

From: lanceclarke@nalcoreenergy.com
To: [Derek Owen](#)
Subject: Presentation for Deloitte
Date: Monday, June 11, 2012 1:36:21 PM
Attachments: [.png](#)
[LCP Team Effectiveness - Deloitte 2.pptx](#)

Derek

See attached deck I have put together to give to Deloitte tomorrow. I have not been able to get Normand today to see if SNC are aligned or wish to add other info. However, in the consideration of time I thought I would pass along to you and I will do any SNC adjustments later.



LCP Team Effectiveness - Deloitte 2.pptx

rgds

Lance Clarke
Commercial Manager (Consultant)
Nalcor Energy - Lower Churchill Project

Direct Phone: 709-737-1245
Toll Free: 1-888-576-5454 (Canada Only)
Fax: 709-737-1985
Email: lanceclarke@nalcoreenergy.com
Website: <http://www.nalcoreenergy.com>

Lower Churchill Phase I: Deloitte Team Effectiveness Presentation

June, 2012

Boundless Energy





Presentation Outline

1. Safety Moment
2. Purpose of Presentation
3. Project Introduction & Background
4. Project Execution Status and Philosophy
5. Project Execution and Organization Structure
6. Project Team Effectiveness Status
7. Questions



Safety Moment



Purpose of Presentation

Purpose of Presentation

- Provide Deloitte with the historical strategy and status of the project
- Update the organization status
- Update Team Effectiveness Activity



Project Introduction & Background

Lower Churchill Project – Phase 1

CIMFP Exhibit P-02487

Muskrat Falls (824 MW)

Ownership: 100% Nalcor
 Construction cost: \$2.5 billion
 Regulatory recovery: 100% NLH
 First Power: late 2016

Labrador-Island Transmission Link

Ownership: 100% Nalcor
 (~71% Nalcor/29% Emera upon Emera's participation)
 Construction cost: \$2.1 billion
 Regulatory recovery: 100% NLH
 In-Service: late 2016

5,428 MW Churchill Falls
 Hydro-Electric Plant

Labrador Transmission Assets

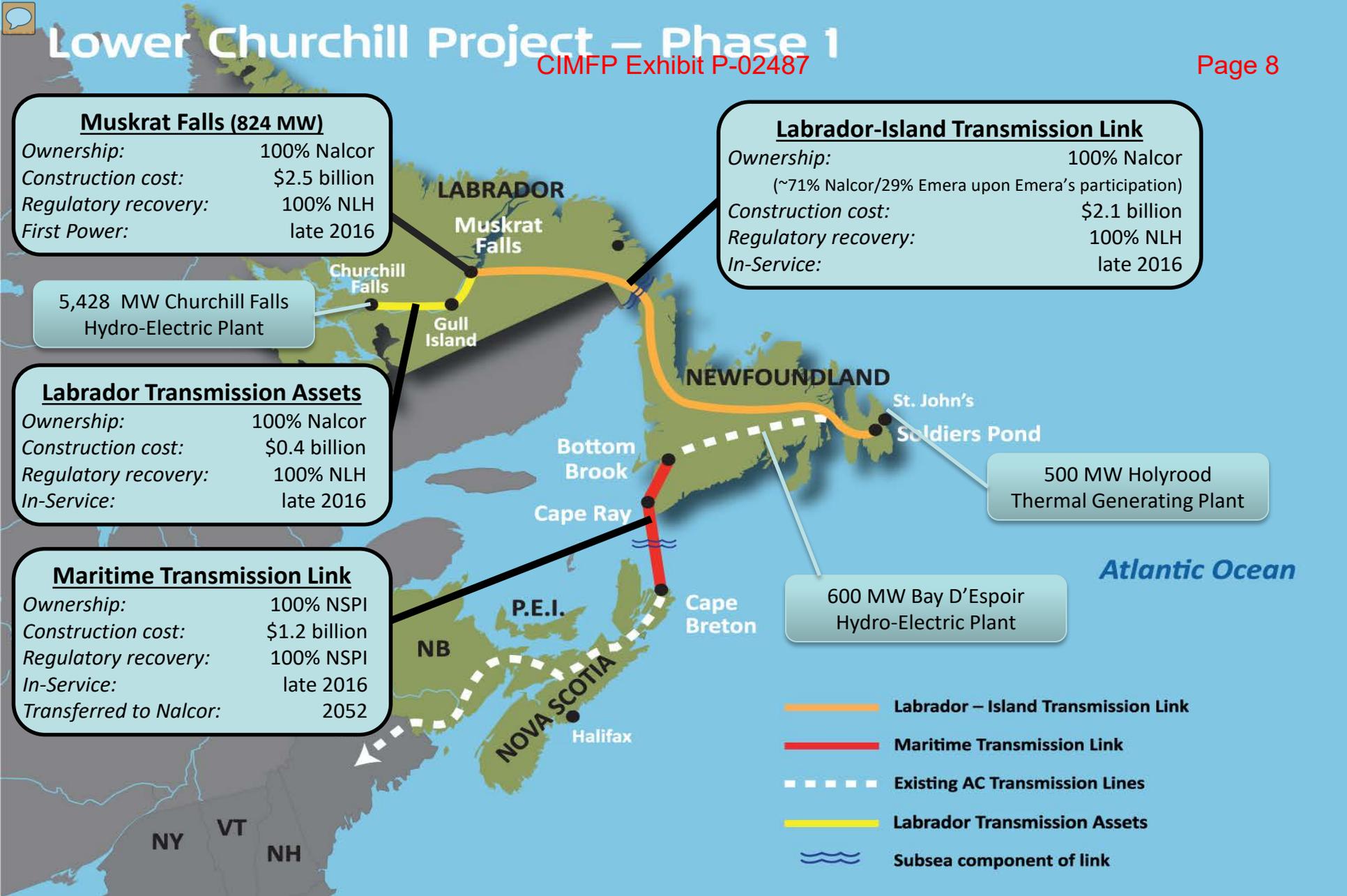
Ownership: 100% Nalcor
 Construction cost: \$0.4 billion
 Regulatory recovery: 100% NLH
 In-Service: late 2016

Maritime Transmission Link

Ownership: 100% NSPI
 Construction cost: \$1.2 billion
 Regulatory recovery: 100% NSPI
 In-Service: late 2016
 Transferred to Nalcor: 2052

