# The New Brunswick Energy Blueprint

Progress Report Department of Energy and Mines October 2012



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# Message from Hon. Craig Leonard Minister of Energy and Mines

As Minister of Energy and Mines, it is my pleasure to provide you with our first New Brunswick Energy Blueprint Progress Report.

I am pleased to report that significant progress has been made with respect to all 20 Energy Blueprint Action Items, with a number of Action Items now complete.

The New Brunswick Energy Blueprint, released last October, establishes a 10-year vision for New Brunswick's energy sector. The Blueprint includes 20 key Action Items focused on taking full advantage of emerging energy opportunities, while proactively addressing key energy challenges. The Energy Blueprint is built on five key policy objectives and is grounded in sound business practices and the responsible management of our Province's increasingly diverse energy assets.

The Energy Blueprint is our government's guide to an energy future based on low and stable energy prices, energy security, reliability of the electrical system, environmental responsibility and effective regulation.

I am encouraged to see strong progress in the energy file over the past 12 months, including the continuation of a three year freeze in electricity rates, record profitability at NB Power, further progress in efforts to harness our Province's vast renewable energy potential, the establishment of strong regional energy partnerships, and a drive to energy innovation through such initiatives as NB Power's Smart Grid partnership with Siemens. We have also intervened to address issues relating to the long-term sustainability of the natural gas distribution system in New Brunswick.

I am even more excited with respect to the work we have ahead of us over the next two years in fully implementing all remaining Energy Blueprint Action Items. Our Province's energy future has never been brighter.

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# **Energy Blueprint – Progress Report Card**

ltem	Energy Action Plan	Status	Completion Year
1	Reintegration of NB Power		2013
2	Electricity Market and New Brunswick System Operator		2013
3	NB Power — Debt Management Plan		2012
4	NB Power — Regulatory Oversight and Integrated Resource Plan		2013
5	Regional Electricity Partnerships		2012
6	Smart Grid Technology and Innovation		2012
7	Large Industrial Renewable Energy Purchase Program		2012
8	Renewable Portfolio Standard		2013
9	Future Development of our Natural Resources		2014
10	Wood Based Biomass Resources		2014
11	Energy Climate Change		2013
12	Electricity Efficiency Plan		2013
13	Energy Efficiency Building Code Standards		2014
14	Energy Efficient Appliances and Equipment		2012
15	Natural Gas Distribution Rates		2012
16	Petroleum Products Pricing		2013
17	Energy and Utilities Board		2013
18	Office of the Public Energy Advocate		2013
19	Energy Literacy, Education and Skills Development		2014
20	Energy Research and Development		2013

Completed \_\_\_\_\_ In progress Not started

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# Energy Action Plan Progress Report

## 1. Reintegration of NB Power

The Province of New Brunswick will amalgamate the NB Power group of companies into a single vertically integrated Crown utility.

#### **Progress and Next Steps**

A new Electricity Act is being developed to enable the reintegration process to proceed. The proposed legislation will be introduced in the 2012-2013 session of the legislature. In addition to supporting the amalgamation of the NB Power Group of companies the new act will enable several other electricity related action items. Associated regulations will be drafted and posted for public comment prior to the new act coming into force.

This action item will be completed in 2013.

# 2. Electricity Market and New Brunswick System Operator

The Province of New Brunswick will review our electricity market policies and implement appropriate structural and operational changes, including the dissolution of the New Brunswick System Operator (NBSO) and migration of system operator functions back to NB Power.

#### **Progress and Next Steps**

During the upcoming 2012-2013 session of the legislature, a new Electricity Act will be introduced to reflect the structural and operational changes resulting from the electricity market policy review. In addition, regulations to support a new mandatory reliability standards compliance monitoring and enforcement program will be made available for public and stakeholder input before the act is proclaimed.

This action item will be completed in 2013.

## 3. NB Power – Debt Management Plan

The Province of New Brunswick will direct NB Power to implement a debt management plan, allowing it to reduce its debt and create shareholders equity.

#### **Progress and Next Steps**

In 2012, NB Power released its strategic plan, accompanied with 10 year debt and equity targets, which supports the Province's debt management objectives.

