Nalcor Energy – Lower Churchill Project

Project Charter

LCP-PT-MD-0000-PM-CH-0001-01

Comments:	Total # of Pages (Including Cover):
Supersedes Document # MSD-PM-001 LCP Project Charter	33

Status/ Revision	Date	Reason For Issue	Prepared By	Functional Manager Approval	Project Manager (Marine Crossings) Approval	Project Manager (Generation + Island Link) Approval	Project Director Approval
B1	12-Dec-2011	Issued for Use/ Implementation	S. Goulding	J. Kean	G. Fleming	R. Power	P. Harrington
A2	15-Sep-2011	Issued for Review	S. Goulding				
A1	10-Sep-2010	Issued for Review	J. Kean				

Inter-Departmental / Discipline Approval (where required)

Department	Department Manager Approval	Date
Business Services	L. Clarke	26-Sep-11
Finance	M. Bradbury	28-Sep-11
Corporate Interface	B. Crawley	Sept 28/11
VP LCP	G. Bennett	18 Oct 2011

TABLE of CONTENTS

1.0 Purpose

This *Project Charter* for the Nalcor Energy – Lower Churchill Project (NE-LCP or the Project) provides the basis for defining a business opportunity and framing how that opportunity will be realized. It provides clarity as to why the Project exists, what the business objectives are and how these translate into goals and objectives of the Project, including providing clarity answering the following questions:

- What constitutes the Project's scope?
- Why are we undertaking the Project?
- How does the Project fit into Nalcor Energy's long-term plan?
- Why are the desired outcomes for the Project?
- What are the governing constraints for the Project plans and decisions?
- How will the Project be governed and how will decisions be made?

2.0 Scope

This *Project Charter* is applicable during the planning and execution of the Muskrat Falls Hydroelectric Generation Facility, Labrador Transmission Assets (i.e. transmission between Muskrat Falls and Churchill Falls) and the Labrador – Island Link Transmission Project during Gateway Phases 3 and 4 and the Maritime Link Project during Gateway Phases 2. A separate and specific Project Charter for the Maritime Link will be completed after it passes through Decision Gate 2.

3.0 Definitions

LCP-PT-MD-0000-PM-LS-0001-01 Project Dictionary is the approved dictionary of definitions for the NE-LCP.

Decision Gate A Decision Gate is a predefined moment in time where the Gatekeeper has to make appropriate decisions whether to move to the next stage, make a temporary hold or to terminate the project. The option to recycle to the current stage is considered an undesirable option unless caused by changes in business conditions.

Gatekeeper	The individual responsible for making the decision at the Decision Gate of the Gateway Process.
NE-LCP Management Team	All managers and their delegates who report directly to the NE-LCP Project Director.
Risk	An uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives.
Shareholder	For Nalcor Energy, the Shareholder is the Province of Newfoundland and Labrador.

4.0 Abbreviations and Acronyms

EA	Environmental Assessment
EIS	Environmental Impact Statement
GHG	Greenhouse Gas Emissions
GNL	Government of Newfoundland & Labrador
HTGS	Holyrood Thermal Generating Station
HVac	High Voltage Alternating Current
HVdc	High Voltage Direct Current
IBA	Impacts and Benefits Agreement
IPR	Independent Project Review
MW	Megawatt
NE-LCP	Nalcor Energy Lower Churchill Project
PMT	Project Management Team
OATT	Open Access Transmission Tariff
PEP	Project Execution Plan
PLF	Planning Load Forecast
RACI	Responsible, Accountable, Consulted and Informed
SOBI	Strait of Belle Isle
TWh	Tera-watt hour

5.0 Reference Documents

LCP-PT-MD-0000-PM-PR-0001-01	Gateway Process
LCP-PT-ED-0000-EN-RP-0001-01	Lower Churchill Project Basis of Design
200-010141-00001	Lower Churchill Project – Gate 2 Decision Recommendation to Nalcor's Board of Directors

6.0 Responsibilities

Gatekeeper	Responsible for the approval of this *Project Charter* and for its communication to the NE Board of Directors and the Shareholder.
NE-LCP Vice-President	Responsible to approval of this *Project Charter* and to ensure it reflects the business objectives for the Project.
NE-LCP Project Director	Responsible for endorsing this *Project Charter* and to ensure the Project's objectives satisfy the business objectives for the Project. Also responsible to ensure communication of this *Project Charter* to the Project Team and to ensue alignment of the Project's activities with this Charter.

7.0 Identified Business Opportunity

With an abundance of hydroelectric, wind and petroleum resources, Newfoundland and Labrador is positioned to be a strategic, long-term supplier of energy to meet the growing demands in eastern North America. The lower Churchill River hydroelectric resource is one of the key elements of the province's energy warehouse.

The potential of the lower Churchill resource, the lowest cost, undeveloped hydro resource in North America, is immense. Together, Gull Island and Muskrat Falls, with a capacity of over 3,000 MW, have the capacity to power 1.5 million homes. Combined with the existing Churchill Falls Generating Station (total installed capacity of 5,428 MW completed in 1974 and producing 34 TWh per year), the three (3) developments could produce the electrical equivalent of 225,000 barrels of oil a day in perpetuity. This source of clean, cost efficient, renewable energy will allow Newfoundland and Labrador to play an important part in meeting Canada's growing energy demand and reducing the country's greenhouse gas (GHG) emissions. The projects are expected to have negligible CO_2 emissions because of the northern location and relatively small reservoir sizes.

The development of the lower Churchill River's 3,000 MW will provide the resources to address future energy needs of the Province arising from normal load growth and from industrial opportunities. It will also allow Nalcor to avail of opportunities in various export markets arising from the need to replace aging infrastructure, medium-to-long-term load growth, renewable non-emitting energy needs and the need for dispatchable sources of energy.

Hydroelectric generation has been a significant contributor to Canada's economy for generations. The multi-faceted benefits of hydroelectricity have made it a cornerstone of Canada's stable economy. These benefits have included the availability of reliable, clean and predictably priced electricity. More recently, the benefits of hydroelectricity resulting from the enormous contribution to reducing greenhouse gas emissions have also been recognized. The

Lower Churchill Project is expected to be no different; this multi-billion dollar investment will contribute significant benefits to the provincial and national economy through revenue generated from sales and new business opportunities.

