incremental benefits we should pay for.

Q. on Environ permitting for P2 portion - not necessarily what?

2011 as initial date - L.I. contracts - parties nervous

to go beyond 2011 and 2025 (W.M. + from referred to it)

It (B) comment on P2 is NL is more well rec'd by FERC in D.S.

(B) prepared to "do it for you" on ~~the~~ generation.
need to figure out P2 role.

Deal - come up with a structure that works for all parties.

Q. Does I have preferred role RE involvement in Generation.

request in? to lead in Mystic
✓ Enron/NB Power (Nuclear 1,000 MW to NE Side 18.

priority of TOI - get bill passed in Mt. ✓
TOI mtg and env. groups tomorrow.

NE 2019 2020 NY
 Timing to get TOI lines built. ✓
 Start (I guess in 2016)

- 2020 is key date
- lot of generation coming out
- used to pay lot of \$ for power.

SC - walk through your scenarios.

A - whiteboard now open to all scenarios

TOI ① LT agreements to supply (get our power at PA border)

TOI ② for TOI get it through PQ - provide PQ trans

B ③ ④ investor in G-I project. Service

Gov't (S)

Nalcor

HQ

B

⑤ PQ project - lot of room for multiple partners

B could take an full invest.

B could do des (with or not Nalcor)

D/TOI in my role - KEY: Quebec needs to be on side.

2. Eric Martel CEO HQ. Steve Jones's VP - opp.

- want to do areas of PA. q/s. de PQ

Steve said - "it can't do projects. (ed.

next to PQ. how in charge."

Q. What is max cost to make clean fence?

Dstream next 100 MW
 $\frac{1}{3}$ of Revenue.

- High level - #s seem to make sense.

WM - B believes it's a viable dev., a
reasonable chance (no guarantee)

- we want pitch anything to QB that
 not's on for NE Gov't.

- Small cost to figure it out further.
 as a key next step.

Item - Call office on 2041 in platform

- want to have more discussions
 - motivated by right project, not polit.

- have non-GI options Upper Churchill - not same
 degree as GI.

TDI did wind study with Nalco in Labrador

- combining wind + hydro - big seller polit. in
 10-30% NE/MA.

⇒ had to WM with sur point
of contact. to study it further.

Q. Any spare
 capacity for
 Gold over next
 100?

MF FILE

February 8, 2016

Monday

February 2016

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

March 2016

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

MONDAY		Notes
8		
7 AM		
8		
9		
10	Statoll Prep meeting Premier's Boardroom Roberts, Edna	
11		
12 PM		
1	Premier - Clerk of Executive Council Meeting; Premier's Boardroom; Fleming, Jeanette	
2	Cabinet Briefing Premier's Boardroom Fleming, Jeanette	
3		

Edna - help us get
right people -
not on Board of
Nalcor
- worst yet to come

Called Ed: Paul Hickey.
- nothing from Astal di
- hearing "something going
on"
- not see Astal di until
March 1st!

- need to bring in sharp
shooters - John Walker,
John Whelan.

- assemble group of 5-6
key people (Comm/contacts,
Eng - MP exp; Proj Mgr
- get that group to gather.
Plus few data people

CEJ

- n = no data room

6 weeks it shall →

LM - will have list of names ASAP.

Guidance: ? →

LM →

4-5 to ~~attend~~ Advise

not necessarily Bd.

EQ on Astaldi - for them info.

✓

TM

frame it up - then to Ed M?
First.

LM - lot of moving parts Ed M

12 Noon

✓ TM




✓ TM

KP - 3pm on Equal.

Christ - fferte

2/8/2016




Newfoundland Labrador

Lower Churchill Project
Financing Structure Overview
January 2016

Department of Justice and Public Safety

→ Astaldi
not in here


Introduction  Newfoundland
Labrador

- The LC Project financing structure can be thought of in 2 stages:
 - **Construction**, during which financing is provided and used; and
 - **Operations**, during which the financing is repaid
- Canada requires both stages to be in place to provide the Federal Loan Guarantee
- The purpose of this presentation is to review the finance structure and the context of elements provided by the Province

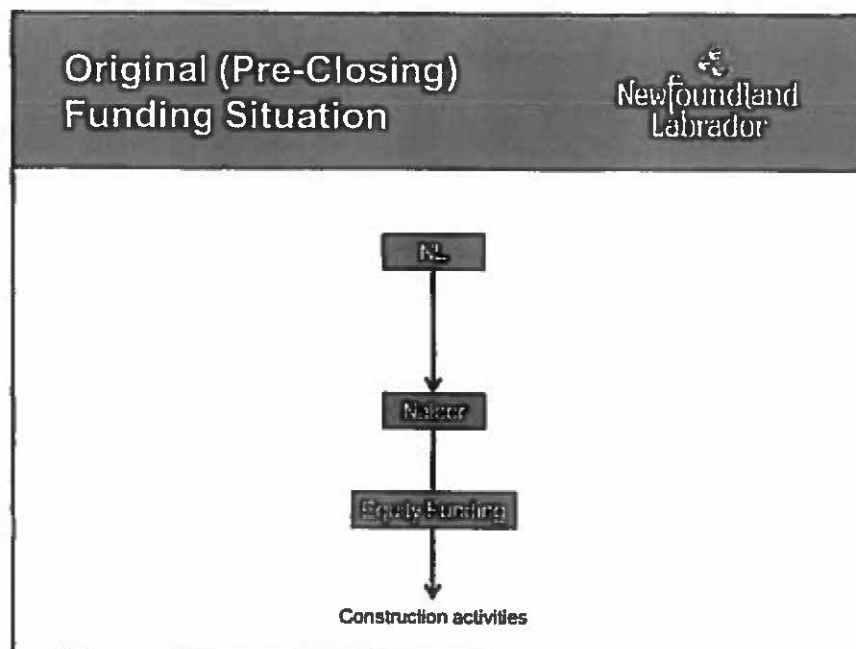
Feds took hard
line;



2/8/2016



- The financing structure described was finalized in November 2013; minor amendments were executed in 2015
- The documents to be signed by the Province will be highlighted:
 - The Equity Support Guarantee(s)
 - The Intergovernmental Agreement



2/8/2016

Project Subsidiaries

- The Project components were transferred from Nalcor to subsidiary corporations and organizations:
 - MFCO, or Muskrat Falls Corporation
 - LTACo, or Labrador Transmission Corporation
 - LIL LP, or the Labrador Island Link Limited Partnership
- These corporations were created under special provisions of the *Energy Corporations Act*

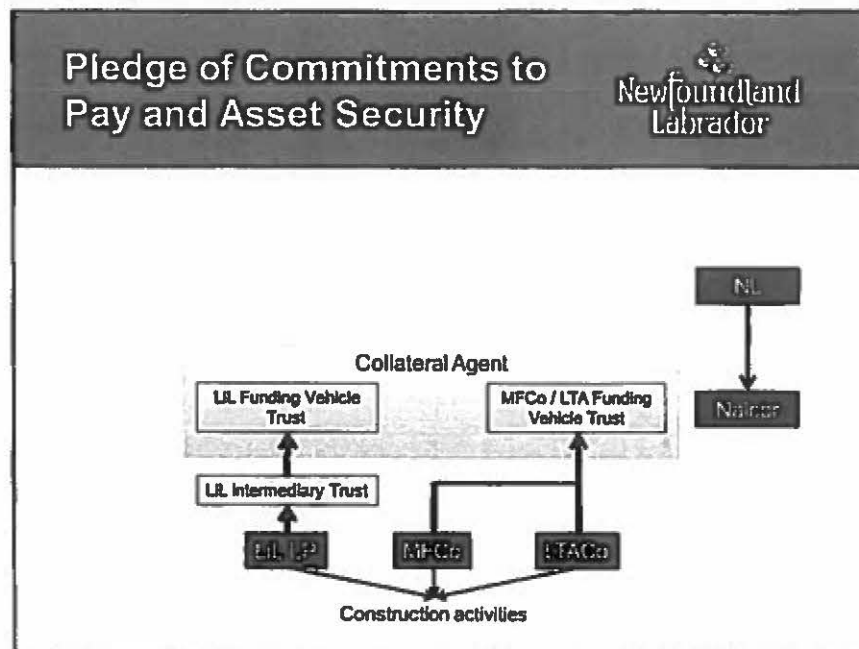
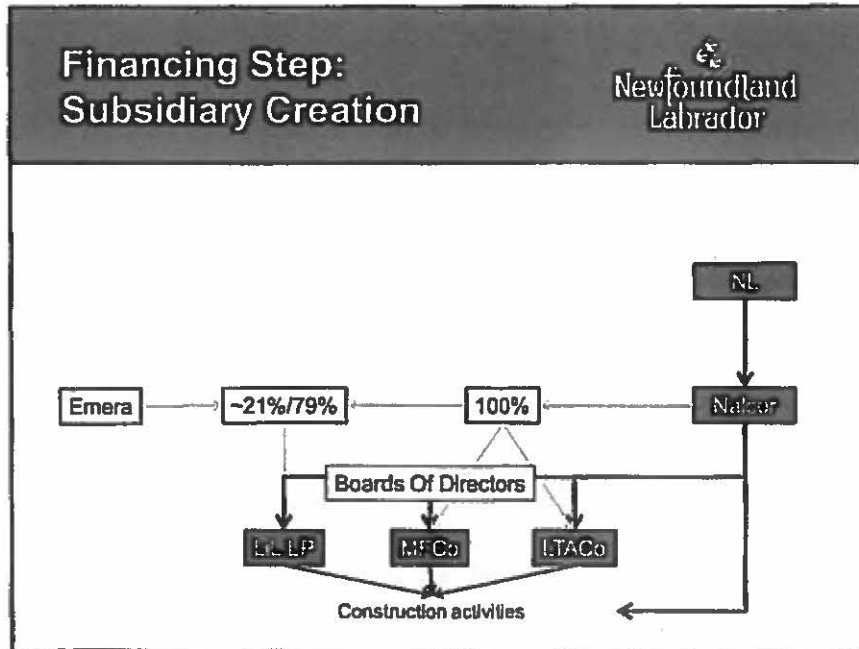
i belly up -
 MC owes \$ per A's
 signed not automatically.
 → still have broad resp.

- The corporations and the limited partnership are not agents of the Province or Nalcor
 - Their liabilities cannot be enforced as debts of Nalcor or the Province
 - Fundamental aspect of "non-recourse" financing - the financing is based on the security and revenues of the Project
- Nalcor and the Province are only exposed to liability to the extent specifically provided for in contracts:
 - Equity Support Agreements / Equity Support Guarantees
 - Intergovernmental Agreement

✓ no auto. liability for Prov - only liab is what we agreed to in A's.

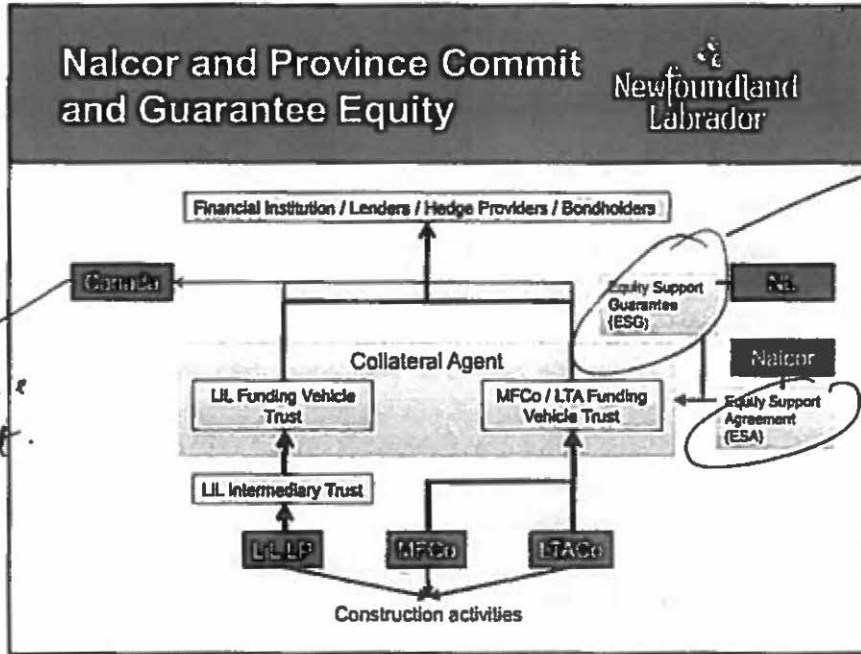
2/8/2016

Fall 2013



pledged security + obligation to pay.

2/8/2016



has mortgage over project.

Nalcor committed to funds cost to complete, Prov. guaranteed.

- ### Equity Support Guarantees
- The Province guarantees Nalcor's equity commitment to the Project under the ESA
 - There are actually 3 ESA and ESG document sets; one for each of the Projects
 - The Provinces guarantees Nalcor's payment of:
 - Base Equity (the expected equity contribution per project)
 - Contingent Equity (to cover all cost overruns to Commissioning over Base Equity)
 - Contributions to debt servicing and liquidity accounts, required as preventative elements by Canada and credit rating agencies.

2/8/2016

Equity Support Guarantees

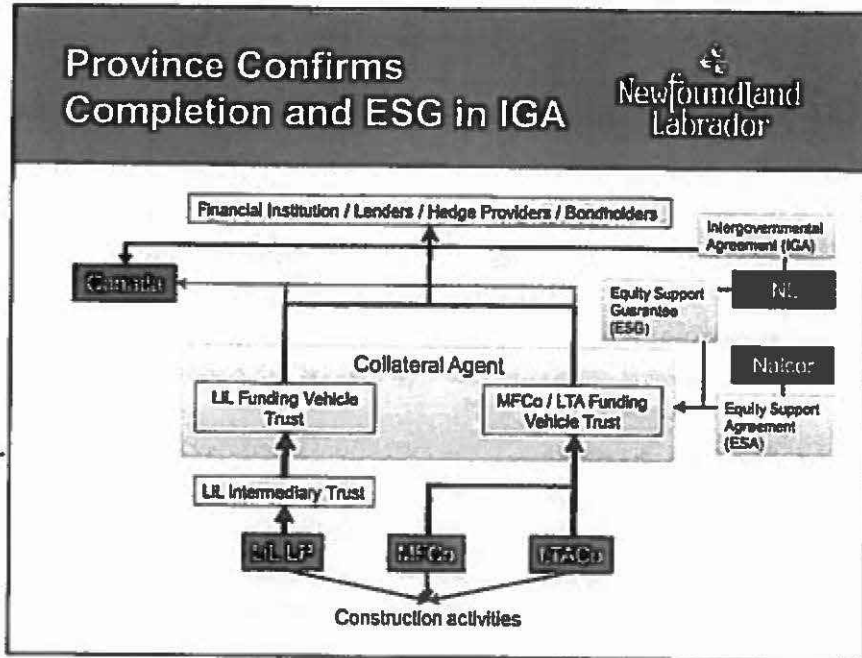
- **Through the ESG, the Province provided a completion guarantee for each Project.**
 - These are absolute commitments payable within 5 days on demand
 - The Province has waived all customary defenses
 - These commitments are not subject to budget appropriations but are direct calls on the CRF
 - They are authorized under sections 25 and 27 of the *Energy Corporation Act*
 - There is no express ability to pay off debt as opposed to complete the Projects

Equity Support Guarantees

- **As part of the financing structure, the ESAs and ESGs share common "Master Definitions Agreements" with other financing documents**
- **The Province's execution of the Master Definitions Agreement was expressly restricted to those definitions relevant to the ESGs**

2/8/2016

- Fedwaits:
- ① Security
 - ② ESA + ESG (to complete project)
 - ③ IGA agreement



Intergovernmental Agreement

Newfoundland Labrador

- Canada has required the Province commit to indemnify Canada for any costs Canada has under the FLG, where those costs are a result of a failure of the Province to:
 - Fund Project equity to completion (including confirmation that the Province will comply with the ESG's)
 - This commitment expires upon Commissioning
 - Maintain the legal and other structures guaranteeing the Projects generate revenues during operations (discussed under below) → Revenue Pipeli
 - This commitment applies throughout Operations

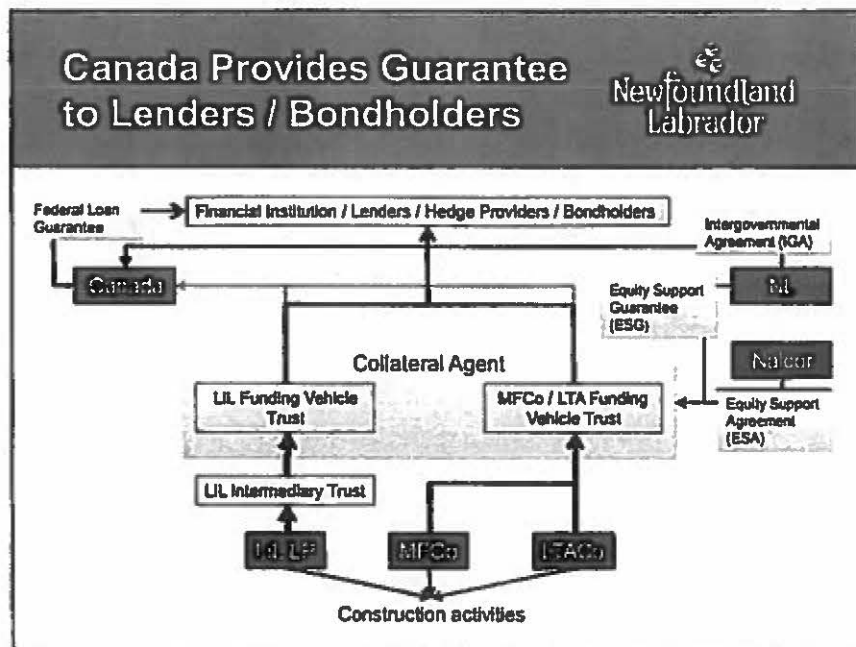
→ got to trigger coll on debt + Loan Guarantees.

→ our liab. only triggered by something we do.

2/8/2016


Intergovernmental Agreement Newfoundland Labrador

- If the FLG were to be triggered because of a breach of these IGA commitments by the Province, the Province will be liable for all Canada's FLG-related costs.
 - In extreme circumstances this may be the entire guaranteed Project debt
- This risk is entirely in the Province's control, as breach of the IGA only occurs if the Province:
 - Fails to fund equity to Project completion
 - Changes legislation or otherwise alters the established legislative structures for repayment (discussed below)

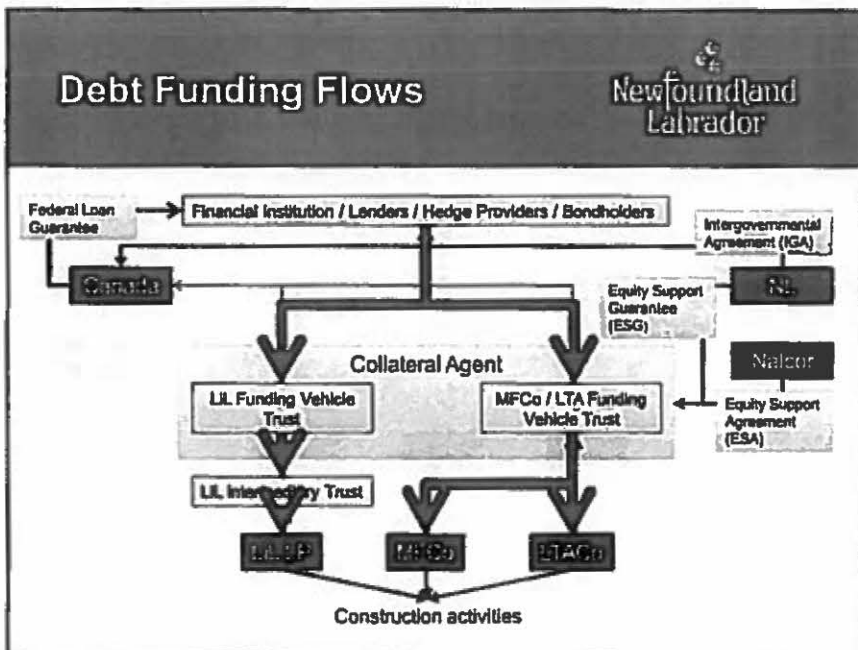


2/8/2016

Federal Loan Guarantee




- On the strength of:
 - the financing structure
 - the security over the Projects
 - the ESAs and ESGs
 - the IGA and
 - its other conditions precedent being satisfied,
 Canada provides the Federal Loan Guarantee to the financial institution.
- The FLG guarantees to the bondholders the revenue stream to meet bond obligations.
- Form of the FLG similar to the Province's ESGs



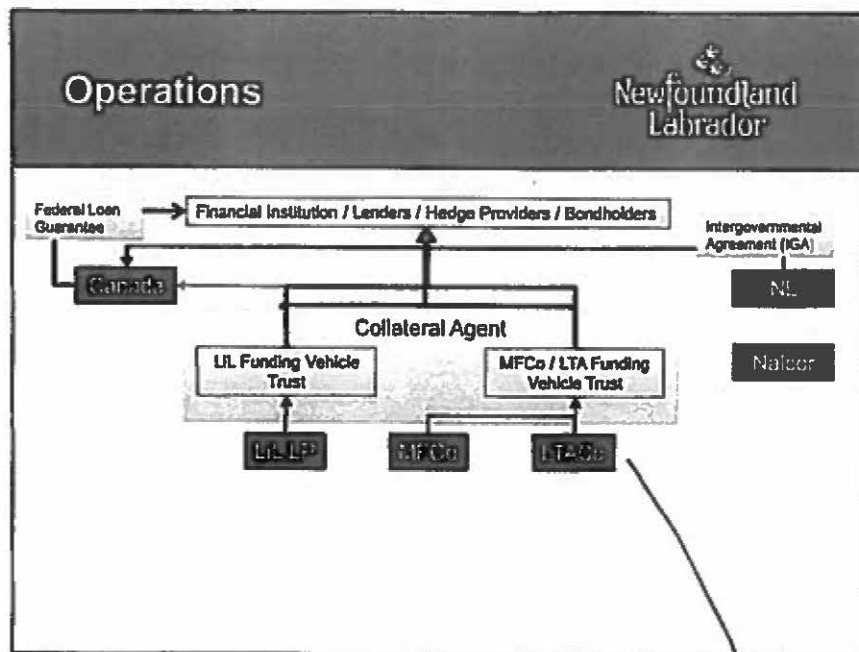
*Dec. 2013
the money
flowed.*

*\$3B drawn down
of \$5B.*

2/8/2016

Operations 

- In the Operations phase the focus is on the revenue stream to the Projects, which is the basis of repayment of the financing



- also they get \$.