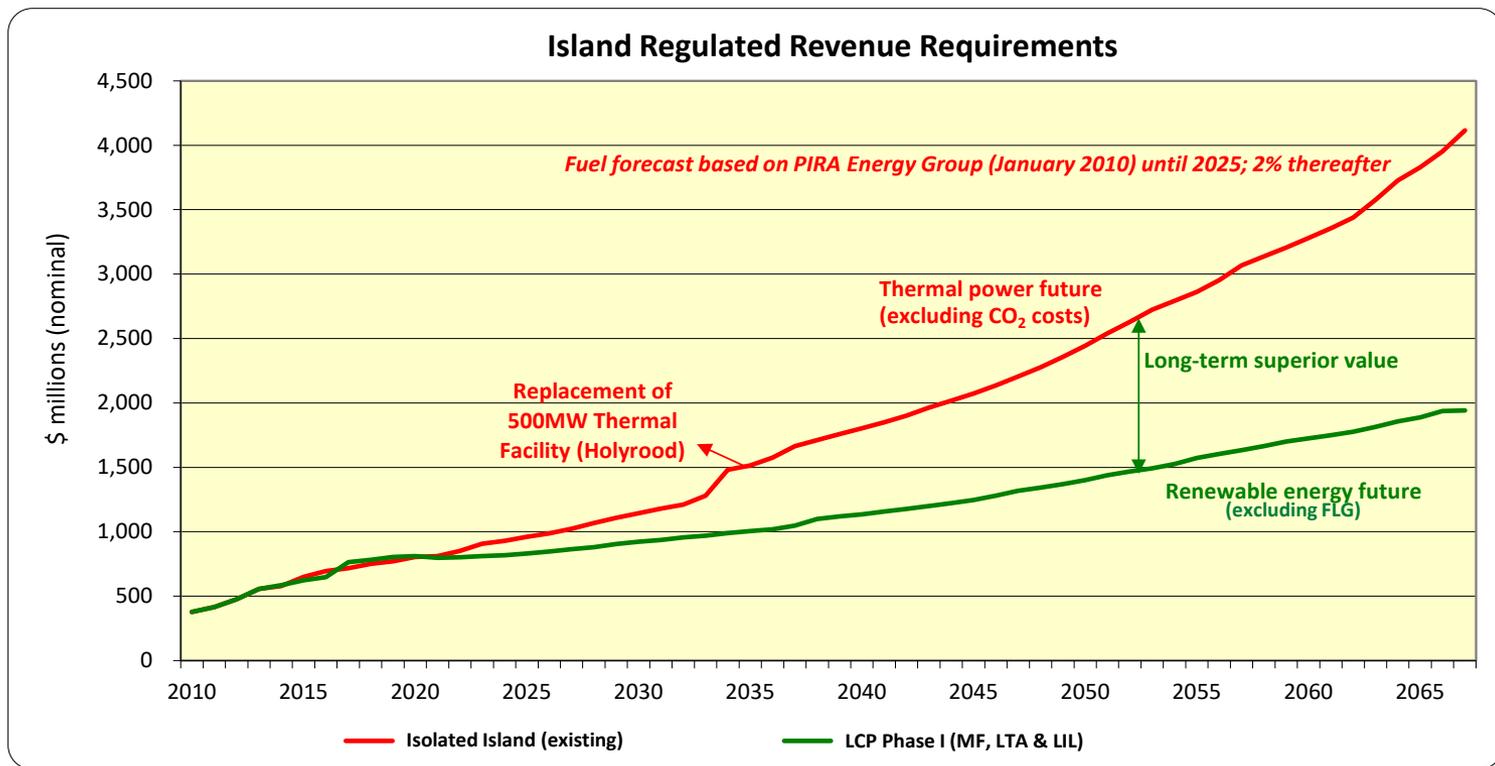
500 MW Holyrood
 Thermal Generating Plant

600 MW Bay D'Espoir
 Hydro-Electric Plant

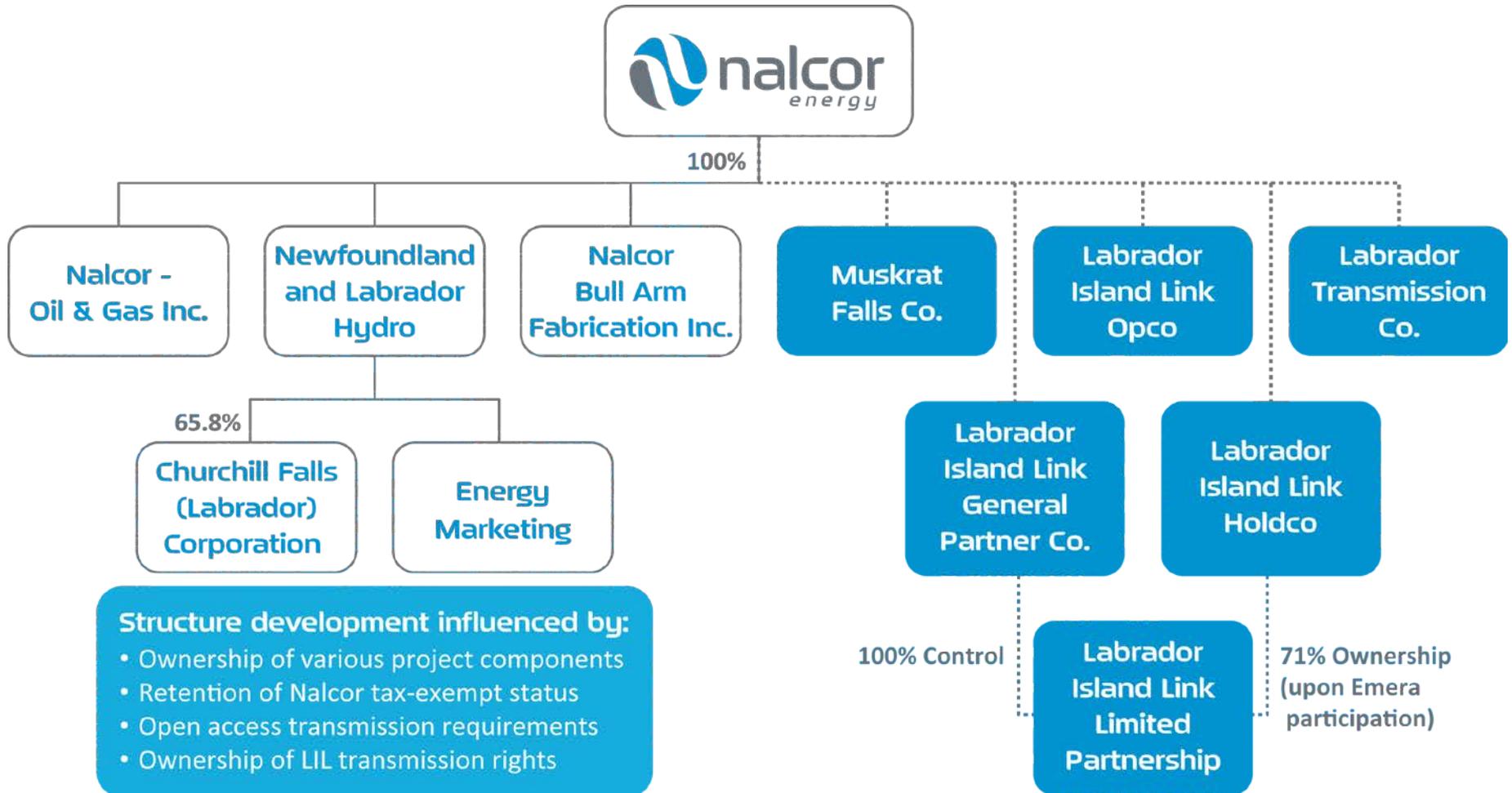


Island Supply Costs

- MF provides the least-cost alternative to meet NLH customer demand for power
- \$40+ billion in nominal savings over the life of the asset (PV of \$2.2+ billion savings)
- Long-term rate stability – removes reliance on thermal generation and global fuel prices
- Muskrat Falls provides a reduction in “real” rates to customers