Development of the lower Churchill River is also attractive because of the small flooding area relative to their potential output. The existing Churchill Falls Power Development is located in the upper Churchill River basin has a drainage area of approximately 70,000 km^2 located entirely in Labrador. All the water is discharged back into the Churchill River after passing through the turbines. In comparison, the flood areas for the Lower Churchill developments are 36 km^2 for Muskrat Falls and 85 km^2 for Gull Island. Reservoir lengths would be 225 km and 60 km, respectively.

8.0 Business Objectives and Goals

The Newfoundland and Labrador Energy Plan (Energy Plan), a comprehensive energy policy for Newfoundland and Labrador, was released in September 2007 following an extensive public consultation process by the Government of Newfoundland and Labrador. The Energy Plan envisions a future where "our energy resources contribute to a vibrant and sustainable Newfoundland and Labrador where people are proud to live and work, the standard of living is high, and the environment is protected now and into the future; and to ensure that the people of Newfoundland and Labrador take pride and ownership in our energy resources and strategically develop them in such a way that returns maximize benefits to the Province for generations to come"[1].

Environmental sustainability and economic self reliance for the best long-term interests of the people and the Province are two core objectives of the Energy Plan, which establishes a mandate to explore options to develop the hydro potential of the lower Churchill River. The Energy Plan makes meeting our current and future electricity needs with environmentally friendly, stable and competitively priced energy and power a priority, and endorses the development of the Project as a cornerstone public policy action to fulfill this obligation.

Nalcor's role as the execution lead for the Project was affirmed in May 2006 by the Government of Newfoundland and Labrador after the completion of an Expression of Interest (EOI) process which was initiated in January 2005. Direction to Nalcor to proceed with planning of the Project is affirmed within the release of the Energy Plan and includes the following policy directives relevant to the Project:

- The Government of Newfoundland and Labrador will lead the development of the Lower Churchill Hydroelectric Project, through the Energy Corporation (Nalcor).[2]

1 Energy Plan, Page 2.

2 Energy Plan, Page 32.

- Export focus will be on achieving direct access to both long and shorter-term customers in a number of markets, including Ontario, New Brunswick, Quebec, Nova Scotia, P.E.I., New England and New York. Achieving direct access is necessary to ensure we:
    a) Secure a fair share of the economic upside potential of developments over the long term.
    b) Position ourselves properly for realizing the long term value of the Upper Churchill development.[3]

These policy directives to Nalcor substantiate the Business Objectives for the Project, which are:

- Develop the Project as the least-cost long-term supply of electricity for Newfoundland and Labrador;

- Export production from the Project that is not used within Newfoundland and Labrador to neighbouring markets; and

- Develop markets and market access strategies that position Newfoundland and Labrador for realizing the value of the Upper Churchill development when the Churchill Falls power contract expires in 2041.

Furthermore, these policy directives, and hence Business Objectives, flow from the underpinning goals of the Energy Plan:[4]

1. **Environmental Leadership.** We will ensure our environment is continually protected and improved, through the responsible development of clean, renewable sources of energy, including, but not limited to, hydroelectric and wind generation, investing in energy efficiency and conservation programs, and funding energy innovation.

2. **Energy Security.** We will ensure we have a secure, reliable and competitively-priced supply of energy for current and future needs of the people of Newfoundland and Labrador.

3. **Sustainable Economic Development.** We will develop our energy resources to help meet our social and economic responsibilities. We will reinvest the value we receive from our energy sector to secure our prosperity today and for future generations. We will ensure energy developments capitalize on our competitive advantages: our people, our industrial infrastructure, our geographic location and our political stability.

4. **Maximizing Electricity Export Value.** We will ensure we are positioned to maximize value over the long term from any electricity available for export and to invest the proceeds strategically.

3 Energy Plan, Page 44.

4 Energy Plan, Page 3.

Concurrent to the analysis of development options for the Lower Churchill Project over the past four years, Newfoundland and Labrador Hydro (NLH) has been completing studies and analysis to ensure this policy action has been met. During this time, NLH has been assessing the preferred options to provide for domestic energy needs and to address the future of the aging Holyrood Thermal Generating Station (HTGS).

The Energy Plan outlines specific measures to address environmental concerns related to the HTGS. The long-term plan proposed in the Energy Plan is to replace the energy provided by the HTGS with electricity from the Lower Churchill development through a High Voltage Direct Current (HVdc) transmission link from Labrador to the island. In the event the Lower Churchill Project does not proceed, scrubbers and precipitators are to be installed at the HTGS[5].

Newfoundland and Labrador Hydro reaffirmed in July 2010, that there is a present need for new generation sources to service the Island's electrical growth forecast when it filed its report *Generation Planning Issues* with the Public Utilities Board. Based on an examination of the Island electrical system's existing plus committed capability, in light of current planning load forecast (PLF) and the approved generation planning criteria, the Island system can expect capacity deficits starting in 2015 under both the HVdc link and Isolated Island scenarios but no energy deficits until post-2019. These findings are consistent with previous investigations. As indicated in this report, when project development timeframes are taken into consideration, a decision was needed by the fall of 2010 on the selection of the next source of generation to meet the Island's electricity needs[6].

The outcome of this analysis was a recommendation to use the Lower Churchill Project to service the Island's electrical growth forecast. The Project resource is large enough to achieve this as well as to provide a competitive, long-term, clean, and reliable source of electricity at a reasonable price to a number of other regional markets within Eastern Canada and the north eastern United States. Market demand is expected to be quite strong and is based on requirements to meet renewable objectives, replace aging infrastructure, and to meet new load growth within the timeframe of the Project. Given its scale, the Project represents one of the most important and realizable opportunities for Canada to meet its environmental commitments and curb greenhouse gas and other emissions in a meaningful way.

The Project will meet the identified demand for clean, renewable energy, to displace greenhouse gas (GHG) emitting sources, and to generate benefits by providing electricity to third parties in order to generate revenues for the Province.

5 Energy Plan, Page 38.

6 Generation Planning Issues 2010 Report, Page i.

9.0 Nalcor Energy as the Project Enabler

In 2007, guided by a long-term Energy Plan, the Government of Newfoundland and Labrador created a new provincial energy corporation to take a lead role in the development of the province's energy resources. In 2009, the Nalcor Energy name and brand were introduced.