2/8/2016

Ratepayer Funding

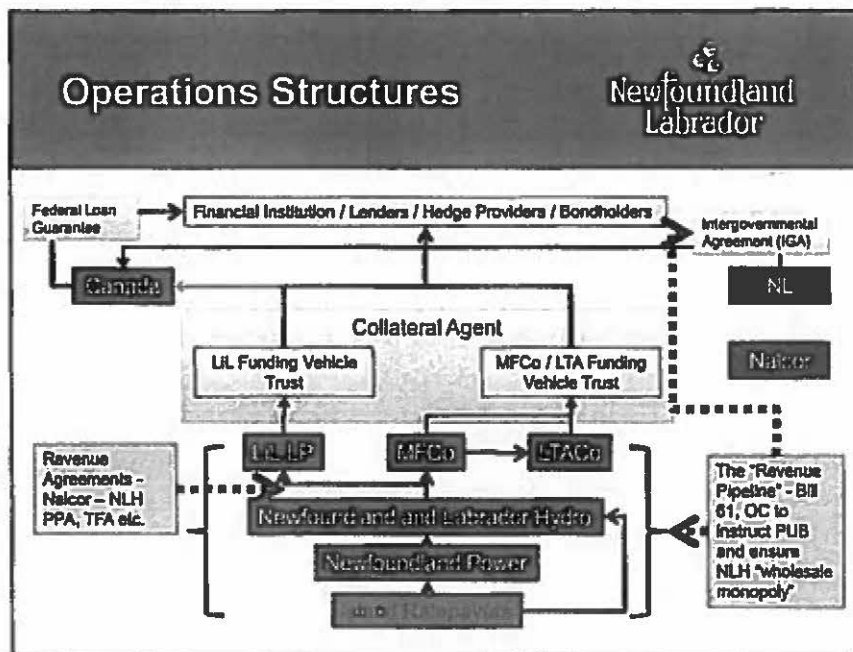


- **Once Projects have been Commissioned, the focus becomes the legal structures under which:**
 - Power is delivered to Island Ratepayers
 - Revenues from Island Ratepayers is delivered through to the Bondholders
- **The contracts between LIL LP and MFCo and Newfoundland and Labrador Hydro include:**
 - Power Purchase Agreement (PPA)
 - Transmission Funding Agreement (TFA)
 - Remedies Agreement



- **These agreements have been negotiated with extensive involvement by the Province**
- **These "Revenue Agreements" have terms matching the expected financing arrangements of the various Projects**

2/8/2016




Revenue Pipeline

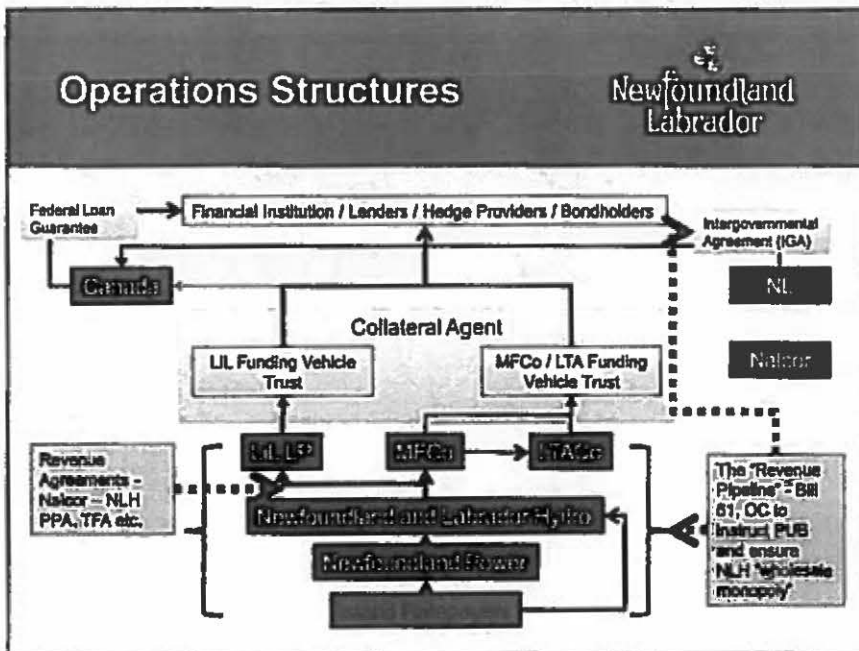
- The Province has created a legislative and regulatory framework that will guarantee inclusion of Project – related expenses in Newfoundland and Labrador Hydro’s rates, and on to the Ratepayer.
- This framework was contained in Bill 61 and related Orders in Council:
 - Creating a wholesale electricity monopoly in NLH ✓
 - Ordering the PUB to include Project-related costs in rates

2/8/2016


Revenue Pipeline

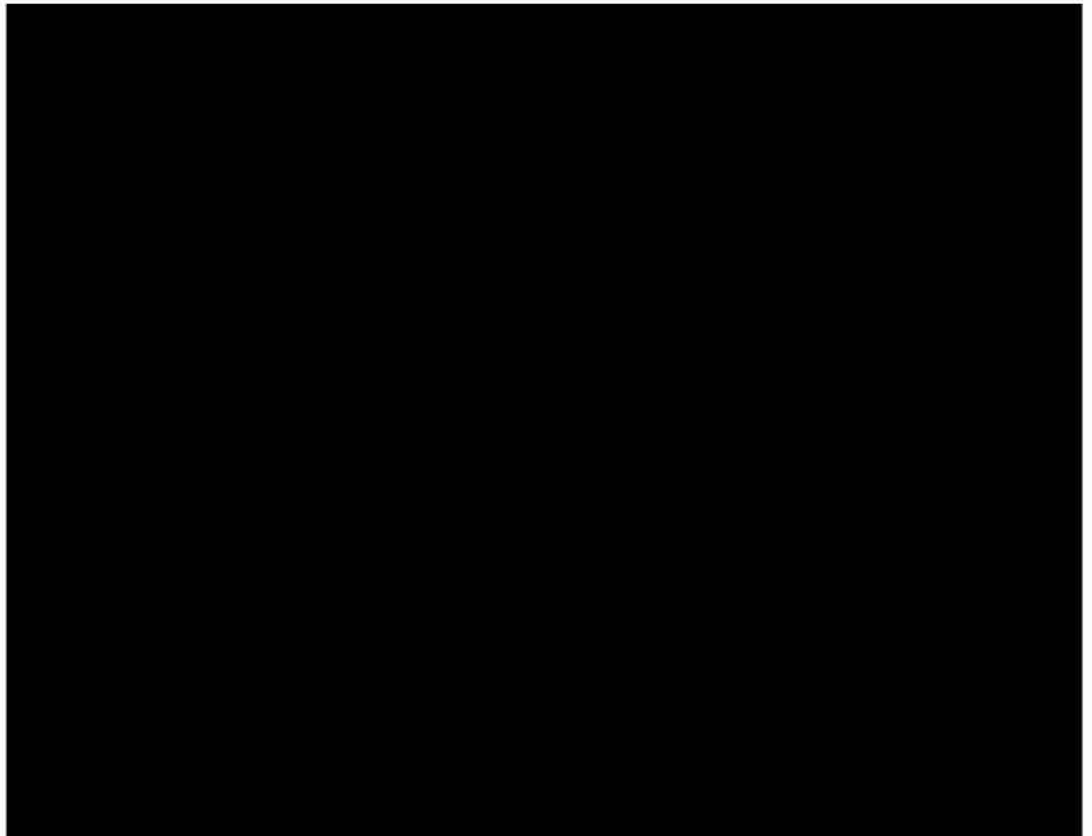


- Implementation of such a structure by the Province was a requirement under the FLG
- The structures created were approved by Canada , and are being relied upon by Canada in its grant of the FLG.
- The IGA's commitments include a commitment to maintain these structures until the financing is repaid (and the FLG falls away).



2/8/2016


<ul style="list-style-type: none">• Questions



Murphy, Tim

From: Mullaley, Julia
Sent: Tuesday, February 16, 2016 1:32 PM
To: Ball, Dwight; Parsons, Kelvin; Murphy, Tim
Cc: Bown, Charles W.
Subject: FW: Summary of IE Nov site visit report
Attachments: IE Nov 2015 Site visit - Summary of Report comments and highlights Feb 16 2016.docx

Please see attached from Ed. I will follow up to determine when IE report will be made public given statement in Report re Nalcor will be releasing new completion schedule for Powerhouse and Intake by end of Q1. Charles, I will leave for you to provide and discuss with your Minister. Thanks.

Julia

From: EMartin@nalcorenergy.com [mailto:EMartin@nalcorenergy.com]
Sent: Tuesday, February 16, 2016 11:06 AM
To: Bown, Charles W. <cbown@gov.nl.ca>; Mullaley, Julia <JMullaley@gov.nl.ca>
Subject: Fw: Summary of IE Nov site visit report

FYI - please share with the Premier and Minister and other folks as appropriate.

tk

Ed

--- Forwarded by Ed Martin/NLHydro on 02/16/2016 11:04 AM ---

From: Karen O'Neill/NLHydro
To: Paul Harrington/NLHydro@NLHydro, Gilbert Bennett/NLHydro, Ed Martin/NLHydro@NLHydro, Lance Clarke/NLHydro@NLHydro
Cc: Steve Fellerin/NLHydro@NLHYDRO, James Meaney/NLHydro@NLHYDRO
Date: 02/16/2016 10:50 AM
Subject: Summary of IE Nov site visit report

Here's a summary of the key points from the Nov IE site visit report. These are all very positive. One note of concern is the schedule slippage in the Powerhouse.

I will send these points to DNR now and let them know I will post the report on our website as soon as we have final signoff from Canada (hopefully today or tomorrow).

Lance, I'll provide the comment about Astaldi to Matthew and Alessandra and let them know this will be made public soon.

Thanks
 Karen



Karen O'Neill
 Communications Manager
 Lower Churchill Management Corporation
 Nalcor Energy - Lower Churchill Project

t. 709.737.1427 c. 709.690.2012
e. koneill@nalcenergy.com
1.888.576.5454

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?

**Independent Engineer Summary of Key Points of November 2015 Report
Prepared – February 16/2016**

Background:

- Following the acceptance by the Government of Canada of the IE site visit reports, Nalcor publishes the reports on its website. The IE reports are located on the Reports section of the Newsroom on the www.muskratfalls.nalcorenergy.com website.

Construction:

North Spur:

- Considerable progress has been made on construction at this site and construction work on the slope stabilization measures at the North Spur was proceeding well and generally ahead of schedule.
- All excavations and fill placement works are of good quality and no significant geotechnical problems have been encountered. This contract has no significant issues either contractually or technically and should be completed on time.

Spillway:

- Work on the spillway is at a very advanced stage and 100% of concrete placement for the main structure has been completed.
- While it is understood that there has been some minor schedule slippage, it would appear at this time that the Spillway will be ready for river diversion, as scheduled for next summer.
- The activities and construction works observed were all in accordance to good construction practice standards.

Powerhouse/Tailrace: Noted Challenges:

- Astaldi's progress on the powerhouse construction is behind schedule. This work is on the critical path and directly impacts initial power generation at Muskrat Falls. Nalcor is currently evaluating new completion dates for the works and will release new completion schedule by the end of Q1, 2016. There has been schedule slippage at the Powerhouse and Intake area and the LCP team is working with the contractor to update the schedule by the end of Q1 2016.

Cofferdam:

- Cofferdam performance during the past 6 months has been excellent.
- The contractor appears to be on track for river diversion early summer 2016.

Transmission lines:

- Work is proceeding ahead of schedule between Muskrat Falls and Churchill Falls. The construction is advancing very well with an expected completion date of Q1/Q2 of 2016.
- The quality of the clearing on the HVac and HVdc line is good and all of the work is good quality and in accordance with the accepted standards.

Electrode stations and switchyards:

- All of the work at the L'anse-au-diable and Dowden's Point electrode stations is high quality and in keeping with accepted standards. In particular the armour stone placement works are of exceptionally high quality, generally better than the norm for breakwater installations.
- It was observed that construction works quality at the Soldiers Pond switchyard is being done to a high standard. The site work appeared to be on schedule.

Overall - at all sites, the construction works are being carried out in compliance with very high standards of safety and environmental criteria.

Muskrat Falls Project

Comments on Nalcor's Negotiating Strategy

DRAFT

NOTICE TO READER

*PRIVILEGED AND CONFIDENTIAL – PREPARED IN CONTEMPLATION OF LITIGATION
Any actions contemplated and/or considered in or arising from this document should only
be undertaken by Government or Nalcor Energy after receipt of legal advice related
thereto.*



The better the question. The better the answer.
The better the world works.



Framing the negotiation


- ▶ It is critical to have a clear and objective understanding of the history and current status of the contract position and the key drivers and issues that will impact any negotiation with Astaldi
- ▶ This should include:
 - ▶ definition of a quantified vision for success, with BATNAs and maximum limits
 - ▶ range of project cost to complete scenarios (for the contract, the project, for Astaldi)
 - ▶ drivers for successful execution of the remaining work
 - ▶ the formal contractual position, detailed understanding of potential for terminate for cause scenarios
 - ▶ the critical issues and outcomes for Astaldi, Nalcor, GNL and other stakeholders
 - ▶ influence of Astaldi Group's financial position
- ▶ All of the above are covered in the Nalcor Strategy to some degree, but it isn't clear how they influence the development of a coherent strategy for negotiation
- ▶ To date, Nalcor has placed significant emphasis on Astaldi Group's liquidity as a critical factor influencing the timing and quantum of a negotiated settlement with Astaldi
- ▶ The financial results of Astaldi announced on 9 March 2016 show an improved cash position, with €153 million of cash generated through working capital management initiatives in the 3 months ended 31 December 2015
- ▶ At 31 December 2015, Astaldi had €611 million cash on hand and could have an estimated line of credit available of approximately € 200 million, with consolidated equity of €637 million
- ▶ Astaldi could take further steps to improve cash flows such as sale of assets/concessions, reducing investments, deferring capital investment, reducing costs or raising additional equity/long term debt

EY Perspective – Foundation for negotiations

The starting point for negotiations should be repositioned to focus on Astaldi's contractual entitlement not the Group's liquidity issues

- ▶ Focus should be on contractual arrangements between Astaldi Nalcor
- ▶ Astaldi should set out their 'case' for entitlement to additional payments and should be quantified in terms of cause and effect
- ▶ Potential structure as well as quantum of payments to be considered. For example; additional costs incurred by Astaldi could be met through a mix of:
 - ▶ Astaldi funding (resulting in losses being incurred by Astaldi over time)
 - ▶ additional payments by Nalcor linked to achievable milestones
 - ▶ the potential to earn further bonus payments for exceptional performance
 - ▶ secured loan to Astaldi, repayable to Nalcor post completion

EY perspective - Strategy Contents

- ▶ Principles for negotiation
- ▶ Negotiation team – appropriate mix of internal members/ use of external experts
- ▶ Financial Limits of authority for negotiating team
- ▶ Governance for decision making/ sign off of revised deal
- ▶ Base line assumptions around alignment of interests/ conflicting interests
- ▶ 
- ▶ Basis of case from Astaldi position
- ▶ Nalcor potential for counter claim
- ▶ Trade-offs – key levers for each party
- ▶ Assessment of range of financial outcomes
- ▶ Timeline for negotiation – (how strength of each party's position varies over time)
- ▶ Risk assessment
- ▶ Communication strategy (internal and external)

EY perspective – Risks and protections

- ▶ Assessed risks should include:
 - ▶ the quantified risks (particularly cost and schedule risks) that Nalcor is currently exposed to and how it can use the negotiation to reduce its risk exposure
 - ▶ the quantified, risks that Nalcor will still be exposed to after any new deal is agreed and contracted
 - ▶ any new risks that Nalcor will be exposed to as a consequence of any deal eg the potential for claims from the 3 original bidders in the procurement process
 - ▶ the knock on consequences on other contracts
- ▶ Protections should include:
 - ▶ ability to terminate without cause/penalty
 - ▶ right of step in and ability to novate workforce to Nalcor or a third party in the event of default
 - ▶ ability to communicate the novation agreement to Astaldi employees to give the workforce comfort in relation to their job security
 - ▶ ability to recover LDs, LOCs, PB and retain PCG
 - ▶ incentives to minimise exposure to risk of additional cost and delay, linked to delivery milestones
 - ▶ protection from future claims, requiring full disclosure from Astaldi of **all** underlying causes of cost increases to date

Negotiation Influencers

- ▶ Costs to be incurred by Astaldi to complete the Project (particularly costs of work planned for 2016, prior to winter), compared to contract price
- ▶ Profit included in overall contract price
- ▶ Amount of any penalties that Astaldi will incur if they default
- ▶ Additional costs that Nalcor will incur if a new contractor has to be appointed
- ▶ Loss of time if Nalcor has to appoint a new contractor
- ▶ The tipping point/ BATNA – the level at which an alternative option is more financially attractive
- ▶ The quantum of the securities available to Nalcor
- ▶ The costs incurred by Nalcor as a direct consequence of the late delivery (including extensions of time on other contracts, additional project management, camp costs, other direct and indirect costs)

Some Useful Guidance from New Brunswick

New Brunswick Electricity Act

When making appointments to the Board, the *Electricity Act* requires the NB Power Board to

- a) use a merit-based and objective approach
- b) ensure that the board of directors as a whole has the necessary skills and qualifications to carry out its functions,
- c) provide to the Lieutenant-Governor in Council a description of the recruitment, assessment and selection processes used and the results of those processes,

NB Power Governance

The NB Power Board maintains a skills matrix as a tool to assist it in seeking the optimum mix of experience, competency and specific expertise as it chooses candidates. The skills matrix also takes into account other attributes that would add to the diversity of NB Power's Board including: gender diversity, language diversity and familiarity with New Brunswick's First Nations communities.

In order to fulfill its responsibilities under the *Electricity Act*, the NB Power Nominating, Governance and Shareholder Relations Committee established a board recruitment process that utilizes the services of an external search firm in selecting qualified candidates to fill vacancies.

The Committee provides the search firm with criteria established for directors and the background and mix of existing directors as indicated in the up-to-date skills matrix. The recruitment activity typically consists of a national advertising strategy, as well as the search firm identifying prospective candidates who have the desired attributes being sought.

The search firm then compiles a list of potential candidates for Committee consideration. The Committee interviews a short list of prospective candidates and makes a recommendation to the Board. The Board Chair is responsible for recommending to the Minister of Energy & Mines a choice of potential candidates and their respective terms.

FEB 17

M FALLS

- drafting OLS Report for ³¹ 1/4 ending Dec. 2015 - to be rec'd when we choose - weel or so for draft
- data room set-up - monthly mtgs - measuring supposed vs actual on cost/budget
- data populated by proponent Paul H + Gilbert ✓
- EY not in monthly mtgs

EY Report - ongoing. Fairways along. Know Astaldi issue to re-baselining - at least until end of March
EY can't validate sched + cost until re-baselining

can issue EY interim report on 7.605 - focus on contingency risks + pressures on big contracts (A included)

Ed on this option - ?
- concerned with interim report

EY + Astaldi - yes, EY has info.

yesterday, 3 hrs at Nalcor

went through options (similar to our b/room)

- cold eyes rev. company involved - Kou - Wezari??

Wezari did presentation - 2 hrs

Charles + JM in loop - Craigie now in loop as well.

EY not give magnitude of problem.

Clear - A has signif. problem.

- Solving a key driver / risk.

Next steps - EY to validate questions
 Surely to validate A cost & sched. impacts

EY doing other - Valued, etc.

(W) in (EY) can have full access.

Pres - EY to review A and other cols. - review (W)
 work - yes.

Bring EY in on Monday ⇒ ✓

March 8 - Hot → LMichael has ~ 11 Falls

EY - do option analysis of options
 ① re-configure



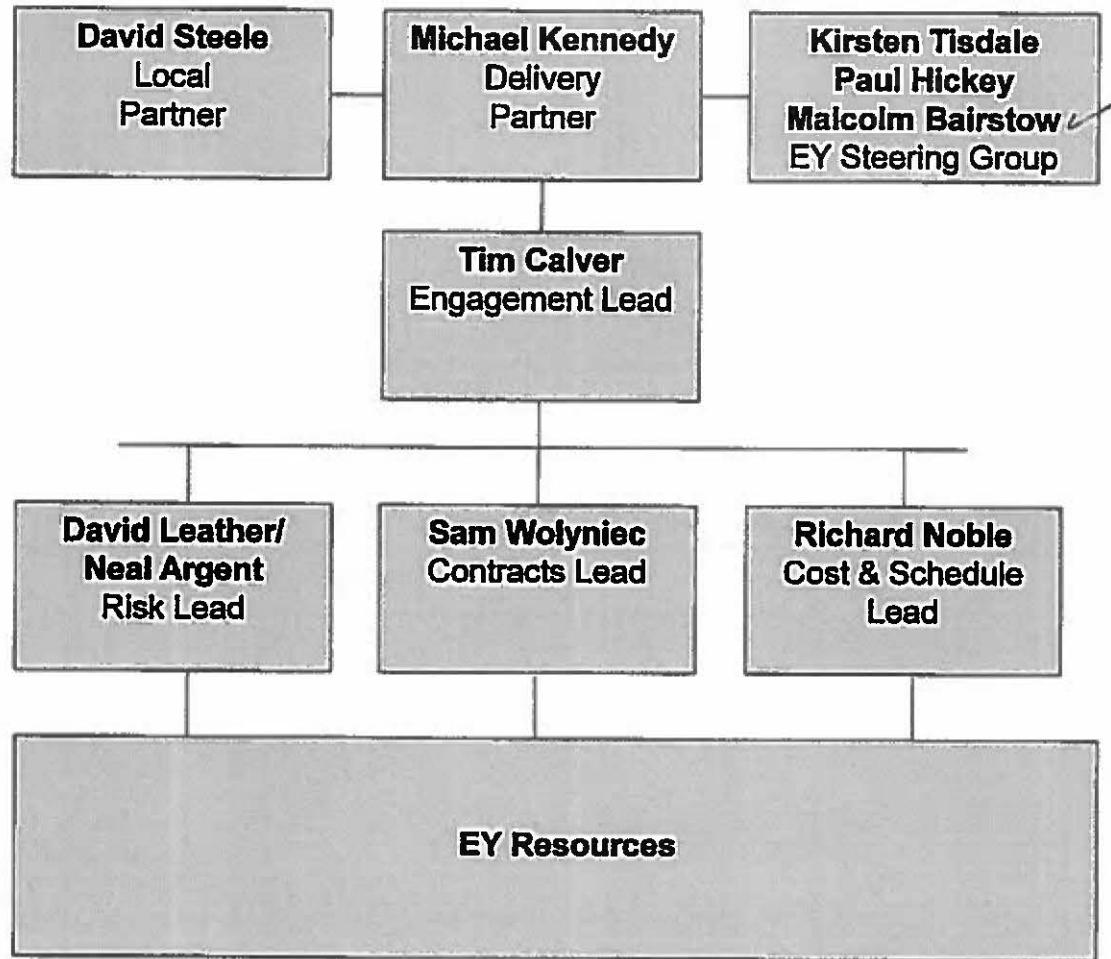
EY:

- ① Can we shut it down? Plus legal
- ② Re-configure - trans only? slow down data
- ③ Moving contractors in/out.
- ④ Gov. + Regs.
- ⑤

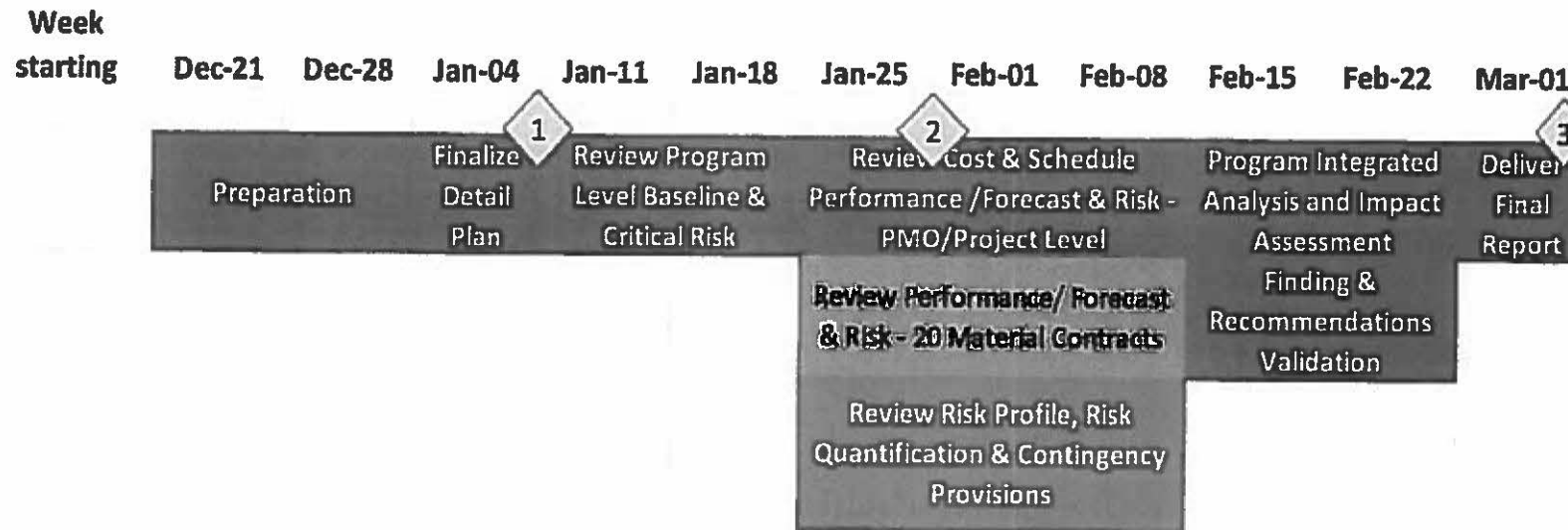
Cost will be much higher.