Nalcor's Future Corporate Structure

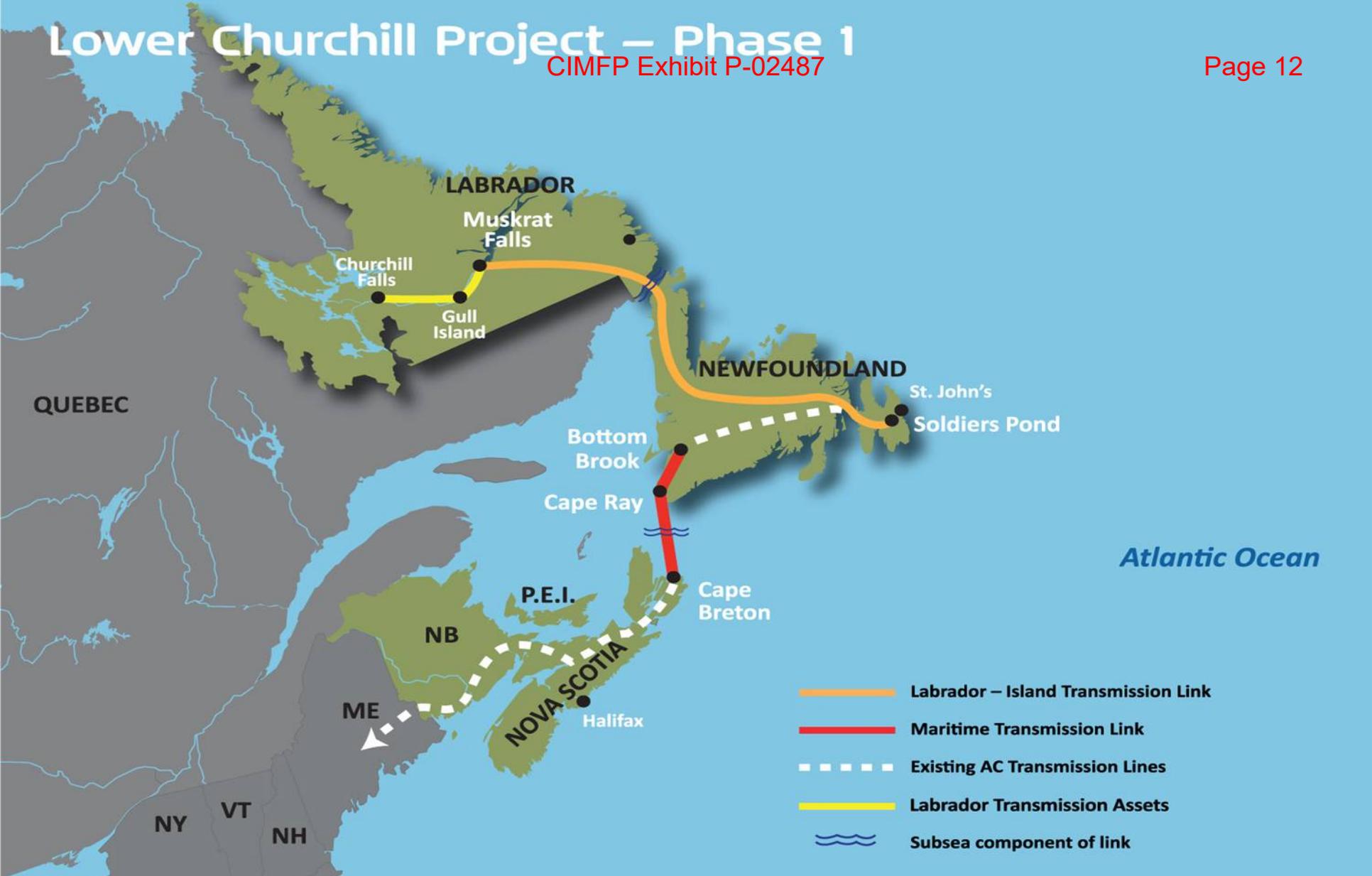




Project Execution Status and Philosophy

Lower Churchill Project – Phase 1

CIMFP Exhibit P-02487



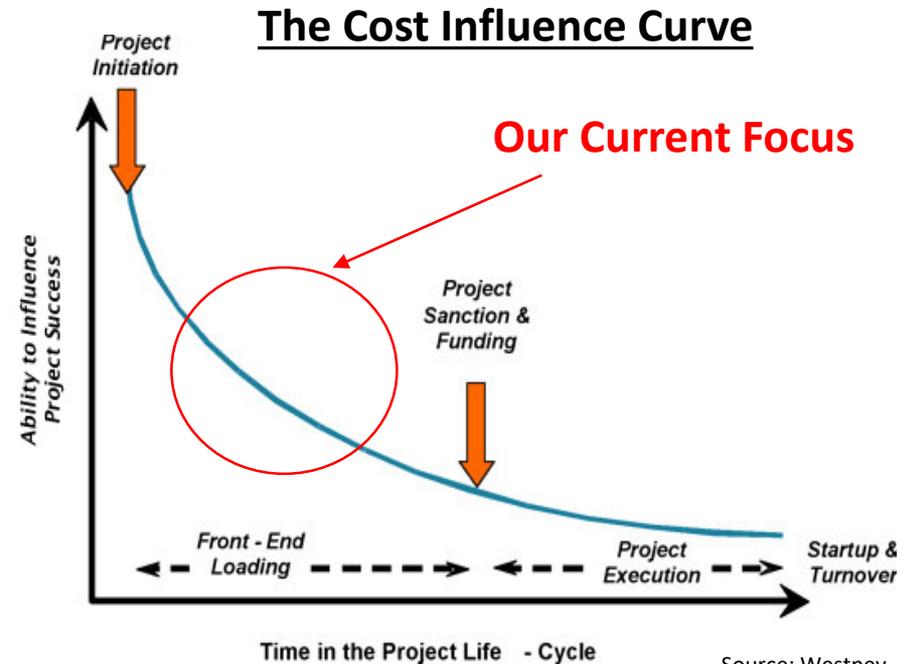


Mega-Project Success Factors

- ✓ Clear scope definition
- ✓ Solid project plan
- ✓ Realistic basis for cost estimates
- ✓ Optimal delivery/contracting strategy including early de-risking and risk allocation
- ✓ Application of proven technology
- ✓ Strong team that includes functional expertise and offers continuity over the Projects
- ✓ Strong and effective project control during execution

Front-End Loading - Influence on Project Outcome

- Front-end loading project definition and execution planning
- Early and continued focus on de-risking the projects
- Robust and disciplined project management with strong owner project controls
- Contracting strategies that minimize and optimally allocate risk
 - Nalcor is the Integrator
 - Engaged a world-class EPCM consultant (SNC)