Nalcor's Business

Nalcor Energy's business includes the development, generation, transmission and sale of electricity; the exploration, development, production and sale of oil and gas; industrial fabrication site management; and energy marketing. Focused on sustainable growth, the company is leading the development of the province's energy resources and has a corporate wide framework which facilitates prudent management of its assets while continuing an unwavering focus on the safety of its workers and the public.

Nalcor Energy has five lines of business: Newfoundland and Labrador Hydro (Hydro or NLH), Churchill Falls, Oil and Gas, Lower Churchill Project, and Bull Arm Fabrication[7]. The activities of these lines of business are undertaken by Nalcor Energy and its subsidiaries Newfoundland and Labrador Hydro[8] (Hydro) and Nalcor Energy – Oil and Gas.

Nalcor's Vision

"To build a strong economic future for successive generations of Newfoundlanders and Labradorians"

Nalcor's Mandate

The *Energy Corporation Act (2008)* mandates Nalcor to invest in, engage in, and carry out activities in all areas of the energy sector in the province and elsewhere, including:

- Developing, generating, producing, transmitting, distributing, delivering, supplying, selling, exporting, purchasing and using of power from wind, water, steam, gas, coal, oil, hydrogen or other products used or useful in the production of power.[9]
- Exploring for, developing, producing, refining, marketing and transporting hydrocarbons and products from hydrocarbons.
- Manufacturing, producing, distributing and selling energy related products and services.
- Research and development.

7 Transferred to Nalcor on March 31, 2009

8 The subsidiaries of Nalcor Energy are Newfoundland and Labrador Hydro (Hydro) and Nalcor – Oil and Gas Inc. Subsidiaries of Hydro were Churchill Falls (Labrador) Corporation (Churchill Falls), Lower Churchill Development Corporation (LCDC) and Gull Island Power Corporation (GIPCo). LCDC and GIPCo are not active operating companies. Churchill Falls maintains a 33 per cent share in Twin Falls Power Corporation (TwinCo).

9 Nalcor Energy 2009 Annual Performance Report Transparency and Accountability, Page i.

Nalcor's Goals

Stemming from its vision and mandate, Nalcor Energy has set a number of visionary goals (reference Attachment B.1), one of which is Lower Churchill profitably producing 3,000 MW, on time, on budget.

These visionary goals are reaffirmed by the 2008-2010 Strategic Plan for Nalcor Energy[10]. This Plan highlighted eight strategic issues around which goals and objectives for Nalcor Energy were established. These issues encompass the activities of Nalcor and its subsidiaries, including Issue 6 which addressed the development of the Lower Churchill Project. Through Nalcor's strategic business planning framework, Nalcor has a 5-year business planning process which defines targets and objectives under five (5) core corporate goals that guide all activities and focus areas for the Project. These five goals are:

- **Goal 1 Safety:** To be a world class safety leader.
- **Goal 2 Environment:** To be an environmental leader.
- **Goal 3 Business Excellence:** Through operational excellence to provide exceptional value to all consumers of our energy.
- **Goal 4 People:** To ensure a highly-skilled and motivated team of employees who are strongly committed to our success and future direction.
- **Goal 5 Community:** To be a valued corporate citizen in Newfoundland and Labrador.

Nalcor's Core Values

As one of Nalcor's core lines of business, the NE-LCP will comply with, and has adopted, Nalcor's values. These core values will be reflected through the strategic planning and day-to-day management of the Project, including all dealings with contractors and consultants.

A proud, diverse energy company, whose people are committed to building a bright future for Newfoundland and Labrador, unified by our core values.

- ***Open Communication:*** *Fostering an environment where information moves freely in a timely manner*
- ***Accountability:*** *Holding ourselves responsible for our actions and performance*
- ***Safety:*** *Relentless commitment to protecting ourselves, our colleagues and our community*
- ***Honesty and Trust:*** *Being sincere in everything we say and do*
- ***Team Work:*** *Sharing our ideas in an open and supportive manner to achieve excellence*
- ***Respect and Dignity:*** *Appreciating the individuality of others by our words and actions*
- ***Leadership:*** *Empowering individuals to help, guide and inspire others*

10 Nalcor Energy 2009 Annual Performance Report Transparency and Accountability, Page 10.

Nalcor's Code of Conduct

Nalcor Energy's Code of Conduct identifies a standard for all of its employees to follow when confronted with situations that may cause employees to question their ethics and principles. The Code defines what Nalcor considers are conflicts of interest and unethical business practices and conduct. The Code is based on four key principles:

- The interests of Nalcor Energy must take preference over personal interests
- Acts or conduct that support private interests over the interests of Nalcor Energy must be avoided
- Any conflict of interest has the potential to impair the company's credibility, reputation and/or commercial interests
- All employees have an obligation to perform their duties and responsibilities without allowing personal interests to conflict with those of Nalcor