Tell Ed - no final dec until EY completes its analysis

EY Team Structure



Summary Work Plan



Milestone meetings/ reporting

- 1 Planning complete and agreements on approach with Province and Nalcor
- 2 Summary presentation of interim findings and updated strategy/plan for completing the EY assignment
- 3 Presentation of Final Draft Report (Final dependent on validation/acceptance period as agreed between Province and Nalcor)

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Lower Churchill Falls Project

Status Review & Revised Plan Discussion

17 February 2016



Status of EY Work

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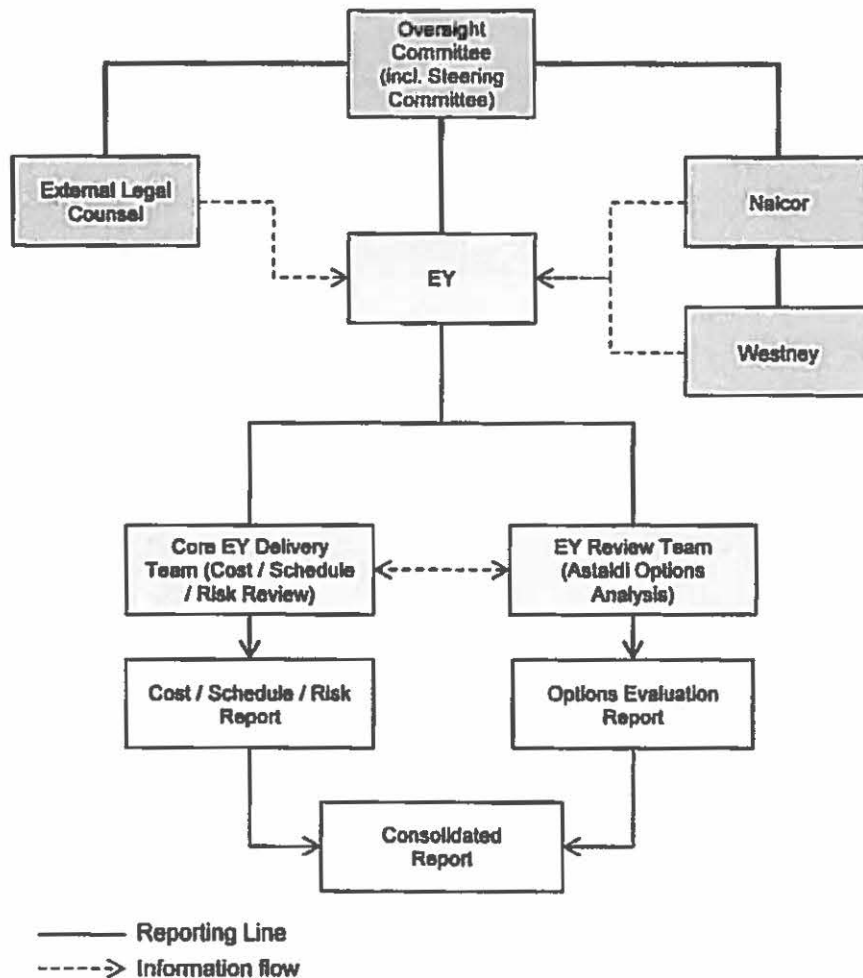
Proposal for Moving Forward

- ▶ The EY team is currently progressing with the original scope of work of the cost, schedule & risk review (minus the Astaldi issue). We anticipate reporting by the 8th March against the September baseline
- ▶ EY has not had exposure to the Astaldi issue prior to 16 February 2016 beyond historical context
- ▶ Nalcor advised EY on 16 February 2016 they had engaged Westney to provide an options analysis of the different strategies for dealing with the Astaldi issue. We received a presentation from Nalcor and Westney demonstrating their findings to us and the Oversight Committee
- ▶ We propose that EY conduct an independent review of the Westney options analysis in respect of the Astaldi issue. This review would focus on construction, contractual and commercial scenarios, contingency planning and the Astaldi financial position.
- ▶ EY needs full, complete, timely and transparent access to ALL data related to the Project

Astaldi Options Analysis Review

Proposed Engagement Governance Model

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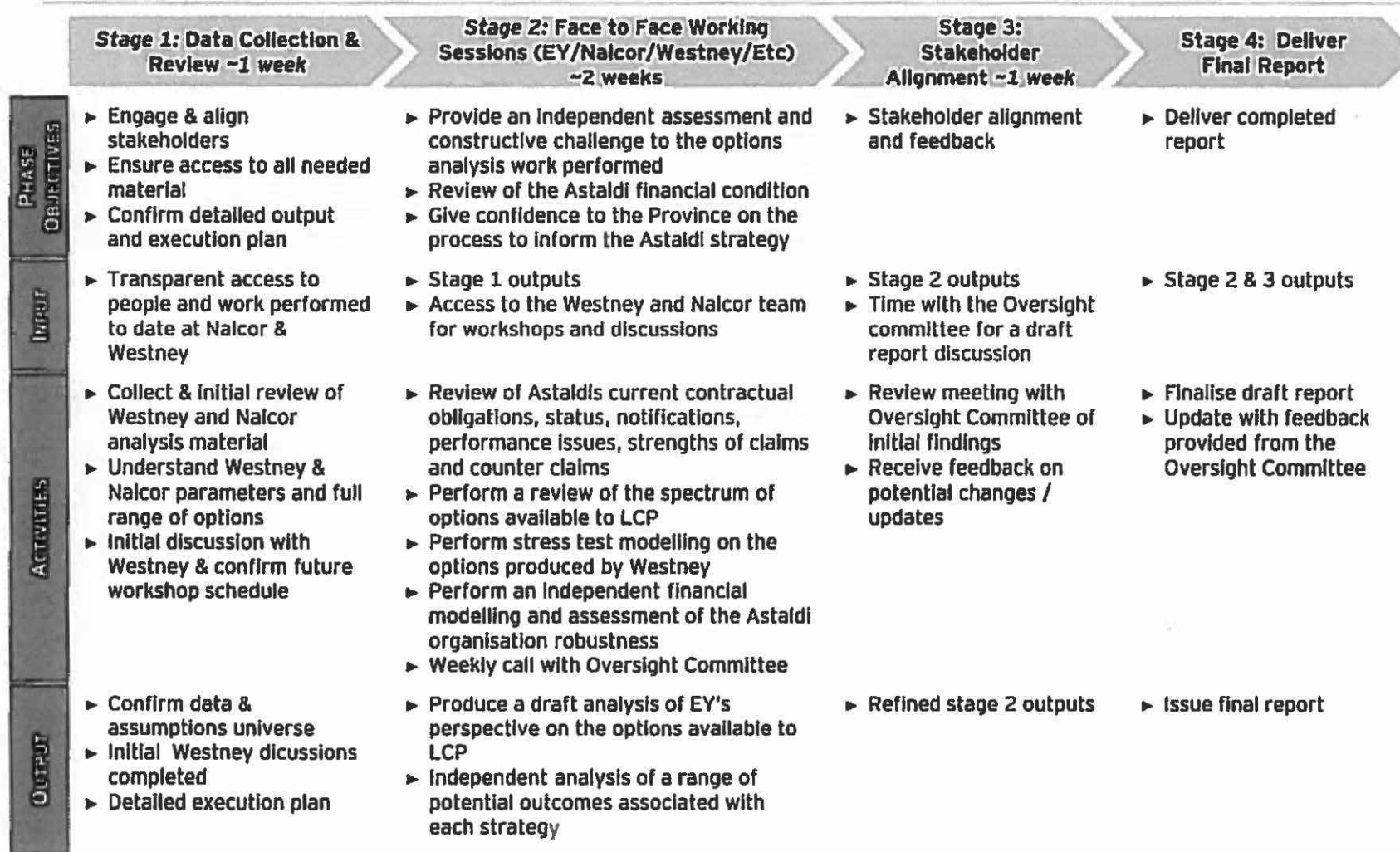


- The existing EY Delivery Team will be supplemented by additional senior EY resources that will function alongside the existing EY delivery team to review the Westney options analysis
- EY will engage with Nalcor and Westney through interviews, workshops, and a review of the analysis material to date
- The Province should retain external legal counsel with solid commercial construction experience to advise the Province and EY

Astaldi Options Analysis Review

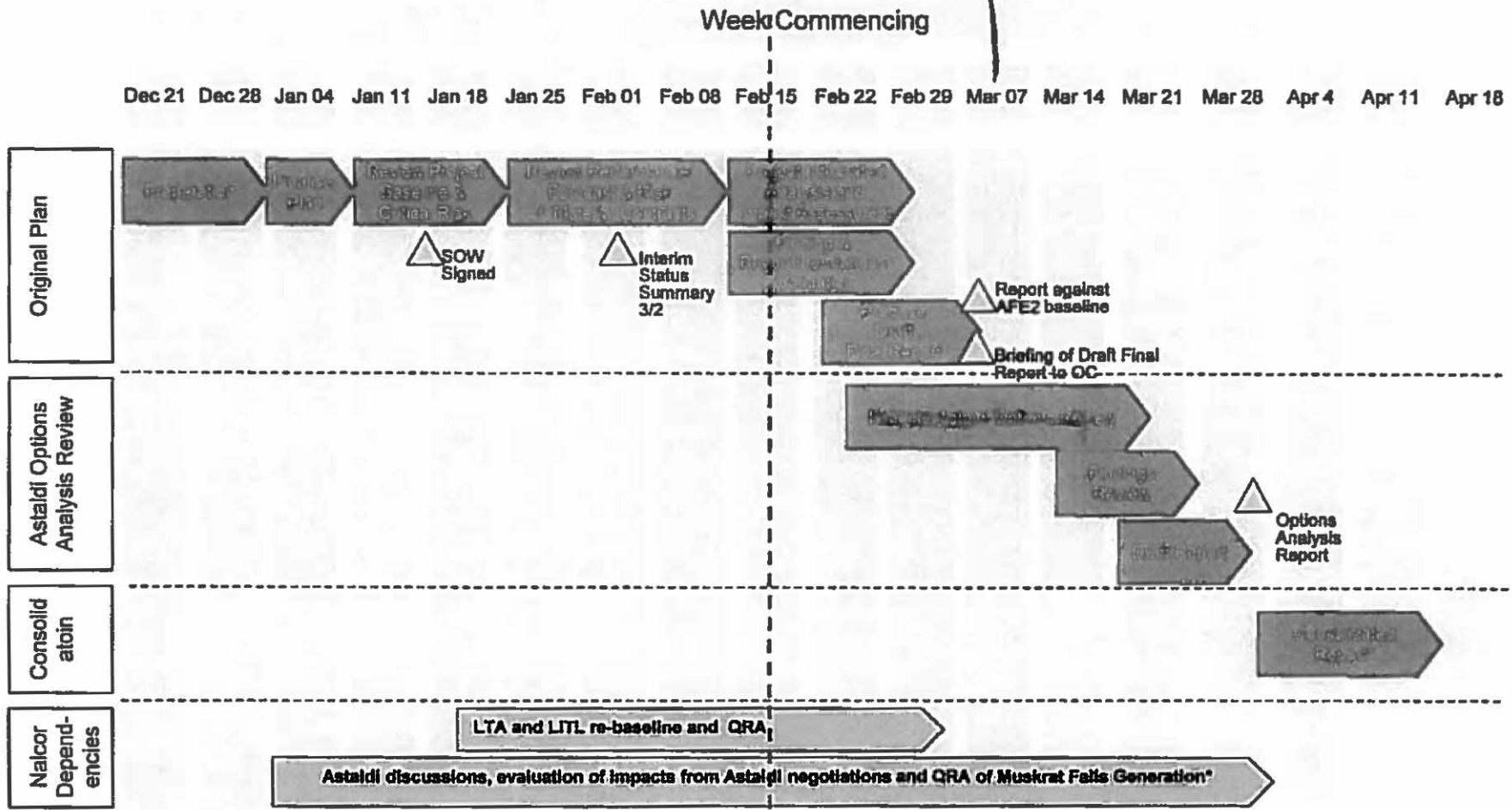
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4 Week Delivery Plan



Proposed EY Work Plan Moving Forward DRAFT

March 10th of 9th Thursday



* Detailed execution plan for consolidated report to be determined, and will be effected by completion of Nalcor dependencies

Options to be Evaluated

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Option		Sub-Option
1	No new deal with Astaldi – enforce existing contract	N/A
2	Conclude new deal with Astaldi to complete Powerhouse	Plan for Astaldi to complete the contract
		Plan for Astaldi to perform for 2016 and develop other options for 2017
3	Change Powerhouse contractor	Tender process
		Bilateral negotiation with selected contractors
4	Nalcor step in to deliver powerhouse construction	Keep existing labour on site team as much as possible
		Full demobilisation of Astaldi resources and remobilisation
5	Powerhouse construction stops (temporarily or permanently), complete transmission line only	Suspended by Astaldi
		Suspended by Nalcor
6	Post resolution contingency planning	Potential post agreement Astaldi insolvency planning
		Inclusion of warrants / similar to capture future Astaldi enterprise upside
7	Other - TBD	

Proposed EY Delivery Resources

Availabilities to be confirmed

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EY resources	Name	Credentials
<i>New Resources</i>		
Lead Partner	David Leather	David has been previously involved in this engagement
Contractor financial viability & modelling	Mylene Levac-Wolf	SOW being developed
Commercial contract review	Neal Argent	Commercial quantity surveyor. 30 years experience in major project contracting environments. Extensive infrastructure expertise – London 2012 Olympics, Network Rail.
Scheduling expertise (P6)	Barrett Richards	Expertise in Primavera analysis exists in EY New York office – availability is being established.
	Separate Counsel	To be retained separately by the Province. EY has a number of recommendations and preferred individuals that we could work with.
<i>Existing Resources</i>		
	Tim Calver & Michael Kennedy	Tim will provide continuity and interface with the existing delivery team focused on the cost and schedule review. Michael will be the delivery partner from EY, for both delivery teams.



Other Considerations

Time is of the essence...

DRAFT

-
- ▶ Working Relationships
 - ▶ How can we reset the working dynamic between the stakeholders?
 - ▶ Communications Priorities
 - ▶ Realtime communication, full cooperation and transparency
 - ▶ Reporting Deadlines & Drivers
 - ▶ Drafting Process
 - ▶ Original Scope
 - ▶ Astaldi Options Review
 - ▶ Consolidated Findings

ED 195t night - Ken - got someone in room with you.
 - negot. strategy / A coming from
Ken - no negotiatory strategy -
 - mtg set for TUESDAY!

Min Gady - had 2 calls from Italian Ambassador,
 in town next week.

DK - too rushed, no idea on Cabinet, Caucus?
 process agenda

Dr. John - EV to Cabinet ✓

=====

March 2 - ??

\$ 300 m - 50m

- 600-800 m got is real
 focused on A
 - (D) - built base for action
 on unsubst. report
 on A trans.

Ken - red IAC before Board / oversight

Steady - ✓

Byrne ✓

Past History

Nalco + GRI

- Some observations on GRI
- be clear on advice: wrinkle on facilities

#1 colony used.

- Big disconnect between PO staff + Equil. Service.
- Julia - great to work with.

GRI:

- reviewed Pres. Pappas, CS Kirsten
- Pres pushed back hard in JAN
- Helen is right too
- they have massive problem - not do it line by line - so much for all
- 2.4B report - Sec would be robust, well staffed, well supported



Everyone would know lead person had Prem's ear,
 Not support

- EY not with the team - they that does - it's hard
 will not get anything out of that -
 big trap

- people in there not capable of what needs
 to be done.

⇒ EY not effective helping you.

⇒ [Kitzdale like lead]
8-8 people

→

over 6-8 yrs
 transferring 6 services
 to a d. ff. cost
 better services.

- sense of urgency not there
 - GRI no respect - CB "not work" either
~~not.~~

- Need strong Clerk.

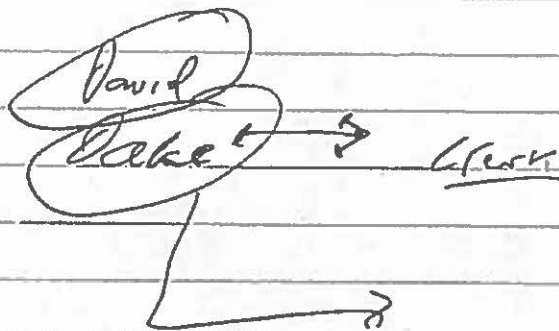
O/S monitoring of process & controls - (A)
 brought us every step of
 way.

3

(10) Sandbagged from to EY - ~~scrapped~~
around EY

✓ Like Jim. → need to change

✓ Edm → 30 yrs → Wife



- Paddock
- Nyles
-

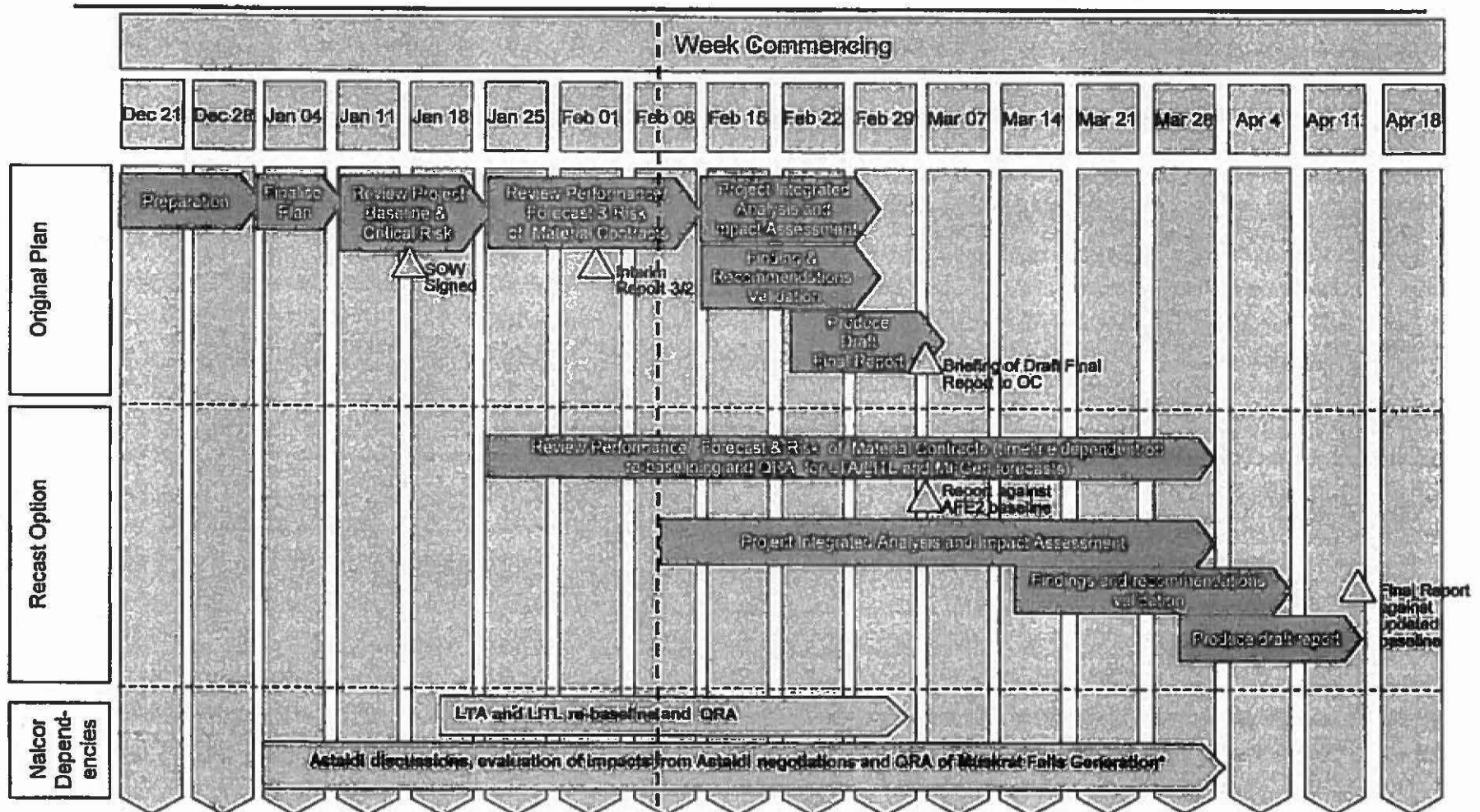
Interim Status Summary

The following observations are relevant to the reasonableness of the forecast of cost, schedule and risk, and influence EY's proposed focus moving forward


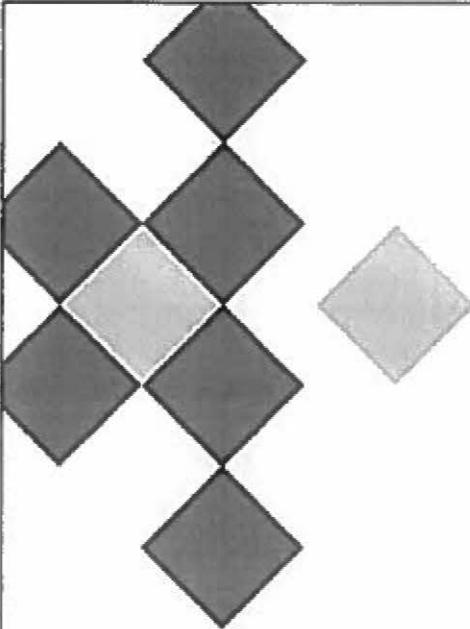
Proposed EY work plan for February

- ▶ Continue with cost and schedule analysis elements that are not fully dependant on outcome of Astaldi / QRA.
- ▶ Extension of the EY review timeline to align to the Project's re-baselining and quantitative risk assessment activities to allow for complete assessment by EY to achieve expected value to Government.
- ▶ Interim and final reporting options should be considered. Specifically, it is proposed that EY report at the end of February/early March with the following scope:
 - ▶ A review of the reasonableness of the September 2015 AFE2 cost and schedule forecast for the Muskrat Falls Project, identifying opportunities to address any material/critical risks.
 - ▶ The report will explicitly acknowledge the Project status around critical risk areas (e.g. Astaldi and Valard) and the ongoing work by the Project to update cost and schedule forecasts
- ▶ EY should be provided with access to key data and information through critical elements of the Project as they unfold, including:
 - ▶ Provision of data and information during Astaldi discussions (i.e. review materials and positions as they evolve), and
 - ▶ Allowing EY to take an observer role through re-baselining activities and quantitative risk assessment activities.
- ▶ Provide suggestions to the Steering Committee and Nalcor regarding project reporting to enable more effective oversight and assurance of cost and schedule forecasts.

Proposed EY work plan moving forward



* These timelines are indicative, based on discussions with Nalcor. The timing of the conclusion of the Astaldi discussions, and its outcome, are not controllable by Nalcor.




Competency Matrix Nalcor Energy Board

February 24, 2016

Submitted by:

Mark J. Surette
Knightsbridge Robertson Surette
10th Floor, 1894 Barrington Street
Halifax, NS B3J 2A8
P: (902) 424-1100 E: mjsurette@kbrs.ca

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Nalcor Energy Board

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1. Composite Nalcor Energy Board Specification

Overall Philosophy

To attract outstanding individuals to the Nalcor Energy Board who bring a true oversight and counseling orientation with the requisite competencies and experiences (set out below), including a cultural fit that seeks to contribute to a highly collaborative but independent-minded board.

Required Competencies

1. Strong Conceptual Skill and Intellectual Insight

- ◆ Ability to assimilate, understand and effectively monitor Nalcor's approach to business and the drivers of its success;
- ◆ Evident intellectual interest in, and commitment to, understanding Nalcor's business;
- ◆ High level of analytical capability; and
- ◆ Willingness and capability to delve into and understand complex business dealings and long term investments.

2. Nalcor Values Orientation

- ◆ Ability to communicate openly and foster an environment where information moves freely in a timely manner;
- ◆ Demonstrates a high level of accountability through holding oneself responsible for actions and performance;
- ◆ Evident commitment to safety by protecting oneself, colleagues and the community;
- ◆ Committed to being sincere and demonstrates honesty and trust;
- ◆ Evident teamwork capabilities;
- ◆ Shows respect and dignity by appreciating the individuality of others; and
- ◆ Ability to provide leadership and empower individuals.

3. Judgment and Risk Assessment Savvy

- ◆ Ability to effectively oversee Nalcor's overall investment strategy;
- ◆ Up-to-date knowledge of the Canadian and International business;
- ◆ Experience with multiple perspectives on risk and risk management;
- ◆ International capital markets exposure; and
- ◆ Ability to understand the unique investment characteristics of long term assets, infrastructure, and real estate.

4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments

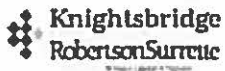
- ◆ Experience and reputation for success in operating at the interface of the private sector and with public policy / public stewards; and
- ◆ Ability to contribute to the strategic thinking and proactive influence required to ensure Nalcor's independence and founding legislative mandate.

5. International Orientation

- ◆ Knowledge of international markets and business operations, especially where Nalcor will be active in securing investment capital and partnerships.

**Nalcor Energy Board**

-
- 6. Board-Level Contributor and / or Senior Leadership Business Acumen**
- ◆ Accomplished senior business or professional leadership experience;
 - ◆ Experience in contributing effectively to strategy discussions and their implementation;
 - ◆ Experience in a growing and increasingly complex organization, including success in building, consolidating and overseeing at a board / senior leadership level an organization's infrastructure (i.e., IT, HR, Finance, Enterprise Risk Management, etc.);
 - ◆ Tolerance for ambiguity (i.e., comfort in making decisions with imperfect information in highly changeable external circumstances; taking calculated risk);
 - ◆ Experience in making decisions that are long term in nature;
 - ◆ Experience in the leadership, oversight, attraction and retention of talent; and
 - ◆ Expertise and familiarity with financial information, public accountability, performance metrics, and reporting.
- 7. Diversity**
- ◆ Visible minority / first nations;
 - ◆ Exposure / experience dealing with first nations issues;
 - ◆ Gender balance;
 - ◆ Able to bring a diverse perspective to the board; and
 - ◆ Demonstrates cultural competence.

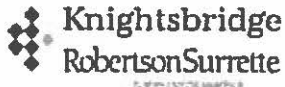


Nalcor Energy Board

2. Current Board Analysis – Nalcor Energy Board Competency Matrix

	Ken Marshall	Garry Stewart	Tom Clift	Leo Abbas	Ed Martin	Board Member 6	Board Member 7	Board Member 8	Board Member 9	Board Member 10
Info and Diversity	Age	53	67	60	63	57				
	Years on Board	11	10	10	3	10				
Location	Cultural									
	Gender	M	M	M	M	M				
Functional Experience	Newfoundland and Labrador	X		X	X	X				
	Maritime									
	Quebec									
	Ontario		X							
	Western Canada									
	Europe									
	New England									
	Texas / California / US Oil & Gas Regions									
	Other – USA									
	Other									
Industry Experience	Large Construction Projects					X				
	Large Operations	X	X	X		X				
	Accounting / Financial Reporting	X	X	X						
	Financing / Capital Markets	X	X			X				
	Commercial Law		X							
	Technology	X	X	X						
	Electricity Markets									
	Geology / Subsurface / Exploration					X				
	Nuclear Resources	X	X							
	Government Relations / Public Affairs	X		X	X					
Other	International Markets		X							
	Other	X		X						
	Oil and Gas					X				
	Electricity					X				
	Energy Marketing / Transportation			X		X				
	Regulated Utility	X		X		X				
	Finance / Banking / Private Equity	X	X			X				
	Construction		X			X				
	Consulting / Law		X							
	Government			X	X					
Other			X							
Other Large Public / Crown Board Experience / NCD Designation	X	X	X	X	X					

Footnotes: 1. Closest year total as at February 2016 – date of analysis
 2. Prioritized to reflect the two or three perceived most prevalent functions of expertise in the board member's professional background
 3. Functional experience includes oversight of specific functions gained as either a board member or chief executive officer
 4. Primary and secondary industries.



3. Current Board Composite Profile & Gap Assessment¹

Board Competency Matrix			Legend ● Fully in Evidence ◐ Significant Experience ◑ Reasonable Experience ◒ Limited Experience ○ No Experience
Competency	Current Assessment	Comment	
Selection Criteria	1. Strong Conceptual Skill and Intellectual Insight	Fully in Evidence ●	
	2. Nalcor Values Orientation	Fully in Evidence ●	
	3. Judgment and Risk Savvy	Significant Experience ◐	
	4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	Significant Experience ◐	
	5. International Orientation	Reasonable Experience ◑	Area of significant opportunity.
	6. Board-Level Contributor and / or Senior Leadership Business Acumen	Significant Experience ◐	
	7. Diversity	Reasonable Experience ◑	No obvious diversity apparent, only experience with diversity.

1. Closest year total, as at February 2016 – date of analysis.

Average Age: 60 Gender Mix: 5 Males : 0 Females Average Tenure: 8.8 years
 Locations: 4 Newfoundland and Labrador, 1 Ontario



Nalcor Energy Board

Individual Board Member Profiles

First Name: Ken
 Last Name: Marshall

Legend

- Fully in Evidence
- Significant Experience
- Reasonable Experience
- Limited Experience
- No Experience

Individual Competency Matrix	
Competency	Self Assessment
1. Strong Conceptual Skill and Intellectual Insight	Fully in Evidence <input checked="" type="radio"/>
2. Nalcor Values Orientation	Significant Experience <input checked="" type="radio"/>
3. Judgment and Risk Savvy	Significant Experience <input checked="" type="radio"/>
4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	Significant Experience <input checked="" type="radio"/>
5. International Orientation	Reasonable Experience <input checked="" type="radio"/>
6. Board-Level Contributor and / or Senior Leadership Business Acumen	Significant Experience <input checked="" type="radio"/>
7. Diversity	Limited Experience <input checked="" type="radio"/>

Age: 53 Gender: M Years on Board: 11
 Location: St. John's, NL
 Functional Experience: Management of large telecoms, start-up experiences.
 Industry Experience: Regulated Industry, work with capital markets.