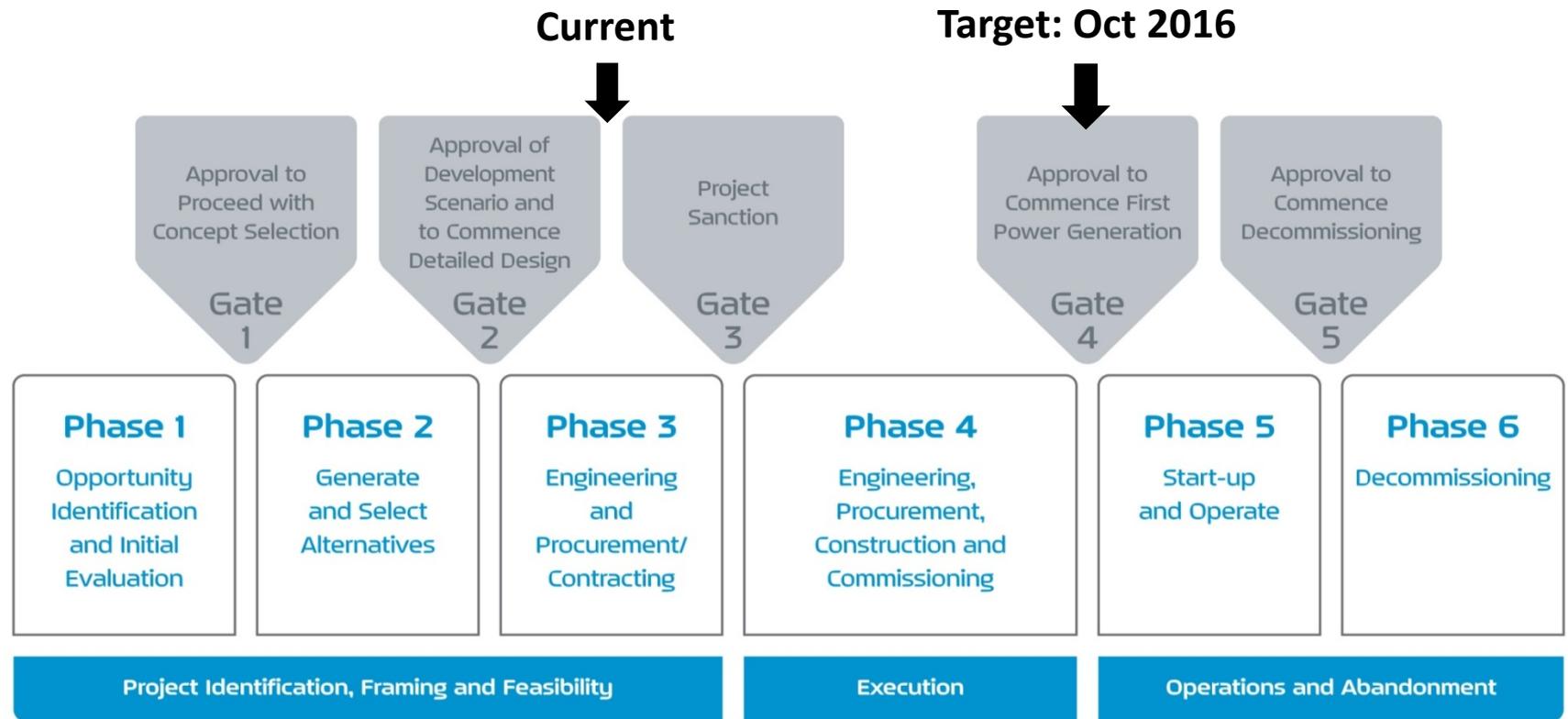


“Project is better prepared than a typical megaproject at end of Front-End Loading (FEL) 2,” and the “Project has clear objectives and a well-developed project team that has closed the project scope and achieved optimal project definition.”

- Independent Project Analysts, August 2010

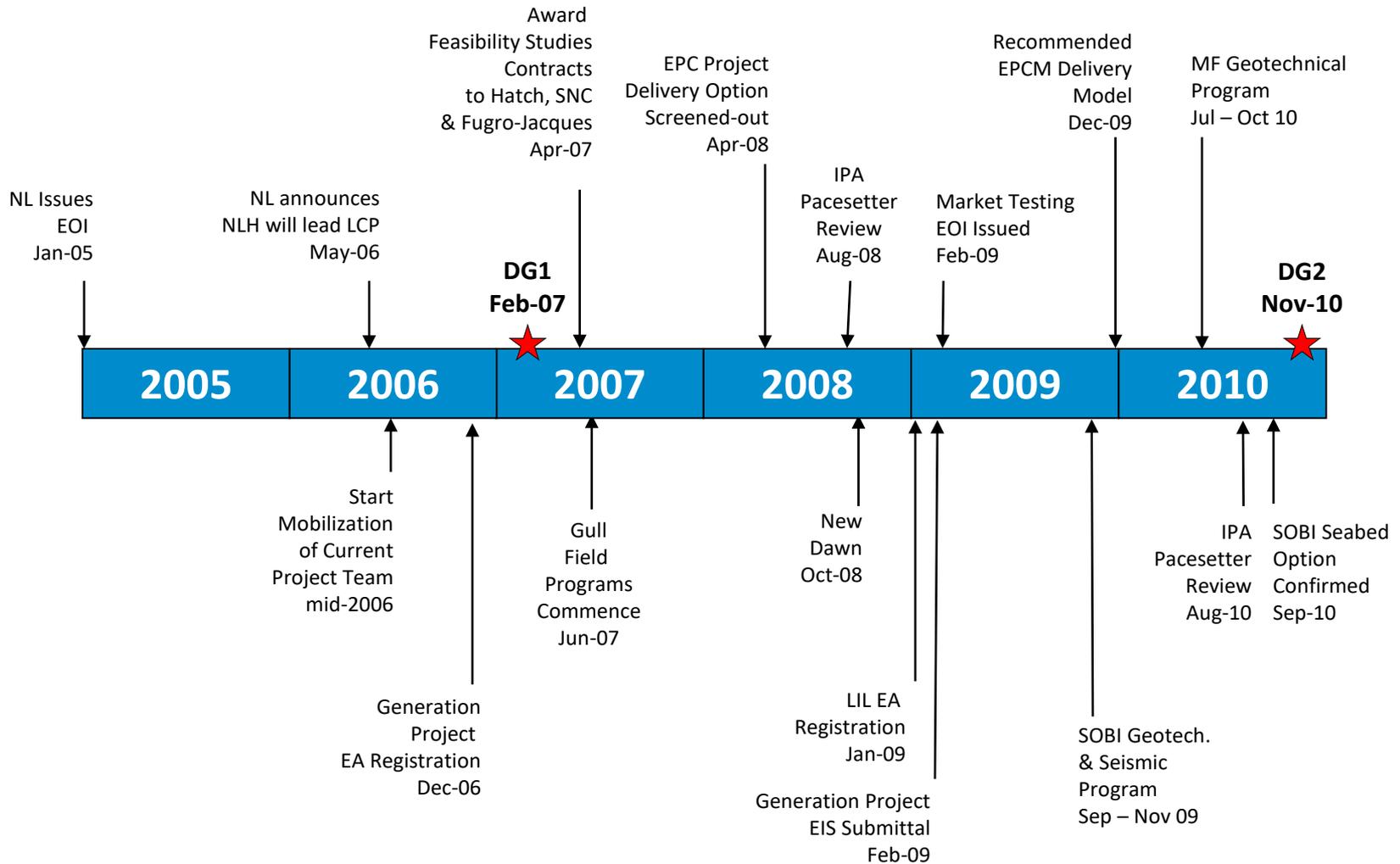
Stage-Gate Process

- Nalcor is implementing the Projects using a disciplined Stage-Gate Process
- DG2 was achieved in late 2010 and work toward DG3 is currently under way and is projected for completion Q2-2012
- Gatekeeper is Nalcor CEO in consultation with Nalcor Board of Directors and agreement with Shareholder



