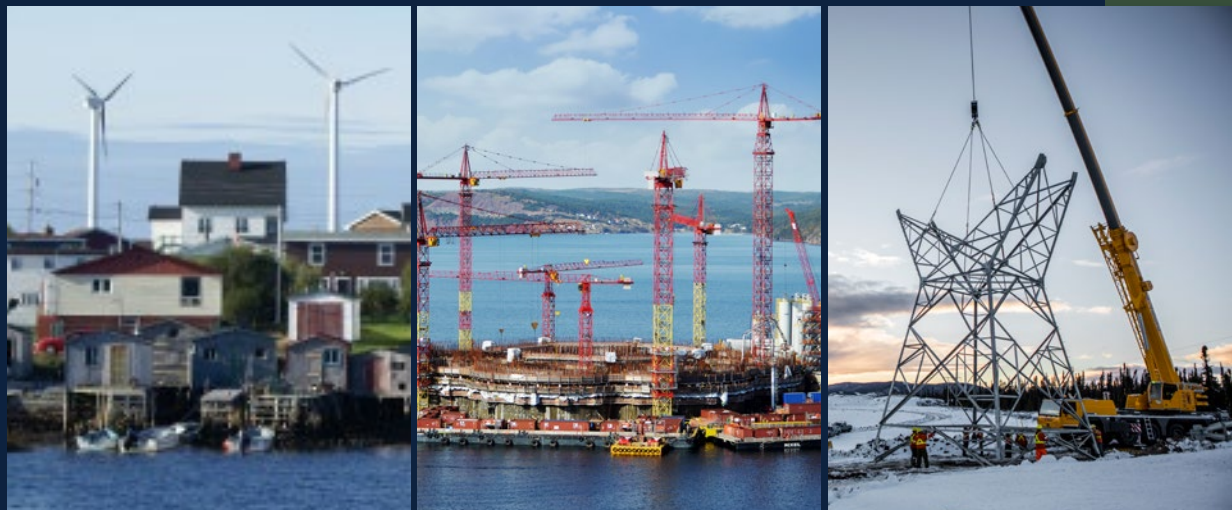


Focusing Our Energy

Energy Plan Progress Report | 2015





Construction of the Muskrat Falls hydroelectric generating facility in Labrador. Now in the third year of construction, the project is generating significant employment and business benefits for Newfoundland and Labrador.

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Message from the Minister

For over a decade, our Government has led the province in the responsible development of our energy resources. The safety of workers and protection of the environment have been our priorities as we have worked to sustain a vibrant economy and maximize benefits for Newfoundlanders and Labradorians.

Our approach to strategic energy development is outlined in our long term Energy Plan: Focusing Our Energy. As highlighted throughout this progress report, we have invested close to \$35 million to implement the 107 policy commitments in the Energy Plan, of which 94 are completed or operational.

Through our energy achievements, we are building a legacy for future generations. Nalcor Energy has been created to manage energy projects on our behalf and to position the province as an internationally-competitive player in the resource sector. Phase I of the Lower Churchill Project at Muskrat Falls has been sanctioned and is under construction. When Muskrat Falls is complete we will have clean, renewable energy for our homes and businesses. We will also have a long overdue link to North America's grid and the ability to export power to markets. We have invested in geoscience leading to further exploration and hydrocarbon discoveries in our offshore. We have secured equity stakes in oil and gas developments. We have invested in energy efficiency and taken steps to tackle climate change. And, we are shaping a culture that understands how to embrace an opportunity, negotiate globally, and achieve prosperity.

Newfoundland and Labrador is well on its way to becoming an energy industry giant and is generating wealth to pay down debt and finance health care, education and other vital services.

We will continue to develop our energy resources responsibly for the benefit of Newfoundlanders and Labradorians.

Sincerely,



Derrick Dalley,
Minister of Natural Resources



Section 1 Energy Plan Achievements

This progress report highlights the achievements of *Focusing our Energy* - the first comprehensive, long-term Energy Plan for Newfoundland and Labrador which continues to evolve and guide us up to and beyond the expiration of the Upper Churchill contract in 2041.

As of December 31, 2014, 94 of 107 actions contained in the Energy Plan have been completed or are operational.

More specifically, 14 (13 per cent) were discrete pieces of work that are complete, 80 (75 per cent) are items that have been fully operationalized and have been incorporated into the day-to-day activities of government, 10 (9 per cent) continue to be actively worked on and are expected to be completed or operationalized in the near to mid-term, and three (3 per cent) are longer term policy actions that rely on the completion of other items or have been deferred temporarily for strategic business reasons.

Progress related to the policy actions in the energy plan include:

- Creating Nalcor and its subsidiaries
- Establishing equity stakes in offshore projects such as Hebron, the White Rose Expansion and Hibernia South
- Investing in geoscience that has resulted in the discovery of three new basins and a significant boost in prospects
- Making amendments to offshore occupational health and safety practices
- Developing a new land tenure regime to facilitate exploration and increase the province's competitiveness in the global industry
- Investing non-renewable revenues into renewable energy projects such as Muskrat Falls
- Undertaking a capital program to ensure the Upper Churchill facility is in operating condition in 2041 when the province will be in a position to receive the full benefit from this power
- Amending the *Energy Corporation of Newfoundland and Labrador Water Rights Act* to enable the issuance of water rights to Nalcor for the purpose of developing the Lower Churchill Project
- Introducing the Labrador Industrial Electricity Rate Policy to provide a single published electricity rate for all industrial customers on the Labrador interconnected system
- Establishing a strategic approach to climate change and energy efficiency in two action plans released in 2011 with 75 commitments to action
- Investing over \$15 million in improving the energy efficiency of homes owned by low income households

The purpose of each section of this report is to highlight significant work achieved in the Energy Plan. A summary of all policy actions are outlined in Appendix A: Energy Plan Commitments – Progress to Date and Current Status.



Image copyright © Women in Resource Development (WRDC), all rights reserved

Section 2

Newfoundland and Labrador's Energy Warehouse

“To manage our Energy Warehouse, we will make the right resource management decisions by being knowledgeable about our resource potential and the options for developing it. We will work to overcome any barriers that may prevent us from unlocking our potential. We will ensure our policy and legislative structure provides us with the appropriate tools to responsibly control the pace of development and the benefits we receive from our resources. We are also prepared to make investments in strategic infrastructure and resource development, after giving due consideration to the associated risks.”

Focusing Our Energy, 2007

Creating Nalcor and its Subsidiaries

In December 2008, the new name and corporate identity of the province's energy corporation, Nalcor Energy, was announced. As noted in the Energy Plan, Nalcor is taking a lead role in the development of the province's energy resources.

Nalcor's Evolution – The path to long term sustainability

Nalcor Energy – the people's company – is wholly owned by the province and takes the lead role in developing our energy resources. Its strategy is to ensure the integrity of existing operating businesses and to develop growth opportunities to build the future - more offshore exploration, new oil and gas projects, wind, small hydro, and Gull Island.

Work to date has focused on equity interests in oil and gas projects, offshore exploration, development of the Muskrat Falls Project, delivery of safe, reliable power through Newfoundland and Labrador Hydro, and management and control of CF(L)Co.

Nalcor has planned for the future. The right people are in place, the long term strategy is developed, processes and performance in existing businesses have been improved, and growth opportunities have been initiated. The company is in a period of high capital investment as they transition to the next level at which there will be a strong dividend flow to the province, sustained high performance in existing businesses, continued development of growth opportunities, and preparation for 2041.

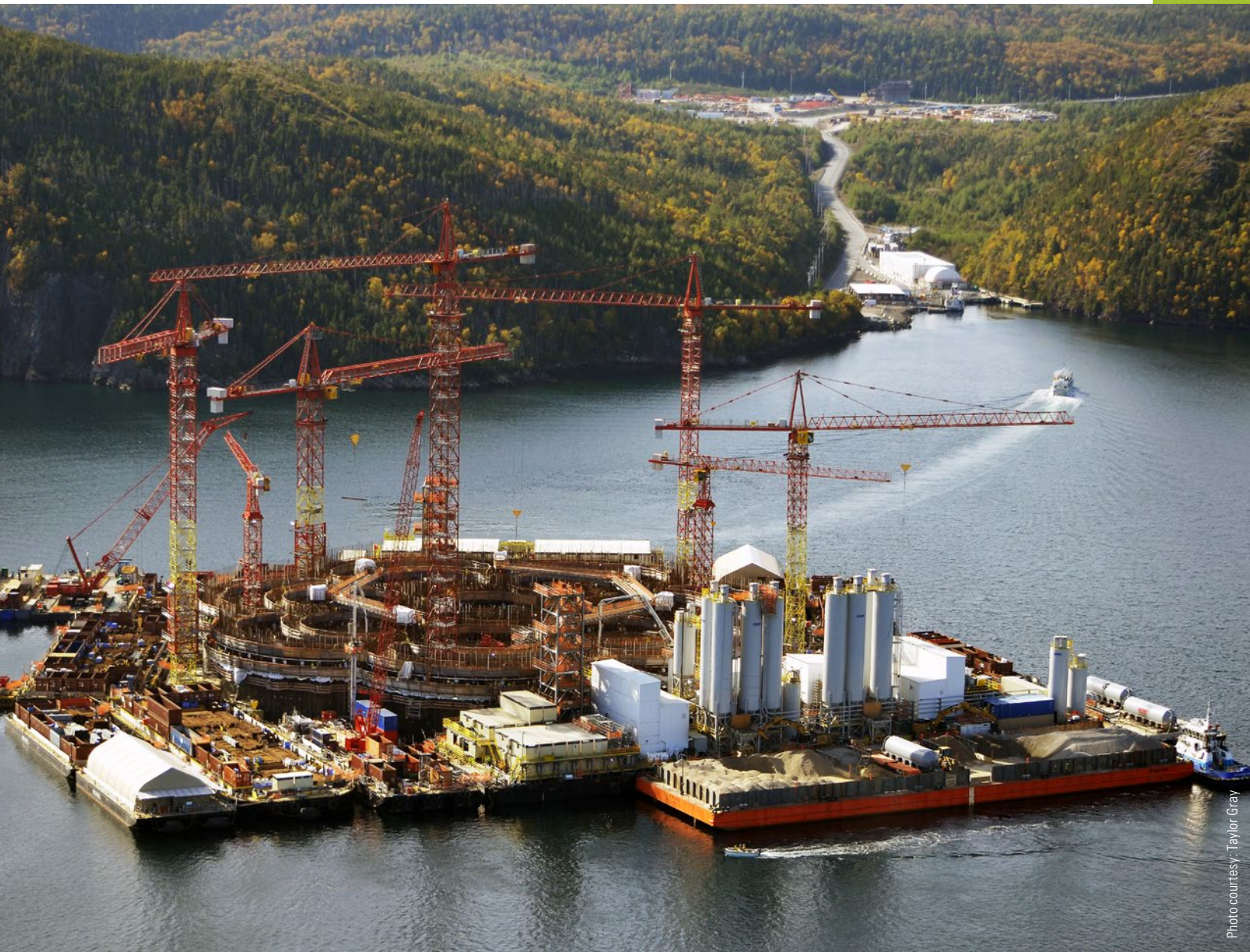


Photo courtesy: Taylor Gray

Bull Arm is Atlantic Canada's largest industrial fabrication site. This world-class facility is one of the main construction sites for the Hebron Project, currently building the project's Gravity Based Structure (GBS).

Section 3

Oil and Gas

“The keys to advancing our oil and gas sector are to encourage additional exploration activity and to manage the development of these resources so that investors can earn a fair return while the province maximizes the benefits it receives from these resources.”

Focusing Our Energy, 2007

Establishing Equity Stakes in Offshore Projects

In 2008, Nalcor completed the acquisition of a 4.9 per cent working interest in the Hebron oil field. In 2009, Nalcor finalized the purchase of five per cent working interest in the White Rose Growth Project. This project includes the North Amethyst Field, West White Rose and South White Rose Extension among the fields currently under consideration for development. In early 2010, Nalcor completed a ten per cent working interest acquisition in the Hibernia Southern Extension subsea tie-back project.

Investing in Geoscience

To further facilitate exploration and attract global investors, the Provincial Government has invested in offshore and onshore geoscience programs.

In March 2009, a Memorandum of Understanding (MOU) was signed between Nalcor and the Department of Natural Resources for a Petroleum Exploration Enhancement Program (PEEP). Projects covered by the program have included high-resolution magnetic surveys, geoscientific field work, seismic source tests, stratigraphy studies, and structural and gravity studies. To date, 26 projects have been approved with approximately \$4.5 million in funding. A listing of approved projects and results to date are available online at www.nr.gov.nl.ca/nr/energy/petroleum/onshore/peep.html.

An MOU between the Department of Natural Resources and Nalcor was also developed in January 2010 for the Offshore Geoscience Data Program (OGDP), which included the purchase and reprocessing of existing seismic data as well as new data acquisition. In total, \$14.3 million was invested in numerous projects, notably the 2011-13 participation in a regional two-dimensional (2D), multi-client seismic data acquisition program in the slope and deep water regions of offshore Labrador. It allowed for the delineation of three new basins in offshore Labrador, significantly expanded the area of a fourth basin off Labrador and transformed industry’s historic perception of Labrador’s potential.

Nalcor continues to fund or co-fund some of the projects initiated under OGDP internally while the department provided annual geoscience funding of \$0.5 million per year for fiscal 2013-14 and 2014-15.

Encouraging Exploration

The province continues to promote oil and gas potential through seismic work which is providing a better understanding of what lies beneath the offshore subsurface. This work is attracting the attention of the global oil and gas industry. In 2014, working with globally recognized partners TGS and PGS, Nalcor acquired 37,500 kilometres of multi-client 2D seismic. This is the most data captured offshore Newfoundland and Labrador in a single year since 1983 and is one of the largest ongoing offshore 2D seismic programs in the world today. Multi-client seismic data is available to explorers through licensing arrangements with TGS. The Department of Natural Resources, in collaboration with Nalcor, promotes the availability of this data at national and international venues attended by leading exploration companies.



Photo courtesy: Hibernia Management and Development Company

Discovered in 1979, the Hibernia oil field is located in the Jeanne d'Arc Basin. In 2010, Nalcor completed a 10 per cent working interest acquisition in the Hibernia Southern Extension Unit subsea tie-back project, adding in excess of 170 million barrels of oil.

Implementing New Land Tenure Regime

A Land Tenure Committee, consisting of representatives from the Governments of Newfoundland and Labrador, Nova Scotia, and Canada was established in February 2013 to review the offshore land tenure issues.

A new hybrid scheduled land tenure regime was announced by the C-NLOPB in December 2013 as part of transitioning to a full scheduled land regime over the next several years.

The new land tenure regime is a huge step forward in the province's offshore industry. With the new regime, transparency and predictability are ensured for companies interested in doing business in the Newfoundland and Labrador offshore industry. The Department of Natural Resources, in collaboration with Nalcor, promotes the land licencing opportunities at national and international venues attended by leading exploration companies. The new regime is already creating a strong interest among present players in the province and it is proving to be particularly beneficial to those companies contemplating business in the province.

Amending the Offshore Occupational Health and Safety Framework

New Offshore Occupational Health and Safety (OHS) legislation was passed in 2013, and came into force December 31, 2014. This legislation provides the C-NLOPB with a clear and enforceable OHS legislative regime and provides legislative protection for the health and safety of offshore workers. It also provides necessary regulatory-making powers in offshore petroleum Occupational Health and Safety.

This regime provides government with the necessary mechanisms to act on OHS-related matters, including the initiation of audits, inquiries, and the creation of a provincial advisory council to speak to OHS issues. The legislation gives the C-NLOPB's safety officers the required legislative tools to efficiently and effectively administer the OHS component related to the offshore.