Nalcor Energy Board

First Name: Gerald
 Last Name: Shortall

Legend

- Fully in Evidence
- ◐ Significant Experience
- ◑ Reasonable Experience
- ◒ Limited Experience
- No Experience

Individual Competency Matrix	
Competency	Self Assessment
1. Strong Conceptual Skill and Intellectual Insight	Fully in Evidence ●
2. Nalcor Values Orientation	Fully in Evidence ●
3. Judgment and Risk Savvy	Significant Experience ◐
4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	Significant Experience ◐
5. International Orientation	Reasonable Experience ◑
6. Board-Level Contributor and / or Senior Leadership Business Acumen	Fully in Evidence ●
7. Diversity	Limited Experience ◒

Age: 67 Gender: M Years on Board: 10

Location: Toronto, ON

Functional Experience: CPA, CA Practiced Public Accounting - 37 years.

Industry Experience: Experience with a wide variety of industries.



Nalcor Energy Board

First Name: Tom
 Last Name: Cliff

Legend

- Fully in Evidence
- Significant Experience
- Reasonable Experience
- Limited Experience
- No Experience

Individual Competency Matrix	
Competency	Self Assessment
1. Strong Conceptual Skill and Intellectual Insight	Fully in Evidence <input checked="" type="radio"/>
2. Nalcor Values Orientation	Fully in Evidence <input checked="" type="radio"/>
3. Judgment and Risk Savvy	Significant Experience <input checked="" type="radio"/>
4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	Significant Experience <input checked="" type="radio"/>
5. International Orientation	Reasonable Experience <input checked="" type="radio"/>
6. Board-Level Contributor and / or Senior Leadership Business Acumen	Significant Experience <input checked="" type="radio"/>
7. Diversity	Limited Experience <input checked="" type="radio"/>

Age: 60 Gender: M Years on Board: 10.5

Location: St. John's, NL

Functional Experience: B. Comm., MBA, ICD.D.

Industry Experience: 35 years of Industry consulting experience, 25 years of Board experience.



Nalcor Energy Board

First Name: Leo
 Last Name: Abbass

Legend	
<input checked="" type="radio"/>	Fully in Evidence
<input checked="" type="radio"/>	Significant Experience
<input checked="" type="radio"/>	Reasonable Experience
<input checked="" type="radio"/>	Limited Experience
<input type="radio"/>	No Experience

Individual Competency Matrix	
Competency	Self-Assessment
1. Strong Conceptual Skill and Intellectual Insight	Fully in Evidence <input checked="" type="radio"/>
2. Nalcor Values Orientation	Fully in Evidence <input checked="" type="radio"/>
3. Judgment and Risk Savvy	Fully in Evidence <input checked="" type="radio"/>
4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	Fully in Evidence <input checked="" type="radio"/>
5. International Orientation	Reasonable Experience <input checked="" type="radio"/>
6. Board-Level Contributor and / or Senior Leadership Business Acumen	Significant Experience <input checked="" type="radio"/>
7. Diversity	Significant Experience <input checked="" type="radio"/>

Age: 63 Gender: M Years on Board: 3

Location: Happy Valley Goose Bay, NL

Functional Experience: Varied.

Industry Experience: Mayor; have been dealing with Federal, Provincial, and Industry personnel for over 15 years.



Nalcor Energy Board

First Name: Ed
 Last Name: Martin

Legend	
<input checked="" type="radio"/>	Fully in Evidence
<input checked="" type="radio"/>	Significant Experience
<input checked="" type="radio"/>	Reasonable Experience
<input checked="" type="radio"/>	Limited Experience
<input type="radio"/>	No Experience

Individual Competency Matrix	
Competency	Self Assessment
1. Strong Conceptual Skill and Intellectual Insight	Fully in Evidence <input checked="" type="radio"/>
2. Nalcor Values Orientation	Fully in Evidence <input checked="" type="radio"/>
3. Judgment and Risk Savvy	Fully in Evidence <input checked="" type="radio"/>
4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	Fully in Evidence <input checked="" type="radio"/>
5. International Orientation	Fully in Evidence <input checked="" type="radio"/>
6. Board-Level Contributor and / or Senior Leadership Business Acumen	Fully in Evidence <input checked="" type="radio"/>
7. Diversity	Significant Experience <input checked="" type="radio"/>

Age: 57 Gender: M Years on Board: 10

Location: St. John's, NL

Functional Experience: Experience with large construction projects, operations, capital markets and geology / subsurface / exploration.

Industry Experience: Over 30 years of experience in the energy sector, including offshore oil and gas.

Board Composition Observations

**Observations from
Pro Forma Board Analysis:**






- ◆ Opportunity to enhance board diversity in light of its current composition of being all white males.
- ◆ Average Board tenure is reasonable (8.8 years).
- ◆ Exposure to electricity and energy markets remains a priority as limited experience exists aside from CEO.
- ◆ Global energy and financial market "inter-connectivity" underscores desire for enhanced global markets / investments experience.
- ◆ Additional functional skills in risk management (ideally in a global / international setting) still welcome.
- ◆ International experience / exposure is still not a defining characteristic of the Board. Heavy concentration in Newfoundland and Labrador.
- ◆ Limited other organizational infrastructure building expertise, encompassing HR, IT, and Engineering expertise, with Board overall.
- ◆ Large, capital intensive construction experience is not readily evident with the current board make up.



**Implications for Future
Board Placements:**

- ◆ Sourcing qualified diversity candidates is an ongoing consideration in all Nalcor searches.
- ◆ International experience remains an opportunity area – especially in light of the Nalcor's continuing geographic diversification of its need for capital.
- ◆ Candidates with experience in electricity, energy and / or exploration need to be a focus to add necessary depth in this area to the board.
- ◆ Experience in the attraction and retention of world-class human capital through use of sophisticated HR practices is an opportunity area.
- ◆ Experience in the "scaling up" of key infrastructure and managerial processes (i.e., IT, Finance, Eng.) – in sophisticated and complex enterprises could still be enhanced.
- ◆ Ideally targeting candidate profiles that can contribute to a long possible tenure with the Board given the average age is 60.
- ◆ With the exposure to heavy construction and on-going need for capital to support this work, experience in both these areas would be highly desirable.

Nalcor Energy Board Search Focus For Next Director

- | Priority for this Search: | |
|---|-------------------------|
|  | Essential |
|  | Priority |
|  | Opportunity |
|  | "Nice to Have" |
|  | Unlikely / Not required |
- 1. Strong Conceptual Skill and Intellectual Insight**

 - ◆ Ability to assimilate, understand and effectively monitor Nalcor's approach to business and the drivers of its success;
 - ◆ Evident intellectual interest in, and commitment to, understanding Nalcor's business;
 - ◆ High level of analytical capability; and
 - ◆ Willingness and capability to delve into and understand complex business dealings and long term investments.
 - 2. Nalcor Values Orientation**

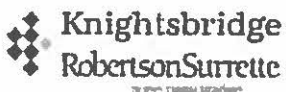
 - ◆ Ability to communicate openly and foster an environment where information moves freely in a timely manner;
 - ◆ Demonstrates a high level of accountability through holding oneself responsible for actions and performance;
 - ◆ Evident commitment to safety by protecting oneself, colleagues and the community;
 - ◆ Committed to being sincere and demonstrates honesty and trust;
 - ◆ Evident teamwork capabilities;
 - ◆ Shows respect and dignity by appreciating the individuality of others; and
 - ◆ Ability to provide leadership and empower individuals.
 - 3. Judgment and Risk Assessment Savvy**

 - ◆ Ability to effectively add value to Nalcor's overall investment;
 - ◆ Up-to-date knowledge of the Canadian and international business;
 - ◆ Experience with multiple perspectives on risk and risk management;
 - ◆ International capital markets exposure; and
 - ◆ Ability to understand the unique investment characteristics required of long term assets, infrastructure, and real estate.
 - 4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments**

 - ◆ Experience and reputation for success in operating at the interface of the private sector and with public policy / public stewards; and
 - ◆ Ability to contribute to the strategic thinking and proactive influence required to ensure Nalcor's independence and founding legislative mandate.
 - 5. International Orientation**

 - ◆ Knowledge of international markets and business operations, especially where the Nalcor will be active in securing investment capital and partnerships.
 - 6. Board-Level Contributor and / or Senior Leadership Business Acumen**

 - ◆ Accomplished senior business or professional leadership experience, preferably in a large and complex organization;
 - ◆ Experience in contributing effectively to strategy discussions and their implementation;
 - ◆ Experience in a growing and increasingly complex organization, including success in building, consolidating and overseeing at a board / senior leadership level an organization's infrastructure (i.e., IT, HR, Finance, Enterprise Risk Management, etc.);
 - ◆ Tolerance for ambiguity (i.e., comfort in making decisions with imperfect information in highly changeable external circumstances; taking calculated risk);
 - ◆ Experience in making decisions that are long term in nature;



Nalcor Energy Board

- Experience in the leadership, oversight, attraction and retention of talent; and
- Expertise and familiarity with financial information, safety orientation, performance metrics, and reporting.

7. Diversity

- Visible minority / first nations;
- Exposure / experience dealing with first nations issues;
- Gender balance;
- Able to bring a diverse perspective to the board; and
- Demonstrates cultural competence.

Preferred Locations	International, USA, Western Canada, Quebec, Nova Scotia
Preferred Functional Experiences	Financing, Large HR, Electricity Markets, Energy Exploration
Preferred Industry Experiences	Electricity, Energy, Heavy Construction

FEB. 22/16

400+ team.

Owner/Sponsor

IPM Team

(owner's team) - used EPC contractor (SNC), etc.

- experienced, knows world-wide
- in HES - would be Xerox plus.

- IPM
- Westney
- IFA
- IE

Const. Contractors

⑦

(Gilbert / N Spive)

Barnard / Purson Ajwalde Valard

Andritz

Aiston

Nexens

(Const Subs)

- based in Virginia
 (assess d of proj team, metrics, on since beginning)
 (has PM managing project - report in data room frequently)

WESTNEY - involved re: ① from get-go

- evaluate cost, sched & risk - Yes.

MCP - generally at \$2B threshold.

#3

Ken Bull: #6 message - how do you know that?

① continuity is best

stop learning curve for new co.

stop/start again - signif. risk of cost exposure

negative impact on productivity.

#6

Min CB - world-class performance means?

A - amt of concrete poured per month.

prodn rates, work hrs

(2)

Prem - how cap is MF to Astaldi - A: largest exposure but not forthcoming - cont. to announce project if doesn't have creditworthiness to do/complete.

- from year analysis - how cap is this project in contributing to their problem?
- some projects not in good shape - but MF is key pressure point

Ed - 400m^E problem - their market cap is 400m^E

(A's greatest risk is a takeover? Why?)

Prem: 3 things made A look good.
2 of 3 failed.

- how can we support project if 2/3 stuck out.
(only positive is improved performance)

Guarantees are good on asset sales. ✓

(A) not yet an id problem → if there's a settlement, market will respond favourably

Turkey & Ugen - They can push it around for a few yrs.
projects are problematic

Would (A) make it in their current form? Asside but fight.

Min CB - pg 4 - A labour proj. als 10% - by how much?
A non labour - highly dep on schedule

(3)

~~A. if we settle business~~

Q. Slide 6 - #3 - with no # - fin breach is clear - if they go into (A) can terminate then - "don't want to go there."
~~have to~~

Min. CB - no clarity yet on fin sitn - "in a true dilemma" - not in fin. breach yet.

Slide 8 :

2 → A would pay 2014 loss.

if a deal - how does it change risk profile?

- keep team in place for 2016
- in place for peak production 2016
- least of payout coming up.

A - "this is least of worst deals"

Westray - "you have excellent contract but not credit worthy counterpart"

- enforceability against a credit worthy company is your issue.

KP - who did credit worthiness check on Kstaldi? Nalco did it. at the time.

Min. CA - when did they move into debt for model?

(4)

CB → used some fin capacity as back for other co's bl'dg stuff - yes.

(4) - look good on surface but more detailed look shows different

(Ed) → A look good just you down road → no. yes.

- publicly - Co. looks good.

(A) not admitting to problems in press but analysts know.

SC - solid contract; not our fault

- no guarantee risk involved with agreement

(A) greatest prob. of working.

- if we negotiate in good faith - any worse legal posn.?

(A) → settlement will include then admitting fault

Min CB - could we posn ourselves as 1st in line?

(A) could take precedence over creditors

P. Ball - realistic to outposition bank?

(A) - deal would require working with (A) to their bank.

- our money helps creditor - credit-b-s holder
has seat on payment - Deutsche Bank

How joint. is next public reporting of A?

- (A) - imp't re! their share price

(5)

- timing of auditors seeing cash - critical

- when they have to observe loss & announce?

EO - do nothing, loss gets reported, share price takes a hit

- having attempt to re-engage by A.

- how much of a loss prepared to file - now because it means survival for them - eat most they can.

SC: A wants boom - what is tipping point?

EO: \rightarrow \$500 - \$400 m range A wanted last time
put \$200 m on table

- deal between \$200 m & \$400 m

(W) could spread out money over 3 yrs - not 200 m tomorrow

SC - risk on other contractors of a deal - how to mitigate that risk?

Vulard -

Dalmeida is plant - not yet awarded.

Alston -

Andritz -

(2)

NSPUC/Gilbert:

- geotech risks did not materialize

NSPUC Agms:

no cost risk

Spillway - essentially complete

Valard -

- MF to Churchill

AC line

Decline

- N Supply Equip

↓

- labor costs

within budget, finished 12/98

Q-WILL THEY VERIFY THIS?

Unit price contract.

Westco has looked at contracts - "in sync"

Chance of other big cos coming to table seemly similar -
(A) Valard - it has mostly labour

Concern through 6 mega projects

Overstated by time incl. contracts person with Helgson

Min CB - how does (A) interact with other 3 incl. IE, etc?

Ed - treat them as separate for needs I have

⑦

IE - has rev'd this data -
 - document will come out next week ???
 - IE supports the Agreed soln.

→ Any agrs with other proj owners?
Turkey - only one.

Pam - why would they accept any loss @?
 if not, no company.

Min CA - 200 - 540m - how much @ent?
 - Ed: N
 - you guys have to figure out a way; NLG doesn't have capacity.
CFLO → breakeven
NLIt → no.
E mktg - 20m?
Oil - 20-30m ✓ yr.

DO WE HAVE ANY
 INDICATION TO THE
 CONTRARY FROM EY RE:
 WHAT WE ARE NOW
 HEARING?

- Noway we can fund it
 - Rob from Peter to pay Paul
cb - all our debt is consolidated
NLG + Nalcor
Ed - self assets - a policy decr.
 but can't do it now - in mid-projects on H&B. but 10% on dollar.

- mostly around contingency

Oil - rate of spend - slow - but against that - Proj team + related costs

(2)

- slowing get into issues on LG with Fed's
- payments due mid 2018 \$150m +

CB - how much is this bldg worth? - on our GRAI list, any other real estate? winning the #1's.

- it's a hydro arrest - will be impact on rate payers - need to adjust legn to enable that.

Prem - what can N bring to table?

→ prob. of A staying around even with settlement.

- pol. t. trouble - (W) at start time (N) at start time.

- want to be successful

- need someone who hasn't touched this project as cover.

IE knew in October. - why not say it then?

Prem → it's coming out - (EY)

Ed - has to be disclosed -

Ed: timing is issue - EY work - 4-5 weeks work

8-10 weeks, all wheel
losing control

EY send 3 weeks.

9

* 342 m deal

300 - 400 m

275 m delay 18 months

100 m cont.

70 m knock on

CA total

445

* 7.65 m Spt.

£750 m - 1.0 B

- in next month. JM

" No guarantee it's not more. "

Addit. cost.

Rate gm → policy decn by (G) to adjust how much they receive from (H)

CA - ever been directed or encouraged to say anything publicly that was nuanced by 8th floor - as former Director

Ed - never been constrained or stopped from saying what I thought was correct.

CA - any concern re: volume? any directions on volume re: publicly or to G.

Ed - ~~didn't answer~~ -

Previous Pres + Mine - knew what I knew

CA - (A) contract waste - answer ✓

d

(60)

CB - when on Ad - said we needed more info at location.
 - asked for more Ad members often.

Prem - explore all options - owners are people, will want to know.

- based on info now - not enough to satisfy public.
- need to add to narrative in soln space

(EY)
Ed - any resistance is timing

Prem - maybe I should pick up phone re: to get A in earlier.

Ed - felt he had mandate to negotiate A

CB - concern - do nothing - heard lots of talk of risk if no deal

(Deal + 1.0B)

- will pay profit.

+ 650-700 labour vs 300-400 to Asfalchi
 profit

CB - IE certificate - Q. Fedr believe soln is to negotiate deal with A?

Fedr: (Yes.)

(6)

Ed: EY has letters to get through it quick.
but need help.

- timeline \Rightarrow

Prem \Rightarrow March (8) per world changes

(A) - Klaus since JAN. had problem - no money from ONL.

Prem \Rightarrow * we need to share all info. with EY

Ed - back to table in parallel - while cover being done.
- no docu is gridlock.

Prem - can't give answer for it.

CB - ~~not ed of day~~ - if deal - you can negotiate
*

- Get all 4 (6) plus in room
- EY

Ed - prediction - will still need to negotiate pre EY

Prem - Cab on Thursday for docu on regn.
- will get you top # on Friday. Thurs.
(if you get a #)



Cabinet Room

Cabine
Feb 25th

Sell equity?

Governance: Proc - Bd is
irrelevant.

CO - if being in Tom feel that
is doing something outside,
will squeal.

- if you make a polit decs
~~for~~ re: not Astald: ,
Bd will squeal.

Pen:
= repeat table?

(CB) if we don't trust him, will
not do best work.



Newfoundland
Labrador

Cabinet Room

① EY will give us less control on #s.
& risks

② under to do s/ky diff

is now - in how - can't

say no in Oct,
next spring

③ no guarantee A will
walk -

④ held accountable to close
the gap.

GRI? wages? if B makes
cut.

Newfoundland
Labrador
Cabinet Room

3

Would Mackstone buy co?

Contingency - all spent?
- get funds from
Im -

Hebron on contingency.

Prem - sell transmission ↑
CB - get from



Cabinet Room

Ⓢ

Part Mgt's of estate

- concrete poured by certain date

\$ 300m $\begin{cases} \text{\$ 150 (N) find} \\ \text{\$ 150 G} \end{cases}$

person
 → In-room ✓

- Staggered pay on performance
-

Newfoundland
Labrador

Cabinet Room

15.

Proves → No?

Above xx - pay at end.
also project
records

✓

3:00 PM

MUSKRAT:

EJ - hollseye

CB → Base our decns on the risk

Weston recommending ✓

IE " ✓

→ all recommending it - need to give it attention.

Prem: EY will look at all this ✓

↳ that's our pol. cover - someone not involved in process

Glynn: give him instr

- Instinct: out door

Prem - it's + 1.0 B

CB - (N) has 1,200 employees
- if we need a lead...

CB - Can he sell something? Eat it? Find it himself?

GW - fire E.M.

Prem - believe 300M will do deal.

Murphy, Tim

From: Paul Hickey <paul.d.hickey@ca.ey.com>
Sent: Friday, February 26, 2016 1:32 PM
To: Murphy, Tim
Subject: RE: Chat

Observations from the meeting last night

Having reflected on it, we wanted to be clear on our advice:

- Changes need to Governance and leadership at Nalcor – new Project Leader / Project Sponsor and EY can suggest names. Consider other changes at project leadership level
- Immediate establishment of an independent governance and oversight board
- Ask for Nalcor's negotiation strategy with Astaldi in writing – don't give Nalcor a number yet
- Wait for Astaldi financial results before decision, BUT
- EY doing urgent high level stress test of Astaldi corporate financial position - if its financial stability appears to be an urgent issue, reconsider giving Nalcor initial immediate parameters for negotiation



Paul D Hickey KC*SG CPA, CA, CIRP, LIT
Senior Vice President | Transaction Advisory Services

Ernst & Young Orenda Corporate Finance Inc.
Fortis Place, 5 Springdale Street, Suite 800, St. John's , NL A1E 0E4 Canada
Direct: (709) 570-5404 | Mobile: (709) 685-4998 | paul.d.hickey@ca.ey.com
Fax: (709) 726 0345 | Home: (709) 753-9925 | EY/Comm: 8647286
Melanie Brooks | Phone: (709) 570-8235 | melanie.brooks@ca.ey.com

From: Murphy, Tim [<mailto:TimMurphy@gov.nl.ca>]
Sent: Friday, February 26, 2016 1:02 PM
To: Paul Hickey
Subject: RE: Chat

Sure.

729-6487

From: Paul Hickey [<mailto:paul.d.hickey@ca.ey.com>]
Sent: Friday, February 26, 2016 12:57 PM
To: Murphy, Tim <TimMurphy@gov.nl.ca>
Subject: RE: Chat

Sure, thank you. Will I call your office #?

FEB 25/16

EY :

- challenge to write report
- a/c to get work done
- lack of (A) exposure (into issue)
- EY no reason could have been involved 7 weeks ago - it would have been better

David — . Was CFO for London Olympics
 (Finance Director)
 9 B lbs! spent less than req'd

2 Qns Cost
Schedule

No, not reasonable at all esp on cost - Astaldi

- just started on (A) - more access this week, better feel for A issue

- 9 700m issue - direct addt cost - plus.
 ↳ extra cost to A. London - looking at consequence

• when Budget set in 1st phase - Mgt
 Access to be set to - Mgt (TSC Risks above project level).
 Exposed

70M - to be borne by Naker

- is no Mgt Reserve - unlimited - if it exceeds cost for strategic reasons - to be for funding.

- N doesn't feel it's their req.

- London O - was Mgt Reserve + finite amount

Prep - approx amt at 6.23 - for M Reserve
 % between 5-25%

(2)

Mheserve - typically part of sanction cost but not publicly announced ✓

In book Doc at (N) - envisaged to be set up - but never was
Not sure who made that decn.

No insprmr iff now 7.65m - and N believes there's
no limit

London 2 - Mheserve was in public domain - + was finite -
didn't materially weaken competit. posn - all contracts
were negotiated. - plus criteria in place to
get at R

Contractors believe Mth unlimited - because everytime
they read @ they get it.

Fin Controls & Challenge Function - (D) Proj. doesn't

have risk adjusted C+S forecast - no documented
assess. of cost + sched perf.

not incl. because how N choosing to present
info.

Risk adj C+S forecast - basic part of
Bd reporting - assumed normal practice
for MCP's - Bd would have asked
why not

- no challenge function - from Fin Group
(fiduciary resp.)

- no sense ~~if~~ ^{responsibility} of ~~agreement~~ award price escalation

Reserve expense was - it's unlimited - more focused on project delivery (at any cost, not finite cost).

FIN London in (N) didn't have strict control - Project Team doesn't have FIN control focus.

Primary focus - delivers project not capital cost control.
delivered at 6.23

1 "unfortunate" but benefits in long run it doesn't matter.

(A) Why pick them, can understand best deal at time 99% is - knowing all risks at time - had a bid 40% under 2 others - need a reserve to deal with potential issues.

- now - very clear request for more Φ w/out any Reserve.

A bid was "400m above budget." - still low bid.

Rest of project?

Degree of risk in remaining work Key is delivery of hours - remains delivery risk (G + schedule).

- Def Sched risk - Valued + it talking N conf. they can rebut v claims if V late

How strong a case V can put together - not sure
 N u. em is clear - will be able to rebut
 EY - not trying to address, no claim.

A aside - remaining components of C & S - with what you
 would expect - contingency remaining is low -
 how much - not sure.

50% of work to be done overall
 60% constr " "

Cont. of 5% - (but with a 700 m higher)
 % is lower.

- not a prudent level of contingency

- at least double that 10% EY
 come down over time.

Prem - 50% left labour vs materials?

↳ big proportion
 - 1/3 of concrete - 2/3 of money spent

A paid A 2/3 of value of "I.I.B
 with 1/3 of work (concrete)

~~rest of project - V~~

A aside - long way to go - Contingency is insufficient.

10th. Need effect. challenge process at
 CFO level + more effit ind gov.
 to review how it is spent.
 - to ensure it spent well, & not
 unlimited.

EPC contractor - that was intended - was appointed -
 change in strategy - still use SNC however people
 not in d. H. way.
 - supplemented team "body shop"
 - but no org like SNC to hold accountable.
 + didn't include Project Controller as
 challenge function, to justify every spend.

Org. strategy - would have been to deliver - unless who
 made decn to not do that - consequences of that
 decn IPMT - not fully thought out - and.
 no go on so we need to have M&E?

Why not? Not thought - no value from SNC however,
 also taken out SNC relationships with contractors
 SNC in clusters with projects all over
 world - could have handled contractors better
 (relms all over world).

ET hoping to see Bd report on why change in strategy
 not given any Bd report

Culture of we know best ^a ^a ^{on} for posn of A

W/lost ind. challenge & oversight.

Andritz -

200 m contract total

↳ was going to install gates this yr. - not ready by A5E.
to get it done.

Prem - access to info on acc of (N)

EY - Sam Westney piece work. ✓

EY - fire but no #'s here. Later - yesterday,
with Lance & Paul - better handle on #'s

A to complete ~~submitted~~ work between 600 - 800 m
posn Ed advanced is 200 m
Lance # 400 - 450 to satisfy A

suppressed - disc. at A remain at relatively high level
from past issues for 18 months - Lance.

EY - ^N Think they are smarter - N having difficulty to do
ind. reviews - telling A - what are you
worried about our ten per? - it's about
a dem in Labrador

- ~~N trying to point out to A5E's~~

- now, so close to audit report - lost time.

N has known since day signed contract - problem

S project, had concerns early on.

did go to see A - "assurances - don't worry, we will get it done" - OK

- now, product. levels way low to keep to schedule - not able to work through winter - done failed. can't work in winter. - then summer, done in way - had to get it done

- for every day A worked - paid - not linked to milestones completed - even though concrete delivery

- money will run out in July.

Conce - one report he has it involving for in UK labour & done - paid in full.

A not been incentivized. -

A risk now - 600-800 m - ^{Q.} not addressed.