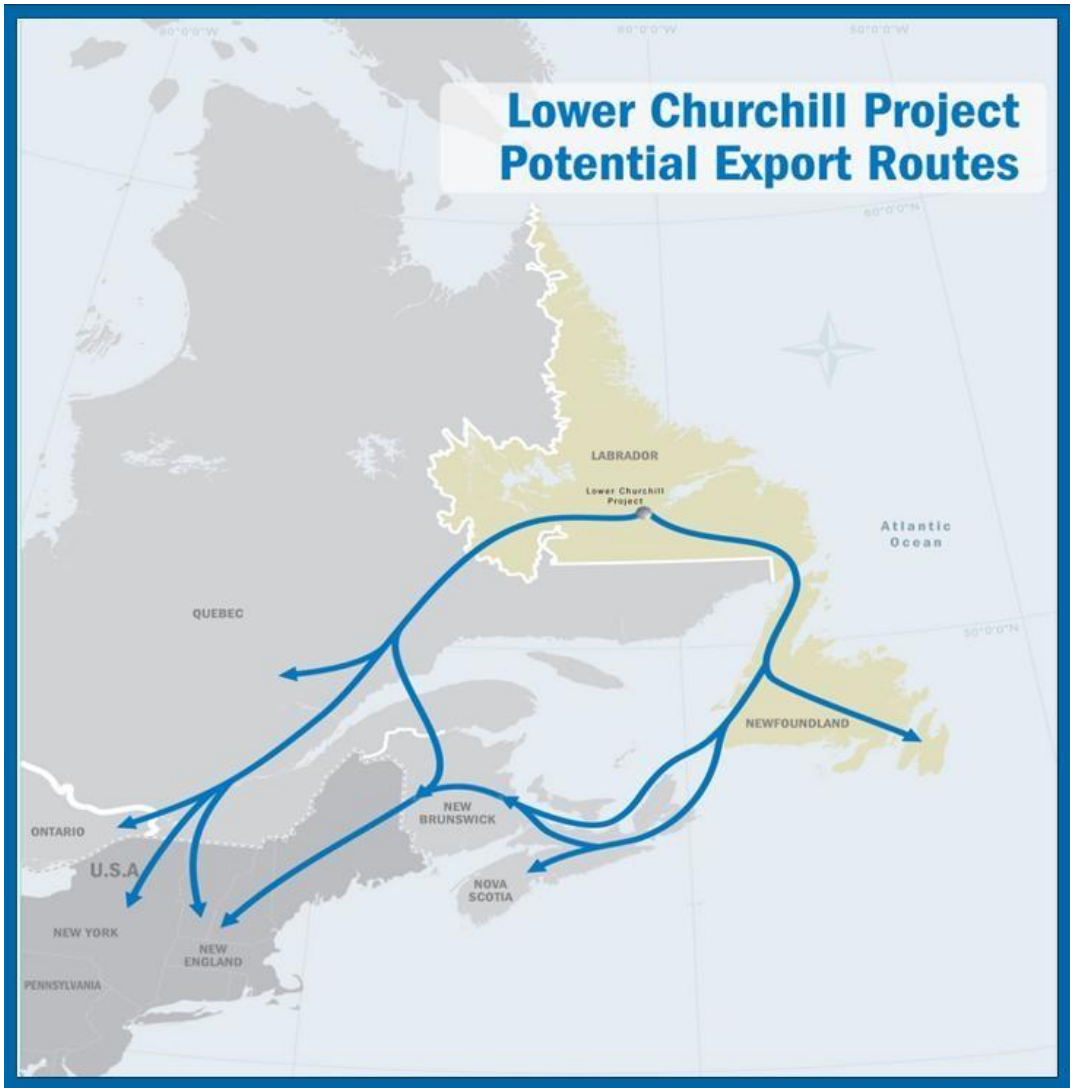
10.0 Developing the Business Opportunity

Historically an obstacle hindering the development of the lower Churchill River's hydro resources has been obtaining market access to allow energy transmission. This is attributable to the Project's geographical isolation and the fact that the island portion of the Province is not connected to the mainland grid. To overcome this obstacle two market access routes, as depicted in Figure 1.0, have and continued to be pursued in order to develop the energy export potential of the lower Churchill River. They are:

- An overland route through the Province of Quebec, through application to Hydro Quebec TransEnergie's Open Access Transmission Tariff (OATT) process, facilitating the transmission of energy into New Brunswick, Ontario, Nova Scotia, New England and New York markets.

- A subsea route from the Island into the Maritimes, building on the transmission link from Labrador to the Island. This type of link would be similar in nature to subsea links currently in existence around the world. Advancements in the field of HVdc technology and high-voltage submarine cable make the Maritime Link a technically viable alternative to reaching mainland markets.

Figure 1.0: Potential Transmission Routes for Market Access



The decision to develop Phase I the Lower Churchill Project was driven by two fundamental drivers:

1. What will be the next generation source required to meet Newfoundland and Labrador's domestic needs and what is the timing of those needs?
2. How can the remainder of the energy be effectively monetized through industrial development in the province or through export to other jurisdictions?

After a thorough and comprehensive assessment of the options and alternatives to develop the hydro potential of the lower Churchill River for domestic use and export, and considering the status of progression of achieving either of these export routes, a phased development has been selected. Nalcor believes this is the best alternative to meet the island's electricity needs, when considering the circumstances with respect to options for energy export.

Phase I will include the development of the following projects, Muskrat Falls 824 MW generating facility, associated HVac transmission to Churchill Falls along with an HVdc Transmission Link to the Island, associated Island upgrades, and an HVdc Maritime Transmission Link to Nova Scotia. First power from Muskrat Falls Generating Facility is targeted for the end of 2016. Figure 2.0 illustrates the components of Phase I.

Phase II, which is expected to proceed no earlier than three years after the start of Phase I, will consist of the 2,250 MW Gull Island hydroelectric generation project and associated HVac transmission to Churchill Falls and export markets.

This phased development will meet the Province's long term energy requirements and will provide the opportunity for Newfoundland and Labrador Hydro to completely shut down the Holyrood Thermal Generating Station in favour of clean, renewable hydro electricity. In addition, Muskrat Falls provides sufficient surplus power for export sales which will add to the positive rate of return from the Project and help support the Energy Plan's goal of generating economic returns for the Province. These export sales will be realized once the Maritime Link is completed.

Secondary drivers for the phasing include the need to distribute the construction labour demand over a longer period with key disciplines moving onto Gull Island as they complete their work on Muskrat Falls, in addition this will assist in leveling out project expenditures over a longer period. This phased approach will also allow more realization of lessons learned from one phase to the next, thereby contributing significant value to the Project as a whole.

The phasing is also driven by the financing requirements for Phase I, which will be financed by a combination of debt and equity from both Nalcor Energy and its Maritime Link partner - Emera. The financing will include non-recourse debt financing and equity, which will be provided by the Government of Newfoundland and Labrador. Emera will finance the Maritime Link Project as well as a portion of the Labrador – Island Transmission Project.