Ensuring Local Benefits

Since 2007, the Provincial Government has entered into benefits agreements for the South White Rose Expansion Project (Husky Energy), the Hibernia South development (Hibernia Management and Development Company), the Hebron development (ExxonMobil Canada), and the West White Rose Expansion Wellhead Platform project (Husky Energy). These benefits agreements target maximum sustainable supply and service industries and employment where we have the potential to create or capitalize on our competitive advantages. The agreements include commitments related to employment, contracting and procurement, gender equity and diversity, and prescribe work to be done in the province related to engineering, construction and fabrication. In negotiating and monitoring these agreements, the Provincial Government works with various stakeholders and partners including project operators, unions, the C-NLOPB, NOIA and the local service and supply community.



The semi-submersible West Aquarius is used for exploration, appraisal and development drilling in the province's offshore region.

Section 4

Electricity

“By making the right decisions, Newfoundlanders and Labradorians can have a cleaner environment and a solid and sustainable electricity industry, with a secure supply of competitively-priced electricity for economic development and domestic use. Jurisdictions outside of Newfoundland and Labrador can also benefit from our clean, renewable electricity to offset a significant amount of greenhouse gases and other harmful emissions from burning coal or other hydrocarbons.”

Focusing Our Energy, 2007

Investing in the Lower Churchill Project

Nalcor Energy is leading the development of the hydroelectric potential of the lower Churchill River, comprising the Muskrat Falls and Gull Island sites. The first phase of the development was sanctioned in 2012 and includes the Muskrat Falls Generating Station, the Labrador-Island Transmission Link and Labrador Transmission Assets. Muskrat Falls is in its third year of construction. First power from the Muskrat Falls hydroelectric generating facility is expected in late 2017, with commissioning activities continuing into 2018.

The Lower Churchill development's second hydroelectric installation is proposed at Gull Island with a capacity of 2,250 MW and average annual energy of 12 terawatt hours. This proposed project is one of the province's key renewable developments. Once on stream, this project will open up opportunities for the export of clean energy through expanded interprovincial and international electricity trade and cooperation.

Ensuring the Long Term Viability of the Upper Churchill Facility

Nalcor is ensuring the continued performance of the Churchill Falls facilities in 2041 when the Upper Churchill contract expires. A long-term asset plan has been developed and the company is completing investments to meet future needs. During 2008-2013, over \$170 million was invested through the Churchill Falls capital program. Investments will continue to be made into these assets to ensure their long-term viability.

Amending the *Energy Corporation of Newfoundland and Labrador Water Rights Act*

In 2008, the Provincial Government enacted the *Energy Corporation of Newfoundland and Labrador Water Rights Act* which granted water rights on the lower Churchill River to Nalcor Energy for the purpose of water power generation.

In 2012, the Provincial Government amended the *Electrical Power Control Act*, 1994 to grant Newfoundland and Labrador Hydro the exclusive right to supply, transmit, distribute, and sell future electrical power to retailers and industrial customers on the Island portion of the province.

Research and Development into Alternative Energy Sources for Isolated Communities

The Provincial Government provided funding for Newfoundland and Labrador Hydro to study the potential for integrating alternative energy sources such as wind, solar and small hydroelectric facilities into isolated Labrador communities that rely on diesel generation as a primary source of electricity. Results of the “Preliminary Assessment of Alternative Energy Potential in Coastal Labrador” study were positive and the Provincial Government announced additional funding for more targeted studies on wind and small-scale hydroelectric projects for some of the communities. Newfoundland and Labrador Hydro is incorporating the study results into its generation plans for the region and hydraulic data collection will continue into 2016. Wind monitoring studies are also ongoing. The initial Coastal Labrador Alternative Energy study is available online at www.nr.gov.nl.ca/nr/publications/energy/preliminary_assessment_of_alternative_energy_potential_in_coastal_labrador.pdf

Approving Labrador Transmission

A new transmission line was approved to accommodate requests for power from industrial customers in Labrador West and to satisfy growing residential and commercial load in the region. Construction on the new line has paused and will recommence once the proposed Kami mine owners finalize financing arrangements.

Facilitating Transmission for Export

Canadian Energy Strategy: Newfoundland and Labrador is currently co-chair, along with Alberta, Manitoba and New Brunswick, of a Council of the Federation initiative to develop a Canadian Energy Strategy. Newfoundland and Labrador continues to advocate strongly for a national transmission system, effective and transparent open-access to transmission infrastructure, and an impartial dispute resolution mechanism. The final strategy document is expected to be presented to Premiers at the summer 2015 Council of the Federation meeting.

Maritime Link Project: The Lower Churchill Development encompasses the Maritime Link Project – a transmission link between the Island of Newfoundland and Nova Scotia to export our surplus electricity and add reliability to the Island supply. This includes more than 350 kilometres of overland transmission lines and a 170 kilometre subsea cable across the Cabot Strait. It is a 35-year investment equaling approximately 20 per cent of the total cost of the Maritime Link and the Muskrat Falls Project. The Maritime Link, which was also sanctioned in 2012, will be funded, owned and operated by subsidiaries of Emera in exchange for 20 per cent of Muskrat Falls power. After the 35 year period, ownership of the Link will transfer to Nalcor and delivery of power under that arrangement will terminate.

Developing the Regulatory Process

The Department of Natural Resources is developing the appropriate legislative and regulatory framework for a Newfoundland and Labrador electricity system operator and reliability regime to be in place prior to Muskrat Falls entering service. At that time, the Island electricity system will interconnect with the North American grid via the Labrador-Island and Maritime Link transmission lines.

Introducing the Labrador Industrial Electricity Rate Policy

In December 2012, the Provincial Government introduced a new policy to ensure competitive electricity rates for industrial customers in Labrador. The new policy introduced one rate for all Labrador interconnected industrial customers that uses a transparent rate-setting process and publicly-posted rates to allow for better planning for industry and potential developments while establishing competitive and fair rates.

Signing the New Dawn Agreement

The New Dawn Agreement was signed on September 26, 2008. It is an agreement between the Innu Nation of Labrador, the Government of Newfoundland and Labrador and Nalcor Energy. It resolved key issues relating to matters between the Province and the Innu Nation surrounding the Innu Land Claims Agreement, the Lower Churchill Impacts and Benefits Agreement (IBA) and Innu redress for the Upper Churchill hydroelectric development. The New Dawn Agreement formed the basis for ongoing negotiation for all three agreements

The tripartite Agreement in Principle (AIP), the Lower Churchill IBA and the Upper Churchill redress agreement were signed at Natuashish on November 18, 2011.



Transmission line construction underway for the Lower Churchill Project. The new transmission link will support the Muskrat Falls project and deliver clean, renewable power to homes and businesses in the province.

Section 5

Energy and Our Environment

“Central to the health of our environment are initiatives that will reduce air emissions, protect our land, water and wild-life, promote energy conservation and efficiency, and result in sustainable energy projects that balance development with protection of the environment.”

Focusing Our Energy, 2007

Capturing the Value of Our Renewable Energy

On August 2011, the Provincial Government released a climate change action plan entitled “Charting Our Course”. The plan reaffirmed the adoption at a provincial level of the New England Governors-Eastern Canadian Premiers greenhouse gas reduction targets for 2010, 2020 and 2050. The province came within 0.5 per cent of achieving the target in 2010 at the same time that economic activity (i.e., real GDP) expanded by 67 per cent. Thirteen government departments and agencies are delivering the plan’s 75 commitments that span all sectors of our economy. The plan also contains 11 guiding principles to inform the development of a detailed framework to address greenhouse gas emissions for the large industrial sector and a commitment to continue to work with industry in its development.

Investing in Renewable Energy Projects

On September 2, 2014, the Provincial Government announced a biogas electricity generation pilot program to encourage the use of biogas resources and to contribute to a consistent supply of electricity for the province. As well, on December 11, 2014, the Provincial Government released a research report on relevant standard industry practices, which will provide guidance on developing a net metering policy to provide customers the opportunity to offset their electricity requirements with their own renewable energy sources, with surplus energy being fed back into the province’s electricity grid. Both the biogas and net metering initiatives will help to diversify the energy sector.

The Provincial Government provided financial support for Nalcor’s wind-hydrogen-diesel project in Ramea, which aims to reduce isolated communities’ reliance on fossil fuels for electricity generation. This research and development project uses wind and hydrogen technology to supplement the diesel requirements of this isolated community. The project offers an opportunity to increase renewable generation in isolated communities that rely on diesel power generation and reduce future use of fossil fuels and its carbon footprint as well as other emissions. Since 2010, the Ramea Wind-Hydrogen-Diesel Energy Project has successfully produced approximately 680,000 kilowatt hours of renewable energy.

Phase I of the project was completed in 2012 and Phase 2 is now under way which includes installing hydrogen fuel cells to replace the older hydrogen generator technology.



The Ramea Wind-Hydrogen-Diesel (WHD) Project is a research and development project focused on renewable energy storage and grid integration in an isolated diesel powered community.

Delivering Efficiency and Conservation Programs

Industrial: Nalcor is developing Muskrat Falls on behalf of the province to deliver clean and renewable hydroelectric power to both Labrador and the Island. When complete, approximately 98 per cent of the province's electricity will be generated from clean, renewable sources. The Muskrat Falls project will reduce greenhouse gas emissions by the equivalent of taking one million vehicles off the road each year.

Residential: Since its inception in 2008, the Provincial Government, along with the Newfoundland and Labrador Housing Corporation as the delivery agent, has invested over \$15 million in the Residential Energy Efficiency Program (REEP). By the end of March 2015, the program will have helped more than 5,400 low income clients install energy efficient improvements in their homes. The average client is saving an average of \$720 per year on their heating costs.

Building Energy Codes: In 2011, the Provincial Government implemented the Build Better Buildings policy, which states that new buildings and major renovations and/or extensions to existing buildings meeting particular criteria and receiving any level of government funding must exceed the 1997 Model National Energy Code for Buildings by 25 per cent and, register with the Leadership in Energy and Environmental Design (LEED) program and strive to achieve LEED Silver status, where possible. A guide to implementation was developed and released in 2013. Additionally, through the *Municipalities Act* and three *City Acts*, the province adopted the energy efficiency provisions of the National Energy Code for Houses. A guide to implementation was developed and released, also in 2013.

Fostering a Culture of Conservation

With support from the Provincial Government, Memorial University's Grenfell Campus opened its Boreal Ecosystems Research Facility in March 2014. Provincial Government funding of \$5 million allowed Grenfell to leverage \$2 million from Atlantic Canada Opportunities Agency, and \$100,000 from a private donor (McCain Foods), to support construction and the provision of lab equipment. These investments provide Grenfell Campus with a facility to support research activities in the forestry, agriculture and the environmental sector important to the west coast and province's economy.

Section 6

Energy and Our Economy

“The energy sector not only generates significant revenues, but is a major employer in our province. This employment activity is expected to increase dramatically over the next several years, which will present us with the challenge of having enough skilled tradespeople and other qualified professionals to support this growth. The energy sector is also a key driver of innovation within the province. This activity has driven our businesses, as well as our research and educational institutions, to be leaders in innovation.”

Focusing Our Energy, 2007

Ensuring Our Energy Resources Support Economic Development

The Provincial Government has worked to ensure our energy resources support economic development, particularly in rural areas. Muskrat Falls will generate economic benefits throughout the province, including \$1.9 billion in income to labour and business, with approximately \$500 million of this to be earned by Labradorians and Labrador-based businesses. Building the Muskrat Falls Hydroelectric Generating facility and the transmission links will create 9,100 person-years of direct employment, including 5,800 person-years in Labrador. The project will provide long-term stable electricity rates for generations of Newfoundlanders and Labradorians. The project will also support future economic development by offering lowest-cost power for homes and businesses and a supply of energy for future mining and industrial development in the province.

Supporting Skills Task Force Action Plan

Since its release in 2007, the Provincial Government provided over \$100 million to support initiatives outlined under the Skills Task Force Action Plan. The Plan contained 50 detailed recommendations to ensure that our labour force were able to participate in large-scale development projects. The Workforce Development Secretariat deals with ongoing commitments and works to link clients with industrial development and employment opportunities.

Building on the success of the Skills Task Force Action Plan, the Provincial Government created the Workforce Development Secretariat in the Department of Advanced Education and Skills to support the department and other government departments, employers, industry, employer and business groups, unions and post-secondary and training institutions in understanding and planning for current and future labour market supply and demand requirements throughout the province. The Secretariat is also focused on linking industrial development advancement of industry expansion to support existing enterprises. The work of the Skills Task Force is planned to be continued through the forthcoming Workforce Development Action Plan.

Supporting Careers in the Energy Sector

In line with the Energy Plan commitment to encourage higher enrolment and graduation rates for post-secondary institutions, the Provincial Government eliminated the interest on provincial student loans in July 2009 and announced that it was replacing all student loans with grants in Budget 2014.

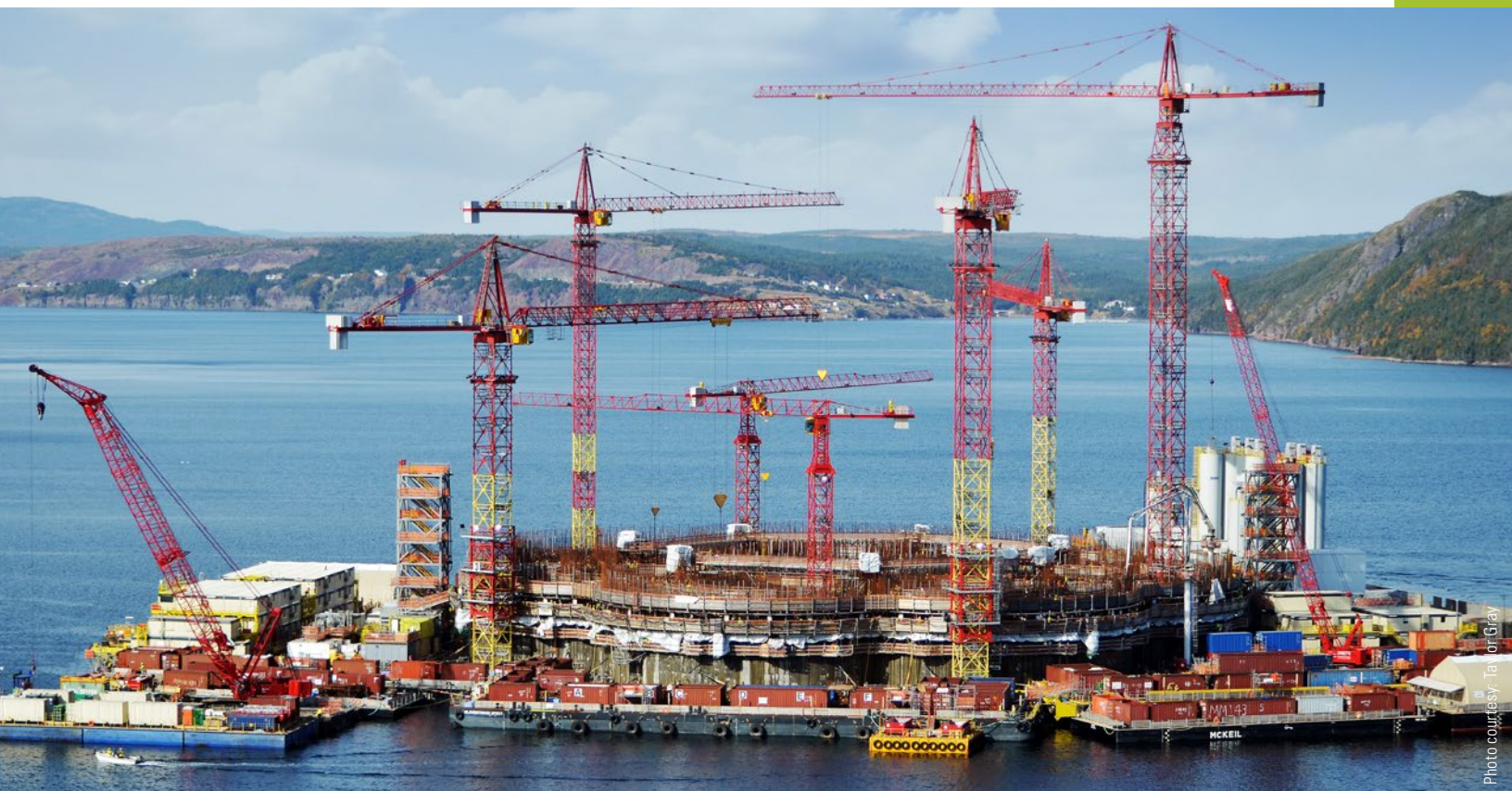
These initiatives have helped to ensure affordability and accessibility to post-secondary education, and to reduce student debt.