EY: A options ^{only} (one day order book).

1. Tom had raised through - have contract - not interested in your extra request.
 - should have been advanced in last 18 months
 - ditto - will try to get it for you

Resks stop perf.
leave site
insolvent

EY looking at if co. in such a fragile state to put frem under.

CFo - ① closer to end of July - money contractually entitled to run out - if no assurance of more money

② start increment to prepare claim

③ slow down - way before you get to July, gives you more time to pay

Ontop of that - have fin problems - if no # from N, co. in jeopardy - not need that's what (A) has said.

Claim based on what? N occur only basis is - N knew at bid process - prod. rates proposed by A impos. to achieve.

- (N) - did huge amt of work, released all info.

- what they got from A was reasonable

EY - asked qn - any claim on basis of you insisted on labour it's contract terms →

- claim start

- walk

- not achieve prodn.

if walk, in default - get some guarantees

halt built dam - another contractor

70m bond/100m to

Astaldi

N provided w/capital of 100m effectively,

through bond - claw

back 70m

WACC - is signif. worse than where we are know.

Option conspicuously absent - start decoupling chunks of proj.

incurred just under 4

committed 6

- later phase

- abandon phase

(10) - not an option "smartest people in room" agree - good reasons re: fails guarantees & fails unpredictable. Their view. to step in

#3) keep A working at prod levels of last yr through 2016 constn season

(15) - opt 300 concrete this yr.

300 is "hard" concrete

- what kind of cash need to A?

if new money - dot adj. structure to move in guarantees, concrete assurances.

not just a check.

~~at total of our money~~

- take down in a yr's time - better price.
- highest value of this yr is 150 metres² of concrete in October, 1/3 done - bring in another contractor, given alternative piece of work
- would be 100% on dollar.

Pre - How will KPMG handle the boom - boom problem?

Go - KPMG concluding on audit March 8-9

Don't know what A telling KPMG

A try to resist taking any loss

"indiscreet" "level of conf not cut our backs" ^{all}

- Suggested A not being more aggressive with U to cut a deal.

EJ - A need to see face to face rejr - right time bring in legal counsel to document

① sign off on future claims, etc.

- deadline in March⁹ - why not doing to deal 6-9 months ago!

A view - lots of leverage.

New money - most in wages to follow here - ring
 fence it - don't give to details -
 creative ways to flow &

N taking more proactive approach.
 good news - \$ in wages.

- defer payment - to end when job is complete.
 or % of revenue.

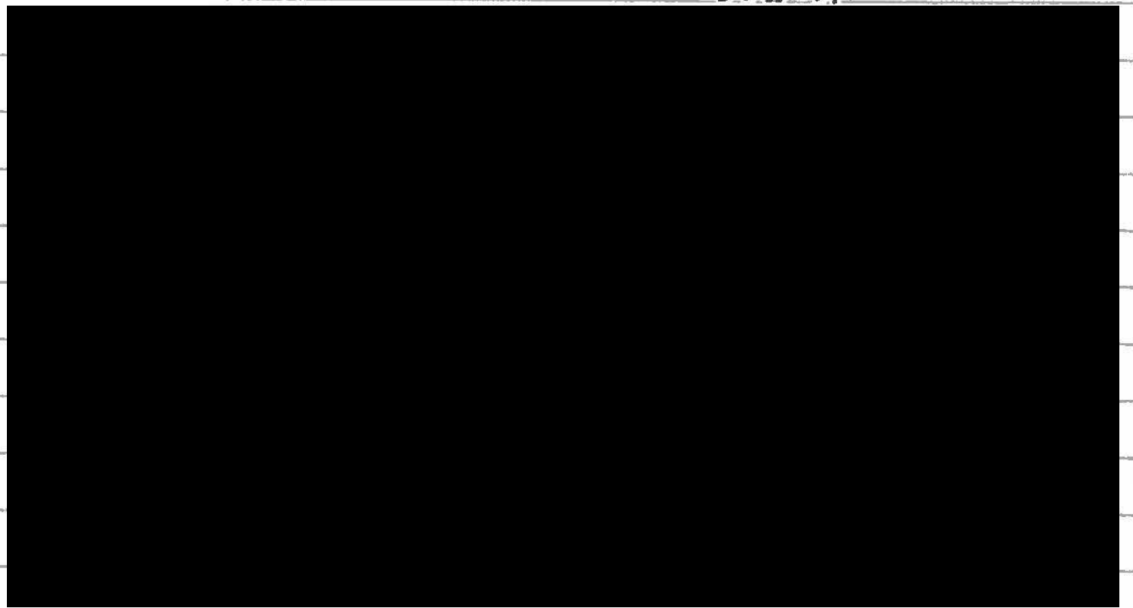
- if they don't have liquidity problem



KPMG has to conclude if going forward or not

How has ① gathered info on A for issues?

EY - ① piece at full permission of A - specific artists +
 however on M. Falls
 contract



fire truck at door of car

Surprised:
how advanced discussions were

EY: ^{ind.} ① but they check of A what N in room ✓
↓ - can't believe ② did fin (cover review of ops)

Someone I trusted to take temp check - what any try do -
how real is that
- look into eye of Mr. Astaldi

KP: any reason to believe close to insolvency?

1st step is KPMG audit report - if they
say going concerns problem - will flag
their contract

EY - why would anyone make deal until after March 9?
- public domain - validated by KPMG -
why does that

Paul it - at least if saw invest. report -

KP - if prudent to wait until March 9 - why
would N be pressing to solve prior

EY - signal - leverage by N

Lance - can take to auditors as folder - left N1
mitigate audit report

- if able to give cont to KPMG - in their opinion at # 1.
for assistance.

- KPMG may say

- bid by (N) recent history of (A) on contracts -
successful in getting more \$ from owners
when projects gone awry.

~~EY - this N contract - would have~~

Prem - why would anyone give N right to negot.
away a problem with contract parties
w/s worked -

EY - 6 structure lacking
PMT not

KP - asking Prem to make

EY - not hearing

Case - (A) saying "why are N
so interested in A corp
for pmc"
- (A) why not discuss
contract.

TM - N drove to use leverage of A
in the trouble vs A that
contract N screwed up

A credit lost every - got paid by hour

(A) not in financial distress because of the go-forward -
 have been paid. - if A has to incur
 costs on own in '16 -

Conf. N Mgt - look at cost escalation and
 hedge for money on sec. times

- payment based on hrs worked. - Indecorous

- hard judgment call problem.

- M. Keenan - &

lots of real competent people in N - mid mgt down
 completely committed.

- poor judgment - no checks & balances -
 no audit cttee / CFO challenging
 decisions

- scrutiny on SNC Canada dec. -
 fund delivery issues - no
board paper.

Steady - Lence / Paul / Ed + Gilbert
 - no challenge function

day to day mgt - buying in a new
 Proj. mgr - new set of roles

- Argued 0/5 right
- Complete diff style of reporting - need focus on challenges & risks

EY has been managed in every way

CP - A mixed problem

Why wouldn't would you give some people a mandate

- need help negotiating / tendering

- removing CEO has implications
- problems are at top.

- Look & in eyes re: temp deck. ✓

- Rob Kay - A - we have a damn re: (Labour see you in court - if don't like that - we will slow down.

them

- best we can + be complicated with contract

Prin - No & here's why - your fault + home / poor management / poor fin caps.

When does that leave us?

Judgment is — min out to pay it to work
flat out in next 2 months

CFO asked Ed — 100 m
but want an overall deal — his window to
secure all funds needed

Is no negotiating strategy. N can't negotiate.

KA — not critical to do by

EY — once reconciled — make some positive
representation to A, in discussions
expected a # by Thursday.

EY — no need for EY to be out of room
through JAN / FEB

EY — problem with contract — Team cost ↑
N solid on justification of contract

- if no buying platform — negot. in
measured way, with lawyers,
if any & needed.

When re-brand - P.S.A. ?

- if Ed stays !

if Ed goes - Some would leave.

- New CEO would bring in their new team in anyway
- Essential corp. memory - is there at level 3.

Imp. to resolve - but no buying platform on



How many A employees working on contract
~10.

If contract got moved, most workers would stay.

(TM) Ask (N) for report tomorrow on
fin risk?

⇒

— Lower wgot strategy —

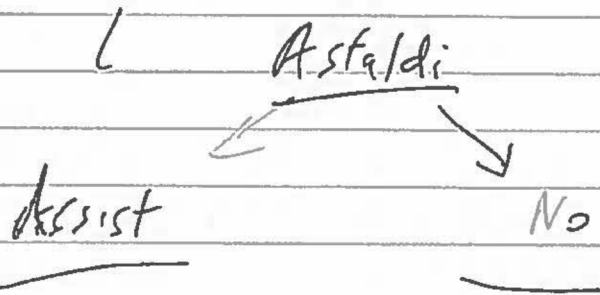
— Fundamentals — Approach

— To gain us confidence we for our interests protected?

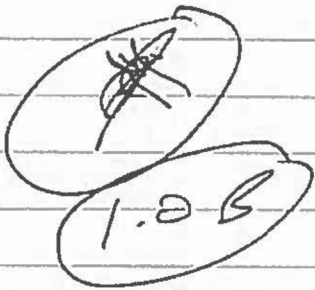
— "injured runner trying to finish a marathon"

→ real window for Negs
— to avoid them from preparing claims & slowing down

Handled down by end of April — could slip to end of May.



2 New Contracts



1

3 Stop

4 Reconfigure.



inputs
~~inputs~~
 Screened - get
trans line

②
 [- (input) time or other to structure]

FEB 25/16ED MARTIN:

IPMT - 450 people SMC 100

50-60 Nascar hired - constn experts
other constn experts;
global experienceSlick - contractors form 90%
of projectNSPur - on budget / schedule in 7.65 B
concerns did not materialize
in very good shape

Astaldi - Trans + Spillway complete ISSUE IS POWERHOUSE

Valard - mid-2016 done in Labrador (cont. in fall)
focus on island - constn has commenced
transfer power late 2017Andritz - large cons, well in hand
being shipped to site

Aston - as expected

Nexans - all 3 manufactured - shipped, installed this
summer
- risk is instl risk but used to that

Johnson - ✓

(2.)

- A stable site an outlier - not poss. to foreshadow for contingency.
- A may not remain solvent - thereby unable to complete work.
- A now operating very well - turned it around.
- A is not insolvent - can't terminate for cost.
- Current projections \$650 m gap.
 - if A stays, cost A + 650 m over 1.1 B initial contract value.

- Negot with A best option

- Assistance to A - less coming out of their pockets - will be reducing their loss on project, which will still be significant - A will be for labor in NL

A
Q. Why not go claim route?

- on Pth piece, 30-35% complete - A will not wait.

Q. Have I asked for amount?

- A slow - N jumped on top of it
- got on top of them. - "labour prod. not revealed in 3rd world country" - A
- We said no talk until turned part. around - they did
- On we talk (A)? - Now, told us of total loss A 550 m - would have rest of loss

3

We said - maybe 200m - broke off 4-6 weeks ago

(A) called - would like to talk again

(A) pointed for strong summer season - not squeezing us on rate.

~~At risk of bankruptcy~~

EJ - possible insolvency - not just this project?

Edm - several projects around world

Issues on Turkey (2 projects) & Venezuela
(Small)

It is publicly traded

Worth 400m Euros

This MF contract - issue is ~~totally~~ same as
what A worth.

CA - ripe for takeover.

If insolvency gets close - creditors call
takeover risk

Prem - if took full project loss, what would ~~pay~~ co.
be worth

Ed - don't do to nothing

650m problem is over next 3 yrs

- our N rec: get through year off a time

150m this yr if get past summer

See site end of yr & look at 2017

(4)

trying to sell # of concession (P3) projects - to improve cash flow

Pres - once they book loss, sludgers.

Jim Neaney - if had to book a loss & disclose, would speak investors

- A family owns 55% of shares - willing to unload
- may see some further decline of stock
- ripe for takeover

- may trip one of bank loans/terms
- 500m Euro operating line - banks may say "no credit" - Corp, no

7-8% operating margins, so they use LOC

Bill B -

Jim M - may not have to book loss or disclose based on Q2 analyst call - will be tough gas in yr end call in March
may speak investors & run on stock.

Edm - have to report by March 9-12 Fin Statements being prepared.

(5)

A bid \$500m on labour - it's a labour problem.

DK - locked in on rates - yes, locked in yr ago.

PT - link to ICS? - (A) subcontracted dome

Dome - we didn't put in as line item.
 30-40m material
 labour ~~that's on top of~~
 80-120m for dome.

Bill - if they had to do dome well, not as big a problem

Ed - True line is N knew labour prod. was a problem
& hid it from them (prod cost 9)
 - will point to Hebron / vale

Prem - not a good A arg - all other contractors
 have green.

Ed - we can defend

lost on the dome.

Slide 5

But rating for civil co - very good
 outlook downgraded from stable to negative

Signif. financial guarantees Liquidated damages (LD)

If they walk : 350m

Insolvent - 50% of contract value

⑥

Insolvent - after use of cash / or credit -

~~It is not~~ . 350 m chase rest through
cost process (up to 50%
of contract value)

Dr. Baygore - likelihood of the over now - problem later
(which is typical) - max cash?

- likely higher, potentially

- Keep current contract strength in place

- commit to no claims - they would fight

- any assist. only paid for physical work
done - 100 to 400,000 meters of
concrete

- It will find way to place claim

- risk minuscule compared to that it

Bonus:

- has been getting great advice to
fight claims

E5 - with H - still slow it down to manage cash
no guarantee

E4 m - poss exists - will know extremely quickly
will know if slowing down & change direction
- best, of not walking, they are project
completers - this is unusual.

(7)

SL - part of sign - A takes resp for funded plan

Deal 4. - try then to spend + completion / concrete poured.

OB - A suing ^{sub-} contractor for dome - likelihood of success?

Lance - aware, but not all details

- A have good case - even if win, tens of millions of \$ - not big picture.

GA - only suing for direct costs?

Gilbert - if A had sued for large amt - sub would implode - so A has asked for amt they can get

Slide 6:



Slide 7/E

Categories:

- Out of FN pocket / @ to Astaldi
- 3rd party costs
(can't install turbines, knock on) (not large portion but included)
- Fin guarantees (LOC, PB guarantee, LO's)

✓ Working along separate set of calculations

(8)

STAY

No financial assistance

- ① Nuclear cost \$650 - 950 m range
- ② Negotiate assume 250 - 300 m to A
Cost: still over 12-14 months
\$430 - 575 m
- ③ N take Full cost to complete \$800 - 925 m
(not an option)

Replace

- ⑤ 650 - 950 m (same as #1)
- best cost do to
- ④ highest cost option
lot higher ~~cost~~ (off table)
- ⑥ \$575 - 950 / 1.0 B.

Down to options ① or ②

Slide 9 :

- Negot - lowest cost, shorter schedule
- lowest certainty / lowest risk
- best option
- get them through it & out

Slide 10 :

- Principles to guide negot with A :

"very strong contract" - 5 times

(9)

- 2 parties at table - can't guarantee pts on Slide 9

• Slide 11:

Not going to A - will stay in province

Ed: ^A expected to make 100m in profit

lost approx 650m

our assistance - still in loss situ.

Slide 12 - Ferry is critical

no decn - /delaying decn - massive costs

better off with bad decn rather than no decn

- no control.

- A will have large loss even with addit funding.

Not sure if this will do it - at start, not end of nego -
not sure how it will end (negot) - if successful,
had to this table & bridge

- could be had at any point in nego

① Auth up to 300m for nego for A - could be less/
more.

ES - could be higher yes

Ed - 300m may not do it - need to find out

Pre 1 - 2 weeks time, could be deal on 250-280m

(10)

Pre-final decn gets made here

Ed - also goes to our Boards - sub with independent directors & Engineer.

Ed: If 300 m

clear to 18 months more on project
New Date

Ed - Dec 31 2017

+ 18 months

mid 2019 (not

2018)

Hollywood cast - Ed: "Net Zero"

Ed - procedure get these lines in place - end of 2017 - recall power to replace Hollywood then.

~~replace the power by unit to~~

- Recall power 150 MW sub. - bring in 100-150 MW

- reduce production Hollywood in winter.

by that amount

~~in winter~~

Min CB on 19 8 -

L

Gerry B - other contractors?

Ed: Valard - is there going to be a major claim?

- leaving it constant on street

- have to replace foundations per N

- may not be a claim even though contract is clear.

(11)

Quanta:
 • Part said "no claim" but it's possible.

Gilbert - not surprised if we get claims - our focus is preparing for claims + the facts

Glynn - Valued good - no other surprises?

Ed - don't see it now - but can't guarantee it.
 decrease risk as we go - more complete.

- eg. Cable installation - not without risk (big storm, drop cable).

Min CA - Slide 4
 green within 10% - Yes.
 of cost

Contingency? - Houghton - across project -
 weather contingency draw -
 has been some - How much?

Pre Ball: Lowest cost option at Day 1

- not seen analysis on - the Province is same as A - we have problems

① ~~it's not~~ if slower -
 focus on transmission ✓
 slow rect ✓

- needs more analysis

but it - get to table + importance - if A gets to B +
 "best option" - 300m revenue much higher.

(12)

EY is engaged again - looking at all this as well for o/s CFAA, another inde analysis

the isolated transmission soln

Ed - yes.

Ed: if you delay start of project

- can't see just replacing Holyoak - fully apart - if delay any longer need more than recall

#2 . in fin. arrangement with Feds - we have date certain - if we choose to delay - on default of ME financing - cross default on trans line - Proj. would continue by feds - have all revenue

Outside Feb 2020

now Feb 2019 can extend by twice

to 6 months - so must

be complete

- paying \$/Note on this -

by

Feb 2020

CA - put # numbers on Westexp p5 11 - economic impacts

Ed: plus we have committed 5.6Billion - SC-

Prm - \$300 m -

(12)

Ed - give contract out - + cash for milestones
 for cash flow - keep enough cash to see certain milestones

Oliver - if guarantee 300m coming years out - can
 it raise/borrow \$?

Prem - A still a co financially unstable
 - if no more stability based on note
 from a G - cause for concern.

Ed: if we get Agreement, then creditors will be part of
 it - creditors will have to agree to a new approach
 from Nator

Prem - who in negs - ?
 Given now plus
 of side legal advice

CB - as a shareholder - residents - shareholder
 got no \$ - if this is sold -

- one option - sell a piece of it -
 guaranteed ROA - would re: put
 back into rates

- sell to an Equity partner

Ed: That's a fine methodology
 - will provide some of first data
 - is regulated guaranteed ROA 8.4%
 - don't give water away "oil that never goes
 away"

(16)

A would say - ^{Astaldi} get Equity stake - likely ask for ever

SC - do we give mandate to negot. in parallel to analysis

Prem: later today in answer on negs

Any more Qs:

EJ: total cost to project now 7.65B
 plus F75 (from slides) - capital portion
 - plus pay back loan before
constn complete
 - ret amt not that important
 - plus contingency

Prem: new # 7.65B
 + 470 - 930 Astaldi
 + Contingency

EJ: how other projects in same level?

Money: 3 in Turkey, 3 in Venezuela:
 Location - financial ones in Venezuela
 risky
 some execution
 challenges - cost

Astaldi feedback: on Turkey bridge - negotiated
 terms arrangement - change orders,
 extended terms of concession, got back to
 reasonable profit level.

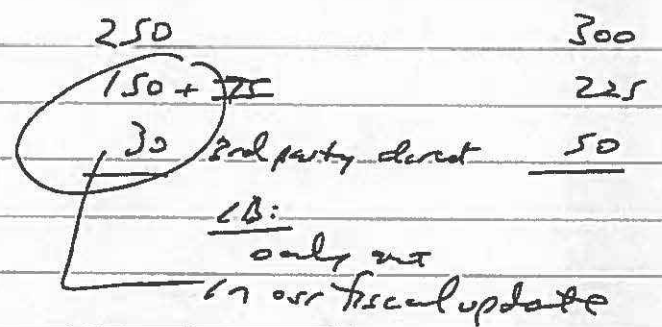
(15)

EJ - if got past summer - ok - when run out of cash?
Ed - July or so.

Mitch: spend treatment to A - other bidders
Ed - Absolutely not - decision tender docs

Sherry - x SC: 300 to Astaldi
plus fraction for delay

430 - 575m



Prem - cash rests for N for next 3
yrs - need that

As H - if all stars lined up - best case for
trans complete ed. of Dec 2017

Perry - when will bid the streets? & how?
- after regns, go public with signed.

SC - few weeks of regn
in parallel - analysis OLS + Ed
interim report - 1st week of March
make public statement by Prem
burden

1st flooding? This yr - still planned Grubert:
taking look at it

Staggie - negot. firepower to deal with a co with bond
to wall?
Absolutely yes.

SC-

Crocker - should people have conf. in project? Do you?
- general public don't have much conf. in
project
68% (was 62%)
- 2 weeks ago did polling - support project
26% oppose, 12% undecided
- CRA rolling

Delek - if prioritized trans & delayed generation
Significant penalties - but more detail.
renegotiate Cb.

Ed: if delay 150m per yr - gets bigger
funds on to other contractors -
substantially more
pay bond payments but no
revenue
Hollywood on life support -
need other generation

Ed - probably only get - could recall - but
how much

Some in winter - all we
can access to.

100 mw from Eners + 50 mw from Libradar
(would have to buy
my extra)

- Stoody: also if DC line goes down - not enough
from Eners -

EO: have done study - reliability is order of magnitude
greater (to trans what it is now) - post
transmission complete
- cons more reliable than Holywood.

Gilbert - Ⓣ over 500 yrs, expect Level

Duke - if not going by 2020

~~Ed~~ Ed: Imm - if project not fully
commissioned by Feb 2020 -
on default of LG - head
keys are to feds for
whole Steburg

Financing: 1st payment Dec 2018
150m

Jun 2019 next one
150m

if not commissioned
by dates - Prox responsible

Dale K - who negotiated Lb: ?

Ed - typical Lb provision, typical 6-banks

- Lb saved 6.2 B in interest over life of project

- now 3.8% interest rate 30-40 yrs on 5.0 B

Cathy A - Fed's ability to negot. signif. higher than ours

Prem - Ed Feb 25 call.

- Prem:- not prepared to provide any \$
- need negot. strategy - parameters, tactics, outcomes, how to get there - in writing
 - Ed - don't fit the plan well
 - expressed concern with paying for hrs worked
 - Ed has not set up Ties (A)
 - March & not crucial
 - things have changed - you may see this as exit strategy

Speaking Notes from Feb 25th Meeting with EY

- **Following yesterday's Cabinet Meeting, we had a 3+ hour meeting with EY to get their thoughts on the Astaldi issue, and on the Muskrat Falls project more generally. The Premier, Min Coady, KP, TM and JM attended.**
- **The lead EY rep was David Leather, who in a past life was CFO for the London Olympics which had a budget of 9 billion Euros. That project came in on time and on budget.**
- **EY's key conclusion from their work to date is the current cost estimate of \$7.65 Billion is not reasonable, particularly as it relates to the Astaldi situation.**
- **EY's estimate is the problem with Astaldi is in the range of \$600-\$800 million. Nalcor has been referring to a \$650 million issue.**
- **One of EY's key findings is when the MF project was initially set up, there was no Management Reserve put in place. This Reserve is normal for major capital projects and is a finite pot of funds available for unforeseen technical and management risks that arise above the project level.**
- **The Risk Register document for the MF project refers to the plan to establish such a reserve – but there is no record of how the decision was taken not to establish a reserve.**
- **Not only was there no Management Reserve included in the budget, Nalcor's view is the amount of money available for the MF project is unlimited given that Nalcor believes Government will provide whatever funding is required. That has been the practice and experience until now.**
- **EY's view is there should have been a 5-25% set aside for a Management Reserve, based on the initial \$6.2 Billion budget.**
- **Another major concern EY has identified is the project doesn't have a risk-adjusted cost and schedule forecast, and no documented assessment of**

cost and schedule performance. This is a basic requirement of Board reporting and normal practice for major capital projects.

- From EY's analysis to date, there has been no challenge function to the MF leadership team – not from a CFO, not from the Nalcor Finance group, even though there is a fiduciary responsibility to do so.
- EY told us there is no sense of responsibility at Nalcor for MF cost escalation. The focus is on completing the project regardless of the cost, with government being there to provide unlimited funds. Nalcor's view is the cost increases are "unfortunate" but the long-term benefits surpass the cost increases.
- EY described a culture of "we know best" on the MF project at the senior levels (CEO and direct reports). EY added that the mid-management level and down in Nalcor are extremely competent and committed to the project.
- EY also looked at the issue of the change in strategy not to have SNC Lavalin as the EPCM contractor. This change in strategy to not have a world-class EPCM contractor manage but rather turn project delivery over to an Integrated Project Management Team, was not fully thought out, in EY's opinion.
- EY asked Nalcor for the documentation on why this major strategic decision was taken. No documentation was made available, nor was there any evidence of a report to the Board on such a significant strategy change. This would have been expected to be normal practice.
- Before getting into the Astaldi details we asked for EY's view on other project risks beyond Astaldi. The key risk is delivery risk regarding the transmission lines. EY noted there is a definite schedule risk. Valard and Nalcor are talking and Nalcor is confident they can fight a Valard claim. EY doesn't have an opinion as they don't have anything to assess and there is no claim at present.

- Astaldi aside, the remaining components of the project are generally within what you would expect though the remaining contingency is low. EY doesn't know how much contingency is left though with a starting 5% contingency and the \$600-\$800 million problem with Astaldi, a less than prudent amount of contingency remains.
- Specific to the Astaldi issue: EY is real surprised that discussions with Astaldi to resolve the \$600-\$800 million issue are still at a high level, even though the problem has been evident for 18 months.
- EY seriously questioned the Nalcor approach of hiring a consultant to convince itself that Astaldi was in financial trouble. They described this as a type of covert, private eye approach. So far, Nalcor has provided a report on Nalcor letterhead but refused to identify for EY who did this work on their behalf (to allow EY to follow-up and validate the findings).
- Nalcor told EY that Astaldi keeps saying to Nalcor "why are you so worried about our financial situation; we want to focus on our MF contract problem".
- EY indicated that the agreement with Astaldi stipulates that Nalcor pays Astaldi for every hour worked, and payments are not tied to achieving concrete poured milestones. Nalcor officials described this specific contract provision as "one regret they have". So, Astaldi has been paid for every hour worked, even for building the failed dome and taking it down.
- Given that EY was kept away from the Astaldi file until very recently, they have only started to think about our options going forward. When EY asked Nalcor to walk them through the options Nalcor considered, EY got the "we know best" response, essentially dismissing anything beyond more cash to Astaldi now.
- In terms of timing, Astaldi's 2015 financial statements will be released on March 8 or 9. EY doesn't know what Astaldi is telling KPMG, their auditors. Astaldi will obviously try to prevent booking any loss on MF in their statements.