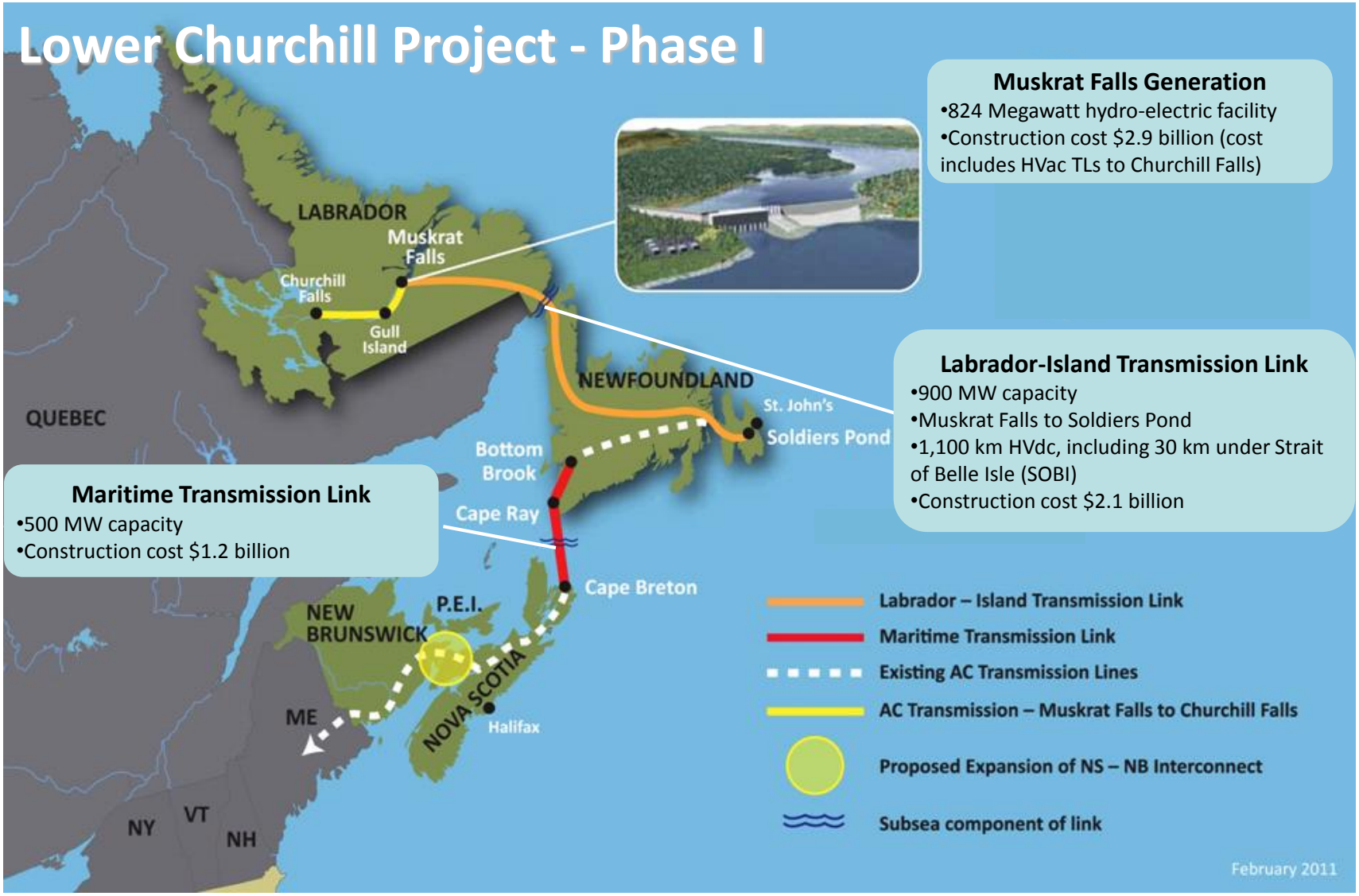
11.0 Responsibility to our Shareholders

Nalcor's responsibility to our Shareholders, the people of Newfoundland and Labrador, is firmly instituted in our Vision and Mandate. For the Lower Churchill Project, Nalcor has the responsibility to determine the optimal development approach in order to optimize potential benefits to its Shareholders. Simply stated Nalcor is responsible to develop the Lower Churchill Project on behalf and in the best interest of the people of Newfoundland and Labrador.

Delivering upon this responsibility requires Nalcor, through GNL, to ensure alignment with the interests of our Shareholder, to ensure we are cognisant of our Shareholders needs and policy objectives, and to ensure we actively seek alignment with those interests.

Optimization of benefits will be achieved through a combination of approaches, including using the Project to demonstrate best practices, policies, and approaches to policy issues and requirements (e.g. benefits strategy, gender strategy, diversity strategy, etc.) so that Nalcor establishes the precedent for future developments in the Province (e.g. amount of work completed in the Province).

Figure 2.0: Lower Churchill Project – Phase I



12.0 Project Objectives

The key objectives for Nalcor's Lower Churchill Project Management Teams coming out of Decision Gate 2 are as follows:

- Develop Phase I of the Generation Project (Muskrat Falls Generating Facility and Labrador Transmission Assets).
- Develop the Labrador – Island Transmission Link Project.
- Achieve first power within six (6) years of EA release.
- Ensure that the targets contained within the Lower Churchill Construction Projects Benefits Strategy with the Government of Newfoundland and Labrador and the Impacts and Benefits Agreement with the Labrador Innu Nation are met.
- Proceed with the Maritime Link Project development, which will be led by Emera with support from Nalcor Energy.
- Pursue market access opportunities using the Open Access Transmission Tariff process for Gull Island power – Phase II of the lower Churchill River development.

Augmenting these broad objectives are a number of specific goals as captured in Table 1.0.

Table 1.0: Nalcor Goals and Outcome Measures

Nalcor Goal	Outcome Measures Supporting the Project
Safety	• Maintain Zero Lost Time Injury record for Nalcor PMT. • Achieve and sustain world-class safety performance during the construction phase. • Lead Nalcor Energy business units as an innovative safety leader demonstrated through visible commitment and by sustained Safety Performance against Targets. • Develop a culture throughout the project including the EPCM contractor and all other contractors espousing a Zero Incident mindset through Nalcor Energy – Lower Churchill Project (NE-LCP) management commitment, employee and contractor engagement and involvement. • Develop a world-class contractor/supplier Health and Safety Management Program that can be leveraged by Nalcor Energy corporate-wide.
Environment	• Achieve release from Environmental Assessment for each of the Generation, Labrador- Island Transmission Link and Maritime Link Projects. • Design, construct and commission LCP Phase I in accordance with Nalcor's Environmental Policy and Guiding Principles.