The action item as identified in the New Brunswick Energy Blueprint has been completed, yet remains an important and ongoing commitment.

# 4. NB Power – Regulatory Oversight and Integrated Resource Plan

The Province of New Brunswick will subject all NB Power operations to regulatory oversight and review, and require NB Power to present an Integrated Resource Plan (IRP) every three years and a Financial Forecast annually to the New Brunswick Energy and Utilities Board (EUB), or as directed by the EUB.

#### **Progress and Next Steps**

In order to reintegrate the various NB Power companies and the New Brunswick System Operator, a new Electricity Act is being drafted. The new act will be introduced in the 2012-2013 session of the legislature. Regulations to support these efforts will be shared for public feedback prior to the act's proclamation.

This action item will be completed in 2013.

# 5. Regional Electricity Partnerships

The Province of New Brunswick will pursue regional electricity agreements, joint ventures and partnerships where there are positive commercial outcomes for NB Power and defined benefits for New Brunswick ratepayers.

#### **Progress and Next Steps**

Through the Atlantic Energy Gateway (AEG) initiative, resource modeling and transmission planning work, including supporting clean and renewable energy studies, are now complete.

The Department of Energy and Mines is now working with NB Power and the region's electric utilities, all four Atlantic Provinces, and the Government of Canada to develop a "go-forward" work plan to realize the benefits associated with Atlantic regional electricity cooperation, as identified through the AEG work. The work plan will be presented to Atlantic Energy Ministers for approval.

The Department of Energy and Mines will continue to support priority intergovernmental energy cooperation initiatives, including the work of the Canadian Energy and Mines Ministers, the Council of the Federation and the Conference of New England Governors and Eastern Canadian Premiers.

The action item as identified in the New Brunswick Energy Blueprint has been completed, yet remains an important and ongoing commitment.

# 6. Smart Grid Technology and Innovation

The Province of New Brunswick will expand the network of smart grid stakeholders and partnerships and work with existing and new smart grid pilot projects.

#### **Progress and Next Steps**

In 2012, NB Power announced a smart grid partnership with Siemens to integrate Smart Grid technology into the province's electrical system and create a Centre of Competence based in Fredericton.

As a part of NB Power's Reduce and Shift Demand (RASD) strategy, implementing Siemens' Smart Grid programs will enable customers to control and manage their energy usage and will provide more choices about how and when they use their electricity in the future.

Work continues on the PowerShift Atlantic initiative, led by NB Power in partnership with the Provinces of New Brunswick and Prince Edward Island, Nova Scotia Power, Maritime Electric, Saint John Energy, the University of New Brunswick, the New Brunswick System Operator, and Natural Resources Canada. This initiative is focused on finding more effective ways to integrate wind energy into our electricity system, with pilot programs for residential and commercial customers.

In 2012, PowerShift Atlantic and NB Power received a national award for significantly advancing the wind energy industry in Canada at the Canadian Wind Energy Association's annual meeting in Toronto.

A collaborative NB Smart Grid roadmap will be updated on an annual basis, beginning in 2013.

The action item as identified in the New Brunswick Energy Blueprint has been completed, yet remains an important and ongoing commitment.

# 7. Large Industrial Renewable Energy Purchase Program

The Province of New Brunswick will bring qualifying large industrial companies' electricity costs in line with their Canadian competitors by implementing a Large Industrial Renewable Energy Purchase Program (LIREPP).

#### **Progress and Next Steps**

Supporting changes in legislation and regulations to the Electricity Act were introduced during the fall 2011 sitting of the New Brunswick legislature.

Effective April 1st of each year, the LIREPP program benefit is recalculated based on comparable published large industrial electricity rates and export data for forestry intense jurisdictions across Canada.

This program was successfully implemented in January 2012.

This action item is complete.

# 8. Renewable Portfolio Standard

The Province of New Brunswick will increase the provincial Renewable Portfolio Standard (RPS) to a minimum of 40 percent of NB Power's in-province sales by 2020.

#### **Progress and Next Steps**

A new Electricity Act, and its associated regulations, are being developed to enforce the new RPS target and will be introduced in the 2012-2013 session of the legislature. The corresponding regulations will be made available for public feedback before the coming into force of the new act.