- Even if the loss on the MF contract is made public on March 8-9, EY's view is there still is ample time to get an agreement with Astaldi – the right agreement, not a rushed agreement.
- When we asked why Nalcor would be pressing for permission from the government to get a mandate to settle with Astaldi prior to March 8-9, EY indicated these dates were likely being used as a pressure tactic by Nalcor on government (rather than by Astaldi on Nalcor).
- EY noted that what's missing from Nalcor for government to make a decision on whether to provide Nalcor with a negotiating mandate is a Negotiating Strategy. That strategy, which Nalcor should have prepared, would outline objectives of an agreement, parameters around amount of funding, how and when funding could be made available, who would be involved in the negotiations, the terms and conditions we would attach to any agreement, starting and acceptable closing positions, where the other side would likely be coming from, etc.
- EY recommended that the Premier call Ed Martin asking that he provide government with Nalcor's Negotiating Strategy.
- EY recommended that Government's negotiating objective should be to cover as little as possible of the Astaldi cost increase, while ensuring Astaldi maintains its good productivity for the next nine months. After March 8-9, we will have a better sense of how big a financial problem Astaldi has, and we can then enter into negotiations in a measured way. They noted the negotiation with Astaldi should be framed as a commercial negotiation, and we need strong commercial lawyers on our side. EY has little faith in Nalcor's ability alone to negotiate the type of agreement that is required (because money isn't an issue for Nalcor).
- In EY's view, the real window to finalize an agreement with Astaldi is by late April, or into May, before the peak summer season.

Premier's Follow-up Call with Ed Martin – Premier to provide debrief

Potential Nalcor Board Members

- Rick Hiller (strong leadership focus)
- Jo Mark Zurel (former CFO of Canadian Helicopters under Craig Dobbin; on a number of Boards)
- Ken Bennett (President of Johnson Insurance; on a fundraising Board at present with Paul Antle)
- Brendan Paddick (founder and CEO of Columbus International Inc. based in Barbados; on same fundraising Board with Bennett and Antle; on Clearwater Board)
- Paul Antle
- Jane Rowe (head of private equity and long-term equities groups with the Ontario Teachers' Pension Plan, she oversees an \$18-billion portfolio)
- Lorraine Mitchelmore (former CEO, Shell Energy Canada)
- Brian Maynard (President, Marathon Oil Canada)
- Earl Ludlow
- Wayne Myles (or another real good lawyer)
- David Norris (former FPI VP and DM of Finance; currently on Fortis Board – he may be Chair)
- Iris Petten
- David Oake (though he may be a better candidate as new Clerk)

- vic young
- Robert Patten
- Rob Crosbie
- Hrazier Edison
- Kevin King
- Sid Hynes
- Bill Boyde
- Richard Rogers

Paul mills



Cabinet Room

This is Day 4 of
 Week 11 of new
 administration. First
 time we have
 heard these dates.

~~You mean mid-~~
~~2019?~~

These dates,

Fed Loan
 Guarantees!!

• Will EY report make Board look bad/in beginning

Murphy, Tim

From: Paul Hickey <paul.d.hickey@ca.ey.com>
Sent: Friday, February 26, 2016 1:32 PM
To: Murphy, Tim
Subject: RE: Chat

of project) - may reflect on Cathy + K. Hawkins. ✓

Observations from the meeting last night

Having reflected on it, we wanted to be clear on our advice:

- Changes need to Governance and leadership at Nalcor – new Project Leader / Project Sponsor and EY can suggest names. Consider other changes at project leadership level
- Immediate establishment of an independent governance and oversight board *+ Audit c.tee -*
- Ask for Nalcor's negotiation strategy with Astaldi in writing – don't give Nalcor a number yet ✓
- Wait for Astaldi financial results before decision, BUT
- EY doing urgent high level stress test of Astaldi corporate financial position - if its financial stability appears to be an urgent issue, reconsider giving Nalcor initial immediate parameters for negotiation



Paul D Hickey KC*SG CPA, CA, CIRP, LIT
Senior Vice President | Transaction Advisory Services

Ernst & Young Orenda Corporate Finance Inc.
Fortis Place, 5 Springdale Street, Suite 800, St. John's , NL A1E 0E4 Canada
Direct: (709) 570-5404 | Mobile: (709) 685-4998 | paul.d.hickey@ca.ey.com
Fax: (709) 726 0345 | Home: (709) 753-9925 | EY/Comm: 8647286
Melanie Brooks | Phone: (709) 570-8235 | melanie.brooks@ca.ey.com

From: Murphy, Tim [mailto:TimMurphy@gov.nl.ca]
Sent: Friday, February 26, 2016 1:02 PM
To: Paul Hickey
Subject: RE: Chat

Sure.

729-6487

→ WE CAN LEARN
FROM TUESDAY → ✓

From: Paul Hickey [mailto:paul.d.hickey@ca.ey.com]
Sent: Friday, February 26, 2016 12:57 PM
To: Murphy, Tim <TimMurphy@gov.nl.ca>
Subject: RE: Chat

Sure, thank you. Will I call your office #?

Murphy, Tim

From: Mullaley, Julia
Sent: Friday, February 26, 2016 1:11 PM
To: Parsons, Kelvin; Murphy, Tim
Subject: Fw: Ambassador of Italy -- meeting with Minister Coady and Mr. Martin

Importance: High

Fyi

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Brown, David W. <DavidBrown@gov.nl.ca>
Sent: Friday, February 26, 2016 12:28 PM
To: Mullaley, Julia
Subject: FW: Ambassador of Italy -- meeting with Minister Coady and Mr. Martin

Julia, further to my last, please see below.

From: Patricia Bucciero [mailto:patricia.bucciero@esteri.it]
Sent: Friday, February 26, 2016 12:27 PM
To: Brown, David W.
Cc: 'Cornado Gian Lorenzo'; 'Corsaro Francesco'
Subject: RE: Ambassador of Italy -- meeting with Minister Coady and Mr. Martin

Good morning again David,

As I said in our phone conversation of a few minutes ago, Ambassador Cornado is acting on firm instructions from the Foreign Ministry in Rome, and he will be coming to St. John's next week.

The matter of the Muskrat Falls project is of the highest priority to the Italian Government and the Ambassador sincerely hopes that a time will be found for him and representatives from Astaldi to meet with Minister Coady and Mr. Martin of Natcor.

The Ambassador will arrive in St. John's on Tuesday, March 1 and will depart March 4th in the morning. He will be accompanied by the Head of the Embassy's commercial office, Mr. Francesco Corsaro. Representatives from Astaldi are arriving in St. John's independently.

I look forward to hearing from you and remain at your disposal. Many thanks,

Patricia

Patricia Bucciero
Office of the Ambassador

**Communications and Cultural Affairs
Embassy of Italy**

275 Slater Street, 21st flr.
Ottawa, ON
K1P 5H9
tel.: 613-232-2401, ext.227
fax: 613-233-1484



@AmbItaliaOttawa



www.facebook.com/ambottawa

From: Brown, David W. [<mailto:DavidBrown@gov.nl.ca>]
Sent: February-25-16 1:52 PM
To: Patricia Bucciero
Subject: Re: Ambassador of Italy -- meeting with Minister Coady and Mr. Martin

Patricia, no news yet, but I will contact the Ministers Office again first thing tomorrow morning.

David

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Patricia Bucciero
Sent: Thursday, February 25, 2016 3:20 PM
To: Brown, David W. .
Subject: RE: Ambassador of Italy -- meeting with Minister Coady and Mr. Martin

Hi David,

Ambassador Cornado is currently in British Columbia (back tomorrow,) but I am sure he will want to know if there news about a meeting with Minister Coady and Mr. Martin next week.

Thanks so much, we are very grateful for your efforts on the Ambassador's behalf.

Patricia

From: Brown, David W. [<mailto:DavidBrown@gov.nl.ca>]
Sent: February-24-16 3:40 PM
To: Patricia Bucciero
Subject: Re: Ambassador of Italy -- meetings with NL Premier and Minister

I just received the time. 1600. - 1640 on March 21, 2016.

David

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Patricia Bucciero
Sent: Wednesday, February 24, 2016 5:07 PM
To: Brown, David W.
Subject: RE: Ambassador of Italy -- meetings with NL Premier and Minister

Excellent news David – thanks so much! We'll wait for details on the time.

As for the joint meeting with Minister Coady and Mr. Martin, as you know it is a very important and pressing matter. Ambassador Cornado would be extremely grateful if 30 to 60 minutes (max.) could be found in Ms. Coady's schedule next week, at any time of day.

Many, many thanks.
Patricia

From: Brown, David W. [<mailto:DavidBrown@gov.nl.ca>]
Sent: February-24-16 2:47 PM
To: 'Patricia Bucciero'
Subject: RE: Ambassador of Italy -- meetings with NL Premier and Minister

Patricia,

The Premiers Office have confirmed a meeting between the Ambassador and the Premier for March 21st. I will advise you of the time as soon as I hear from his scheduling assistant. I have also contacted Minister Coadys Office, but have not received a response yet. I am told that Minister Coady's schedule is quite full at this time as our government is preparing the provincial budget.

I will advise as soon as I hear from the Ministers Office.

Regards,

David

From: Patricia Bucciero [<mailto:patricia.bucciero@esteri.it>]
Sent: Tuesday, February 23, 2016 7:22 PM
To: Brown, David W.
Subject: RE: Ambassador of Italy -- meetings with NL Premier and Minister

Thank you thank you! I'm hoping for good news tomorrow morning. Have a good evening,
Patricia

From: Brown, David W. [<mailto:DavidBrown@gov.nl.ca>]
Sent: February-23-16 5:45 PM
To: Patricia Bucciero
Subject: Re: Ambassador of Italy -- meetings with NL Premier and Minister

Patricia, I will contact the Ministers Office in the morning and express the Ambassadors desire to meet asap. I will also contact Mr Martins office with the same message and will advise you in the morning.

David

Sent from my iPad

On Feb 23, 2016, at 7:13 PM, Patricia Bucciero <patricia.bucciero@esteri.it> wrote:

David, thank you so much. The Ambassador will be there on the 21st of March; however, the meeting with Minister Coady and Mr. Martin is very important and the Ambassador would appreciate that meeting being scheduled at the very earliest opportunity. As I mentioned, he is very willing to come to NL twice.

Gratefully yours,
Patricia

From: Brown, David W. [<mailto:DavidBrown@gov.nl.ca>]
Sent: February-23-16 5:16 PM
To: Patricia Bucciero
Subject: Re: Ambassador of Italy -- meetings with NL Premier and Minister

Patricia, I have been advised by the Premiers Office that the Premiers schedule is very full right now. However, we can arrange a meeting during the week of March 21, 2016. If that is suitable to the Ambassador, I will be happy to arrange the other requested meetings for the same time period.

David

Sent from my iPad

On Feb 23, 2016, at 5:46 PM, Patricia Bucciero <patricia.bucciero@esteri.it> wrote:

Hello again Mr. Brown,

I just want to add that Ambassador Cornado is quite willing to come to NL on two separate occasions, to meet with Premier Ball and Minister Coady (and Mr. Martin) on different days, in the event that makes scheduling easier for their Offices.

Thanks again,
Patricia

From: Brown, David W. [<mailto:DavidBrown@gov.nl.ca>]
Sent: February-22-16 12:01 PM
To: Patricia Bucciero
Subject: Re: Ambassador of Italy -- meeting with Premier Ball

Good day Ms. Bucciero,

I have contacted the Premiers Office again today, and am still awaiting a response.

Please rest assured that as soon as I hear from them, that I will get back to you immediately.

Regards,

David

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Patricia Bucciero
Sent: Monday, February 22, 2016 12:14 PM
To: Brown, David W.
Subject: RE: Ambassador of Italy -- meeting with Premier Ball

Good morning Mr. Brown,
... just wondering if there was any news regarding Ambassador Cornado's meetings in St. John's; he has asked that I reiterate his availability any time in the first week of March.

Many thanks,
Patricia Bucciero

Patricia Bucciero
Office of the Ambassador
Communications and Cultural Affairs
Embassy of Italy

275 Slater Street, 21st fl.
Ottawa, ON
K1P 5H9
tel.: 613-232-2401, ext.227
fax: 613-233-1484

<image001.jpg> @AmbItaliaOttawa
<image002.jpg> www.facebook.com/ambottawa

From: Brown, David W. [mailto:DavidBrown@gov.nl.ca]
Sent: February-18-16 1:19 PM
To: 'Patricia Bucciero'
Cc: 'Corsaro Francesco'
Subject: RE: Ambassador of Italy -- meeting with Premier Ball

Hello Ms. Bucciero,

Thank you. I will make that note for the Premiers Office. Your request to meet has been forwarded to the Premiers Office. They have informed me that they will be checking the Premiers schedule and should be able to get back to me sometime next week. In the meantime, I will have my staff check with Minister Coadys office and Mr. Martins office for possible meeting dates. You should hear from me shortly,

Kindest regards

David Brown
Director of Protocol and Corporate Affairs
Executive Council
Government of Newfoundland and Labrador
St. John's, NL, Canada
709-729-2911
BB 709-689-3792

From: Patricia Bucciero [mailto:patricia.bucciero@esteri.it]
Sent: Thursday, February 18, 2016 1:52 PM
To: Brown, David W.
Cc: 'Corsaro Francesco'
Subject: RE: Ambassador of Italy -- meeting with Premier Ball

Dear Mr. Brown,

Further to my recent email, I should specify that Ambassador Cornado will meet with Premier Ball accompanied by Mr. Corsaro only, while the meeting with Minister Coady and Mr. Martin will include three representatives of Astaldi as well.

Best regards,
Patricia Bucciero

From: Patricia Bucciero [mailto:patricia.bucciero@esteri.it]
Sent: February-18-16 10:05 AM
To: 'davidbrown@gov.nl.ca'
Cc: 'Corsaro Francesco'
Subject: Ambassador of Italy -- meeting with Premier Ball

Good morning again Mr. Brown,

As I mentioned yesterday afternoon to Ms. Fleming of Premier Ball's office, the Ambassador of Italy, Mr. Gian Lorenzo Cornado, would be

very grateful to be able to meet with Premier Ball at the earliest opportunity. The dates we are looking at are February 24 (after 1:00 p.m.) or anytime February 25th or 26th. If this is not possible, the Ambassador would be able to travel to Newfoundland the following week as well. The reason for the meeting request concerns Astaldi and the Muskrat Falls project.

During his visit, the Ambassador would also appreciate the opportunity to meet with the Hon. Siobhan Coady and Mr. Ed Martin, CEO of Nalcor Energy.

Ambassador Cornado will be accompanied by Mr. Francesco Corsaro, Head of the Embassy's Commercial Office and three representatives of Astaldi.

We are at your disposal, and look forward to your reply.

Best regards,
Patricia Bucciero

Patricia Bucciero
Office of the Ambassador
Communications and Cultural Affairs
Embassy of Italy

275 Slater Street, 21st flr.
Ottawa, ON
K1P 5H9
tel.: 613-232-2401, ext.227
fax: 613-233-1484

<image001.jpg> @AmbItaliaOttawa
<image002.jpg> www.facebook.com/ambottawa

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FEB 28

- Actual MF cost increase 46% from \$6.2 B to \$9.05 B
- 2010 capital cost, & presented to Pub in 2011 was \$5 B
- (N) est. of financing costs during constr. provided to Pub in 2012 was \$1.2 B for \$6.2 B total - these were O&G estimates
- O&G estimates on which project was sanctioned in December 2012 were \$6.2 B to \$6.99 B. Financing costs of 1.3 B brought total to \$8.3 B
- SEPT 2015 \$7.65 B (was to add fin. cost of \$1.4 B - total of \$9.05 B)
- Min. of 44% of power is committed to NS & increase to cost increase
- PUB - why can't be involved?

AUG 2015 - incurred costs \$3.26 B - in o/s letter report
 - committed " \$5.97 B on website.

Projected contingency budget at Sept 2015 has been revised to \$186.8 m

Actual Progress 34.8% " Was a 12% gap"
 Planned - 48.8% March 2015

FP/IM/Paul Hickey.
Feb 29

Spoke to Ed M (Presn)

- status of negot strategy - "not done" -
based on Harvard negot principles

- Ed putting it together - to ^{FP} EY
 - Presn like David Leather be part (in room)
post negot. strategy
- EY - review strategy;
if leads to negot,
Dn to be in room

in next day or so.

Presn told EM - March 1 - a "polit. mtg."
not a negot. mtg.
• EY not in room.



March 3, 2015

Mr. Ed Martin
President and CEO
Nalcor Energy
Hydro Place, 500 Columbus Drive
P.O. Box 12800
St. John's, NL A1B 0C9

Mark J. Surrette
Knightsbridge Robertson Surrette
10th Floor, Barrington Tower
1894 Barrington Street
Halifax, NS B3J 2A8
P: (902) 424-1100
E: msurrette@kbrs.ca

Dear Mr. Martin,

It has been a pleasure working with you and Mr. Sturge in the preparation of the materials required to enhance the capability of the Board of Nalcor.

This document will serve as the summary of activities to date. In it is the outline of how the process has gotten to this point, recommended next steps, recommendation on the number of directors and an overview of board compensation for Atlantic based companies and energy companies. The compensation report is not exhaustive, only representative. If you would like, we can make the report far more exhaustive but I thought this would give you a fair representation of the current state.

Process to Date

Following our discussion in late December, we proceeded to develop a set of competencies that were representative of an ideal board member. These sets of competencies were both of a hard nature (location, industry, functional experience) and of a soft nature (values, diversity, style).

After a number of iterations between Nalcor and ourselves, we were able to reach clear agreement on the profile of an ideal director and the profile of an ideal board. We next developed a set of matrices upon which to adjudicate existing (and new) board members which when taken together would give us a composite board profile. Along with this we established a process to identify gaps in board composition, which would then serve to inform any recruiting activities. This gap analysis allows Nalcor to specify the competencies necessary in any new board member to better and more fully round out the board.

The objective of this process and document is to give Nalcor a benchmark for the existing board and to outline a process and evaluation scheme necessary when recruiting new board members.

Next Steps

Now that we have the Board Competency Matrix completed the next steps include the following:

1. Self assessment of existing board members to populate the matrix;
2. Review of the self assessment by Governance Committee to ensure consistency;
3. Identification of gaps in existing board;
4. Development of profile for new board member based upon the completed Matrix and the corresponding gaps; and
5. Commence recruiting activities based upon the gap analysis profile.

We would estimate that to complete the next 5 steps would take approximately 3 months from start until you have a commitment from candidates to join the Nalcor Board.



One additional item that needs to be undertaken is the decision around board compensation. This is an item that needs to be addressed internally but must be completed prior to gaining agreement from candidates to join the Nalcor Board.

Ideal Number of Directors

Boards range in size and there is little rationale to it. The range is most typically from 6 to about 15. There are outliers, mostly at the upper end as we have seen boards reach the size of 16+ on occasion. However the mean seems to be in the range of 12. For Nalcor, we are recommending that at the outset the Board be constituted at 10 members. This will provide reasonable opportunity for diversity of experience yet keep the Board at a manageable size while keeping costs down. Once the Board has been functioning effectively for a few years, you can always increase the size to 12, which appears to be the optimum number for an organization the size and complexity of Nalcor.

Board Compensation

Board compensation varies greatly from organization to organization. Industry, region, type of organization, history, share structure, all tend to have an effect on directors compensation. The following matrix provides some insight into what a number of relevant organizations are currently paying. The matrix contains Atlantic based firms, utilities and energy companies, all of which we believe are comparable organizations to Nalcor. The matrix is not fully complete as we are waiting on additional data.

We would be happy to engage in a discussion as to what the appropriate level of compensation is for a Nalcor Director.

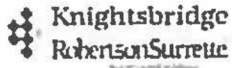


Knightsbridge Robertson Surrette

Board Compensation - Atlantic Canadian Based Organizations

Name of Company	# of Board Members	Board Retainer	Board Meeting Fee	Board Chair Retainer	Committee Chair Retainer	Committee Member Retainer	Committee Meeting Fee
	10	\$25,000	\$8,000				\$8,000
	10	\$57,000	\$1,750	\$130,000	\$15,000		\$1,250
	9	\$4,000	~\$300	~\$8,000			
	10	\$75,000	\$1,750	\$220,000	\$8,000-\$15,000	\$3,000-\$5,000	~\$833
	6	\$10,000	\$1,000				
	7	\$65,000	\$0	\$110,000	\$7,500-\$15,000	\$2,500-\$5,000	\$0
	5	\$25,000	\$1,000	\$5,000	\$5,000		\$1,000
	11	\$45,000	\$2,000	\$100,000	\$15,000		\$2,000
	9	\$75,000	\$4,688	\$175,000	\$10,000-\$15,000		\$1,667
	10	\$25,000	\$1,000	\$35,000	\$12,500		\$1,000
	6	\$15,000	\$1,000	\$25,000	\$10,000		\$1,000
	15	\$90,000	\$2,000	\$300,000	\$10,000-\$25,000	\$3,000-\$5,000	\$2,000
	9	\$24,000	\$1,500	\$29,000	\$5,000		\$1,500

Management Information Circular Compensation Survey



Knightsbridge Robertson Surrette

Board Compensation - Provincial and Federal Crown Corporations

Name of Company	# of Board Members	Board Retainer	Board Meeting Fee	Board Chair Retainer	Committee Chair Retainer	Committee Member Retainer	Committee Meeting Fee
	10	~\$10,000	~\$800	~\$20,000			
	6	~\$6,000	~\$500	~\$14,000	\$1,000-\$2000		
	12	~\$6,000	~\$400	~\$12,000	~\$5,000		
	9	\$15,000	~\$500	\$30,000	\$2,500-\$5,000	\$0	\$0
	12	\$25,000	\$750 or \$1,500	\$150,000	\$8,000	\$3,000-\$8,000	\$750-\$1,500
	14	\$25,000	\$900	\$150,000	\$3,000		\$900
	14	\$25,000	\$750	\$40,000	\$2,500-\$3,500		\$750
	12	\$50,000	\$1,500	\$75,000	\$10,000-\$25,000	\$5,000	\$1,500

Board Compensation - Energy Organizations

Name of Company	# of Board Members	Board Retainer	Board Meeting Fee	Board Chair Retainer	Committee Chair Retainer	Committee Member Retainer	Committee Meeting Fee
	13	\$50,000	\$1,500	\$250,000	\$10,000-\$25,000	\$5,000-\$6,000	\$1,500
	9	\$29,130	\$1,457	\$242,750	\$7,283		\$1,457
	15	\$120,000	\$24,000	\$130,000	\$10,000-\$20,000	\$5,000-\$15,000	\$4,000
	12	\$210,000	\$21,000	\$260,000	\$10,000-\$25,000		\$4,000
	13	\$50,000	\$1,700	\$200,000	\$15,000-\$25,000	\$6,000-\$10,000	\$1,700
	9	\$30,000	\$1,500	\$250,000	\$7,500		\$1,500



Summary

Attached to this document is the actual Nalcor Board Competency Matrix which has been developed for the existing board, as per the process listed above. I would be happy to explain the workings of the Matrix to the current Board or any other Stakeholders you deem appropriate.

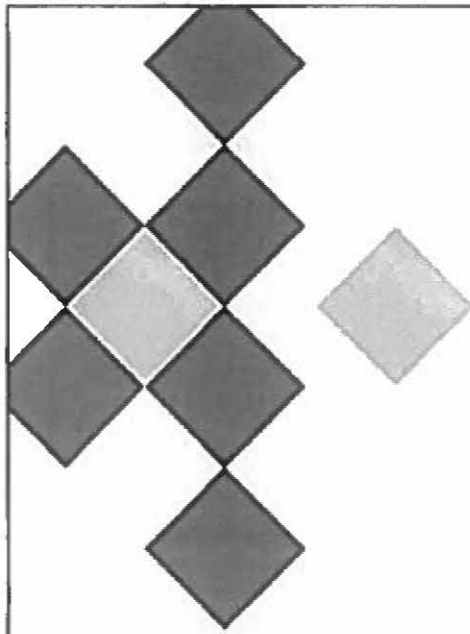
It has been a pleasure working with you and Mr. Sturge on this important project and I look forward to bringing it through to fruition.

Let me know how you would like me to proceed.

Warm regards,

A handwritten signature in black ink, appearing to read "M.J. Surrette".

Mark J. Surrette



Nalcor Board Competency Matrix

Submitted by:

Mark J. Surette
Knightsbridge Robertson Surette
10th Floor, 1894 Barrington Street
Halifax, NS B3J 2A8
P: (902) 424-1100 E: mjsurette@khrs.ca

Legal Name:
Robertson-Surette Group Limited

HST Registration #:
104580857RT0001

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Stronger people.
Stronger organizations.



Naicor Board

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1. Composite Nalcor Energy Board Specification

Overall Philosophy

To attract outstanding individuals to the Nalcor Energy Board who bring a true oversight and counseling orientation with the requisite competencies and experiences (set out below), including a cultural fit that seeks to contribute to a highly collaborative but independent-minded board.

Required Competencies

1. Strong Conceptual Skill and Intellectual Insight

- ◆ Ability to assimilate, understand and effectively monitor Nalcor's approach to business and the drivers of its success;
- ◆ Evident intellectual interest in, and commitment to, understanding Nalcor's business;
- ◆ High level of analytical capability; and
- ◆ Willingness and capability to delve into and understand complex business dealings and long term investments.