The Provincial Government continues to support educational programs that focus on high-demand, labour market-relevant programming at Memorial University of Newfoundland and its Marine Institute, and the College of the North Atlantic. Our post-secondary institutions have received more than \$357 million since 2007 to support efforts to enhance program delivery such as expanded programming in the Faculty of Engineering and Applied Science, Memorial University's Marine Institute as well as to modernize trade shops and purchase industry-related instructional equipment and improve classrooms.

Since 2007, a cumulative investment of approximately \$7.3 million has been provided to support Memorial University's Labrador Institute. The Labrador Institute promotes collaboration, outreach, research and education in Labrador.

Committing to an Energy Innovation Roadmap

The Energy Plan initially committed \$5 million to provide detailed advice and recommendations on planning, implementing, and financing energy innovation including the establishment of new and better ways to develop resources that are currently out of reach. This led to an "Energy Innovation Roadmap" that identified four key areas of technology and innovation advantage for Newfoundland and Labrador: oil and gas, onshore wind, transmission, and remote energy. This was followed by roadmaps for Onshore Wind and Transmission in Harsh Environments.



Hebron's Gravity Based Structure is under construction at Bull Arm. The Hebron field is the second largest discovery in the province's offshore, second to Hibernia.

Promoting Opportunities in Our Energy Sector to Skilled Workers

Since 2012, the Department of Advanced Education and Skills has partnered with the Maritime Provinces on the Atlantic Workforce Partnership under the Council of Atlantic Premiers. The Atlantic Workforce Partnership is an initiative that deals with common issues around major projects and skills requirements for small and medium-sized enterprises, training gaps and immigration. The Partnership has six priority areas of focus: Apprenticeship Harmonization, Immigration and Attraction, Labour Market Information, Federal Labour Market Programs, Business Supports, and Youth. In 2014, the Council of Atlantic Premiers asked that the group accelerate work on apprenticeship harmonization and collaborate on regional labour market supply/demand forecasting. The apprenticeship harmonization work under the Atlantic Workforce Partnership is the most substantial apprenticeship harmonization initiative in Canada.

Increasing the Number of Educated and Skilled Workers in the Province

The Labrador Aboriginal Training Partnership is a partnership between the three Labrador Aboriginal Organizations (Innu Nation, Nunatsiavut Government, and NunatuKavut Community Council) and Nalcor Energy-Lower Churchill Project, with funding also from the Federal Government and the Department of Advanced Education and Skills. The partnership aims to enhance the education, training and skill levels of Aboriginal people living in Labrador. Since 2009, two initiatives have leveraged almost \$22 million from the federal government. Almost 2,000 clients have accessed services and almost 900 Aboriginal clients successfully obtained employment.

The Provincial Government has also worked with the Federal Government on the Labour Market Agreement for Persons with Disabilities to fund programming for people with a disability and demonstrated challenges in accessing education or employment, including signing a new agreement in 2014.

Requiring Large-Scale Energy Projects to Include Employment Plans for Women

Gender Equity and Diversity Programs, including Women's Employment Plans and Business Access Strategies, have been developed for 11 projects, resulting in increased training recruitment and business access activities for women and other under-represented groups in Newfoundland and Labrador. Every new mid- to large-scale resource development project is now required to have a Gender Equity and Diversity.

The Provincial Government has provided \$400,000 to the International Brotherhood of Electrical Workers to increase women's participation in the electrical trade, and the energy sectors. This contract will see between 96 and 144 female electricians certified over the next several years. A second investment of \$200,000 with the Carpenters Millwrights Union helped to establish an Office of Women in Apprenticeship, and develop a work placement program to ensure women apprentices are finding the training they need to complete their certification.

Conclusion

The Energy Plan was developed to ensure that Newfoundlanders and Labradorians become the principal beneficiaries from the development of our energy resources. The goals and objectives established at the time the plan was released are as relevant today as they were in 2007. Much activity outlined in the plan has already taken place and many new initiatives in the energy sector have commenced. This report presents an opportunity to demonstrate the significant progress that has been made on implementing the Energy Plan.

Appendix A provides a detailed update on all 107 actions.

Appendix A

Energy Plan Commitments

Progress to Date and Current Status

Appendix A - Energy Plan Commitments – Progress to Date and Current Status

Energy Warehouse

ENERGY PLAN COMMITMENT	STATUS	PROGRESS TO DATE
<p>Ensure that any future fiscal regimes provide maximum returns to the people of this province and are designed to respond to changing circumstances.</p>	Operational	<p>The Department of Natural Resources seeks to maximize returns to the people of the province while remaining competitive on an international basis. Potential opportunities, fiscal, benefits and equity, are adjusted as required based on the individual nature of each of the projects.</p> <p>Since the release of the Energy Plan, the Provincial Government has negotiated the Hebron, White Rose Expansion and Hibernia Southern Extension regimes, all of which included fiscal terms incremental to the Generic Offshore Royalty and the original Hibernia Royalty contract.</p> <p>Work with respect to the Natural Gas Royalty Regime was deferred due to the downturn in the Natural Gas market. Resources have been redirected to review the Generic Offshore Oil Royalty Regime.</p>
<p>Assume an ownership interest in the development of our energy resources where it fits our strategic long-term objectives.</p>	Operational	<p>The Provincial Government, through Nalcor Energy, will continue to identify opportunities to assume ownership interests in the development of the province's energy resources where it fits the province's strategic long-term objectives.</p> <p>Oil & Gas Nalcor has acquired working interest in three offshore oil projects.</p> <p>In 2008, Nalcor completed the acquisition of a 4.9 per cent working interest in the Hebron oil field.</p> <p>In 2009, Nalcor finalized the purchase of five per cent working interest in the White Rose Growth Project. This currently includes the North Amethyst Field, West White Rose and South White Rose.</p> <p>In early 2010, Nalcor acquired a 10 per cent working interest in the Hibernia Southern Extension subsea tie-back project. This project includes two new licenses and an area of the main field covered by the existing license.</p> <p>Muskrat Falls Nalcor is leading the development of the hydroelectric potential of the lower Churchill River, comprising Muskrat Falls and Gull Island sites. The Muskrat Falls Project, sanctioned in 2012, is the first phase of the development. The project includes the Muskrat Falls Generating Station, Labrador Island Transmission Link, and Labrador Transmission Assets. Emera is leading the development of the Maritime Link.</p> <p>In return for Emera's investment of 20 per cent of overall project costs and an opportunity to take an equity position in the Labrador Island Transmission Link, Nalcor is providing 20 per cent, or about one TWh, of the output from Muskrat Falls (Nova Scotia Block) for 35 years to meet Nova Scotia's requirements and displace coal generation. Emera is also providing transmission rights over the Maritime Link, through Nova Scotia and New Brunswick and congestion rights into New England.</p>

<p>Leverage our non-renewable oil and gas wealth into a renewable future by investing a significant portion of our non-renewable resource revenues in renewable energy infrastructure and development.</p>	<p>Operational</p>	<p>Nalcor is leading the development of the hydroelectric potential of the lower Churchill River, comprising Muskrat Falls and Gull Island sites. The Muskrat Falls Project, sanctioned in 2012, is the first phase of the development. The project includes the Muskrat Falls Generating Station, Labrador Island Link, and Labrador Transmission Assets, which represents a \$6.99 billion investment in the project.</p>
<p>Actively seek resource development partners and work with those partners, other governments and customers to develop these resources for our mutual benefit.</p>	<p>Operational</p>	<p>Oil & Gas Through Nalcor, equity interests have been obtained for the Hebron oil field, the White Rose Growth Project, which includes the North Amethyst Field, West White Rose and South White Rose, and the Hibernia Southern Extension sub-sea tie back project.</p> <p>The Department of Natural Resources and Nalcor Energy have developed and implemented a comprehensive exploration approach to identify undiscovered oil and gas resources offshore Newfoundland and Labrador and communicate these results to the global exploration industry.</p> <p>Nalcor Energy meets regularly with potential new oil and gas entrants to discuss the province's oil and gas prospectivity.</p> <p>Muskrat Falls Project Nalcor Energy has partnered with Nova Scotia based Emera on the Muskrat Falls Project.</p> <p>Emera is leading the development of the Maritime Link and will take a shared ownership of the Labrador Island Link.</p>
<p>Increase strategic investment in information gathering on our energy resources and options for their development.</p>	<p>Operational</p>	<p>\$25 million was allocated over five years to increase geoscience information in Newfoundland and Labrador through a MOU with Nalcor Energy.</p> <p>The Petroleum Resource Marketing Plan, which was approved and implemented in fiscal year 2009/10, was aimed at attracting new entrants to the region.</p> <p>Funding of \$3.8 million over two years was provided to the C-NLOPB (co-funded by Natural Resources Canada) to expand sample storage space at the Core Storage Research Centre and improve core viewing facilities.</p> <p>Funding of \$3.3 million over three years was provided to the C-NLOPB (co-funded with Natural Resources Canada) for the purchase and installation of a data management system. The Offshore Petroleum Information Management System (OPIMS) designed to manage digital petroleum data acquired as a result of approved petroleum activities is in operation and all forms of well data, including seismic, is being loaded onto the system in a digital format.</p> <p>The Department has conducted or participated in several major gas studies, including developments using technologies/transportation techniques such as natural gas pipelines, gas to liquid technologies, compressed natural gas (CNG) and liquefied natural gas (LNG). The current low natural gas prices and the development of unconventional gas resources in the U.S., has increased the challenge of development of the province's natural gas resources.</p> <p>Nalcor has had studies completed that examine the potential for landing natural gas. These reports are available online at www.powerinourhands.ca/pdf/NaturalGas.pdf</p>

<p>Ensure that our policies and legislation provide us with the tools to responsibly control the pace of development and benefits we receive from our resources</p>	<p>Long-term</p>	<p>Electricity In December 2012, new legislation entitled, <i>An Act Respecting the Use and Expropriation of Land for the Muskrat Falls Project</i>, was passed to provide Nalcor and Emera with the ability to acquire the necessary land interests to advance the Muskrat Falls Project.</p> <p>A Labrador industrial rate policy was developed which sets a uniform electricity rate, including both generation and transmission, for all industrial customers on the Labrador interconnected system. The Labrador industrial rate sheet as per the Labrador Industrial Rates Policy has been posted to Newfoundland and Labrador Hydro's website.</p> <p>Oil & Gas The Atlantic Accord legislation requires full and fair opportunity on a competitive basis for provincial businesses and first consideration for employment of qualified residents of Newfoundland and Labrador.</p> <p>Benefits Agreements for the three offshore projects in which Nalcor holds an equity interest (Hebron, White Rose Expansion and Hibernia South Extension) all have local benefit requirements, including specific activities to be performed in the province (engineering, project management, etc.), the construction/fabrication of specific project components, and commitments to research and development, education and training. These are available at www.nr.gov.nl.ca/nr/.</p>
<p>Plan and make decisions between now and 2041 to ensure Upper Churchill's success in the future as well as organizing our current and future energy resource developments to maximize benefits while minimizing fluctuations in our economy.</p>	<p>Long-term</p>	<p>A long-term asset plan that informs capital investments has been developed and CF(L)Co is completing investments to meet future needs. Ensuring the continued performance of the Churchill Falls facilities through planning and strategic investment will allow for CF(L)Co's success into the future.</p> <p>During the 2008-2013 period, over \$170 million was invested through the Churchill Falls capital program by Newfoundland and Labrador Hydro to ensure quality operations of this important electricity asset in the province through to 2041 and beyond.</p>
<p>Ensure the Energy Corporation takes a lead role in the development of our energy resources.</p>	<p>Operational</p>	<p>Oil & Gas Nalcor is taking a lead role in the oil and gas industry through offshore equity interests. This role enables Nalcor to influence and maximize long-term benefits of the province's oil and gas resources.</p> <p>Nalcor is leading the exploration of the province's frontier basins through targeted geoscience. In January 2013, Nalcor announced the discovery of three new basins in the Labrador Sea. In addition to the new basins, a fourth previously established basin was discovered to be much larger than previously understood. Geoscience acquisition is ongoing.</p> <p>Electricity Nalcor is leading the development of the hydroelectric potential of the lower Churchill River, comprising Muskrat Falls and Gull Island sites. The Muskrat Falls Project, sanctioned in 2012, is the first phase of the development. The project includes the Muskrat Falls Generating Station, Labrador Island Link, and Labrador Transmission Assets.</p> <p>Muskrat Falls is in its second year of construction and first power is expected in late 2017.</p>

		<p>Emera is leading the development of the Maritime Link and will take a shared ownership of the Labrador Island Link.</p> <p>Nalcor has Power Purchase Agreements in place for two 27MW wind projects on the Island. These wind developments are owned and operated by private-sector companies that were successful respondents to competitive request for proposal processes implemented by Newfoundland and Labrador Hydro.</p> <p>Nalcor is leading the Ramea Wind-Hydrogen-Diesel Project, which is focused on renewable energy storage and grid integration in the isolated diesel community of Ramea.</p> <p>Nalcor has also completed preliminary study work to identify the potential for integrating large scale wind projects into the province's electricity system. The Provincial Government provided an initial \$250,000 in 2009 to fund Newfoundland and Labrador Hydro's study of alternative energy sources, which included solar and small hydro, to displace diesel generation in seven coastal Labrador communities. The initial phase was completed in 2010.</p> <p>The Provincial Government subsequently provided Newfoundland and Labrador Hydro with \$877,215 in 2011 for the coastal Labrador wind study. Newfoundland and Labrador Hydro contracted Hatch Ltd. in relation to the project. After consultations with the Nunatsiavut Government, installation of monitoring stations was completed in November 2013. Wind monitoring began at that time and will continue through the winter of 2015 with a final report expected to be completed by end of Spring 2015.</p>
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OIL AND GAS