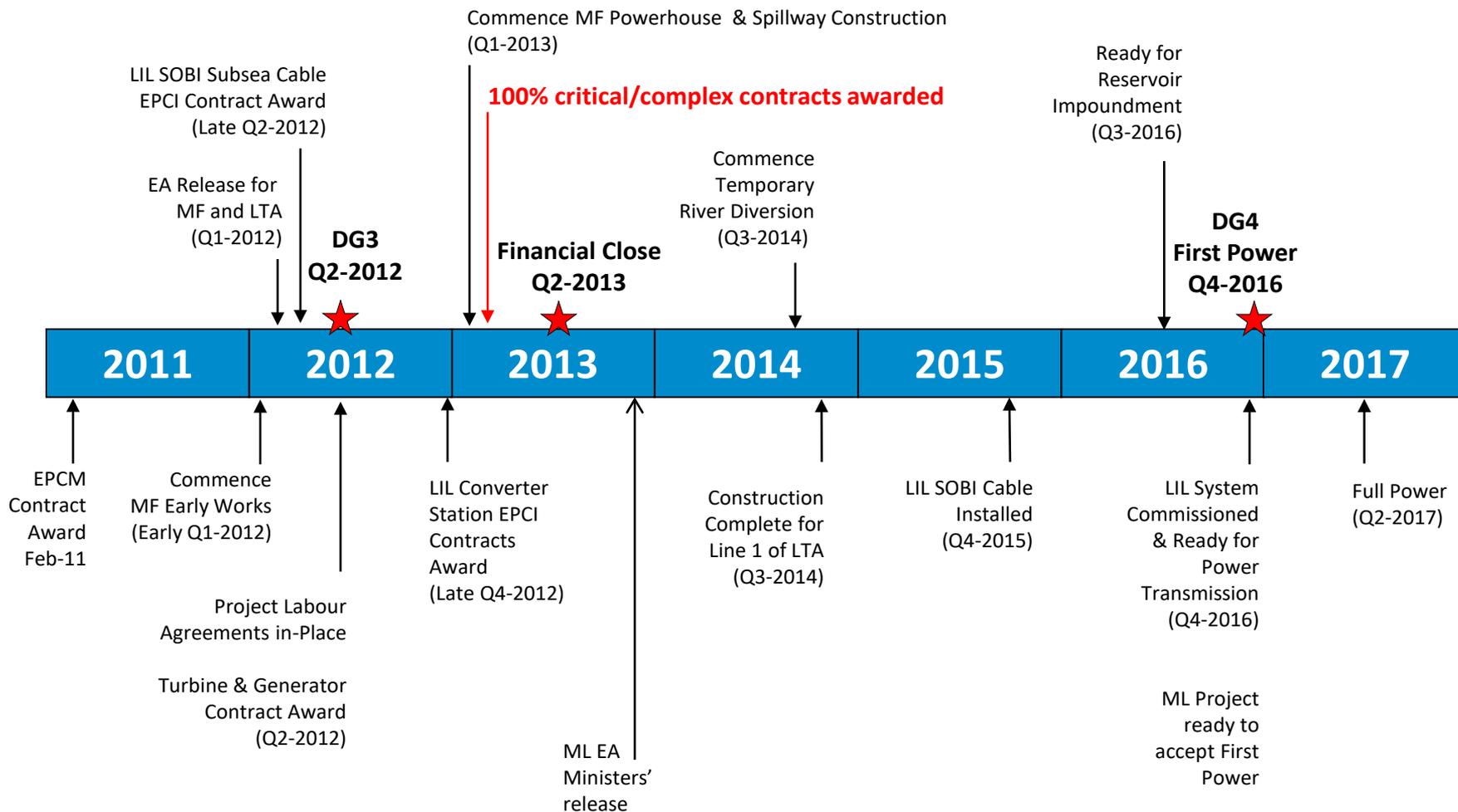


Key Project Achievements





Project Milestones

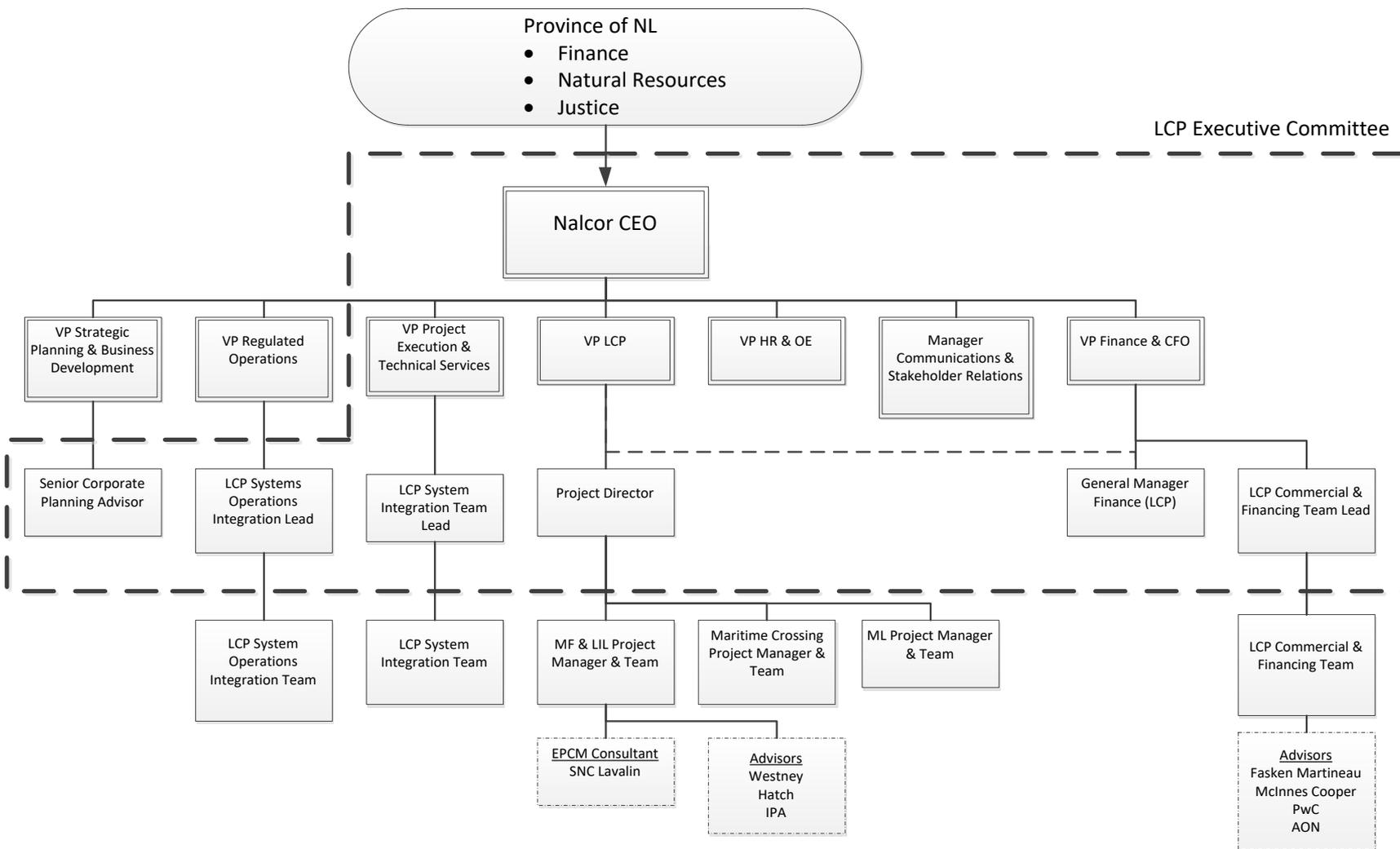




Project Execution Structure

Lower Churchill Project – Management

CIMFP Exhibit P-02487



Optimizing Project Delivery

Strategic Objectives

Balancing absolute cost against cost certainty, while...