2. Nalcor Values Orientation

- ◆ Ability to communicate openly and foster an environment where information moves freely in a timely manner;
- ◆ Demonstrates a high level of accountability through holding oneself responsible for actions and performance;
- ◆ Evident commitment to safety by protecting oneself, colleagues and the community
- ◆ Committed to being sincere and demonstrates honesty and trust;
- ◆ Evident teamwork capabilities;
- ◆ Shows respect and dignity by appreciating the individuality of others;
- ◆ Ability to provide leadership and empower individuals.

3. Judgment and Risk Assessment Savvy

- ◆ Ability to effectively oversee Nalcor's overall investment strategy;
- ◆ Up-to-date knowledge of the Canadian and international business;
- ◆ Experience with multiple perspectives on risk and risk management;
- ◆ International capital markets exposure; and
- ◆ Ability to understand the unique investment characteristics of long term assets, infrastructure, and real estate.

4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments

- ◆ Experience and reputation for success in operating at the interface of the private sector and with public policy/public stewards; and
- ◆ Ability to contribute to the strategic thinking and proactive influence required to ensure Nalcor's independence and founding legislative mandate.

5. International Orientation

- ◆ Knowledge of international markets and business operations, especially where the Nalcor will be active in securing investment capital and partnerships.



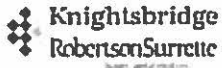
Nalcor Board

6. Board-Level Contributor and/or Senior Leadership Business Acumen

- ◆ Accomplished senior business or professional leadership experience;
- ◆ Experience in contributing effectively to strategy discussions and their implementation;
- ◆ Experience in a growing and increasingly complex organization, including success in building, consolidating and overseeing at a board/senior leadership level an organization's infrastructure (i.e., IT, HR, Finance, Enterprise Risk Management, etc.);
- ◆ Tolerance for ambiguity (i.e., comfort in making decisions with imperfect information in highly changeable external circumstances; taking calculated risk);
- ◆ Experience in making decisions that are long term in nature;
- ◆ Experience in the leadership, oversight, attraction and retention of talent; and
- ◆ Expertise and familiarity with financial information, public accountability, performance metrics, and reporting.

7. Diversity

- ◆ Visible minority / first nations;
- ◆ Exposure / experience dealing with first nations issues;
- ◆ Gender balance;
- ◆ Able to bring a diverse perspective to the board; and
- ◆ Demonstrates cultural competence.



Nalcor Board

2. Current Board Analysis – Nalcor Board Competency Matrix

	Ken Marshall	Gerry Shortall	Tony O'H	Erin Brosn	Leo Abbas	Ed Martle	Board Member 7	Board Member 8	Board Member 9	Board Member 10
Life and Diversity	Age									
	Years on Board									
	Cultural									
Location	Gender									
	Newfoundland and Labrador									
	Maritimes									
	Quebec									
	Ontario									
	Western Canada									
	Europe									
	New England									
	Texas / California / US Oil & Gas Regions									
	Other – USA									
Functional Experience	Other									
	Large Construction Projects									
	Large Operations									
	Accounting/Financial Reporting									
	Financing / Capital Markets									
	Commercial Law									
	Technology									
	Electricity Markets									
	Banking / Subsurface / Exploration									
	Human Resources									
Industry Experience	Government Relations / Public Affairs									
	International Markets									
	Other									
	Oil and Gas									
	Electricity									
	Energy Marketing / Transportation									
	Regulated Utility									
	Finance / Banking / Private Equity									
	Construction									
	Consulting / Law									
Other Large Public / Crown Board Experience / NED Designation	Government									
	Other									

Footnotes: 1 Closest year total, as at «DATE». 2015 – date of analysis
 2 Prioritized to reflect the two or three percented most prevalent functions of expertise in the board member's professional background
 3 Functional experience includes oversight of specific functions gained as either a board member or chief executive officer
 4 Primary and secondary industries



3. Current Board Composite Profile & Gap Assessment¹

Board Competency Matrix		
Competency	Current Assessment	Comment
Selection Criteria	1. Strong Conceptual Skill and Intellectual Insight	
	2. Nalcor Values Orientation	
	3. Judgment and Risk Savvy	
	4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	
	5. International Orientation	
	6. Board-Level Contributor and/or Senior Leadership Business Acumen	
	7. Diversity	

Legend

- Fully in Evidence
- Significant Experience
- Reasonable Experience
- Limited Experience
- No Experience

1. Closest year total, as at <<DATE>>, 2015 – date of analysis.

Average Age: _____ Gender Mix: _____ Average Tenure: _____

Locations: _____



Individual Board Member Profiles

First Name: Ken
 Last Name: Marshall

Legend

- Fully in Evidence
- Significant Experience
- Reasonable Experience
- Limited Experience
- No Experience

Individual Competency Matrix		
	Competency	Self Assessment
Selection Criteria	1. Strong Conceptual Skill and Intellectual Insight	
	2. Naicor Values Orientation	
	3. Judgment and Risk Savvy	
	4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	
	5. International Orientation	
	6. Board-Level Contributor and/or Senior Leadership Business Acumen	
	7. Diversity	

Age: _____ Gender: _____ Years on Board: _____

Location: _____

Functional Experience: _____

Industry Experience: _____



First Name: Gerald
 Last Name: Shortall

Legend

- Fully in Evidence
- Significant Experience
- Reasonable Experience
- Limited Experience
- No Experience

Individual Competency Matrix	
Competency	Self Assessment
1. Strong Conceptual Skill and Intellectual Insight	
2. Nalcor Values Orientation	
3. Judgment and Risk Savvy	
4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	
5. International Orientation	
6. Board-Level Contributor and/or Senior Leadership Business Acumen	
7. Diversity	

Age: _____ Gender: _____ Years on Board: _____

Location: _____

Functional Experience: _____

Industry Experience: _____



First Name: Tom
 Last Name: Clift

Legend	
<input type="radio"/>	Fully in Evidence
<input type="radio"/>	Significant Experience
<input type="radio"/>	Reasonable Experience
<input type="radio"/>	Limited Experience
<input type="radio"/>	No Experience

Individual Competency Matrix	
Competency	Self Assessment
1. Strong Conceptual Skill and Intellectual Insight	
2. Nalcor Values Orientation	
3. Judgment and Risk Savvy	
4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	
5. International Orientation	
6. Board-Level Contributor and/or Senior Leadership Business Acumen	
7. Diversity	

Age: _____ Gender: _____ Years on Board: _____

Location: _____

Functional Experience: _____

Industry Experience: _____



First Name: Erin
 Last Name: Breen

Legend

- Fully in Evidence
- Significant Experience
- Reasonable Experience
- Limited Experience
- No Experience

Individual Competency Matrix		
	Competency	Self Assessment
Selection Criteria	1. Strong Conceptual Skill and Intellectual Insight	
	2. Nalcor Values Orientation	
	3. Judgment and Risk Savvy	
	4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	
	5. International Orientation	
	6. Board-Level Contributor and/or Senior Leadership Business Acumen	
	7. Diversity	

Age: _____ Gender: _____ Years on Board: _____

Location: _____

Functional Experience: _____

Industry Experience: _____



First Name: Leo
 Last Name: Abass

Legend	
<input type="radio"/>	Fully in Evidence
<input type="radio"/>	Significant Experience
<input type="radio"/>	Reasonable Experience
<input type="radio"/>	Limited Experience
<input type="radio"/>	No Experience

Individual Competency Matrix	
Competency	Self Assessment
1. Strong Conceptual Skill and Intellectual Insight	
2. Nalcor Values Orientation	
3. Judgment and Risk Savvy	
4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	
5. International Orientation	
6. Board-Level Contributor and/or Senior Leadership Business Acumen	
7. Diversity	

Age: _____ Gender: _____ Years on Board: _____

Location: _____

Functional Experience: _____

Industry Experience: _____



First Name: Ed
 Last Name: Martin

Legend	
<input type="radio"/>	Fully in Evidence
<input type="radio"/>	Significant Experience
<input type="radio"/>	Reasonable Experience
<input type="radio"/>	Limited Experience
<input type="radio"/>	No Experience

Individual Competency Matrix	
Competency	Self Assessment
1. Strong Conceptual Skill and Intellectual Insight	
2. Nalcor Values Orientation	
3. Judgment and Risk Savvy	
4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	
5. International Orientation	
6. Board-Level Contributor and/or Senior Leadership Business Acumen	
7. Diversity	

Age: _____ Gender: _____ Years on Board: _____

Location: _____

Functional Experience: _____

Industry Experience: _____



Board Composition Observations Will Inform Both the New Board Composition as well as Future Recruitment Efforts

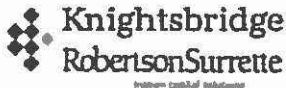
Observations from Pro Forma Board Analysis:

- ◆ Opportunity to enhance board diversity in light of its current composition.
- ◆ Average Board tenure is reasonable (7.4 years) in light of recent additions.
- ◆ Capital intensive investment oversight/broad responsibility remains a priority.
- ◆ Global energy and financial market "inter-connectivity" underscores desire for enhanced global markets/investments experience.
- ◆ Additional functional skills in risk management (ideally in a global/international setting) still welcome.
- ◆ International experience/exposure is still not a defining characteristic of the Board.
- ◆ Limited other organizational infrastructure building expertise, encompassing HR, IT, and Engineering expertise, with Board overall.



Implications for Future Board Placements:

- ◆ Sourcing qualified diversity candidates is an ongoing consideration in all Nalcor searches.
- ◆ International experience remains an opportunity area – especially in light of the Nalcor's continuing geographic diversification of its need for capital.
- ◆ Experience in the attraction and retention of world-class human capital through use of sophisticated HR practices is an opportunity area.
- ◆ Experience in the "scaling up" of key infrastructure and managerial processes (i.e., IT, finance, Eng) – in sophisticated and complex enterprises could still be enhanced.
- ◆ Ideally targeting candidate profiles that can contribute to a long possible tenure with the Board – but will balance this aspiration with the distinctiveness of the overall candidate profile.



Nalcor Board Search Focus

Priority for this Search:

- Essential
- Priority
- Opportunity
- "Nice to Have"
- Unlikely / Not required

- 1. Strong Conceptual Skill and Intellectual Insight**

 - ◆ Ability to assimilate, understand and effectively monitor Nalcor's approach to business and the drivers of its success;
 - ◆ Evident intellectual interest in, and commitment to, understanding Nalcor's business;
 - ◆ High level of analytical capability; and
 - ◆ Willingness and capability to delve into and understand complex business dealings and long term investments.

- 2. Nalcor Values Orientation**

 - ◆ Ability to communicate openly and foster an environment where information moves freely in a timely manner;
 - ◆ Demonstrates a high level of accountability through holding oneself responsible for actions and performance;
 - ◆ Evident commitment to safety by protecting oneself, colleagues and the community
 - ◆ Committed to being sincere and demonstrates honesty and trust;
 - ◆ Evident teamwork capabilities;
 - ◆ Shows respect and dignity by appreciating the individuality of others;
 - ◆ Ability to provide leadership and empower individuals.

- 3. Judgment and Risk Assessment Savvy**

 - ◆ Ability to effectively add value to Nalcor's overall investment;
 - ◆ Up-to-date knowledge of the Canadian and international business;
 - ◆ Experience with multiple perspectives on risk and risk management;
 - ◆ International capital markets exposure; and
 - ◆ Ability to understand the unique investment characteristics required of long term assets, infrastructure, and real estate.

- 4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments**

 - ◆ Experience and reputation for success in operating at the interface of the private sector and with public policy/public stewards; and
 - ◆ Ability to contribute to the strategic thinking and proactive influence required to ensure Nalcor's independence and founding legislative mandate.

- 5. International Orientation**

 - ◆ Knowledge of international markets and business operations, especially where the Nalcor will be active in securing investment capital and partnerships.

- 6. Board-Level Contributor and/or Senior Leadership Business Acumen**

 - ◆ Accomplished senior business or professional leadership experience, preferably in a large and complex organization;
 - ◆ Experience in contributing effectively to strategy discussions and their implementation;
 - ◆ Experience in a growing and increasingly complex organization, including success in building, consolidating and overseeing at a board/senior leadership level an organization's infrastructure (i.e., IT, HR, Finance, Enterprise Risk Management, etc.);
 - ◆ Tolerance for ambiguity (i.e., comfort in making decisions with imperfect information in highly changeable external circumstances; taking calculated risk);
 - ◆ Experience in making decisions that are long term in nature;



- Experience in the leadership, oversight, attraction and retention of talent; and
- Expertise and familiarity with financial information, safety orientation, performance metrics, and reporting.

7. Diversity

- Visible minority / first nations;
- Exposure / experience dealing with first nations issues;
- Gender balance;
- Able to bring a diverse perspective to the board; and
- Demonstrates cultural competence.

Preferred Locations _____
Preferred Functional Experiences _____
Preferred Industry Experiences _____



Profile(s) for the Search of Additional Board Member(s)

First Name: _____

Last Name: _____

Competency Selection Matrix			
Competency	Ideal	Actual	
Selection Criteria	1. Strong Conceptual Skill and Intellectual Insight	Essential 	
	2. Nalcor Values Orientation	Essential 	
	3. Judgment and Risk Savvy	Opportunity 	
	4. Sophistication and Sensitivity in Dealing with Multi-Stakeholder Environments	Priority 	
	5. International Orientation	Opportunity 	
	6. Board-Level Contributor and/or Senior Leadership Business Acumen	Priority 	
	7. Diversity	Priority 	

Age: _____ Gender: _____

Location: _____

Functional Experience: _____

Industry Experience: _____

(40%). Design and construction is performed by Astaldi (with a 50% stake), and the French firm Vinci Construction (50%).

UPPER CISOKAN PUMPED STORAGE POWER PLANT PROJECT (Package 1 – Lot 1-A) | Indonesia (construction): 234 million US dollars, 30% of which refers to Astaldi's stake, for performance of the first two phases of the Upper Cisokan Hydroelectric Project on Java in Indonesia. The project is one of the most important in progress to date in the country in the hydroelectric sector and is funded by the World Bank. The works will be performed as a joint venture with the Korean company DAELIM (principal, with a 40% stake) and with the local firm WIKA (30%).

Events after the reporting period

In February, the ACe consortium which Astaldi (leader) holds a 65% stake in was the winning bidder in awarding the contract for the design and construction of the two main structures (Dome and Main Structure) of the European Extremely Large Telescope (E-ELT), the largest optical telescope in the world. The ESO (European Southern Observatory) Financial Committee authorised ESO to commence final negotiations with the ACe consortium, with the aim of signing the final contract in May 2016. All the details will be defined and disclosed subsequent to signing.

Outlook

Astaldi Group will pursue its planned growth over the coming months, focusing on the development of its activities, aimed at further consolidating the Group's distinctive features (consolidated competitive positioning, high-quality order backlog), while at the same time optimising its integrated supply capacity.

The commercial strategy will follow the Group's risk management policies, able to promote even more marked diversification of activities. Specifically, the aim will be to consolidate the Group's presence in countries where it traditionally operates that continue to invest in multi-year infrastructure programmes such as Turkey, Chile, Poland and Algeria, and hence to strengthen its role in areas with steady economies and clear investment programmes. At the same time, the focus will also be placed on new markets able to guarantee that optimal country/risk diversification which is increasingly a necessary condition for maintaining suitable levels of competitiveness. The development of strategic, high standing partnerships, able to ensure suitable risk sharing as well as greater opportunities for success in entering new markets/areas, will also help promote growth.

From a sector viewpoint, commercial efforts will be focused on acquiring EPC contracts, together with a careful assessment of the opportunities the Concessions sector has to offer, always within a logic of asset rotation with the projects currently being disposed of.

From a geographical viewpoint, Chile, Peru and Turkey will continue to be markets of major interest for the Group's traditional business sectors, as well as in relation to projects in concession. As regards Canada, now that the start-up problems related to the Muskrat Falls Hydroelectric Project have been overcome, consolidation of this geographical area is planned through the development of local partnerships. TEQ, the Canadian company acquired and reorganised in recent years, will also contribute to growth in Canada. Additional opportunities may also arise from markets of new interest - Panama, Iran, Cuba, Sweden and Norway -, which it is felt may, on the whole, offset the planned reduction of production in Venezuela and the slowdown in Romania and Bulgaria. There will also be further development in Poland, also thanks to the ability the country traditionally boasts in making use of funding provided by the European Community.

Main consolidated results at 31 December 2015

The 2015 consolidated results offer confirmation of the Group's growth plans thanks to a successful positioning strategy in the various geographical areas it operates and to its consolidated business capacity.

Total revenue amounted to EUR 2,854.9 million showing a 7.6% increase, compared to EUR 2,652.6 million in 2014, with operating revenue accounting for 95.6% and other revenue for the remaining 4.4%. Specifically, operating revenue increased to EUR 2,730 million (up by 7.5%, EUR 2,540 million at 31 December 2014), while other operating revenue increased to EUR 124.9 million (+11.4%, EUR 112.2 million at 31 December 2014). The geographical areas making the greatest contribution to this result were Europe (Poland, Romania, Russia and Turkey), North and South America (Canada, Chile, Peru and United States) and Algeria. Italy also contributed while, however, confirming a trend that was affected by the country's economic situation.

The geographical structure of revenue offered confirmation of the progressive consolidation of international activities, able to offset the trend recorded in Italy. Specifically, International (82.9% of revenue) generated EUR 2,262 million (+17.8% compared to EUR 1,920 million in 2014) referring to: (i) the increase from Europe (including Turkey) to EUR 1.3 billion (+14% YOY), thanks to progress on contracts in progress in Turkey (Third Bosphorus Bridge, Gebze-Orhangazi-Izmir Motorway, Etiik Integrated Health Campus in Ankara), as well as the excellent results from activities in Russia (WHSD in St. Petersburg) and Poland (S-8 National Road, Wisniewo-Meżenin section; S-5 National Road, Poznań-Wrocław section; Warsaw Underground, Line 2; John Paul II International Airport Krakow-Balice), as well as Romania (Lines 4 and 5 of Bucharest underground, road works); (ii) the major increase in America to EUR 835 million (+31.9% YOY), thanks to progress on activities in Canada (Muskrat Falls Hydroelectric Project), Chile (West Metropolitan Hospital, Chuquicamata Mine, Arturo Merino Benítez International Airport) and Peru (Cerro del Águila Hydroelectric Project); (iii) the Maghreb totalled EUR 123 million, thanks to progress on the Saida-Moulay Slissen and Saida-Tiarel railway works in Algeria; (iv) the Middle East contributed with EUR 49 million, thanks to progress on railway projects in Saudi Arabia (Jeddah and Kaec HS Stations). Italy recorded 17.1% of revenue equal to EUR 468 million; despite the trends seen in the public works sector, the Group managed to maintain a significant order backlog thanks to the expansion of operations in the Plant Engineering and Facility Management segment and the synergies generated with NBI (a 100% Astaldi-owned company specialising in this segment). Specifically, progress made during the year on the Quadrilatero Marche-Umbria road network and railway works related to undergrounds (Milan Lines 4 and 5, Rome Line C) is to be appreciated. It must also be noted that even if Line C of Rome underground experienced a standstill in works at the end of the year, a suitable level of production was achieved for the first nine months of 2015. A positive contribution was also recorded in relation to progress on the project involving the new hospital in Naples (Ospedale del Mare) and operation of the new hospitals in Tuscany through the investee GESAT (Astaldi Group holds a 35% stake).

Construction accounted for 99.1% of operating revenue and benefitted from Astaldi Group's high level of specialisation in the Transport Infrastructures segment, but all the other segments the Group traditionally operates in also generated significant contributions. Specifically, Transport Infrastructures accounted for 68.6% of operating revenue followed by Hydraulic and Energy Production Plants with 15.6% of operating revenue, Civil and Industrial Construction (8.8% of operating revenue) and Facility Management, Plant Engineering and Management of Complex Systems (6.1% of operating revenue).

Concessions generated approximately 1% of operating revenue, EUR 24 million (in line with 2014). The yearly figure reflects the results of operation of Milas-Bodrum International Airport in Turkey, which reached its natural expiry date in October 2015, and of the new hospitals in Prato, Lucca and Pistoia in Tuscany (Italy).

Muskrat Falls Project

Review of project cost, schedule and related risks

Interim report / draft for discussion

March XXXX, 2016

Draft





Ernst & Young LLP
Atlantic Canada
ey.com

Dieppe
11 Englehart Street
Dieppe, NB E1A 7Y7
Tel: +1 506 853 3097
Fax: +1 506 859 7190

Fredericton
527 Queen Street
Suite 110
Fredericton, NB E3B 3T2
Tel: +1 506 455 8181
Fax: +1 506 455 8141

Halifax
RBC Waterside Centre
1871 Hollis Street
Suite 500
Halifax, NS B3J 0C3
Tel: +1 902 420 1080
Fax: +1 902 420 0503

Saint John
Red Rose Tea Building
5th floor
12 Smythe Street
Saint John, NB E2L 5G5
Tel: +1 506 634 7000
Fax: +1 506 634 2129

St. John's
Fortis Place
5 Springdale Street
Suite 800
St. John's, NL A1E 0E4
Tel: +1 709 726 2840
Fax: +1 709 726 0345

Julia Mullaley
Clerk of the Executive Council & Secretary to Cabinet
Government of Newfoundland and Labrador
P.O. Box 8700
St. John's, NL A1B 4J6

March XXX, 2016

Muskrat Falls Project Review of Project Cost, Schedule and related Risks

Mrs. Mullaley,

EY has completed an interim report as part of the review of the Muskrat Falls Project's cost, schedule and related risks ("engagement"). Our engagement is being performed in accordance with the statement of work dated 14 January 2016 between EY and Her Majesty in Right of Newfoundland and Labrador.

The objective of the engagement is to assess the reasonableness of the Muskrat Falls Project's cost and schedule forecast, and to identify opportunities to address any material/critical risks. As requested, this interim report will assess the reasonableness of the Project's current approved cost and schedule forecast, with a final report to be provided after Nalcor Energy Ltd ("Nalcor") completes their ongoing reforecasting process. This interim report provides significant value through:

- ▶ informing Government on current material risks and issues not reflected in the September 2015 forecast;
- ▶ providing recommendations that Nalcor should consider as it completes its Quantitative Risk Assessment and re-baseline activities; and
- ▶ informing the EY final review, enabling it to be completed in a timely fashion.

The field work for this interim report was completed in January and February 2015 and consisted of reviewing project data and documentation, as well as enquiries and discussions with senior management and representatives of Nalcor, the Oversight Committee and the Independent Engineer. The services provided by EY in this report are advisory in nature.

EY has not developed its own cost, schedule and risk forecast but instead assessed the reasonableness of that prepared by Nalcor. The review focused on risks and issues that have the potential to materially impact the Muskrat Falls Project.

We would like to express our appreciation for the cooperation and assistance provided to us by Nalcor, the Independent Engineer and the Oversight Committee.

Yours sincerely,
XXXXX
Ernst & Young LLP



Disclaimer

This report is intended solely for the information and use of management of Her Majesty in Right of Newfoundland and Labrador as represented by the Executive Counsel and is not intended to be and should not be used by any other parties. In preparing this report, EY relied on information provided by its client and by Nalcor Energy. EY has not audited, reviewed or otherwise attempted to verify the accuracy or completeness of such information. This report has not considered issues relevant to third parties and is subject to certain limitations. We shall have no responsibility whatsoever to any third party that obtains a copy of this report. Any use such a third party may choose to make of this report is entirely at its own risk. We disclaim all responsibility for loss or damage, if any, suffered by any third party as a result of reliance on, decisions made or actions taken based on this report.

Draft

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1 Executive summary

- 1.1 The Government of Newfoundland and Labrador ("the Government") engaged EY to assess the reasonableness of the Muskrat Falls Project's¹ ("the Project") cost and schedule forecast and to identify opportunities to address any material/critical risks.
- 1.2 The current cost forecast for the Project was set in September 2015. At this time the Project schedule was not updated but was described as "under review". This cost and schedule position ("the September 2015 Forecast") forms the basis for the EY review ("the Review") and is summarized in the table below:

Total forecast cost, including contingency	\$7.653b
Ready for sustainable power transfer Labrador to Newfoundland	November 2017
First power from Muskrat Falls	December 2017 ²

- 1.3 The overall conclusion of the Review is that the September 2015 Forecast is not reasonable. The principal reasons for this conclusion are as follows:
- ▶ the Muskrat Falls Generation ("MFG") contract for civil construction is significantly behind schedule in the Powerhouse and Intake areas. The direct and indirect consequences of this delay are expected to have material impacts on cost and schedule that are not reflected in the September 2015 Forecast;
 - ▶ the current contingency level representing 4.7% of the cost to complete³, or 2.3% of total cost, is low for the current stage of completion of the Project. More than 50% of work on the Project has now been completed, and just over 40% of the construction work has been finished. The majority of design, engineering and procurement work is complete; however, there is a significant amount of physical construction work remaining that will be followed by commissioning and integration. This construction work is challenging in terms of its scale, time and geography and as such is exposed to a wide range of execution risks; and
 - ▶ there is a risk of multiple-month delay to completion of the HVdc transmission line contract as a result of a number of delivery challenges that have been experienced to

¹ Does not include the Emera Maritime Link scope

² At the time of the September 2015 Forecast, Nalcor communicated that First Power in 2017 was not achievable

³ As at the 31 December reporting period compared to the September 2015 Forecast



Muskrat Falls Project

Review of project cost, schedule and associated risks

date and the risks associated with the remaining scope, where full mitigation may not be possible.

1.4 Nalcor Energy Ltd ("Nalcor") has identified and documented contract risks including those above. However, the potential impacts of these risks on cost and schedule are not adequately reflected in the September 2015 Forecast. Nalcor is currently undertaking a risk assessment to evaluate the impacts of all Project risks, including the above, and will be preparing a revised forecast by the end of March 2016, subject to the conclusion of commercial discussions with a major contractor.

no D/ATE

1.5 We have the following observations relevant to the conclusion in 1.3 above:

- ▶ risks defined by Nalcor as strategic and outside of the controllable scope of the Project team are not allowed for in the financial forecast;
- ▶ the potential cost and schedule impacts of all individual risks are recorded in the Project's risk register but are not systematically reflected in the overall reported forecasts for cost and schedule; and
- ▶ some anticipated material cost variances have only been reflected in the forecast cost when they are contractually committed.