ENERGY PLAN COMMITMENT	STATUS	PROGRESS TO DATE
<p>Establish a working group comprised of the Provincial Government and petroleum industry representatives, including the Energy Corporation, to develop regulatory and fiscal measures for Provincial Government consideration to promote targeted exploration activity and address other industry needs.</p>	Operational	<p>The Offshore Continental Margin Working Group (OCMWG) and the Western Newfoundland Region Working Group (WNLWG) have been established since 2008 and work is ongoing.</p> <p>A workplan was developed and meetings have been held with each group.</p> <p>The OCMWG presents a forum to discuss barriers to exploration and development in the offshore, including costs, regulatory modernization and exploration attraction.</p> <p>The WNLWG concentrated on issues related to reducing barriers to exploration including costs and increasing investment in the region.</p>
<p>Make an initial investment of \$20 million over the next three years through the Energy Corporation to purchase existing proprietary seismic data for reevaluation and acquire new data to fill in gaps.</p>	Operational	<p>The C-NLOPB completed an offshore seismic data gap analysis in May 2008. An MOU between the Department of Natural Resources and Nalcor was developed in January 2010 that outlined the objectives of the Offshore Geoscience Data Program (OGDP), including purchase and reprocessing of existing seismic data as well as new data acquisition.</p> <p>\$14.3 million was transferred to Nalcor through a program management MOU to fund numerous projects highlighted by the 2011-13 participation in a regional two-dimensional (2D), multi-client seismic data acquisition program in the slope and deep water regions of offshore Labrador.</p> <p>Natural Resources completed a Letter of Agreement with Natural Resources Canada - Earth Sciences Sector to manage a \$3 million offshore potential fields survey in the Gulf of St. Lawrence which was completed in 2012 with data released to open file in 2013.</p> <p>Nalcor continues to fund/co-fund some of the projects initiated under OGDP internally while Natural Resources continues to fund the program through annual geoscience appropriations of \$0.5 million per year for fiscal 2013-14 and 2014-15.</p>
<p>Make an initial investment of \$5 million over the next two years through the Energy Corporation in a Petroleum Exploration Enhancement Program (PEEP) to boost new onshore petroleum exploration in western Newfoundland and Labrador.</p>	Operational	<p>A total of 26 projects were approved to date, with \$4.5 million being transferred to Nalcor through a program management MOU.</p> <p>Projects included aeromag surveys, stratigraphy studies and structural and gravity studies.</p> <p>A listing of approved projects as well as results from the projects is available on the Department's website at www.nr.gov.nl.ca/nr/energy/petroleum/onshore/peep.html.</p>
<p>Develop data management information repositories for onshore and offshore resources.</p>	Operational	<p>The Offshore Petroleum Information Management System (OPIMS) was developed to provide an efficient data management system to effectively manage offshore oil and gas resources resulting in timely regulatory decision making by the C-NLOPB. The system is operational internally and data continues to be uploaded to the system.</p> <p>The onshore repository file format and access protocols have been developed and implemented and is being populated with well and seismic data. This will provide quality assurance of the technical in-</p>

		<p>house data base across the Petroleum Development divisions and provide the basis for release of data that is beyond its confidentiality period.</p> <p>An onshore exploration and development well schedule has been developed and added to the Department of Natural Resources' website. Digital onshore well data is also being uploaded to the website and onshore petroleum GIS layers have been added to the website and available through Arc Reader - a free, easy-to-use desktop mapping application that allows users to view, explore, and print maps.</p>
Develop and implement a comprehensive petroleum resource marketing plan.	Operational	<p>A Comprehensive Petroleum Resource Marketing Plan was approved in December 2009. The goal of the plan is to increase awareness of the petroleum resource opportunities to international exploration and production companies to encourage companies to explore in our offshore.</p> <p>The plan has been fully implemented and forms part of the annual workplan of the Marketing and Promotion and Petroleum Geoscience Divisions involving international marketing and promotion of the province's oil and gas resources.</p>
Establish a policy to obtain a 10 per cent equity position in all future oil and gas projects requiring a Development Plan approval, where it fits our strategic long-term objectives. The Energy Corporation shall negotiate payment of its share of the historic exploration and pre-development costs incurred by the license co-venturers as well contribute its share of subsequent development and operations costs.	Operational	<p>In 2008, Nalcor completed the acquisition of a 4.9 per cent working interest in the Hebron oil field.</p> <p>In 2009, Nalcor finalized the purchase of five per cent working interest in the interest in the White Rose Growth Project. This project includes the North Amethyst Field, West White Rose and South White Rose.</p> <p>In early 2010, Nalcor completed a ten per cent working interest acquisition in the Hibernia Southern Extension subsea tie-back project.</p> <p>Nalcor will continue to identify opportunities to assume ownership interests in the province's oil and gas sector.</p>
Continue to pursue the acquisition of the 8.5 per cent federal interest in the Hibernia Project.	Long-term	The Provincial Government continues its efforts to acquire Canada Hibernia Holding Corporation's 8.5 per cent ownership stake in the Hibernia project.
Implement the Offshore Natural Gas Royalty Regime when industry consultations are complete.	Long-term	Work commenced to develop the Natural Gas Royalty Regime. However, with the collapse of natural gas prices the immediacy of the priority for this initiative changed. Work will recommence on the Natural Gas Royalty regime upon a positive market improvement for natural gas and developer interest in the Newfoundland and Labrador offshore.
Establish an internationally competitive Generic Offshore Oil Royalty Regime in line with the principles and structure of the Offshore Natural Gas Royalty Regime.	Long-term	Work has begun on an appropriate generic offshore royalty regime in preparation for future developments. The new royalty will create a predictable and transparent system; be sufficiently flexible to adapt to different types of projects (including modes of development, field size and offshore locations); be internationally competitive; encourage development of economic projects; will obtain higher royalties from a project when prices and profitability are higher; and, provide protections for developers when oil prices and profitability are low.

<p>Review the onshore petroleum regulatory structure to ensure it responds to the needs of industry and the province.</p>	<p>Operational</p>	<p>A report on the structure of the onshore Petroleum Regulations has been completed.</p> <p>Natural Resources is proceeding with the development of proposed goal based draft Petroleum Drilling, Production and Conservation Regulations, consistent with the approach taken in the offshore, as noted below.</p>
<p>Continue to work with the Federal Government and stakeholders to improve the efficiency and effectiveness of our current offshore regulatory structure, consistent with the principles of the Atlantic Accord.</p>	<p>Operational</p>	<p>The Frontier Offshore Regulatory Renewal Initiative (FORRI) was established to work collaboratively on the modernization of offshore operational regulations under the <i>Accord Acts</i> and those frontier operational regulations under the <i>Canada Oil and Gas Operations Act (COGOA)</i>. FORRI is made up of officials representing the energy ministers of Newfoundland and Labrador, Nova Scotia, Natural Resources Canada and Aboriginal Affairs and Northern Development Canada, the National Energy Board, the C-NLOPB and the C-NSOPB.</p> <p>FORRI has renewed its efforts to review Accord Act legislation and is now focused on modernizing the existing five regulations into a new framework regulation. The five existing regulations are the Drilling and Production regulations, the Geophysical regulations; Certificate of Fitness regulations; Operations regulations; and, Installation regulations.</p> <p>FORRI is also developing Cost Recovery/Financial Responsibility and Administrative and Monetary Penalty Regulations as a requirement under the new liability legislation. The liability legislation, which will increase financial penalties for companies working in our offshore, was developed with the Federal Government and the Government of Nova Scotia. These regulations are to be promulgated within a year of the liability legislation coming into force, which is expected in 2015.</p> <p>New Offshore Occupational Health and Safety (OHS) Legislation was passed in 2013, and came into force December 31, 2014 providing the C-NLOPB with a clear and enforceable OHS legislative regime and provides legislative protection for the health and safety of offshore workers. It will also provide necessary regulatory making powers in offshore petroleum Occupational Health and Safety. This regime also provides the Provincial Government with the necessary mechanisms to act on OHS-related matters. These mechanisms include the initiation of audits, inquiries and the creation of a provincial advisory council to speak to OHS issues. The legislation also provides the C-NLOPB's safety officers with the required legislative tools to efficiently and effectively administer the OHS component related to the offshore.</p>
<p>Work with the affected Aboriginal governments and groups to ensure that developments in areas under claim or subject to a treaty are managed efficiently and effectively for the benefit of those Aboriginal peoples and other residents of the province.</p>	<p>Operational</p>	<p>In 2008 the Nunatsiavut Government co-chaired the 2008 Strategic Environment Assessment for the Labrador offshore area along with the C-NLOPB.</p> <p>In 2008/09 the C-NLOPB met with the Nunatsiavut Government and the full Nunatsiavut Assembly regarding: offshore seismic activity, the closing of the 2008 Call for Bids in the Labrador offshore area, and, an overview of current activity offshore Labrador as well as the potential for near and long term activity in that region.</p> <p>On September 26, 2008, Nalcor Energy, the Government of Newfoundland and Labrador and Innu Nation signed the Tshash Petapen (New Dawn) Agreement. This agreement resolved key outstanding issues in relation to land claims, the Lower Churchill Innu Impacts and Benefits Agreement (IBA) and Upper Churchill redress. Since 2008, the parties have worked to complete three agreements:</p>

		<ul style="list-style-type: none"> ▪ A tripartite Innu Land Rights Agreement-in-Principle between Canada, Newfoundland and Labrador and Innu Nation (AIP); ▪ The Lower Churchill Project Innu Impacts and Benefits Agreement (IBA); and ▪ The Upper Churchill Redress Agreement (UCRA). <p>These three agreements were ratified by the Innu on June 30, 2011, and signed by the parties on November 18, 2011.</p> <p>In April 2013, the Provincial Government released its Aboriginal Consultation Policy. The intention of the Policy is for a practical consultation process that helps ensure land and resource development decisions minimize or, where reasonably practicable, eliminate potential adverse impacts on asserted rights. Government also aims to maintain, foster and improve effective working relationships among Aboriginal organizations, proponents and Government, through emphasis on better communication, stronger relationships and easier resolution of issues among Aboriginal organizations, project proponents and Government.</p>
<p>Encourage the Federal Government to work with us to:</p> <ul style="list-style-type: none"> ▪ Establish time limits for developing new and existing significant discovery licenses offshore. ▪ Ensure companies outline detailed plans and timelines for execution for exploration activity and to establish a reporting and monitoring program which will ensure the exploration activity is being pursued as planned. ▪ Facilitate the development of satellite fields including reduced cycle time approvals. <p>Develop open-access requirements to existing facilities by third parties.</p>	Operational	<p>The C-NLOPB introduced escalating rental policies for Significant Discovery Licences to encourage timely development of existing discoveries. The rentals vary across the region and top out at \$800 per hectare plus \$100 per hectare per year after 20 years.</p> <p>Escalating rentals have also been added as new terms for exploration licences to encourage their timely appraisal. The rentals vary across the region and top out at \$15 per hectare in the Jeanne d’Arc Basin, \$7.50 per hectare in Western Newfoundland and Labrador and \$10 per hectare elsewhere.</p> <p>A Land Tenure Committee (Department of Natural Resources, Nova Scotia Energy and Natural Resources Canada) was established to review the offshore land tenure issues. A new hybrid scheduled land tenure regime was announced in December 2013 as part of transitioning to a full scheduled land regime over the next number of years.</p> <p>This committee has also undertaken a review of policy initiatives respecting significant discovery licences and open-access. Work continues on these initiatives, with an aim to prepare policy papers for review and discussion leading to potential amendments to the Accord Acts.</p>
<p>Focus on benefits requirements that target maximum sustainable supply and service industries and employment where we have the potential to create or capitalize on our competitive advantages. To accomplish this, we will work with our stakeholders and partners, including unions, fabrication yards</p>	Operational	<p>Since the launch of the Energy Plan in September 2007, the Provincial Government has entered into benefits agreements for the following projects:</p> <ul style="list-style-type: none"> ▪ South White Rose Expansion Project (Husky Energy); ▪ Hibernia South (Hibernia Management and Development Company); ▪ Hebron (ExxonMobil Canada); and ▪ West White Rose Expansion- Wellhead Platform (Husky Energy). <p>These benefits agreements target maximum sustainable supply and service industries and employment where we have the potential to create or capitalize on our competitive advantages. Agreements include commitments related to employment, contracting and</p>

and oil and gas companies.		procurement, gender equity and diversity, and also prescribe work to be done in the province related to engineering, construction, and fabrication. In negotiating and monitoring these agreements, the Provincial Government works with various stakeholders and partners including project operators, unions, the C-NLOPB, NOIA, and the local service and supply community.
Establish a fund with an initial \$5 million investment to provide financial incentives for export-based petroleum fabrication and manufacturing opportunities. These financial incentives will be based on clear guidelines, targets and program parameters.	Complete	<p>The Oil and Gas Export Development Fund (OGEDF) was announced in November 2007. This initiative was designed to make strategic investments in large-scale, export-based petroleum fabrication and manufacturing and service provision opportunities.</p> <p>Seven projects were approved for total grant funding of \$3,490,000 to March 31, 2012, when funding ended. Projects included investments in companies to:</p> <ul style="list-style-type: none"> ▪ Construct specialized inflatable shelters for the offshore industry; ▪ Develop sub-bottom imaging and pipeline tracking system; and, ▪ Expand pipe fabrication facilities.
Develop and implement a comprehensive capability marketing plan to be used in conjunction with our supply and industrial fabrication industry companies to sell our expertise inside and outside the province.	Planning	\$150,000 was provided to NOIA in 2012 to enable the development of a Supplier Capability Database. The database model has been designed and NOIA is now populating its members' information. It is expected that the database will go live in the coming months. The database has been developed to showcase companies which are supplying to Newfoundland and Labrador's industries.
Aggressively pursue refining, petrochemical, and other value-added secondary processing opportunities.	Operational	<p>The Department of Natural Resources and Nalcor continue to pursue refining, petrochemical, and other value-added secondary processing opportunities as appropriate.</p> <p>In September 2014, the Provincial Government announced its support of an agreement between Harvest Operations Corp. and SilverRange Financial Partners LLC for the sale of North Atlantic Refining Limited. This includes the oil refinery in Come By Chance as well as its North Atlantic-branded marketing, marine, and home heating businesses. The Provincial Government worked closely with all parties to ensure current employment and economic benefits contributed by North Atlantic Refining Limited will be maintained.</p>
Request that companies provide an assessment of the feasibility and provincial benefits of refining oil and/or pursuing other secondary processing opportunities in Newfoundland and Labrador prior to submitting a Development Plan.	Operational	Companies are required to complete this assessment as part of their Development Plans.
Request that all companies provide a detailed assessment of the feasibility and provincial benefits of landing gas in Newfoundland and Labrador prior to submitting a Development Plan.	Operational	Companies have been made aware of this requirement. Given the price of natural gas, companies have not pursued activities in this area to date.