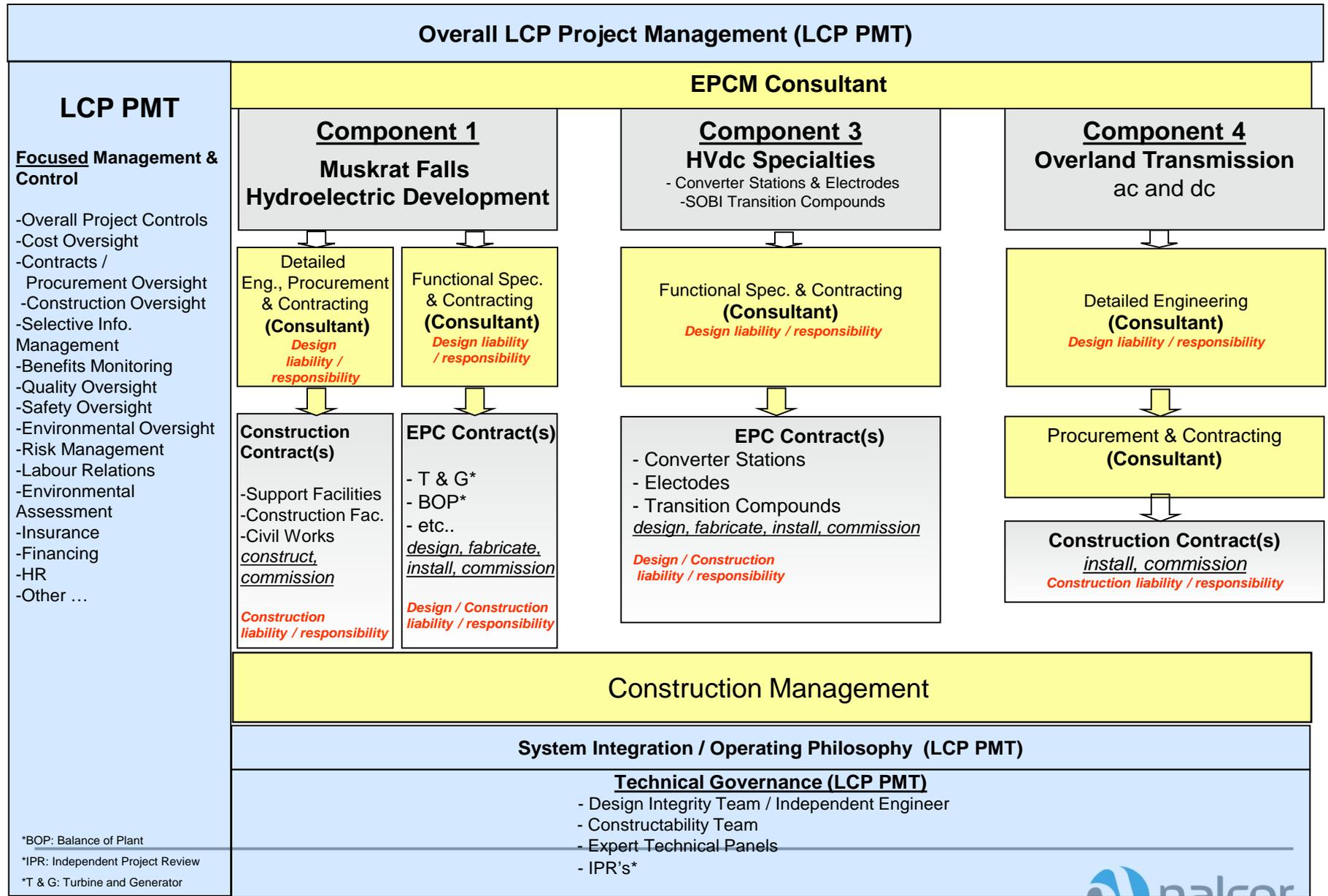
- Achieving the required project quality
- Optimizing the project schedule
- Minimizing overall cost and schedule risk
- Achieving optimum and appropriate risk allocation
- Meeting benefits and First Nations obligations

Decision 1: Delivery Model = EPCM

- Market not amenable to single EPC, but to smaller EPC
- Skillsets required vary across the 3 SPVs
- Significant schedule and cost advantage (~8 months, 25% - 30% premium)
- Offers enhanced Design Integrity & Performance
- 3 separate SPV's need individual, distinct delivery representation,
- Overarching system design and management needed across the SPV's to ensure total system delivery

Decision 2: Packaging Strategy

- Each SPV requires varied skill sets – need to align to bidder resources and capacities
- Market desires are clear for most major packages
- Optimize risk allocation
- Maximizes market competition
- Heavily focusing on EPC, lump sums, and fixed unit price
- Reflect IBA Obligations