Table 1.0: Nalcor Goals and Outcome Measures

Nalcor Goal	Outcome Measures Supporting the Project
Business Excellence	• Secure Power Purchase Agreements (PPA) for Phase I • Implement Regulatory structure to support the long-term success of Nalcor Energy and NE-LCP. • Mobilize the EPCM consultant and world class team • Implement the JDA for the Maritime Link and take advantage of synergy opportunities • Perform engineering and procurement required to provide an estimate suitable for Project Sanction of Phase I elements • Achieve Project Sanctions for Phase I • Manage Change to achieve an acceptable cost and schedule at Project Sanction • Be on schedule to achieve First Power from Muskrat Falls 6 years after start of Early Works construction and within Project Sanction cost estimate • Be on schedule to complete the Labrador – Island Transmission Link and Maritime Link to bring Muskrat Falls power when available from Labrador to the Island and export to Nova Scotia.
People	• Build an empowered, world-class Owner's and EPCM project management team. • Facilitate communication within the project through outlining clear reporting relationships and understanding of roles and responsibilities of each function group. • Negotiate Collective bargaining agreement that meets the requirements of the Project. • Create strong linkages between project personnel and other Nalcor Energy lines of business to build project expertise within the organization.
Community	• Achieve ratification of the Innu Nation Impacts and Benefits Agreement (IBA) and prepare for execution/implementation at Project Sanction. • Demonstrate Nalcor Energy's openness and accountability to the people of Newfoundland and Labrador and other stakeholders on the development of NE-LCP Phase I • Demonstrate benefits the LCP will provide to the people of Newfoundland and Labrador. • Effectively manage Project's reputation and brand. • Demonstrate Nalcor Energy's commitment to consult with Labradorians. • Successfully manage the expectations of the benefits for Labradorians from a potential NE-LCP. • Demonstrate Nalcor Energy's commitment to community investment. • Consult with all aboriginal groups in accordance with EIS guidelines.

Some of the key drivers of success that will help achieve these Project Objectives, Outcomes and Outcome Measures are considered to be:

- Applying proven technology / minimizing technology risk
- Achieving Zero Harm – Nobody Gets Hurt
- Using a Front End Loading philosophy
- Balancing risk and return
- Utilizing a robust execution planning methodology

- Maintaining and demonstrating our commitment to the environment
- Demonstrating and maintaining a sound business case
- Implementing an effective risk management program
- Building and maintaining organizational capability and effectiveness
- Seeking and maintaining Board and Shareholder alignment
- Developing and implementing an effective stakeholder relations program
- Achieving environmental acceptability and approval to proceed
- Implementing lessons learned and best practices

13.0 Project Mission Statement

Using the Province's vision for resource development, along with the Nalcor's corporate goals, the objective and drivers for the Project, the following mission statement has been established:

> *To develop Phase I of the Lower Churchill Project, respecting shareholder and stakeholder requirements and commitments, using best-in-class planning and execution practices in order to ensure the safe and environmentally sound delivery of an economically-viable source of clean, renewable energy to the marketplace in accordance with the Project Master Schedule.*

14.0 Key Assumptions

This *Project Charter* is based upon a number of key assumptions. These are:

- The market access agreements and power purchase agreements necessary to support the sound business case and project financing strategy are successfully negotiated in accordance with the milestones and schedule established.

- Phase I of the Project will be financed using a combination of non-recourse project financing and equity financing from both Nalcor Energy and Emera.

- Commencement of early construction activity for early infrastructure works at Muskrat Falls (access road, electrical power, communications) will occur following EA release for the Generation Project.

- That the Maritime Link Project proceeds as an independent project from Phase I (Muskrat Falls + Island Link) and does not directly influence the development timelines of Phase I.