ELECTRICITY

ENERGY PLAN COMMITMENT	STATUS	PROGRESS TO DATE
Lead the development of the Lower Churchill Hydroelectric Project, through the Energy Corporation.	Operational	Nalcor is leading the development of the hydroelectric potential of the lower Churchill River, comprising Muskrat Falls and Gull Island sites. The Muskrat Falls Project, sanctioned in 2012, is the first phase of the development. The project includes the Muskrat Falls Generating Station, Labrador Island Link, and Labrador Transmission Assets. Muskrat Falls is in its second year of construction and first power is expected in late 2017.
Ensure that first consideration for employment will be given to qualified personnel adjacent to the resource.	Operational	<p>The Benefits Strategy between Nalcor and the Provincial Government establishes a hiring protocol for the Muskrat Falls Project. The hiring protocol is available on the Nalcor Energy website at www.muskratfalls.nalcorenergy.com/employment/hiring-protocol/.</p> <p>The Industrial and Benefits Agreement for the Maritime Link Project was announced on November 26, 2014. The agreement provides for equal opportunities for Nova Scotia and Newfoundland and Labrador businesses and residents. This Agreement can be found on the Provincial Government's website at http://www.nr.gov.nl.ca/nr/energy/pdf/Maritime_Link_Industrial_and_Employment_Benefit_Agreement.pdf.</p> <p>The Muskrat Falls monthly benefits report summarizes the employment and expenditure benefits generated from the Muskrat Falls Project. These reports are posted on the Nalcor website at www.muskratfalls.nalcorenergy.com/newsroom/reports/.</p> <p>The Atlantic Accord legislation requires first consideration be given for employment to qualified residents of Newfoundland and Labrador.</p> <p>The existing Benefits Agreements on the major offshore projects also ensure that Newfoundland and Labrador's residents and businesses are receiving maximum benefits from the development of those resources.</p>
Conduct a comprehensive study of all potential long-term electricity supply options in the event that the Lower Churchill project does not proceed.	Complete	<p>As part of the assessment of the Muskrat Falls Project, Nalcor conducted technical and economic analyses of four scenarios:</p> <ul style="list-style-type: none"> ▪ an "isolated island" option, involving thermal generation of electricity at Holyrood, supplemented by small hydro, wind and other thermal; ▪ a wind and thermal scenario, which is also an isolated island option, but with large-scale wind power supplemented by thermal generation; ▪ a wind and battery scenario, which is also an isolated island option, but with batteries enabling large-scale wind power to replace some thermal generation; and ▪ an "interconnected" option, involving Muskrat Falls development. <p>In addition, other long-term energy supply options were reviewed including development of Gull Island, imports from outside the province and natural gas. These reports are available on the Provincial Government's website at www.powerinourhands.ca/info-centre.asp.</p>

<p>Ensure CF(L)Co continues to maintain the Upper Churchill facility to a proper operating standard.</p>	<p>Operational</p>	<p>Ensuring the continued performance of the Churchill Falls facilities through planning and strategic investment drives the company's strategy. A long-term asset plan that informs capital investments has been developed and the company is completing investments to meet future needs.</p> <p>During 2008-2013, over \$170 million was invested through the Churchill Falls capital program. Investments will continue to be made in the assets to ensure their long-term viability.</p>
<p>Position the province to take full advantage of Upper Churchill power for provincial and export customers after the power contract expires.</p>	<p>Long-term</p>	<p>In 2009, Nalcor changed its approach to the sale of surplus recall power available from the Upper Churchill. The current 265 MW reservation through Quebec allows Nalcor to see the benefit from market pricing.</p> <p>With the commercial agreements in place to provide market access for surplus power from Muskrat Falls on the Maritime Link and through the Maritimes to New England, Nalcor Energy is continuing to assess market access options for Phase 2 of the Lower Churchill Project and other surplus supply in the province. This has positioned Nalcor to enhance the value of its surplus electricity resources following the completion of the Muskrat Falls projects and the interconnection of the Island to the North American electricity grid.</p>
<p>Explore opportunities for Upper Churchill to make a greater economic contribution to the province.</p>	<p>Operational</p>	<p>Long-term planning and capital investment efforts are noted above.</p>
<p>Maintain the moratorium on small hydro developments, subject to a review in 2009 concurrent with a decision on proceeding with the Lower Churchill project.</p>	<p>Operational</p>	<p>Given the decision to proceed with the Lower Churchill Project, the small hydro moratorium has been maintained.</p>
<p>Ensure the Energy Corporation continues to work on feasibility and environmental studies of additional hydroelectric prospects.</p>	<p>Operational</p>	<p>In addition to completing the feasibility, environmental studies and other inputs required to inform the Muskrat Falls sanction decision, Nalcor has completed an engineering review and update of three potential hydro electrical projects located in southern Labrador.</p> <p>Nalcor also carries three hydro developments on the Island in its generation portfolio for potential development. These projects, Island Pond, Portland Creek and Round Pond, have been screened and evaluated, and feasibility studies have been undertaken.</p>
<p>Implement a new policy on the issuance of water rights for new hydroelectric developments, making the Energy Corporation responsible for coordinating and controlling all new hydroelectric developments in Newfoundland and Labrador.</p>	<p>Complete</p>	<p>In 2008, The Provincial Government enacted the <i>Energy Corporation of Newfoundland and Labrador Water Rights Act</i> which granted water rights on the lower Churchill River to Nalcor Energy for the purposes of water power generation.</p> <p>In 2012, <i>The Provincial Government amended the Electrical Power Control Act, 1994</i> to grant Newfoundland and Labrador Hydro the exclusive right to supply, transmit, distribute and sell future electrical power to retailers and industrial customers on the Island portion of the province.</p>

<p>Adopt a new policy on Crown Lands issuance for wind power that only the Energy Corporation, or a company selected by it, will be able to obtain a Crown lease for a wind power development.</p>	<p>Long-term</p>	<p>The policy was formally adopted in 2006 and has been maintained.</p> <p>The Provincial Government has provided more than \$3.5 million to Newfoundland and Labrador Hydro since 2008 to determine if alternative energy sources, including wind and hydro, can power coastal Labrador more economically than diesel generation. Newfoundland and Labrador Hydro's Government-funded wind monitoring program in Hopedale, Cartwright, Nain, Makkovik and L'Anse aux Loup will monitor the wind resources in these towns until 2015.</p>
<p>Work with Aboriginal governments and groups in areas where potential wind developments are subject to an Aboriginal treaty or a land claim</p>	<p>Operational</p>	<p>The Provincial Government continues to fund wind monitoring studies in coastal Labrador to assess the potential for small scale wind developments to economically displace diesel used in diesel generators in isolated communities. Wind monitoring is currently underway with results expected in 2015.</p>
<p>Pursue opportunities for locating manufacturing and fabrication of wind turbine components such as towers, tower bases, and turbine blades in the province.</p>	<p>Long-term</p>	<p>The scale of the Island wind projects developed to date in the province has not provided fabrication opportunities. Natural Resources and Nalcor will continue to evaluate the potential and viability for such opportunities through any future large scale wind development activities.</p>
<p>The Provincial Government will address environmental concerns related to Holyrood by either:</p> <ul style="list-style-type: none"> • Replacing Holyrood generation with electricity from the Lower Churchill through a transmission link to the Island; or • Installing scrubbers and precipitators, and maximize the use of wind, small hydro and energy efficiency programs, to reduce reliance on Holyrood. 	<p>Operational</p>	<p>Developing Muskrat Falls will deliver clean and renewable hydroelectric power to the island and will result in the Holyrood thermal generation station being retired.</p> <p>The environmental benefits of closing the Holyrood Thermal Generating Station are outlined in the discussion paper, Environmental Benefits of Closing the Holyrood Thermal Generating Station, released in November 2012. The report can be found at www.powerinourhands.ca/pdf/MuskratEnvironment.pdf.</p> <p>Additional measures to address environmental concerns at Holyrood include:</p> <ul style="list-style-type: none"> ▪ Switching from 1 per cent sulphur fuel to 0.7 per cent sulphur fuel in 2009 (reduction from 2 per cent in 2006); ▪ Achieving operational efficiencies at the Holyrood Station; and ▪ Purchasing power from two wind projects on the Island and utilizing power from Exploits Generation and Star Lake hydroelectric facilities to reduce use of Holyrood power.
<p>Review commercial rates in Labrador coastal communities in conjunction with the sanctioning of the Lower Churchill project.</p>	<p>Operational</p>	<p>The Provincial Government has provided more than \$3.5 million to Newfoundland and Labrador Hydro to determine if alternative energy sources can power coastal Labrador more economically than diesel generation.</p> <p>Subsidies, including the \$400K diesel rate increase deferral subsidy for isolated diesel power communities and the Rural Deficit ratepayer-funded subsidy, have also reduced electricity costs to commercial customers in coastal Labrador.</p> <p>Some commercial customers such as fish plants pay the same rates as Newfoundland Power Island commercial customers.</p>
<p>Work with the Aboriginal governments and groups to reduce the reliance on diesel energy in their communities where possible.</p>	<p>Operational</p>	<p>The Provincial Government and Newfoundland and Labrador Hydro completed the Coastal Labrador Alternative Energy study (www.nr.gov.nl.ca/nr/publications/energy/preliminary_assessment_of_alternative_energy_potential_in_coastal_labrador.pdf) to investigate the potential for the integration of alternative energy sources, including solar, wind and mini-hydroelectric facilities into</p>

		<p>isolated Labrador communities that rely on diesel generation as a primary source of electricity. Results of the study were positive and the Provincial Government announced a study on small-scale hydroelectric projects for some Labrador coastal communities. Newfoundland and Labrador Hydro is incorporating the study results into its generation plans for the region and hydraulic data collection will continue into 2016.</p> <p>Newfoundland And Labrador Hydro has conducted analysis of potential wind generation in some coastal Labrador communities. Meteorological towers have been successfully installed in five communities (Nain, Makkovik, Hopedale, Cartwright and L'Anse-au-Loup). The Coastal Labrador Wind Monitoring Program will continue until 2015. In relation to the Provincial Government's wind energy study, officials from Newfoundland and Labrador Hydro and its project contractor Hatch worked with the Nunatsiavut Government on the wind monitoring program including meetings in Nain in 2013.</p>
Continue to compare interconnection and diesel generation costs as operating costs change.	Operational	Newfoundland and Labrador Hydro requires that interconnection opportunities be reviewed when evaluating major capital expenditures in isolated diesel communities. Any interconnection plan would have to be reviewed by PUB.
Support research and development into wind and/or wind/hydrogen integration for isolated communities.	Operational	<p>Nalcor is leading the implementation of the Ramea Wind-Hydrogen-Diesel Energy Project. This research and development project uses wind and hydrogen technology to supplement the diesel requirements of this isolated community. The project offers an opportunity to increase renewable generation in isolated communities that rely on diesel power generation and reduce Newfoundland and Labrador Hydro's future use of fossil fuels and its carbon footprint as well as other emissions. Since 2010, the Ramea Wind-Hydrogen-Diesel Energy Project has successfully produced approximately 680,000 kilowatt hours of renewable energy. Phase I of the project was completed in 2012 and Phase 2 is now under way which includes installing hydrogen fuel cells to replace the older hydrogen generator technology.</p> <p>Nalcor is continuing to study the commercialization of integrating wind and storage technologies into diesel communities.</p>
Explore options for gas-to-wire generation and delivery.	Complete	<p>The Department of Natural Resources engaged Ziff Energy Group to examine the availability of offshore natural gas and liquefied natural gas (LNG) and their viability to produce electricity at Holyrood. A copy of this report is at www.powerinourhands.ca/pdf/naturalgas.pdf.</p> <p>The results of the study released in 2012 concluded that LNG or the Grand Banks pipeline options are not viable alternatives to replace the existing oil-fired Holyrood Thermal Generating Station.</p>
Pursue other generation opportunities when they are technologically and economically feasible.	Operational	<p>Newfoundland and Labrador Hydro has engaged in a comprehensive load forecasting exercise to determine the province's electrical consumption requirements over a 20 year horizon to determine if there is a requirement for additional supply. A screening process is used to assess generation opportunities with the initial phase employing five key principles: security of supply and reliability; cost to ratepayers; environmental considerations; risk and uncertainty; and financial viability of non-regulated elements.</p> <p>On September 2, 2014, the Provincial Government announced a biogas electricity generation pilot program to encourage the use of biogas resources and generate a consistent supply of electricity for the province and announced that Navigant Consulting Limited was</p>

		<p>selected to research relevant standard industry practices and provide guidance on developing a proposed net metering policy which will also allow small-scale renewable energy sources to be fed into the province's electricity grid. Both the biogas and net metering initiatives will help to diversify the energy sector. More information on the biogas program is available on the Provincial Government's website at www.nr.gov.nl.ca/nr/energy/electricity/index.html#biogas.</p>
Develop and implement a net metering policy for small generation developers.	Planning	<p>A consultant was contracted to conduct a jurisdictional review of net metering practices and outline considerations for the development of a provincial net metering policy. The report was released on December 11, 2014 and is available at www.nr.gov.nl.ca/nr/energy/electricity/index.html.</p> <p>Natural Resources, Newfoundland and Labrador Hydro and Newfoundland Power are studying the results of the report to inform the development of a net metering policy.</p>
Encourage exploration and development of our uranium resources.	Operational	<p>Global uranium markets have declined significantly due to the Japanese tsunami and impact on the nuclear fuels industry and general declines in commodities. As a result, exploration for uranium has declined significantly.</p> <p>Funds allocated for promotion are in place and are used to promote all mineral resources, including uranium. Government is well positioned to attract further exploration investment when the market improves.</p>
Build a transmission link between Labrador and the Island in conjunction with the Lower Churchill development and seek Federal Government financial assistance in the context of greenhouse gas emission reduction initiatives.	Operational	<p>The Muskrat Falls Project was sanctioned in 2012 and the Federal Loan Guarantee was concluded in December 2013. Construction is now underway on the Labrador Island Link and first power at Muskrat Falls is expected in late 2017.</p> <p>The Loan Guarantee was provided by the Federal Government in part due to the reduction in greenhouse gas emissions that would be achieved in Newfoundland and Labrador and Nova Scotia. The Muskrat Falls projects will reduce carbon dioxide emissions by up to 4.5 megatonnes per year, equivalent to taking one million cars off the road.</p>
Use our electricity resources to actively pursue new industrial development in the province, particularly Labrador.	Operational	<p>In December 2012, the Provincial Government introduced a new policy to ensure competitive electricity rates for industrial customers in Labrador. The new policy introduced one rate for all Labrador interconnected industrial customers that uses a transparent rate-setting process and publicly-posted rates, and is intended to allow for better planning for industry and potential developments while establishing competitive and fair rates.</p> <p>A new transmission line was approved to accommodate requests for power from industrial customers in Labrador West and to satisfy growing residential and commercial load. The project has been put on hold and will restart once the proposed Kami mine owners finalize financing arrangements.</p>
Work closely with potential developers to ensure transmission costs are understood and timelines are addressed.	Operational	<p>Nalcor is working with the Provincial Government to assess electricity transmission opportunities and requirements for industrial growth.</p> <p>Nalcor is actively engaged with potential industrial customers to identify the electrical infrastructure necessary to support new industrial development in the province.</p> <p>Labrador industrial rate sheet as per the Labrador Industrial Rates Policy has been posted to the Newfoundland and Labrador Hydro</p>

		website.
Work to establish appropriate transmission access to Canadian and U.S. national electricity grids.	Long-term	<p>The Provincial Government and Nalcor Energy have taken aggressive actions to establish access to Canadian and US national electricity grids.</p> <p>Nalcor Energy, through Newfoundland and Labrador Hydro, signed an agreement in 2009 to wheel some of the province's block of Churchill Falls recall power through Quebec to the Canada/US border.</p> <p>An Application for Administrative Revision was filed with the Régie de l'énergie (Régie) in an effort to reinstate Nalcor's transmission service requests in the Hydro-Québec Transénergie reservation queue. Nalcor Energy also pursued a separate 724 MW transmission service request into the Maritime Provinces and New England which the company filed with Hydro-Québec in February 2007.</p> <p>Nalcor Energy is continuing to actively explore options for exporting power from Labrador to the island of Newfoundland and then into the Maritime Provinces via a subsea link and onto the Northeastern US markets and has made a transmission service application to the New Brunswick System Operator for access to the New Brunswick marketplace.</p>
Work with other governments and industry to establish an effective national electricity transmission system.	Operational	<p>The Provincial Government has been building consensus about the importance of an effective national transmission system.</p> <p>The Provincial Government has effectively lobbied for a more effective national transmission system through its participation in high-profile multilateral organizations such as the Council of the Federation, the Council of Atlantic Premiers, and the Energy and Mines Ministers' Conference.</p> <p>The province is also advocating for the system through its participation in the Federal Government's Atlantic Energy Gateway initiative.</p>
Maintain the current industry structure for the management of electricity distribution activities between Newfoundland Power and Newfoundland and Labrador Hydro with an increased focus on identifying potential synergies.	Operational	<p>The Provincial Government continues to maintain the industry structure for electricity distribution activities between Newfoundland and Labrador Hydro and Newfoundland Power.</p> <p>Newfoundland and Labrador Hydro and Newfoundland Power continue to work together closely on day-to-day operations and are now partnering on the takeCHARGE program, a joint initiative to help increase energy efficiency and conservation in the province.</p>
Identify which standard practices in the North American electricity industry are necessary for us to adopt as we become more electrically integrated, and how best to implement them in this province.	Planning	The Department of Natural Resources and Nalcor are reviewing standard electricity industry practices in North America to identify the practices the province should implement to better integrate its electricity system with the rest of North America.
Streamline the regulatory process governing the electricity sector.	Operational	Preparatory work has begun on streamlining the regulatory process governing the electricity sector.
Maintain the fundamental regulatory principles that	Operational	Newfoundland and Labrador Hydro and Newfoundland Power filed a Five-Year Energy Conservation Plan with the Board of