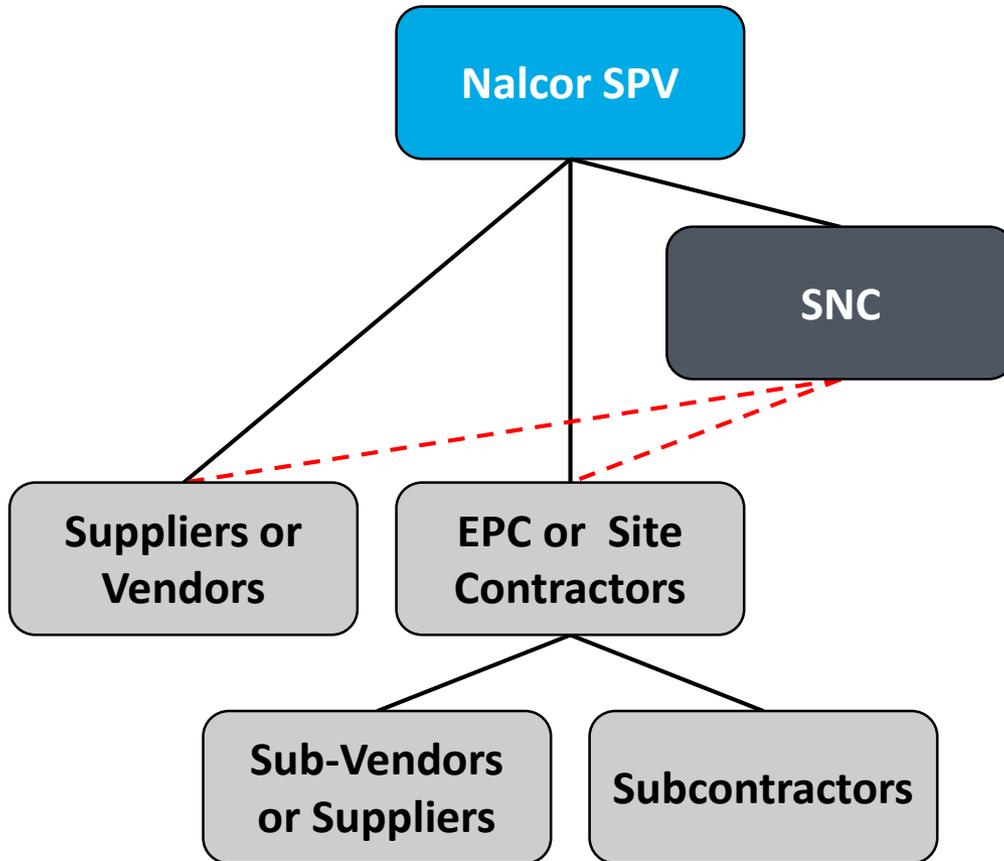
*BOP: Balance of Plant

*IPR: Independent Project Review

*T & G: Turbine and Generator

Note: Yellow color denotes EPCM Consultant

Typical SPV Delivery Structure



— Contractual Arrangement
 - - - EPCM Agent Role

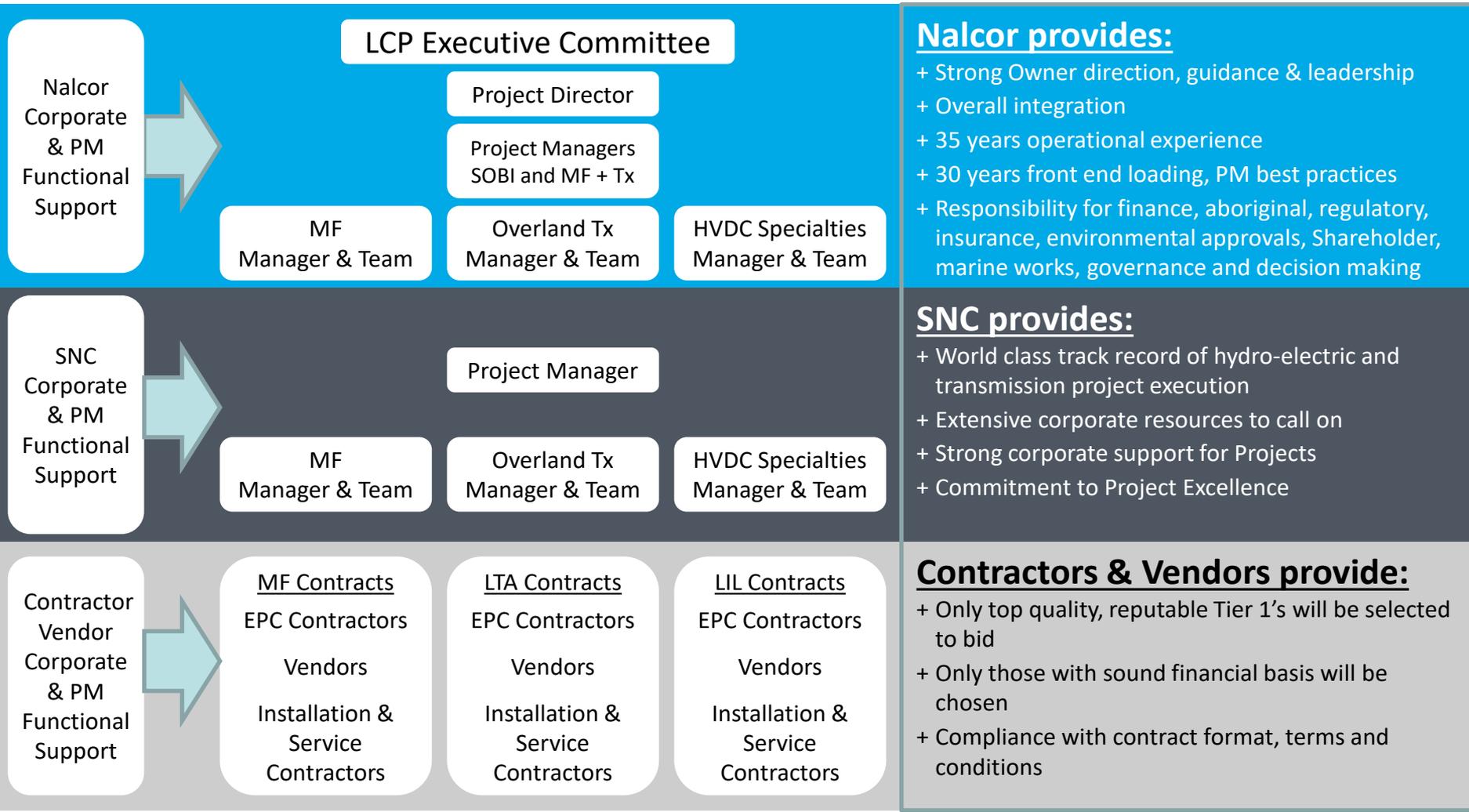
SNC performs detailed engineering, procurement and construction management services

Agreements are between Nalcor SPV and Contractors

The EPCM Consultant acts as representative for the Nalcor SPV in both procurement and construction management activities

Note: The above is not applicable for SOBI Crossing, where Nalcor provides all procurement and construction management for this specialized scope.

Organizational Structure



Nalcor provides:

- + Strong Owner direction, guidance & leadership
- + Overall integration
- + 35 years operational experience
- + 30 years front end loading, PM best practices
- + Responsibility for finance, aboriginal, regulatory, insurance, environmental approvals, Shareholder, marine works, governance and decision making

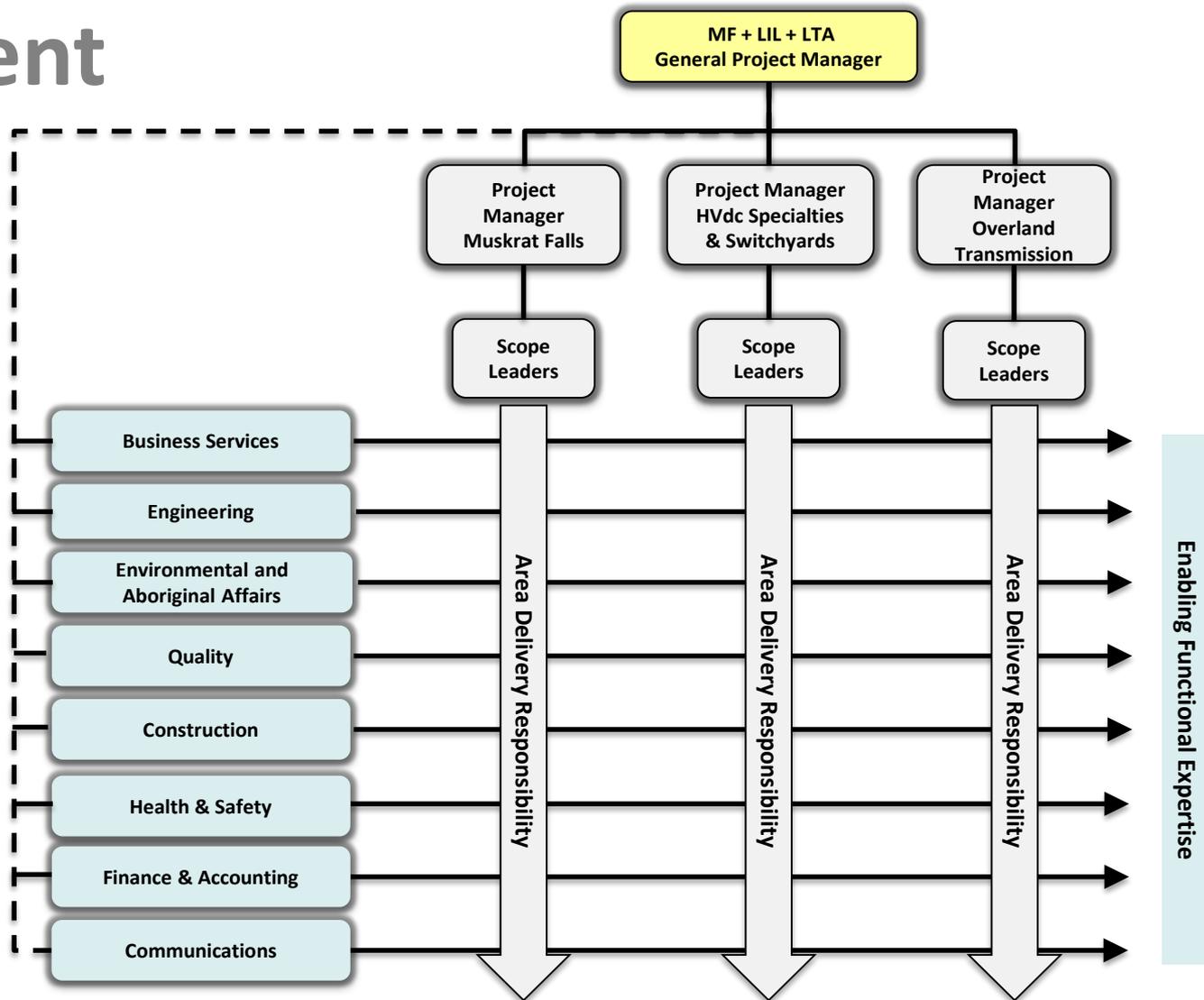
SNC provides:

- + World class track record of hydro-electric and transmission project execution
- + Extensive corporate resources to call on
- + Strong corporate support for Projects
- + Commitment to Project Excellence