1.6 From the above conclusion and observations, EY recommends that:

- ▶ the Project should revise its planning and forecasting processes to explicitly include the regular reporting of a fully risk-adjusted final forecast of cost and schedule;
- ▶ the Project contingency should make appropriate allowances for all risks, including strategic, at a confidence level reflecting stakeholders' required cost certainty. EY would recommend that consideration be given to use of a conservative PBO confidence level for setting Project contingency, based on a thorough Quantitative Risk Assessment;
- ▶ the sufficiency of the Project contingency should be reviewed quarterly to assess whether it appropriately covers all risks, taking account of the effectiveness of mitigation plans and the likelihood of risks crystallizing; and
- ▶ there should be separation of the Project contingency into an amount to be managed by the Project team and an amount to be managed at a higher level of governance.

*What % of BF
is at 3 -
depends on
QA analysis*

1.7 In the course of conducting the Review, EY has observed that governance and reporting arrangements to date have not been effective in giving stakeholder confidence on forecast Project cost and schedule. In EY's opinion, there is a need to strengthen Project governance and reporting to provide more effective oversight and constructive challenge to Project performance and execution, key decisions and forecasting.



Muskat Falls Project

Review of project cost, schedule and associated risks

1.8 From these further observations, EY recommends that:

Project governance and independent oversight should be re-evaluated by Government and strengthened at the Project, Nalcor Board and Government levels; and

Project reporting should be enhanced to support senior management focus on key risks and issues, to communicate more clearly how key risks are reflected in the forecast and to enable more effective Government oversight.

EY will work with Government to fully develop options in relation to the design and implementation of all the above recommendations.

Draft

Examples



2 Introduction

2.1 The Project is a multi-billion dollar program involving design, procurement, manufacture and construction over a period of more than five years, across multiple continents and with construction across multiple remote sites in Newfoundland and Labrador. There are three main sub-projects:

- ▶ **Labrador Transmission Assets:** includes a 315-kV HVac transmission interconnection from Muskrat Falls to Churchill Falls and HVac switchyards;
- ▶ **Labrador Island Transmission Link:** includes a ± 350 -kV HVdc transmission connection from Muskrat Falls to Soldiers Pond (over 1,050 km of transmission line), HVac to HVdc converter stations, shore electrodes, and 30 km of 350-kV HVdc cable crossing at the Strait of Belle Isle; and
- ▶ **Muskrat Falls Generation Facility:** includes 4 x 206-MW (totalling 824-MW) turbine/generators, dams/spillways, river diversion, North Spur stabilization, reservoir, access road and buildings.



2.2 The Project is being delivered through multiple separate contracts. Nalcor performs its role through an Integrated project team of approximately 400 people. SNC Lavalin was originally engaged as the Engineering, Procurement & Construction Management ("EPCM") contractor. From November 2013, Nalcor moved to an integrated management model utilizing Nalcor staff, SNC Lavalin resources and other third-party consultants.

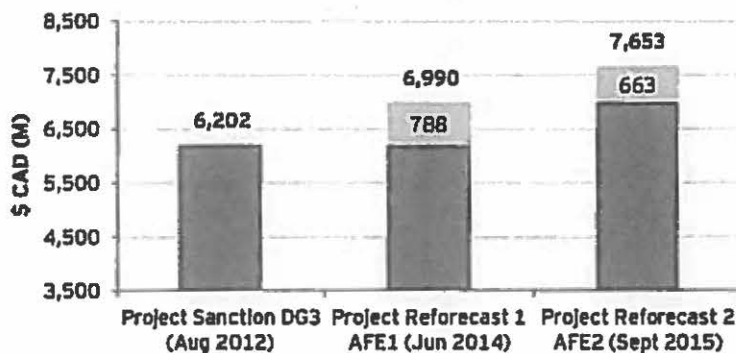


Muskrat Falls Project

Review of project cost, schedule and associated risks

- 2.3 The Project deploys proven technology, but the delivery is of a significant scale and subject to challenging terrain and weather conditions. For example, the HVdc transmission line, whilst using standard technology, is one of the longest such constructions in North America, with a route that includes hundreds of kilometres of remote terrain with no existing access and will be exposed to extreme weather conditions during construction and operation.
- 2.4 More than 50% of work on the Project has now been completed, and just over 40% of the construction work has been finished. The Project has been through two major cost reforecasting processes since sanction, shown in the chart below.

Project budget evolution



- 2.5 The main drivers reported by Nalcor for these cost movements were:
 - ▶ market conditions and market pressures;
 - ▶ reliability improvements and design enhancements; and
 - ▶ contractor performance and project management execution.
- 2.6 The key target milestone dates in the September 2015 Forecast have not changed since the Project was sanctioned. However, Nalcor also stated as part of the September 2015 reforecast that the target dates related to the Muskrat Falls Power Generation facility will not be met and are under review.



3 Objective and scope

- 3.1 The objective of the Review, as described in the Statement of Work dated 14 January 2016, is to assess the reasonableness of the Muskrat Falls Project's cost and schedule forecast, and to identify opportunities to address any material/critical risks.
- 3.2 At the start of the Review, Nalcor informed EY that it was engaged in commercial discussions with the MFG civil works contractor and that EY would not receive forecast information related to this contract during January 2016.
- 3.3 During the Review, Nalcor advised EY that the commercial discussions in relation to the MFG civil works contract would not be completed within the time frame of the Review and that Nalcor would be engaging in QRA and re-baselining activities subsequent to the completion of those discussions.
- 3.4 As a result, this interim report will assess the reasonableness of the Project's most recent approved cost and schedule forecast - namely the September 2015 Forecast shown below:

Total forecast cost, including contingency	\$7.653b
Ready for sustainable power transfer Labrador to Newfoundland	November 2017
First power from Muskrat Falls	December 2017

- 3.5 It is acknowledged that many key risks and issues of the September 2015 Forecast have already been identified and documented by Nalcor. In response to these risks and issues, Nalcor expects to complete their reforecasting process for the Project by the end of March 2016, subject to the conclusion of commercial discussions with a major contractor. This interim report gives Nalcor the opportunity to reflect EY's conclusions and recommendations in their upcoming forecast process.
- 3.6 EY will assess the reasonableness of Nalcor's reforecast cost and schedule once it is completed and will update this report accordingly, drawing on the work already completed in preparing this interim report.



4 Approach

- 4.1 The Review has been based on data and information provided by Nalcor. EY has not sought to independently verify this data. EY has had access to the Nalcor team; we have not had direct access to contractors. Primary sources of data have been:
- ▶ Nalcor and contractor monthly reports;
 - ▶ management presentations and follow-up discussions;
 - ▶ meeting with the Independent Engineer;
 - ▶ specific data requests; and
 - ▶ interviews with members of the Nalcor project team.
- 4.2 Due to the scale of the Project and the timeline and scope of this review, EY has focused on areas likely to be material to the overall cost and schedule of the Project. We have selected 10 major contracts based on the following criteria:
- ▶ total monetary value;
 - ▶ spend to complete;
 - ▶ potential to impact other contracts; and
 - ▶ potential to impact critical path.
- 4.3 For each of these contracts, cost and schedule risk has first been considered at the individual contract level. Individual contract risks may be partially or wholly mitigated at the Project level through cost or schedule contingency. EY has assessed whether the contract risks are appropriately reflected in the contract, project schedule and final forecast.



5 Material cost and Schedule Risks

Context for risk assessment

- 5.1 Large projects such as the Muskrat Falls Project involve diverse and complex risks, which change through the phases of design, procurement and construction. Part of the role of the Nalcor project team is to identify, evaluate and, where possible, mitigate risks.
- 5.2 Nalcor invested heavily in upfront design and engineering to proactively manage risk in the early phases of the Project. This approach has delivered benefit, as the degree of engineering change observed through the Project to date has been low.
- 5.3 The scale, complexity and time frame of the remaining Project scope mean that significant risk still exists. Nalcor has processes in place to identify, evaluate and mitigate project risks.

Risks to cost and schedule

- 5.4 The Review has highlighted risks in each of the following areas that are relevant to the reasonableness of the September 2015 Forecast:
 - ▶ MFG civil works contract;
 - ▶ HVdc transmission line contract;
 - ▶ HVdc converter stations contract; and
 - ▶ contingency level.

These are explained in more detail below.

MFG civil works contract

- 5.5 The MFG civil works contract is the highest value contract. This contract involves construction of a number of areas: Intake and Powerhouse, Spillway and Transition Dams. The deliverables on this contract are required to allow progress on other contracts, e.g. installation and commissioning of the turbines and generators, installation of spillway and intake gates and the balance of plant contract.



Muskrat Falls Project

Review of project cost, schedule and associated risks

5.6 Contractor performance has been poor from the start of the contract, and volume of concrete placed is behind plan in all areas, most notably in the powerhouse and powerhouse intake areas. There have been a number of contributory factors identified by Nalcor, including but not limited to:

slower than required contractor's mobilization and ramp up;

inadequate planning and establishment of required infrastructure;

lower than planned concrete placement rates;

number of contractor's project manager replacements and contractor's project management personnel changes;

quality of contractor's management resources;

overall contractor performance, management and supervision; and

a key feature of the contractor's execution plan was the contractor's Integrated Cover System (ICS), designed to enable winter working on the powerhouse. The ICS was not successfully delivered, which significantly impacted the ability to place concrete during the winter months. The ICS has now been removed.

5.7 Concrete placement rates improved significantly after Q1 2015, in part due to intensive contractor performance management by Nalcor. Progress on this contract is significantly behind the original contract schedule.

5.8 The contract structure was designed to realize possible savings in construction labour productivity and also to protect Nalcor from any labour cost overruns that might be experienced by the contractor. It was intended that this would be achieved by including in the contract a maximum value for labour that Nalcor would have to pay to the contractor. However, the payment mechanism is based on person-hours expended rather than m³ of concrete poured. This mechanism did not capture the potential for poor contract management of labour and the consequent decoupling of labour paid for from work completed (measured by m³ of concrete poured). As at December 2015, the proportion of contract value paid to the contractor is significantly greater than the proportion of the concrete that has been placed.

5.9 The impact of these issues to both cost and schedule has not been reflected in the September 2015 Forecast, pending the outcome of ongoing discussions between Nalcor and the contractor.

5.10 The work to be performed under this contract is on the Project's critical path, so the known schedule delay will directly impact overall Project milestones. This delay will also have a knock-on impact to Nalcor's Project costs and to costs of other impacted contracts. The scale of this aggregate cost impact is in excess of the Project contingency level.



HVdc transmission line contract

- 5.11 The HVdc transmission line contract is the second largest contract by value and involves the construction of a 1,050 km HVdc transmission line from Muskrat Falls to Soldiers Pond near St. John's. This route crosses remote and challenging terrain, for example the Long Range Mountains. The same contractor is also nearing completion on the construction of the HVac transmission line connecting Muskrat Falls to Churchill Falls under a separate contract.
- 5.12 In the first nine months of the 32-month contract duration, actual progress has been only 50% of plan.
- 5.13 Recent contractor performance is improved, and potential mitigation for some of the schedule risk may be available by mobilizing additional skilled crews from the successful execution of the HVac contract. The physical distribution of the work also means that it is possible, at the contractor's own cost, to work on multiple work fronts to improve progress. The contractor is incentivized through the contract to minimize delay.
- 5.14 However, risks exist to future schedule performance, including continued poor performance from the contractor, weather conditions and areas requiring a higher proportion of more complex foundation installations.
- 5.15 Performance to date and the ongoing risks described above create potential for a multiple month delay to the contract schedule. This potential delay could be greater than the time contingency included in Nalcor's Project schedule and so presents a risk to overall Project milestones.

HVdc convertor stations contract

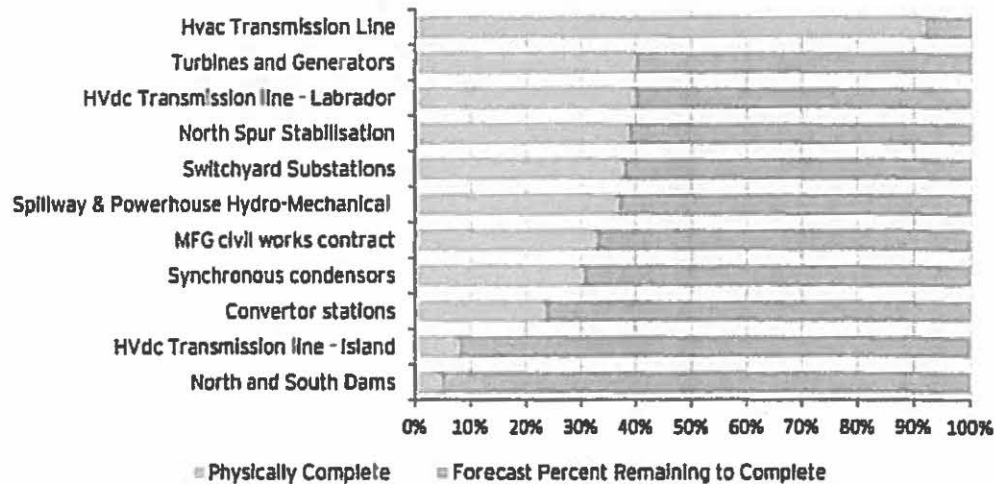
- 5.16 The HVdc convertors are situated at either end of the HVdc line and convert the AC current used in the existing distribution grid to the DC current used to transport power from Muskrat Falls to Soldiers Pond and back again to AC current. Nalcor and the contractor are currently forecasting delays to the mechanical completion of the convertor stations, with the Muskrat Falls delay being approximately two months. Mitigation plans are being implemented to maintain the forecast and recover this delay; however, the contractor would be required to more than double their rate of progress to date to maintain the forecast schedule.
- 5.17 Nalcor expects improved progress and the contractor is incentivized through the contract to minimize delay. Nevertheless, based on past performance and the proposed work forecast for this contract, there is a risk of additional schedule delay, which would directly impact the Project milestones for the power transfer from Labrador to Newfoundland.



Contingency

- 5.18 The amount of the contingency remaining at 31 December 2015 was \$173m, which represented 4.7% of the cost to complete, or 2.3% of total cost.
- 5.19 This contingency amount must cover any cost increases resulting from budget overruns or schedule delays. The extent of Project completion and the complexity of the remaining Project scope are relevant to the calculation of the appropriate level of contingency the Project should hold.
- 5.20 The Project is more than 50% complete overall, with just over 40% of construction now completed. Design and engineering is almost complete and procurement is over 90% complete.
- 5.21 Nevertheless, the scale, complexity and time frame of the remaining execution mean that there is potential for significant risk. This is illustrated by the scope of work to be completed on major contracts, as shown in the chart below⁴:

Selected major contracts
Physical progress as at 31 December 2015



- 5.22 Commissioning and integration activities have not yet started. These are a frequent source of risk in major power projects. However, planning for these activities is underway.

⁴ HVdc transmission line contract has been separated into two scopes for the purposes of the chart



- 5.23 Nalcor has identified and documented risks associated with all remaining scope, including commissioning and integration and there is opportunity to mitigate some of these risks. In addition, the contract structures in place provide some protection for cost and schedule risk.
- 5.24 Nevertheless, EY has concluded that the current contingency level is low based on the remaining scope of work to complete and the degree of execution risk. Nalcor is currently undertaking a QRA that should be used to inform the amount of contingency required.

Draft



6 Other observations

Planning for strategic risks

- 6.1 The Project defines risks to be either tactical or strategic - the latter are those considered by Nalcor to be outside of the controllable scope of the Project team. A quantitative assessment of strategic risks was made at the time of the sanction process, but no explicit allowance was made in the form of a quantified reserve in the sanction budget.
- 6.2 The contingency in the September 2015 Forecast was only deemed to include the tactical risks, and there is no quantified reserve held elsewhere to allow for the strategic risks.
- 6.3 The following risks are classified by Nalcor as strategic:
 - ▶ Schedule risks - relating to bad weather, to the volume of work required to deliver the powerhouse, (particularly given the challenging performance assumptions for powerhouse concrete) and schedule challenges for certain sections of the transmission line;
 - ▶ Performance risks - the risks of not being able to achieve the performance rates and productivity assumed in the schedule estimate and the challenges associated with being able to attract the quality of experienced front-line supervision required to manage performance; and
 - ▶ Skilled labour risks - risks of budgeted labour rates being exceeded.
- 6.4 The crystallization of risks classified as strategic was the main driver for the cost increases seen to date on the Project. Risks that would be classified as strategic are expected to continue to impact the remaining scope of the Project.

Inclusion of risk quantification in the forecast

- 6.5 Nalcor estimates the potential cost and schedule impact of individual risks and records them in the Project risk register. The Project team develops and monitors risk mitigation plans.
- 6.6 Nalcor regularly evaluates potential cost and schedule impacts of these risks but does not develop an aggregate position, compare it to contingency levels or integrate it into the Project forecast to provide a risk-adjusted forecast.
- 6.7 Nalcor also seeks to identify and manage specific material cost variances, but some potential variances are only reflected in the forecast when they are contractually committed or near to certain.



Project Governance and Reporting

- 6.8** In the course of conducting the Review, EY has observed that governance and reporting arrangements to date have not been effective in giving stakeholder confidence on forecast Project cost and schedule. In EY's opinion, there is a need to strengthen Project governance and reporting to provide more effective oversight and constructive challenge to Project performance and execution, key decisions and forecasting.

Draft



7 Recommendations

7.1 The recommendations arising from the Review are as follows:

- ▶ the Project should revise its planning and forecasting processes to explicitly include the regular reporting of a fully risk-adjusted final forecast of cost and schedule;
- ▶ the Project contingency should make appropriate allowances for all risks (including strategic). EY would recommend that consideration be given to use of a conservative P80 confidence level for setting Project contingency, based on a thorough Quantitative Risk Assessment;
- ▶ the sufficiency of the Project contingency should be reviewed quarterly to assess whether it appropriately covers all risks, taking account of the effectiveness of mitigation plans and the likelihood of risks crystallizing;
- ▶ there should be separation of the Project contingency into an amount to be managed by the Project team and an amount to be managed at a higher level of governance;
- ▶ Project governance and independent oversight should be re-evaluated by Government and strengthened at the Project, Naicor Board and Government levels; and
- ▶ Project reporting should be enhanced to support senior management focus on key risks and issues, to communicate more clearly how key risks are reflected in the forecast and to enable more effective Government oversight.

EY will work with Government to fully develop options in relation to the design and implementation of the above recommendations.

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APPENDIX – Construction Order Backlog

#	Country	Project	Contract Value Astaldi Share (€ mln)	% of completion 12/2015	Backlog Value @ 12/2015	Year end				
						2016	2017	2018	Above	
Abroad										
1	Venezuela	Puerto Cabello - La Encrucijada railway	2,238.0	47.4%	1,178.8				●	> 2018
2	Russia	WHSD in St. Petersburg	861.8	86.2%	118.8	■				2016
3	Turkey	Third Bridge on Bosphorus	880.6	77.1%	201.5		●			2017
4	Turkey	Gebze-Orhangazi-Izmir Motorway	822.0	48.1%	428.3				●	> 2018
5	Canada	Muskral Falls hydroelectric project	813.4	44.1%	454.3			●		2018
6	Algeria	Saida-Moulay Slissen railway	710.2	86.0%	99.2	●				2016
7	Turkey	Etilik Integrated Healthcare Campus in Ankara	443.0	5.2%	419.9					> 2018
8	Chile	Arturo Merino Benítez International Airport in Santiago	374.8	2.7%	364.7				●	> 2018
9	Russia	M11 Moscow-St. Petersburg Motorway	462.4	1.2%	458.9			●		2018
10	Poland	NR-2	236.6	0.1%	236.4				●	> 2018
Subtotal international markets			7,842.9		3,954.9					
Italy										
1	Italy	Jonica National Road (Lot "DG41")	1,112.0	1.3%	1,097.3				●	> 2018
5	Italy	Rome Subway, Line C	998.1	78.3%	401.8				●	> 2018
2	Italy	Milan Subway, Line 4	745.9	19.9%	597.3				●	> 2018
3	Italy	Verona-Vicenza high-speed railway	549.2	0.0%	549.2				●	> 2018
4	Italy	"Quadrilatero" motorway links project	489.5	8.7%	446.9				●	> 2018
Subtotal Italy			3,892.8		3,992.6					
Total			11,735.6		7,947.4					

Minister, Natural Resources

Memo

To: Premier
From: [Your Name]
cc:
Date: March 7, 2016
Re: Muskrat Falls Options

Premier –

I believe there are two good options available to us on Muskrat Falls:

1. Based on preliminary report by EY –
 - a. Draw a line on cost and schedule slippage
 - b. Appoint new interim Board of Directors(attached)
 - c. Remove current leadership and replace with a project manager
 - d. Expand oversight adding independence and expertise (attached)

Pros: decisive, differentiates from former government, continuance

Cons: political cost, project cost, further slippage, will not satisfy critics

2. Based on preliminary report by EY –
 - a. Appoint independent Task Force comprised of community leaders and experts (attached) supported by EY to provide, within 30 days, a summary of all options and recommendations on how best to proceed.
 - b. The mandate will include recommendations on governance, management and oversight.

Pros: independence, political cover, all options explored to satisfy critics, timely

Cons: no decision for 30 – 45 days, strains decision making authority

Both options allows for work to continue this spring.

I recommend option 2 as it gives a fulsome, independent review of all options. This may be problematic if the conclusions of the Task Force are different then what we believe to be the right thing to do.

I would like to discuss further at your convenience.

Thank you

Siobhan

Potential Board of Directors:**John Baker****William Boyd****Rick Daw****Kevin King****Zita Cobb****Peter Woodward****Frank Davis****Bob Noseworthy (fmr Chair PUB)****David Mercer (fmr CEO Hydro)****Peggy Bartlett****Rex Gibbons****Brian Bietz (fmr Chair Alberta PUB)****Luke O'Brien****Stan Marshall****Bill Wells (fmr Chair PUB)****Paul Dicks****Norm Whelan****Stephen Bruneau****Jim Burton****Glen Barnes****Brad Wicks****Rob Crosbie**

Potential Task Force Members and/or expanded oversight:

Linda Inkpen	Paul Antle
Stan Marshall	Paul Mills
Vic Young	Earl Ludlow
Gary Follett	Davis Vardy

FY 2015 – Economic Performance

Main Items (EUR / million)	FY 15	FY 14	% Change
P&L Items			
Total Revenues	2,854.9	2,652.6	+7.6%
EBITDA	356.4	341.3	+4.4%
<i>EBITDA Margin</i>	<i>12.5%</i>	<i>12.9%</i>	
EBIT	277.4	269.6	+2.9%
<i>EBIT Margin</i>	<i>9.7%</i>	<i>10.2%</i>	
Financial charges	(164.8)	(138.9)	+18.6%
Net income	80.9	81.6	-0.8%

▪ EFFORT ON BUSINESS CONSOLIDATION

- **Canada** – 2015 profitability mainly affected by the sterilization of the margins from Canada – Muskrat Falls hydroelectric project where execution problems in start-up also due to severe weather conditions had delayed the progress of the works. Today the production reached remarkable levels. Negotiations are ongoing with the client to redefine the schedule and the conditions of the project.
- **Venezuela** – Additional charge of EUR 16 million (EUR 36 million in 2014) to complete the currency risk coverage on overdue receivables in local currency. As of December 2015, receivables from Venezuela amount to EUR 267 million.

- Pre reclassification of Income from JVs/SPVs
- FY 2015 EBITDA margin - 11% (11.6% in FY 2014)
- FY 2015 EBIT margin - 8% (8.9% in FY 2014)

MARCH 8

(N) not seen updated version ✓

Enza - (N) not kept fully informed of how much cash shipped

- 1 12-18 months
- 2 N knew in first re: cont. risk.
- 3 March 2016 re-baseline?

Astaldi - March 9

Release March 15

Feb 2020 -

not a rotation

Nalco/AGM March 24

Report

Update: not going to get a revised B by end of March with current PMI

- kept out of room, being managed
- N views B as part of problem
- trying to use neg. position with Astaldi

(N) believes IOB limited to whether the neg. should be initiated.

- being incred. closed on info. - want ^{ET to say} (N) negot. with Astaldi to get out of way.
- not getting enough access to be effective for you

(EY) will look at negot. strategy ✓

(EY) trying to verify to know.

EY note for Tuesday ??

Q/A by EY.

Will (A) release a response document?

(A) - not true ✓

Nancy - fed strategy to media by EY?

EY - typically not.



Separate check of A — Optimistic:
 Ways A can generate
 cash over next 3 yrs —
 can sell assets, stop making investments,
 use patents
Pers view: —

Conclusion — unless we sit with (A) and
 challenge them on their plan,
 diff to form a robust opinion

Force A to lay out why they have a case to
 make it — sep. to report from Solman issue

(3)

pen is 300 m? -

EY visit validates 600-800 m to about
 breakdown is between labor & materials

eg. same - go back on that - to do -
 same requirement.

(C) - list of what EY asked for - if not provided.

Prep needs to update - lots of questions: Ed Martin,
 N Board

- quantum diff.
 - schedule changes
 - also know details
- NOT most result
 that will be
 problematic

we own it on TUES.

Impl of Recs

EY Interim Report:

- Report when ① completes ongoing re-forecasting process - when?

✓ Next section of letter refers to "Qualit. Risk Assess." + "re-baseline" activities

- 3 diff terms.

✓ When should N have known cost (sched of Sept 2015 "not reasonable")

N is undertaking a "risk assessment"

✓ - need to strengthen pres gov - will Report expand on what EY found re: no challenge function to date

✓ - Intro - move from SNC as EPC to IPMT not explained - no documentation

- No quantified reserve for strategic risk in Sanction Budget - note this is normal to include

- was in the "to do" in risk register - not sure why not done/included

- Fed LG a critical risk?

Murphy, Tim

From: Coady, Siobhan
Sent: Friday, March 11, 2016 8:35 AM
To: Murphy, Tim
Subject: Memo
Attachments: Muskrat.docx

Hi Tim –

Here is what I sent to the Premier. I think we need to at the very least appoint the Chair and expand the Oversight Committee on Tuesday.

Thanks

Siobhan