<p>currently exist, but incorporate broader considerations such as conservation and environmental protection.</p>		<p>Commissioners of Public Utilities (PUB) in 2008.</p> <p>Newfoundland and Labrador Hydro and Newfoundland Power filed another Five Year Plan for 2012-2016 which provides further opportunities for customers to manage electricity usage. The 2012 plan includes the continuation of the current joint customer energy conservation program portfolio and addition of new programs for the residential and commercial sectors.</p> <p>The takeCHARGE program, a joint initiative of Newfoundland and Labrador Hydro and Newfoundland Power, encourages energy efficiency and conservation for electricity customers through rebate programs and advisory services.</p> <p>The Department of Natural Resources has contracted Power Advisory energy consultants to provide advice on meeting the requirements associated with interconnecting the Island of Newfoundland to the North American electricity system and its markets. This review work includes reviewing the existing regulatory principles that currently exist to ensure they are consistent with the Provincial Government's goals of maximizing the long-term value of the province's electric resources.</p>
<p>Affirm the lead role of Newfoundland and Labrador Hydro as the long-term planning entity for the electricity sector.</p>	<p>Operational</p>	<p>Newfoundland and Labrador Hydro's lead role as the long-term planning entity for the electricity sector in the province is demonstrated through ongoing development, generation, transmission and sale of electricity.</p> <p>As noted above, the Department of Natural Resources has contracted Power Advisory energy consultants to provide advice on meeting the requirements associated with interconnecting the Island of Newfoundland to the North American electricity system and its markets. This work includes reviewing the existing regulatory principles that currently exist to ensure they are consistent with the Provincial Government's goals of maximizing the long-term value of the province's electric resources.</p>
<p>Ensure that the regulatory process can appropriately accommodate Lower Churchill and other power for use in both domestic and export markets.</p>	<p>Operational</p>	<p>In 2007, legislative amendments were made to the <i>Electrical Power Control Act, 1994</i>, the <i>Energy Corporation Act</i> and the <i>Hydro Corporation Act, 2007</i> to help advance development of the Muskrat Falls Project.</p> <p>Since 2012, officials with Nalcor, Emera, the Government of Newfoundland and Labrador, the Government of Nova Scotia and the Government of Canada have worked towards securing project financial close and the federal loan guarantee, which was successfully concluded in late 2013.</p> <p>The Department of Natural Resources is continuing to work on a legislative and regulatory framework for formalizing a provincial electricity system operator and reliability coordinator. These will need to be in place prior to Muskrat Falls in-service when the Island system will become interconnected with Labrador by the Labrador-Island Link transmission line and with the Nova Scotia grid and consequently the North American grid by the Maritime Link transmission line.</p> <p>The Department of Natural Resources has contracted Power Advisory energy consultants to provide advice on meeting the requirements associated with interconnecting the Island of Newfoundland to the North American electricity system and its markets. This review work includes reviewing the existing regulatory principles that currently exist to ensure they are consistent with the Provincial Government's goals of maximizing the long-term value of the province's electric resources.</p>

Maintain least-cost power as the primary objective in electricity rate setting in the province.	Operational	<p>The Provincial Government continues to maintain the primary objective of least cost power in its policies and initiatives. The Provincial Government continues to enshrine the least cost power principle in legislation via the <i>Electrical Power Control Act, 1994</i>.</p> <p>While additional objectives in rate setting, such as sustainability and renewable energy, may be considered in the course of the Provincial Government's ongoing electricity system review, least cost power remains the primary long-term objective.</p>
Ensure isolated diesel customers continue to have their basic household requirements and preferential rates for specified facilities.	Operational	<p>All isolated diesel residential customers continue to receive a basic level of electricity supply at preferential rates. For Island diesel service, this lifeline block is the rate applicable to Island interconnected customers.</p> <p>In Labrador, residential diesel customers get this lifeline block of power at Labrador interconnected rates. Some commercial customers such as fish plants pay the same rates as Newfoundland Power Island commercial customers.</p> <p>The Provincial Government's 2014/15 budget continued to provide funding for reduced rates on basic household requirements in isolated diesel communities in Labrador through the Northern Strategic Plan Subsidy. Since 2007/08, funding of \$12.6 million has been provided for this subsidy and to offset the rate increase in isolated diesel communities on the Labrador coast.</p> <p>Ratepayers in isolated diesel communities also benefit from the Rural Deficit subsidy which is funded by interconnected ratepayers on the Island and in Labrador. Newfoundland and Labrador Hydro estimates that the Rural Deficit will be \$64.1 million in 2015.</p>
Negotiate with both existing and new industrial developers in Labrador to ensure that the electricity rates paid are in the best interests of the province.	Operational	<p>In December 2012, the Provincial Government introduced a new policy to ensure competitive electricity rates for industrial customers in Labrador, which will be fully implemented in January 2015. This policy can be found at www.pub.nl.ca/orders/order2014/pu/pu57-2014.pdf. The new policy introduced one rate for all Labrador interconnected industrial customers, and is intended to allow for better planning for industry and potential developments while establishing competitive and fair rates.</p>

ENVIRONMENT

ENERGY PLAN COMMITMENT	STATUS	PROGRESS TO DATE
<p>By 2015, target the elimination of 1.3 million tonnes of greenhouse gas emissions per year, as well as all other pollutants from Holyrood, by building Lower Churchill and the Labrador-Island Transmission link. This will ensure more than 98 per cent of electricity generated for our own use comes from renewable sources.</p>	Operational	<p>Developing Muskrat Falls and delivering clean and renewable hydroelectric power to both Labrador and the Island will enable the province to generate approximately 98 per cent of its electricity from clean, renewable sources. The development of Muskrat Falls will avoid approximately 96 million tonnes of emissions by 2065.</p> <p>Retiring the Holyrood plant will help to eliminate the release of greenhouse gas and sulphur dioxide emissions. From 2000 to 2013, the Holyrood plant emitted an annual average of approximately 1.1 million tonnes of greenhouse gas emissions and an annual average of 11,610 tonnes of sulphur dioxide.</p>
<p>Join the Climate Change Registry to ensure consistent and verifiable measurement of greenhouse gas emissions as per the commitments from the August 2007 meeting of the Council of the Federation.</p>	Complete	<p>On June 2, 2008 Newfoundland and Labrador joined the Climate Change Registry.</p>
<p>Release an updated Climate Change Action Plan by 2008 incorporating specific targets and commitments which build upon initiatives being undertaken by the province through the Council of the Federation and the New England Governors and Eastern Canadian Premiers (NEG-ECP).</p>	Complete	<p>In August 2011, a Climate Change Action Plan entitled "Charting Our Course" was released. This plan can be found at www.exec.gov.nl.ca/exec/ccee/2011_climate_change_action_plan.html. The plan reaffirmed the adoption, at a provincial level, of NEG-ECP greenhouse gas reduction targets for 2010, 2020 and 2050. The plan contains 75 commitments that span all sectors of our economy and are being driven forward by 13 different departments and agencies.</p>
<p>Work with industry and other stakeholders to develop a greenhouse gas strategy for the energy sector.</p>	Operational	<p>Industry was consulted on this strategy in 2009, and in 2010/11.</p> <p>The Provincial Government's greenhouse gas strategy for the large industrial sector was published as part of "Charting Our Course: Climate Change Action Plan 2011". It contains 11 guiding principles to inform the development of a detailed framework and a commitment to continue to work with industry in its development. Further consultations with industry took place in 2012/13.</p>
<p>Continue to require that new offshore project developers follow best practices with regard to flaring levels.</p>	Operational	<p>The C-NLOPB continues to require that offshore operators strive to achieve industry best practices in flaring reduction. Operators must apply to the board for flaring limits and demonstrate progress in flaring reduction.</p> <p>The Department of Natural Resources and the C-NLOPB both endorsed the principles of the World Bank voluntary standard for global gas venting and flaring reduction standard.</p>

		<p>The province hosted the 2008 Canadian Flaring and Venting Regulators forum in St. John's.</p> <p>The Department of Natural Resources and the C-NLOPB continue to participate in the Canadian Flaring and Venting Regulators forum.</p>
<p>Provide funding through the Newfoundland and Labrador Green Fund for feasibility studies on, and potential implementation of, methane capture from large existing landfills and utilization as an energy source, for heating, electricity generation, or municipal vehicle fleet fuel.</p>	Operational	<p>Methane continues to be flared at the Robin Hood Bay regional landfill and the City of St. John's is assessing gas flow rates and the feasibility of using the gas as a fuel source. Methane is also being captured at the province's largest dairy farm. It is expected that the energy produced from the methane will support energy requirements to operate the farm.</p> <p>Both the Robin Hood Bay and the New World Dairy projects were provided financial assistance under the NL Green Fund, delivered through the Department of Environment and Conservation which funded several projects that utilized waste streams to produce biomass fuel products (pellets) and thereby reduced organic waste actually going to landfill. The NL Green Fund projects are designed to be ongoing projects.</p> <p>On September 2, 2014, the Provincial Government announced a biogas electricity generation pilot program to encourage the use of biogas resources and generate a consistent supply of electricity for the province.</p>
<p>Task the Centre of Excellence for Environmental, Science, Research and Technology and its partner post-secondary institutions, through the Newfoundland and Labrador Research and Development Council, to give appropriate consideration in developing further environmental sector partnerships aimed at addressing greenhouse gas reduction goals.</p>	Operational	<p>Reflecting a change in direction regarding the Centre of Excellence for Environmental, Science, Research and Technology, the Provincial Government supported Memorial University's Grenfell Campus's plan to construct the Boreal Ecosystems Research Facility, officially opened in March 2014.</p> <p>With support from the Provincial Government, Memorial University's Grenfell Campus opened its Boreal Ecosystems Research Facility in March 2014. Provincial Government funding of \$5 million allowed Grenfell to leverage \$2 million from Atlantic Canada Opportunities Agency, and \$100,000 from a private donor (McCain Foods), to support construction and the provision of lab equipment. These investments provide Grenfell Campus with a facility to support research activities in the forestry, agriculture and the environmental sector important to the west coast and province's economy.</p>
<p>Work within the Council of the Federation (COF) to accelerate the development and deployment of energy research and technologies that advance more efficient production, transmission and use of clean and conventional energy sources.</p>	Operational	<p>The 2007 Council of the Federation (COF) Energy Strategy "A Shared Vision for Energy in Canada" included a seven-point action plan which contained a commitment to accelerate the development and deployment of energy research and technologies that advance more efficient production, transmission and use of clean and conventional energy sources. This strategy can be found at http://www.canadapremiers.ca/phocadownload/publications/energystrategy_en.pdf.</p> <p>In 2008, COF identified advancing green technologies as a priority to reduce greenhouse gas emissions.</p> <p>In 2009, COF recognized the importance of 'greening the economy' which highlighted the need for innovative green energy solutions.</p> <p>In a 2010 mission to Washington, COF again highlighted the need for continued collaboration and innovation to enhance energy security and reduce greenhouse gas emissions.</p>

		<p>Newfoundland and Labrador currently co-chairs, along with Alberta, Manitoba, and New Brunswick, the Council of the Federation initiative to develop a Canadian Energy Strategy. Newfoundland and Labrador chairs national working groups in the area of technology and innovation including Team 4 (“Accelerate the development and deployment of energy research and technologies that advance more efficient, production, transmission and use of clean and conventional energy sources”). A final strategy is expected to be presented to Premiers at the 2015 summer Council of the Federation meeting.</p>
<p>Strongly support mechanisms for investment in renewable projects and work to ensure that technology fund investments are directed towards regional and national initiatives, such as east-west transmission projects, with proven ability to reduce emissions.</p>	Operational	<p>In addition to the development of the Muskrat Falls Project, the Provincial Government provided financial support for Nalcor’s wind-hydrogen-diesel project in Ramea which aims to reduce isolated communities’ reliance on fossil fuels for electricity generation. This research and development project uses wind and hydrogen technology to supplement the diesel requirements of this isolated community. The project offers an opportunity to increase renewable generation in isolated communities that rely on diesel power generation and reduce Newfoundland and Labrador Hydro’s future use of fossil fuels and its carbon footprint as well as other emissions. Since 2010, the Ramea Wind-Hydrogen-Diesel Energy Project has successfully produced approximately 615,000 kilowatt hours of renewable energy. Phase I of the project was completed in 2012 and Phase 2 is now under way which includes installing hydrogen fuel cells to replace the older hydrogen generator technology.</p>
<p>Work with the Government of Canada and other provinces, as well as with industry, to develop a technology fund that will invest in transmission for the Lower Churchill Project and wind opportunities.</p>	Complete	<p>The Federal Loan Guarantee (FLG) for the Muskrat Falls hydroelectric project was completed in December 2013. The FLG guarantees project debt to help proponents finance the Muskrat Falls Hydroelectric Generation Station, and two transmission projects (Labrador Transmission Assets and Labrador Island Transmission Link). The FLG is a significant economic investment in the province and Atlantic Canada, and will result in lower project costs through reduced interest rates.</p>
<p>Work through the NEG-ECP Conference to consider participation in the Regional Greenhouse Gas Initiative (RGGI), while allowing the appropriate amount of time to allow a prudent economic transition.</p>	Complete	<p>A Provincial Government interdepartmental working group studied the opportunity to participate in the Regional Greenhouse Gas Initiative (RGGI). It was subsequently determined that there was limited opportunity to participate in the Initiative.</p>
<p>Support and advance initiatives to regulate and limit greenhouse gas emissions in a manner that promotes renewable energy development.</p>	Operational	<p>In August 2011, a Climate Change Action Plan entitled “Charting Our Course” was released. The plan reaffirmed the adoption, at a provincial level, of NEG-ECP greenhouse gas reduction targets for 2010, 2020 and 2050. The plan contains 75 commitments that span all sectors of our economy and are being driven forward by 13 different departments and agencies.</p> <p>The Provincial Government continues to support Nalcor’s efforts and work to develop the Lower Churchill hydro renewable energy project development, which when fully completed has the potential to displace 16 Mt of greenhouse gas emissions.</p> <p>The Provincial Government is a key investor in Nalcor’s Ramea wind-hydrogen-diesel project which will reduce emissions from diesel plants.</p>

		The province added two 27 MW wind projects to its energy portfolio. The 54 MW of wind electricity reduces demand from the Holyrood plant.
Ensure that the province captures the incremental value of our renewable energy as a result of emissions regulation.	Operational	<p>The Provincial Government is following emissions regulations changes and developments across North America to ensure the province maximizes economic gains and minimizes losses from any such regulations.</p> <p>The Office of Climate Change and Energy Efficiency (CCEE) is monitoring and analyzing Federal Government and international developments on emissions regulations, including the US Congress, and international climate change negotiations.</p> <p>The Department of Natural Resources is also tracking North American energy-related climate change regulations to ensure the province is aware of the regulations and how they could affect Newfoundland and Labrador.</p> <p>The Provincial Government continues to communicate the value of hydroelectricity in many intergovernmental forums including COF and NEG-ECP, as well as to the Federal Government.</p>
Ensure that renewable and non-renewable resources are developed in a manner which both maximizes benefits for the province while at the same time protecting the natural environment, including our land water and wildlife, to the greatest extent possible.	Operational	<p>Muskrat Falls Nalcor received release from the environmental assessment for the Lower Churchill Hydroelectric Generation Project in March 2012. Nalcor is incorporating the terms and conditions outlined in governments' responses into the Muskrat Falls Hydroelectric Generating Project design and planning work.</p> <p>On June 20, 2013 the Labrador-Island Transmission Link was released from further environmental assessment, subject to terms and conditions which Nalcor is incorporating into design and planning work.</p> <p>Benefits Agreements and Gender and Diversity Plans are in place for the Project.</p> <p>Oil & Gas The Provincial Government has negotiated new oil development agreements that maximize benefits for the province. These benefits include employment and industrial benefits, incremental royalty rates and equity positions in the developments.</p> <p>Resource development projects may only proceed after risks of environmental impacts are fully studied and rigorously mitigated through an environmental assessment process.</p>
Continue to work through the Council of the Federation, the Council of Energy Ministers and the Canadian Council of Ministers of the Environment to improve the timeliness and certainty of regulatory approval decision-making processes while maintaining rigorous protection of the environment and public interest.	Operational	<p>The Provincial Government fully participated on the Council of Energy Ministers' (CEM/EMMC) Regulatory Performance Improvement Working Group (RPIWG). This working group commissioned an environmental scoping document that highlights the major impediments to investment and planning decisions. It also outlines best practices to better manage the environmental assessment process.</p> <p>The Provincial Government has also supported federal initiatives aimed at reducing regulatory red tape, in particular the concept of one project-one review.</p>
Ensure that stakeholders,	Operational	In April 2013, the Provincial Government released its Aboriginal