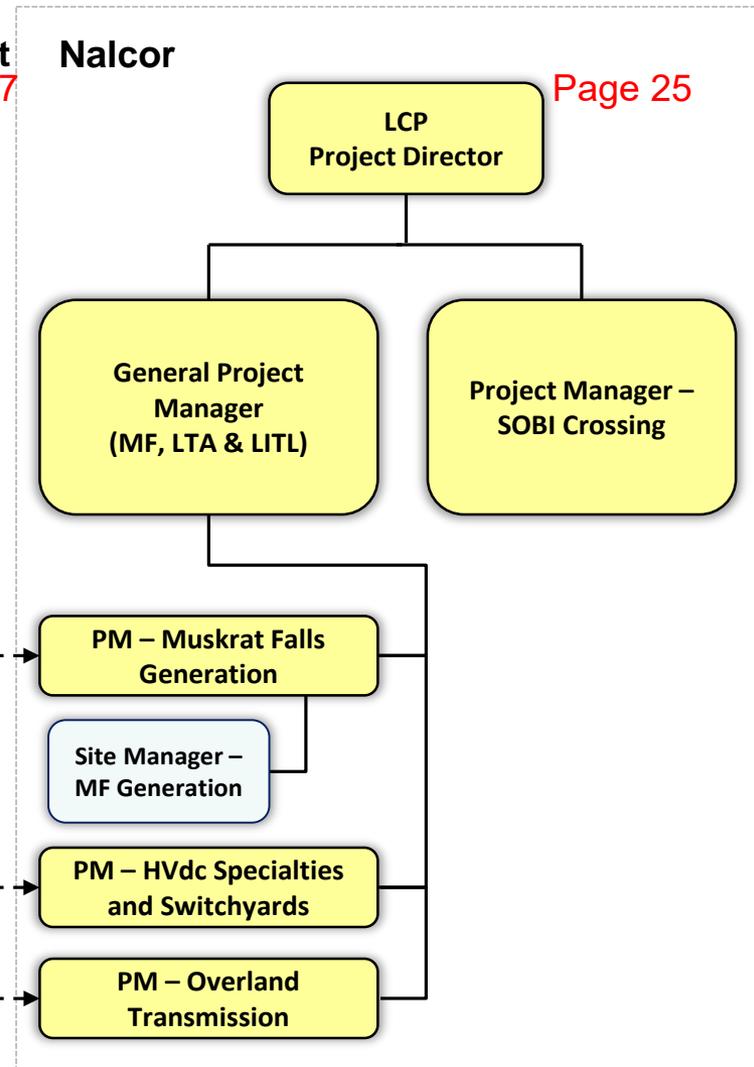
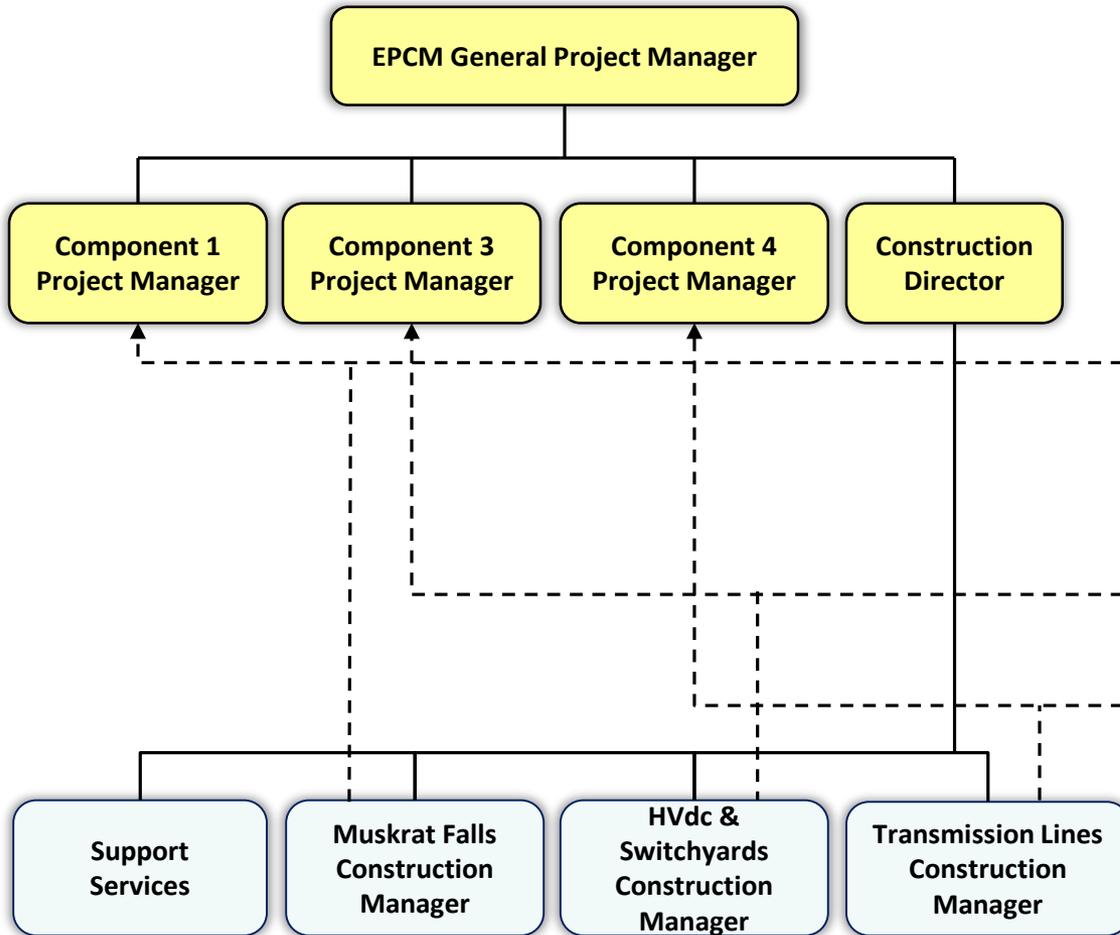
Contractors & Vendors provide:

- + Only top quality, reputable Tier 1's will be selected to bid
- + Only those with sound financial basis will be chosen
- + Compliance with contract format, terms and conditions

Management Approach



Improved Organizational Interfaces



Reflects Alignment with our Construction Management Plan

Nalcor Energy – Lower Churchill Project



Construction Management Plan

LCP-PT-MD-0000-CS-PL-0001-01

Comments: Excludes SOBI Crossing and Maritime Link works.	Total # of Pages (Including Cover): 50
--	--

Status/Revision	Date	Reason For Issue	Prepared By	Checker	Project Manager (Marine Crossings) Approval	Project Manager (Generation + Island Link) Approval	Project Director Approval
B1	<i>29-May-2012</i>	Approved for Use / Implementation	<i>[Signature]</i> K. McClintock	<i>[Signature]</i> J. Kean	N/A	<i>[Signature]</i> R. Power	<i>[Signature]</i> P. Harrington
A1	5-Apr-2012	Issued for Review	J. Kean				

CONFIDENTIALITY NOTE: This document contains intellectual property of the Nalcor Energy – Lower Churchill Project and shall not be copied, used or distributed in whole or in part without the prior written consent from the Nalcor Energy – Lower Churchill Project.

Project Team Effectiveness Status

Background

- SNC EPCM contract awarded in February 2011
- Detailed kick off held outlining expectations per the coordination procedures
- SNC asked for 2011 to get team in place and deliver products for phase 1
- Performance, delivery philosophy and roles issues raise their heads by end 2011
- Clearly making team less effective than expected
- Meetings at senior level held in January to discuss
- Mini IPR held in Q1

Background...Con'td

- Decided that “Task Force” approach will be used to move forward to gain organizational alignment – Nalcor/SNC teams
- Build from the “**bottom-up**”
 - Our Management Approach, Process and Tools must drive organizational resource requirements
- **Task Force Charter** issued in order to bring resolution to both items
- + other actions from January meeting

Opportunities

1. Delivery performance concerns at question by some
2. Clarity of roles and subsequent inclusion at question by some
3. Overall communication and effectiveness
4. Align on execution philosophy and organizational readiness to pass through DG3

Questions?