15.0 Attachments/Appendices

B.1 Attachment 1 – Nalcor Energy Vision and Values Presentation

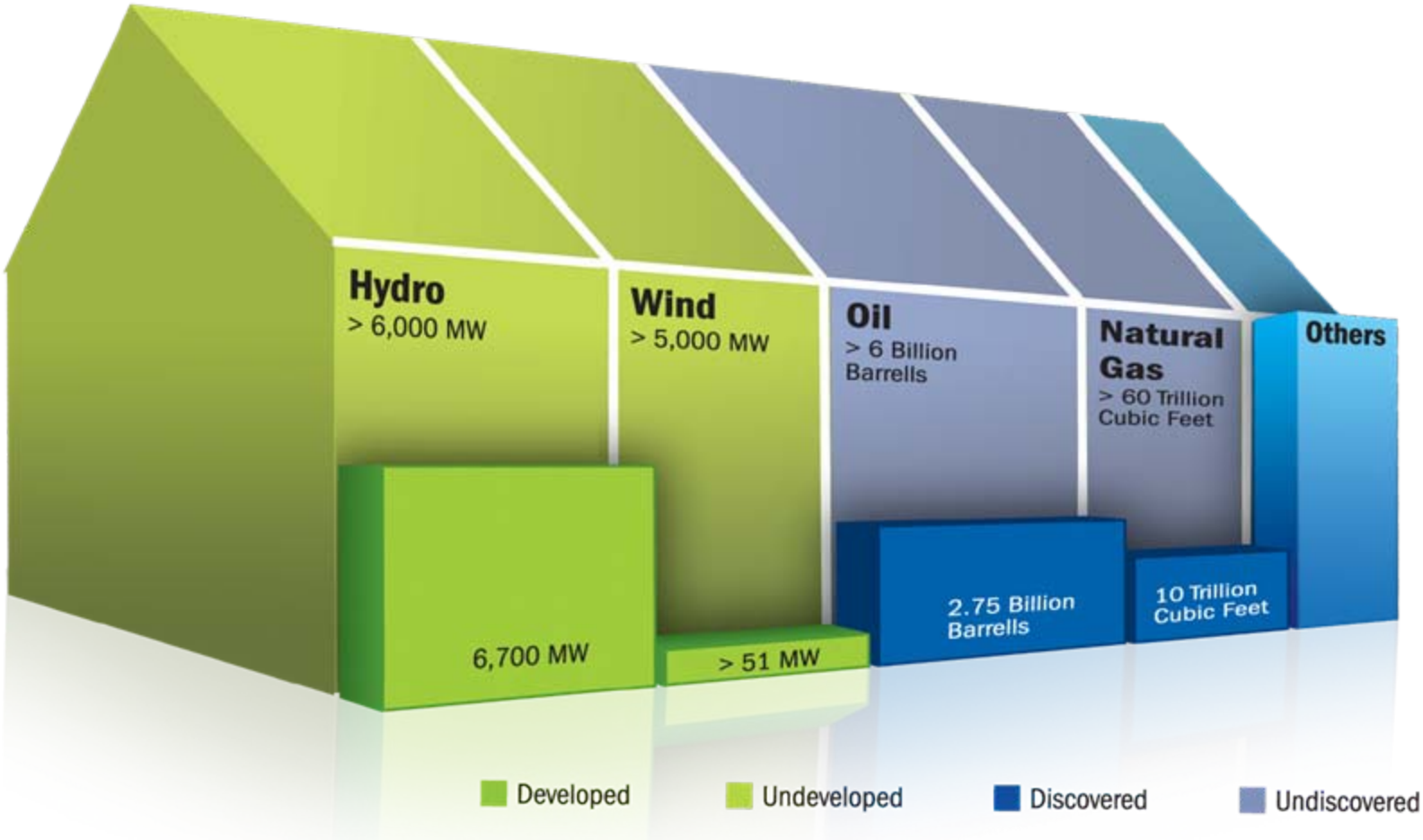
The Lower Churchill Project

Renewable Energy for the Future

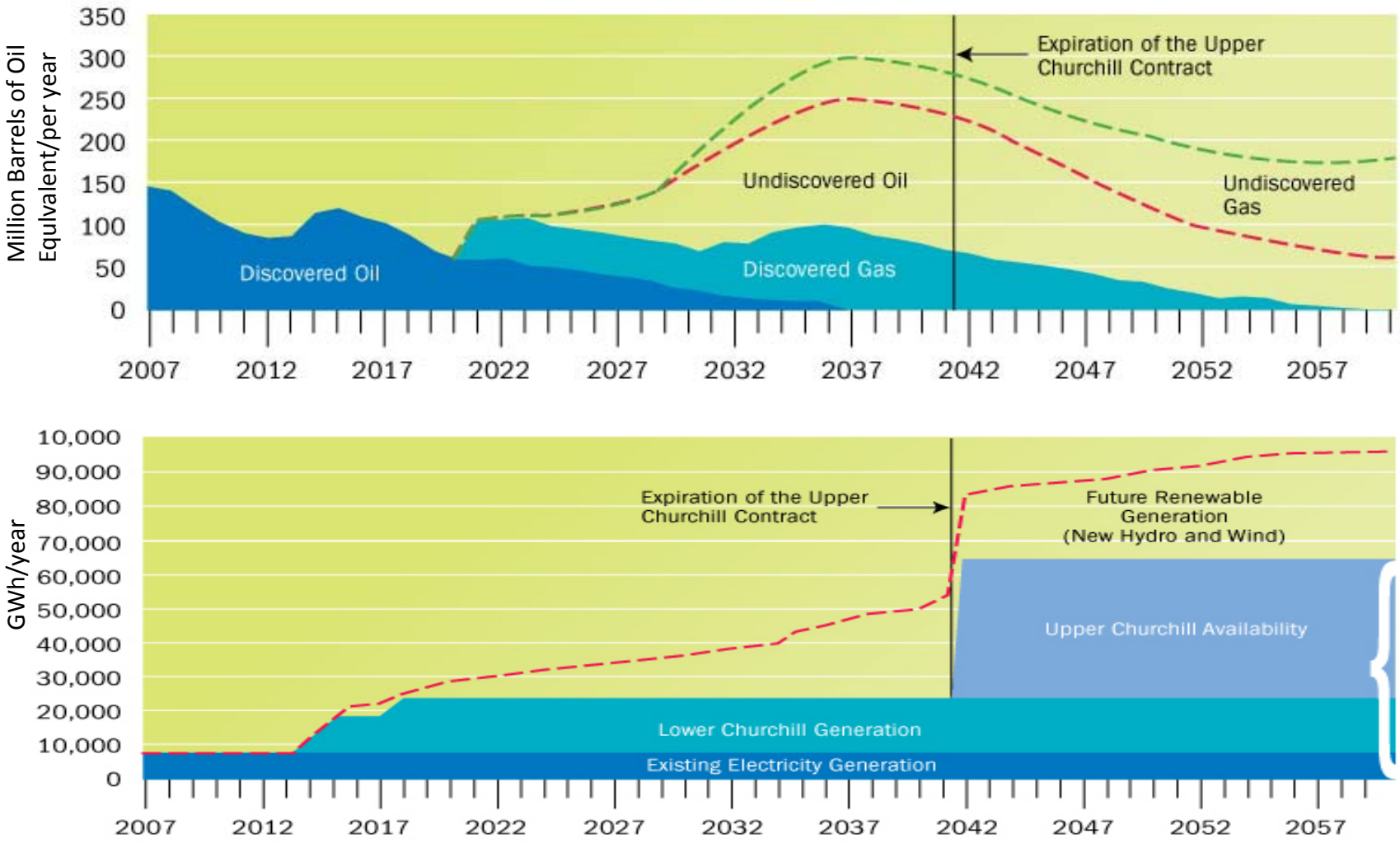
Boundless Energy

nalcor energy
LOWER CHURCHILL PROJECT

Province's Energy Warehouse



Leveraging our Resources



Nalcor Energy

- Energy Corporation Act passed May 2007
- Energy Plan released Sep 2007
- New brand unveiled Dec 2008
- All business activities of Nalcor Energy guided by the Energy Plan – policy vs. execution