<p>communities, Aboriginal governments and groups are consulted appropriately on the development of energy projects.</p>		<p>Consultation Policy, which provides a framework for the development of Consultation Guidelines on land and resource development decisions, and will define the roles and responsibilities of all parties to a consultation.</p> <p>Oil & Gas</p> <p>The Nunatsiavut Government co-chaired the 2008 Strategic Environment Assessment for the Labrador offshore with the C-NLOPB.</p> <p>In 2008/09 the C-NLOPB met with the Nunatsiavut Government and the full Nunatsiavut Assembly on a number of issues, including: offshore seismic activity, the closing of the 2008 Call for Bids in the Labrador offshore area, and, an overview of current activity offshore Labrador as well as the potential for near and long term activity in that region.</p> <p>Nalcor, as a working interest holder in offshore development projects, complies with all development plan requirements including stakeholder consultation.</p> <p>Lower Churchill</p> <p>On September 26, 2008, Nalcor Energy, the Government of Newfoundland and Labrador and Innu Nation signed the Tshash Petapen (New Dawn) Agreement. This agreement resolved key outstanding issues in relation to land claims, the Lower Churchill Innu Impacts and Benefits Agreement (IBA) and Upper Churchill redress. Since 2008, the parties have worked to complete three agreements:</p> <ul style="list-style-type: none"> ▪ A tripartite Innu Land Rights Agreement-in-Principle between Canada, Newfoundland and Labrador and Innu Nation (AIP); ▪ The Lower Churchill Project Innu Impacts and Benefits Agreement (IBA); and ▪ The Upper Churchill Redress Agreement (UCRA). <p>These three agreements were ratified by the Innu on June 30, 2011, and signed by the parties on November 18, 2011.</p> <p>The Labrador Metis Nation (LMN), now Nunatukavut Community Council, had two consecutive Community Engagement Agreements with Nalcor for the purpose of studying land and resource use in the Project area. The Labrador Metis Nation and Nunatukavut Community Council Community Engagement Agreements are complete and data from the studies have been incorporated into Project information.</p> <p>Nalcor is committed to comprehensive, consultative and inclusive environmental management processes and continues to engage and consult with all stakeholders through such forums as one-on-one stakeholder meetings, open houses and workshops, and the Environmental Management Committee established with Innu Nation in compliance with the IBA. The Committee consists of four members, two appointed by the Innu Nation and two by Nalcor. It is responsible for environmental policies and environmental management system and review.</p>
<p>Establish an Energy Conservation and Efficiency Partnership (ECEP) to develop a coordinated and prioritized, five-year Energy Conservation and</p>	<p>Operational</p>	<p>Through 2008 and 2009, the Department of Natural Resources chaired meetings that included government officials and representatives from Newfoundland and Labrador Hydro and Newfoundland Power. These meetings ensured that there was a strong and active dialogue between the Provincial Government and the utilities on energy efficiency programming.</p>

<p>Efficiency Plan by March 2008.</p>		<p>In the 2009 Speech from the Throne, the Provincial Government decided to supplement ongoing discussions on future direction with a process to solicit broader input. Province-wide stakeholder consultations were held in 2010 which informed the development of a 5 year strategy entitled "Moving Forward: Energy Efficiency Action Plan" which was published in August 2011.</p> <p>In the Action Plan, the Provincial Government committed to continuing to work with external stakeholders and further strengthen its networks.</p>
<p>Provide an initial investment of \$5 million to the ECEP to coordinate and assist with energy conservation and efficiency initiatives.</p>	<p>Complete</p>	<p>Energuide, the Residential Energy Efficiency Program and the Build Better Buildings Policy were created to assist with energy conservation and efficiency efforts.</p>
<p>Consider the implementation of a rebate program to encourage the purchase of hybrids and other fuel-efficient cars and SUVs.</p>	<p>Complete</p>	<p>The Provincial Government completed detailed research on this action item in 2010. However, a decision was made to pursue other energy efficiency initiatives.</p>
<p>Investigate ways to influence vehicle choice towards more efficient vehicles.</p>	<p>Operational</p>	<p>Public consultations in 2010 indicated that individuals required better and more authoritative information on vehicle efficiency and driving behaviours. Action to date has focused on awareness campaigns such as the anti-idling initiative, and vehicle and driver awareness through the Turn Back The Tide campaign.</p> <p>The Turn Back The Tide website includes a portal specifically designed for people seeking advice on transportation. It also includes advice on how and why to take energy efficiency into account when purchasing a new vehicle, how to drive and maintain vehicles to improve fuel efficiency, and considerations for owners of fleets of vehicles.</p> <p>The Provincial Government is leading by example by purchasing hybrid vehicles for its fleet. The Energy Plan committed that 25 per cent of new purchases would be hybrid or energy efficient cars. The 2011 Climate Change Action Plan increased the ratio to 35 per cent. Since 2008, 34 per cent of all of Provincial Government's vehicles purchased have been hybrid or fuel efficient.</p>
<p>Investigate the adoption of advanced vehicle energy efficiency standards as a member of the NEG-ECP.</p>	<p>Operational</p>	<p>The NEG-ECP conducted research and analysis into enhanced vehicle energy efficiency standards. This work informed federal regulatory changes in both the US and Canada.</p> <p>In 2010, more stringent passenger vehicle standards were introduced in both countries for the 2011 to 2016 model years.</p>

		<p>In 2014, both countries released regulations to further enhance standards for the 2017 to 2025 model years.</p> <p>Enhanced standards for heavy duty vehicles were released in Canada and the US in 2013 covering model years 2014 to 2018.</p>
Continue to implement transportation conservation initiatives as outlined in the Climate Change Action Plan.	Operational	The Provincial Government has taken a number of steps to implement conservation awareness, such as creating information and public awareness campaigns focusing on the links between climate change and auto usage, including an anti-idling campaign for vehicles and support for an awareness campaign relating to public transit in St. John's; and, the NL Green Fund is supporting the development of bicycle lanes in the City of St. John's. The NL Green Fund is also supporting the installation of electric vehicle chargers.
Develop a program to assist large industrial operations to perform efficiency/conservation audits.	Operational	The takeCharge program works with industrial customers on an individual, case-by-case basis. This support can include energy efficiency/conservation audits as well as recommendations on what measures could be undertaken to increase the energy efficiency of the customer's activities.
Explore the introduction of commercial and residential lighting conservation and insulation enhancement programs.	Operational	<p>The Provincial Government established the EnerGuide for Houses Program and the Residential Energy Efficiency Program which provided funding for energy efficiency retrofits in the residential sector including insulation upgrades. The EnerGuide program was available from 2008 to 2012. The Residential Energy Efficiency Program also began in 2008 and is continuing.</p> <p>The takeCHARGE program, launched in 2008, offers rebates for residential customers including Energy Star windows, electronic/programmable thermostats and insulation, household appliances and heat recovery ventilators.</p> <p>For commercial customers, takeCHARGE offers a Business Efficiency Program for commercial customers which includes rebates for high efficiency lighting, high performance showerheads, occupancy sensors and programmable thermostats.</p> <p>The takeCHARGE program has established an Isolated Systems Business Efficiency Program that provides support and incentives for energy saving projects such as high performance lighting.</p>
Allocate \$500,000 to provide grants of up to \$250 to homeowners for pre and post retrofit residential energy audits.	Complete	EnerGuide for Homes program was introduced in 2008. Over 2200 pre-evaluations and over 560 post renovation evaluations have been completed, with over \$650,000 in grants allocated throughout Newfoundland and Labrador.
Allocate \$6.9 million over three years to the Newfoundland and Labrador Housing Corporation to fund an energy efficiency and conservation program for low-income homeowners.	Complete	Funding was allocated for the Residential Energy Efficiency Program (REEP), which was introduced in 2008 and continues to be funded. To date, over \$15 million has been invested in this program, and through the end of 2013, more than 5,500 clients have been assisted through 2014/2015. It is estimated that the average client is saving \$720 per year on their energy costs.
Lead by example in energy efficiency and conservation by: <ul style="list-style-type: none"> ▪ Adopting a policy that 25 per cent of 	Operational	<p>Since April 1, 2008, 34 per cent of all Provincial Government car and SUV purchases have been hybrid or fuel efficient vehicles.</p> <p>In 2009 the Provincial Government began development of the Build Better Buildings policy which states that buildings meeting</p>

<p>all new Provincial Government car and SUV purchases during 2008-2011 period will be energy efficient vehicles.</p> <ul style="list-style-type: none"> ▪ Strive to implement a policy that starting in 2008, where appropriate, all new buildings and major renovations receiving funding from the Provincial Government or built by Provincial Government corporations or agencies exceed the current Model National Energy Code by 25 per cent and, where possible, also qualify for a minimum Silver standard in the Leadership in Energy and Environmental Design (LEED) program. ▪ Ensure that reduced energy costs from efficiency measures beyond the commitment on Energy Codes are considered against any increased capital cost in new public sector buildings and major renovations. <p>Continue to implement other initiatives for Provincial Government operations as described in the Climate Change Action Plan.</p>		<p>particular criteria and receiving any level of government funding must register with the Leadership in Energy and Environmental Design (LEED) program and strive to achieve LEED Silver status, where possible. The policy was ultimately adopted in 2011 and a guide to implementation was developed and released in 2013. To date, 65 public buildings have been registered with LEED, and approximately 35% of registered floorspace in completed new buildings is certified to LEED Silver.</p> <p>The Department of Transportation and Works continues to use LEED standards for new buildings with financial support from the NL Green Fund.</p> <p>In June 2014, the Office of Climate Change and Energy Efficiency, in partnership with Government Purchasing Agency, released a guide targeted at government officials on how to green procurement. The Office of Climate Change and Energy Efficiency also led the development of a Greening Government Action Plan which was released in January 2015 and includes commitments to improve energy efficiency in government operations. The Department of Environment and Conservation has also funded a District Heating Feasibility Study for the Centre of Environmental Excellence and has partnered with the NL Lung Association on the Western School District Idle Free Zones.</p> <p>The Department of Environment and Conservation, and the Department of Transportation and Works are piloting the use of bicycle lockers at the Confederation Building's West Block.</p>
<p>Continue to support the Climate Change Education Centre as a way to provide effective public education on energy conservation and efficiency opportunities.</p>	<p>Operational</p>	<p>Funding has been allocated on annual basis from the Department of Environment and Conservation. The Climate Change Education Centre continues to promote energy conservation and efficiency opportunities to residents of Newfoundland and Labrador. Funding of \$140,000 was provided in 2013-14.</p>
<p>Establish and implement a comprehensive energy efficiency and conservation marketing strategy.</p>	<p>Operational</p>	<p>In September 2012, the Office of Climate Change and Energy Efficiency launched the Turn Back the Tide public awareness campaign with a view to raising awareness and providing advice to individuals, households, businesses and communities on energy efficiency and climate change matters. The campaign website is www.turnbackthetide.ca and was designed to provide comprehensive, user-friendly and authoritative 'one-stop shop' information, advice and tips.</p>

		Throughout the campaign, partnerships have been established with companies, associations and youth organizations to raise awareness about the importance of energy efficiency. The campaign has won two Pinnacle Awards and there have been over 86,000 visits to the website to date.
Support programs that focus on engaging young people through outreach and education through an innovative annual \$200,000 education fund.	Complete	<p>An innovative Energy Efficiency and Conservation Program led by the Department of Natural Resources and targeted at K-12 schools provided \$100,000 to K-12 schools in each of fiscal years 2010-2011 and 2011-2012. Schools were asked to submit classroom or grade level proposals for projects that would reinforce the principles of energy efficiency and conservation.</p> <p>In 2014, the Office of Climate Change and Energy Efficiency, in partnership with the Department of Education and Early Childhood Development, launched an initiative called Hotshots in partnership with takeCHARGE. Hotshots provides resources to students and teachers on saving energy that are custom-designed for Newfoundland and Labrador. The initiative includes a number of components – information packs, classroom presentations, contests, curriculum resources – all of which are available in both English and French. Since launched, HotShots resource packs have been distributed to all 263 public schools in the province, 151 total presentations have been delivered in 42 schools, reaching over 4,260 students in over 180 classes.</p>
Continue updating and expanding the environmental science component in the K to 12 curriculum.	Operational	New Level III curriculum was introduced in classrooms in 2009 in entitled "Towards a Sustainable Future: Challenges, Changes and Choices".
Continue to support our initiatives outlined in the Council of the Federation's "Climate Change: Leading Practices by Provinces and Territories in Canada," and considers implementation of best practices from other jurisdiction in the country.	Operational	Newfoundland and Labrador is participating fully in the development of the COF Canadian Energy Strategy by chairing 3 of 10 national working groups. The strategy will be presented to Premiers at the COF 2015 Summer Meeting and will embrace principles of sustainability and conservation, transition to a lower carbon economy, energy efficiency and conservation, and the development of clean, renewable energy sources.