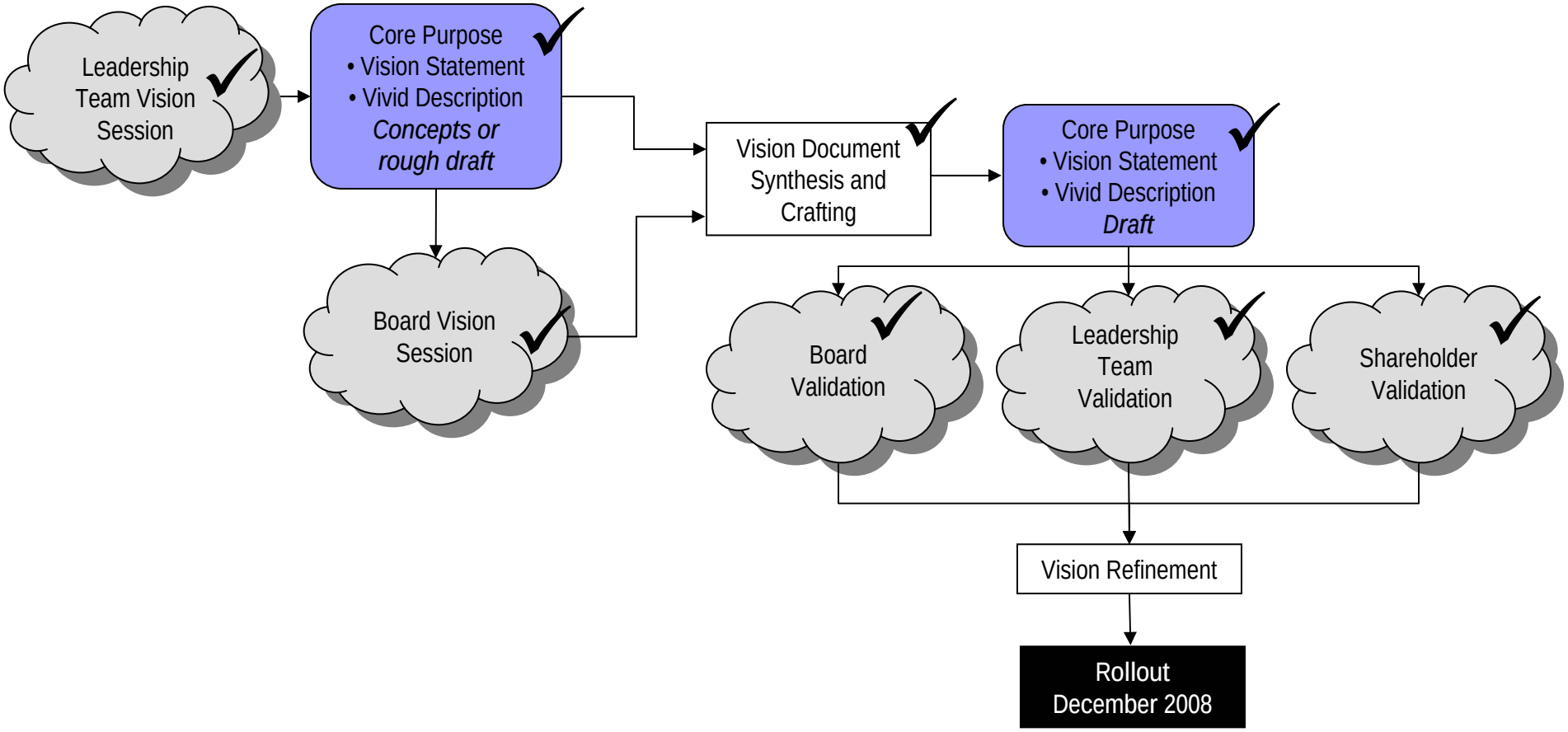
Energy Plan Vision

"To ensure our energy resources contribute to a vibrant and sustainable Newfoundland and Labrador where people are proud to live and work, the standard of living is high, and the environment is protected now and into the future; and to ensure that the people of Newfoundland and Labrador take pride and ownership in our energy resources and strategically develop them in such a way that returns maximum benefits to the province for generations to come."

Vision & Values

nalcor energy

Process Flow



The Elements of Vision

Vision

A lasting vision has two key components;
Core Ideology* and *Envisioned Future

Core Ideology

What we stand for and why we exist

Core Purpose

Our reason for being, the "soul" of our organization. Our idealistic reason for doing the company's work. By definition, can never be "completed"

Core Values

Timeless, enduring guiding principles of how we should guide ourselves everyday.

Envisioned Future

What we aspire to become, to achieve, to create

The BIG Goals

Ambitious, daunting goals that clearly define what the finish line looks like over the next 10 to 30 years.

Vivid Description

Vibrant, engaging specific description of what it would be like to achieve our BIG Goals.

Our Core Purpose

"To build a strong economic future for successive generations of Newfoundlanders and Labradorians"

Big Goals

- NL Hydro considered to be one of the most efficient, well maintained, cost effective and environmentally progressive regulated electrical utilities in North America
- Churchill Falls maintained in excellent condition and positioned to provide $3 to $5 billion in annual revenue to Nalcor Energy
- Lower Churchill profitably producing 3000 MW, on time, on budget
- Oil and Gas division producing a minimum of 300,000 boepd, operating 5 major producing fields, with a successful ongoing exploration program
- Bull Arm a successful, profitable fabrication site, fully utilized on an ongoing basis in a clearly defined market niche, with a world wide reputation as an excellent fabrication site.

Big Goals

- 2500 MW wind power in profitable operation
- Sustained world class safety performance
- Project Execution performance world class
- We are an employer of choice. People clearly understand how they directly contribute to the company's success and are driving to maximize their controllable contribution every day. We value their work, recognize their excellence and respect their individuality.

Vivid Description

We are driven to make a difference for our province and create a sustainable future for successive generations of Newfoundlanders and Labradorians.

We are one of the safest companies in the world, and recognized to be a world leader in safety. Our front line leaders and workers are leading the way in sustaining safety performance. We take care of each other.

Our environmental record is stellar, and we have left our children a legacy of sustainable environmental decisions balanced with the needs of the business. We always put things back to the way we found them to the extent possible. Our greenhouse gas emissions are the lowest in the country.

Vivid Description

Our business performance is recognized as a model for anyone in the world to emulate. Our planning and execution processes are clearly defined and produce sustained high performance. We operate with a high level of reliability, build quality infrastructure on time and on budget and are regarded as a preferred business partner. There is no ambiguity – we always do what is right. We have integrity, and our word is our bond. We do what we say we are going to do.

We are a company which can deliver even when the cards are stacked against us – we always find a way that makes sense.

Vivid Description

Our company is a preferred employer – people want to join us. We are a close team, driven by our core values, and feel we are part of something larger than just a job. During tough times we "buckle down" and stay the course. In good times we do the same. We have an atmosphere and culture where people are motivated to do their best every day and to be leaders in everything they do. Work is a place we like to be.

We are a respected and valued member of our community. We give back to make our communities stronger. We are known to be open and honest with our stakeholders. We value and seek their input. We are approachable and openly share our expertise and abilities.