ECONOMY

ENERGY PLAN COMMITMENT	STATUS	PROGRESS TO DATE
Support and implement the recommendations of the Skills Task Force.	Operational	<p>The Provincial Government committed over \$100 million from 2007-2014 to support initiatives outlined under the Skills Task Force Action Plan and 87 per cent of the action items outlined under the plan have been completed or are still in development.</p> <p>A Workforce Development Secretariat in the Department of Advanced Education and Skills has also been established to link major projects and industrial development with the needed labour supply. One of its primary mandates is to develop a provincial Population Growth Strategy, including a Workforce Development Action Plan.</p>
Work closely with our skilled trade unions and leaders to attract and retain skilled workers.	Operational	<p>The Provincial Government established the Office to Advance Women Apprentices to enhance employment opportunities for women so they may advance in their chosen trade within the province. The Office works collaboratively with government, industry, labour and other key stakeholders to achieve its goals.</p> <p>Through a partnership with the Carpenters' Union 579, the Office to Advance Women Apprentices also delivers the Targeted Wage Subsidy (TWS) for female apprentices. This subsidy is sponsored by the Provincial Government. Total budget for TWS since inception is \$3.3 million.</p> <p>Advanced Education and Skills is currently working on a site access arrangement with Nalcor and Astaldi Canada Inc. for registration of apprentices for the Muskrat Falls powerhouse, intake, spillway and other transition structures.</p>
Continue to update the labour demand and supply analysis of the Skills Task Force for current and future energy projects.	Operational	<p>Advanced Education and Skills and Finance are preparing an updated labour market supply and demand forecast planned for public release in 2015. This will include energy projects, as well as other major resource developments and other sectors of the economy.</p> <p>The Provincial Government has worked with major project owners to negotiate local benefits agreements that require the hiring of apprentices as part of major project approvals to ensure a coordinated response to labour demand.</p> <p>Advanced Education and Skills is partnering with the Maritime Provinces on the Atlantic Apprenticeship Harmonization Project (AAHP): The Atlantic Provinces are leading the country in harmonizing apprenticeship training. Over the last year and a half, the four Atlantic Provinces have: 1) completed an environmental scan of existing apprenticeship programs; 2) developed a harmonization action plan with 21 key areas identified for action; 3) completed all necessary work for the initial three trades representing approximately 1000 apprentices throughout the region to be harmonized and implemented for the September 2015 intake. In April 2016, harmonization work will have commenced on additional trades; 4) completed all necessary foundational work to issue a Request for Proposals for a shared Apprenticeship (IT) Management System (AMS).</p>
Encourage secondary and post-secondary students to participate in our energy sector by promoting existing programs.	Operational	<p>Promotion and expansion of existing programs has been ongoing including expanded Faculties of Business and Engineering and Marine Institute at Memorial University.</p> <p>Six courses have been added to the "Futures in Skilled Trades and</p>

		<p>Technology Program" (Skilled Trades, Design and Fabrication Levels I and II, Residential Construction, Energy and Power, and Robotics).</p> <p>The Provincial Government has funded three industry-led career development and labour market information initiatives related to the energy sector, including approximately:</p> <ul style="list-style-type: none"> • \$365,000 to the Petroleum Industry Human Resources Committee (www.oilandgascareerinfo.ca); • \$382,000 to the COMPASS Marine Steering Committee and the COMPASS Gender Committee (http://seaforyourself.co/about.aspx); and, • \$389,000 to Newfoundland and Labrador Hydro and Newfoundland and Labrador Power (http://www.electricityindustryNL.ca) <p>In addition, the Provincial Government provided approximately \$490,000 in funding for a training initiative for 20 power crane operators for the Hebron project.</p> <p>The Provincial Government provides annual funding to College of the North Atlantic to increase offerings in high-demand, labour market relevant programming. In 2014/15, \$1.5 million funded extra sections in various trade areas. Since 2007/08, College of the North Atlantic has received approximately \$16.0 million to modernize trade shops, enhancing program delivery.</p> <p>Investments at the Marine Institute have included:</p> <ul style="list-style-type: none"> ▪ A total investment of \$8.0 million in total funding since 2007 has been provided to support the creation and operation of the School of Ocean Technology and approximately \$3.5 million total funding has been provided since 2009/10 to support its four-year ocean-mapping program. ▪ In 2010, the Provincial and Federal Governments provided an investment of \$1.76 million to upgrade the navigation simulator and the engine room simulator. ▪ Since 2011, an investment of \$700,000 has been provided to support the purchase and operation of a Helicopter Ditching Trainer and a Freefall Lifeboat Simulator. ▪ Since 2012, an investment of approximately \$12.7 million has been provided to support expanded programming, student supports and applied research to meet our ocean industry needs. ▪ In addition, since 2012, a cumulative investment of approximately \$7.5 million has been provided to support Memorial University's Faculty of Engineering and Applied Science plan to grow undergraduate enrolment from 1,100 to 1,600 students and graduate enrolment from 300 to 600 students and specializations in arctic/offshore engineering, harsh environments, petroleum engineering, shipbuilding, reservoir engineering, and in other areas.
<p>Promote opportunities in our energy sector to skilled workers outside the province.</p>	<p>Operational</p>	<p>Through our ongoing efforts to promote the province's resources and supply and service capabilities at international trade shows and conferences, the Department's booth staff field questions from international students and petroleum related graduates. Staff point to the industry association's directory of companies where these students can research potential job opportunities in our energy sector.</p> <p>The Department of Advanced Education and Skills has undertaken a number of international recruitment missions to European markets (France, Belgium, the United Kingdom and Ireland) to recruit workers for the province in 2013 and 2014.</p>

<p>Increase the number of educated and skilled workers in the province by:</p> <ul style="list-style-type: none"> ▪ Working with the Nunatsiavut Government and Aboriginal groups to identify potential employment and training opportunities. ▪ Seeking to partner with the Federal Government to improve the educational outcomes for Aboriginal students and facilitate their participation in post-secondary education. ▪ Working with stakeholders to ensure that underrepresented groups have full access to employment opportunities. ▪ Identifying and facilitating programs to increase the participation of women in professional and skilled trades in the energy sector. ▪ Identifying and facilitating programs to increase the participation of Aboriginal peoples in professional and skilled trades in the energy sector. 	<p>Operational</p>	<p>In 2014, the Provincial Government signed a renewed Labour Market Agreement for Persons with Disabilities to provide education and employment-related supports to persons with disabilities, including training and employment services, job training supports and community partnerships activities.</p> <p>The Disability Policy Office was established and Natural Resources continues to work with other Provincial Government departments to identify options for Diversity Program requirements now included in medium and large-scale development projects.</p> <p>The Women in Science and Engineering Newfoundland and Labrador program has been expanded to Labrador West, Happy Valley-Goose Bay, Stephenville, Corner Brook, Gander, and Burin.</p> <p>Adult learners in Nain and Hopedale are participating in a pilot program in the Skilled Trades and Technology. This program has been specially adapted to fit adult learner needs.</p> <p>Currently supported by funding from the Provincial and Federal Governments, the Innu Nation, the Nunatsiavut Government, the NunatuKavut Community Council and the Nalcor Energy-Lower Churchill Project, the Labrador Aboriginal Training Partnership continues to ensure Aboriginal people avail of skills development programs necessary to secure employment opportunities created through resource development in Labrador. This non-profit partnership began in 2009 with over 2000 Aboriginal clients having received employment assistance and/or training to-date. Through this partnership, 10 training programs have been offered at the province's post-secondary institutions, the majority of these through College of the North Atlantic. Since 2009, almost 900 Aboriginal people have obtained employment as a direct result of programs and services offered.</p>
<p>Develop a strategy to retain our educated and skilled workers that will:</p> <ul style="list-style-type: none"> ▪ Encourage continuous employer-driven investment in job training and skills upgrading. ▪ Encourage higher enrolment and graduation rates for post-secondary institutions. 	<p>Operational</p>	<p>The Provincial Government launched "Creating a Province of Choice: A Youth Retention and Attraction Strategy for Newfoundland and Labrador" on November 5, 2009. An updated approach to youth retention and attraction is outlined in Government's forthcoming Population Growth Strategy.</p> <p>Interest free Provincial Student Loans were introduced as of July 31, 2009. In Budget 2014, the Provincial Government announced it was replacing all student loans with grants. These initiatives have helped ensure affordability and accessibility to post-secondary education and reduce student debt. More information can be found at www.releases.gov.nl.ca/releases/2014/fin/0404n05.htm.</p> <p>In July 2011, AES (formerly Human Resources, Labour and Employment) released Newfoundland and Labrador Labour Market Outlook 2020. This report provided a detailed account of the historical and current labour market landscape in the province, including information about the local workforce, labour demands, and employment outcomes as well as information about future job trends and prospects for 120 occupational groups. An update is</p>

		currently being prepared for public release in 2015.
Address specific labour market challenges related to retention in the energy sector.	Operational	<p>The Departments Advanced Education and Skills and Natural Resources have representation on the Petroleum Industry Human Resources Committee. This committee practices governance planning and the provision of petroleum industry related career information to school age students and their influencers in support of the industry's long-term recruitment needs.</p> <p>In addition, the Career Awards Program is a key strategy in effectively developing the province's offshore oil and gas industry through the successful application managerial approaches and technologies proven successful elsewhere in the world under similar conditions.</p> <p>The NL HR Manager was launched by the Provincial Government in February 2010 as an online recruitment and retention toolkit for small and medium-sized employers.</p>
Require large-scale energy project proponents within our jurisdiction to include employment plans for women that address employment equity and work with other governments to accomplish the same goal where resources are jointly managed.	Operational	<p>Gender Equity and Diversity Programs including Women's Employment Plans (WEPs) and Business Access Strategies have been included in the Benefits Agreements for Hebron, Hibernia South and the Lower Churchill Project. In addition, a WEP will now be required of all new mid to large scale resource development projects.</p> <p>Plans are now in place for 11 projects with more expected in the near future.</p> <p>Results are now emerging with increased recruitment and business access activities and increased availability of scholarships.</p>
<p>Invest \$5 million to provide detailed advice and recommendations on planning, implementing and financing energy innovation. This investment will be used to:</p> <ul style="list-style-type: none"> ▪ Pursue a strategic, coordinated approach to energy innovation focusing on areas of a competitive advantage. ▪ Create an Energy Innovation Roadmap for the province by the end of 2008 to provide direction, focus, and priorities for our future energy technologies. ▪ Identify and work with various groups to promote focus on key opportunity areas. 	Long-term	<p>The Department of Natural Resources held over 20 meetings with stakeholders between April and July 2011 to provide a briefing on the status of Phase 1 of the Energy Innovation Roadmap project and to outline next steps for Phase 2.</p> <p>Phase 1 results (five reports), which were publicly released in July 2011, contained recommendations for roadmapping to be conducted along nine priority themes in four energy areas.</p> <p>In December 2011, the department issued two RFP's for three priority areas: Oil and Gas – Harsh Environment, Onshore Wind, and Energy Transmission. These Roadmaps were completed in March 2013.</p>

<ul style="list-style-type: none"> Leverage existing strengths and energy expertise at Centres of Excellence and elsewhere by encouraging a common, coordinated approach to executing energy research. <p>Address the lack of venture capital and other funding necessary to move ideas into implementation.</p>		
<p>Ensure our energy resources, where appropriate, are used as a tool to promote economic development, particularly in rural areas and Labrador.</p>	Operational	<p>Muskrat Falls This development will generate economic benefits throughout the province, including \$1.9 billion in income to labour and business, with approximately \$500 million of this to be earned by Labradorians and Labrador-based businesses. The provincial economy will also benefit from employment associated with source of lowest-cost power for homes and businesses and a supply of energy for future mining and industrial development in the province the project will support future economic development.</p> <p>Oil & Gas The Department of Natural Resources has negotiated benefits plans for major project developments in energy and mining, specifically designed to promote economic development at project sites.</p>
<p>Work with the Nunatsiavut Government and Aboriginal groups to ensure opportunities for involvement in the development of projects are pursued and skills training are available.</p>	Operational	<p>The Labrador Aboriginal Training Partnership (LATP) is a not-for-profit corporation and is a partnership between the three Labrador Aboriginal Organizations: Innu Nation, Nunatsiavut Government, and NunatuKavut Community Council, and Nalcor Energy-Lower Churchill Project as the industry partner. LATP was formed to enhance the education, training and skill levels of Aboriginal people living in Labrador.</p> <p>The first LATP initiative (2009-2012) leveraged \$15 million in federal funding and resulted in 973 clients accessing services and almost 400 Aboriginal clients obtaining employment. A second LATP training initiative (2013-2015) is currently supported by over \$14 million in funding from the Provincial and Federal Governments, the Innu Nation, the Nunatsiavut Government, the NunatuKavut Community Council and the Nalcor Energy-Lower Churchill Project. Since March 2013, over 470 Aboriginal clients obtained employment.</p> <p>LATP also has a wage subsidy program that provides a 60 per cent wage subsidy for 12 weeks with a minimum employer commitment of an additional three weeks of employment. To date, over 30 Aboriginal clients have obtained work through this program.</p> <p>Since 2007, a cumulative investment of approximately \$7.3 million has been provided to support Memorial University's Labrador Institute (LI), which promotes collaboration, outreach, research,</p>

		<p>and education in Labrador, with special emphasis on research and education. The LI is co-located with CNA and has offices in Goose Bay and Labrador City, as well as a research centre in North West River.</p> <p>Since 2011, a total investment of \$900,000 has been provided to support Memorial University's Aboriginal Resource Office (ARO). The ARO facilitates the success of Aboriginal students and provides support, counselling and advice, as well as serving as a hub for social and recreational activities to all Aboriginal students in the St. John's area.</p>
<p>Work with industry, unions, fabrication facilities and education institutions to have a full understanding of the scheduling, timing and employment infrastructure requirements for large-scale projects with a view to facilitating the successful completion of these projects in the province.</p>	<p>Operational</p>	<p>These elements fell within the scope of a Committee for Major Projects Implementation established in 2008. This Committee was formed at a time when there were multiple projects planned with intersecting timeframes (i.e. a second refinery, Vale Long-Harbour, Hebron, LCP, IOCC and others).</p> <p>Some of these projects did not materialize, such as the second refinery, some are now being developed, such as the Muskrat Falls and Hebron, while others are nearing completion (IOCC, Vale-Long Harbour). Work continues in this area at the officials' level to maximize local benefits from resource development projects in the province.</p> <p>AES has established an Industrial Liaison Committee with a Memorandum of Understanding on labour demands of major project owners, including energy sector major projects.</p>



Appendix B

Glossary

Biomass

Energy resources derived from organic matter. These include wood, agricultural waste and other living cell material that can be burned to produce heat.

Development Well

A well drilled for crude oil or natural gas within a proven field or area for the purposes of production.

Environmental Effect

A change in the present or future environment that would result from an undertaking.

Exploratory Well

A well in an area where petroleum has not been found or one targeted for formations above or below known reservoirs.

GHG

The principal greenhouse gases (GHGs) that are included in international climate change agreements include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆).

Hydrocarbon

An organic compound containing only hydrogen and carbon. There are hundreds of these compounds and they may occur as gases, liquids or solids.

Interconnected System

Two or more individual transmission systems that have one or more interconnecting tie lines.

Kilowatt (kW)

Unit of electrical power, used to measure the generating capacity of a generating station or the maximum demand of an electricity consumer.

Kilowatt Hours (kWh)

A standard unit for measuring electricity. Residential customer rates are usually expressed in cents per kilowatt hour.

Load

The amount of electric power delivered or required at any specific point or points on a system. The requirement originates at the energy-consuming equipment of the consumer.

Megawatt (MW)

Unit of electrical power, used to measure the generating capacity of a generating station or the maximum demand of a large commercial or industrial electricity consumer. Equivalence: 1 MW = 1,000 kW

Megawatt Hours (MWh)

A measure of the energy produced by a generating station over time. Equivalence: 1 MWh = 1,000 kWh

Petroleum

A naturally-occurring mixture of hydrocarbons in gaseous, liquid or solid form.

Regulator

An entity that, through power of law or some other legitimate means, has the authority to impose regulation.

Renewable Resources

Sources of energy which are inherently self-renewing, such as water power, solar energy, wind energy, tidal energy and geothermal energy. Wood, garbage and waste burned as fuel are also considered renewable.

Resources

Volumes of hydrocarbons that are deemed to be technically recoverable, but may not have been delineated or may not presently be economically produced.

Retailer

An entity that purchases a product at the wholesale level for the purpose of reselling to a consumer or acting as agent or broker for a consumer or another retailer.

Royalty

The amount paid to the owner of petroleum resources or mineral rights as payment for the resource removed.

Terawatt (TW)

Unit of electrical power, used to measure the generating capacity on an electrical system, or the maximum demand of electricity consumers. Equivalence: 1 TW = 1,000 GW or 1,000,000 MW or 1,000,000,000 kW.

Terawatt Hours (TWh)

A standard unit for measuring bulk electricity transfer. Equivalence: 1 TWh = 1,000 GWh or 1,000,000 MWh or 1,000,000,000 kWh.

Transmission

The movement or transfer of electric energy or natural gas over an interconnected group of lines and associated equipment between points of supply and points at which it is transformed for delivery to consumers, or is delivered to other electric systems. Transmission is considered to end when the energy is transformed for distribution to the consumer.

Transmission System

Wires or pipelines that transport energy over long distances, usually from supply to market regions or to other transmission systems.



Appendix C

Acronyms

C–NLOPB	Canada–Newfoundland and Labrador Offshore Petroleum Board
CEE	Centre of Excellence for Environmental Science, Research and Technology
EL	Exploration Licence
kW	Kilowatt
kWh	Kilowatt Hours
MW	Megawatt
NLH	Newfoundland and Labrador Hydro
NSP	Northern Strategic Plan
OATT	Open Access Transmission Tariff
PUB	Board of Commissioners of Public Utilities
SDL	Significant Discovery Licence
TW	Terawatt
TWh	Terawatt Hours

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