This action item will be completed in 2013.

# 9. Future Development of our Renewable Energy Resources

The Province of New Brunswick will (a) support local and First Nations small scale renewable projects; (b) integrate current and future wind generation in the most cost-effective and efficient manner; and (c) support promising solar, bio-energy and other emerging renewable energy technologies.

#### **Progress and Next Steps**

In 2012, the Province of New Brunswick released new small scale hydro, solar and biomass renewable resource maps.

Also in 2012, a renewable energy partnership was established with the K.C. Irving Chair in Sustainable Development at the Université de Moncton. The partnership included a shared research, policy and planning resource between the University and New Brunswick Department of Energy and Mines.

In partnership with the other Atlantic Provinces, the Atlantic Energy Gateway work includes a significant focus on the integration and balancing of intermittent renewable energy resources within the Atlantic region.

Criteria are currently being developed to support a request for proposals for small scale renewable projects, with a focus on maximizing local benefits, project viability, sustainability, and minimal rate impacts for New Brunswick ratepayers.

This action item will be completed in 2014.

## **10. Wood Based Biomass Resources**

The Province of New Brunswick will develop and implement supporting policies to optimize the energy output from our province's wood based biomass resources with a specific focus on pellets.

#### **Progress and Next Steps**

New biomass policy commitments were announced in October 2011, and a NB Biomass Working Group, comprised of public and private-sector stakeholders, was established.

Work has started on accumulating industry protocols for the handling, transportation and storage of pellets.

In 2012, the Province, in association with the K.C. Irving Chair in Sustainable Development at the Université de Moncton, released a series of biomass resource maps and an accompanying report for energy cogeneration applications.

The Department of Energy and Mines continues to identify and assess regional biomass best-practices, including small-scale district energy applications, and their applicability to New Brunswick.

This action item will be completed in 2014.

# **11. Energy and Climate Change**

The Province of New Brunswick will develop the key energy components for the 2012-2020 New Brunswick Climate Change Action Plan.

#### **Progress and Next Steps**

This action item is being led by the Climate Change Secretariat in the Department of Environment and Local Government, with support from the Department of Energy and Mines.

The Climate Change Discussion document is currently under development and will be released for feedback when completed. The feedback received will help inform the renewed NB Climate Change Action Plan which is targeted for release in 2013.

The Department of Energy and Mines will continue to engage directly with the Climate Change Secretariat in the examination of a range of greenhouse gas reduction options for potential inclusion in the renewed action plan.

# 12. Electricity Efficiency Plan

The Province of New Brunswick will require electric utilities, in conjunction with Efficiency NB, to prepare a three year electricity efficiency plan.

#### **Progress and Next Steps**

NB Power is leading this action item, in cooperation with Efficiency NB, the Department of Energy and Mines, the Climate Change Secretariat, and the Province's three municipal electric utilities.

Detailed energy efficiency and demand-side management analysis and modeling work is currently underway, which will serve as the foundation for the electricity efficiency plan.

This action item will be completed in 2013.

# 13. Energy Efficiency Building Code Standards

The Province of New Brunswick will require minimum energy efficiency standards for new building construction in New Brunswick by adopting national standards and will amend the New Brunswick Building Code Act to create the authority to do so.

#### **Progress and Next Steps**

The Department of Public Safety is leading this Blueprint Action Item.

Planning is underway for the:

- a. Adoption of the National Building Code of Canada 2010 that will include Energy Efficiency provisions for Housing and Small Buildings.
- b. Adoption of the National Energy Code for Buildings (NECB 2011).

The government has directed the Department of Public Safety to bring forward amendments to the New Brunswick Building Code Act which will provide authority for the regulation of energy efficiency standards in new construction. Minimum energy efficiency standards will be established for new building construction.

The target completion date for this action item is 2014.

# 14. Energy Efficient Appliances and Equipment

The Province of New Brunswick will upgrade the list of regulated appliances and equipment under the Energy Efficiency Act.

#### **Progress and Next Steps**

The Province updated its appliance and equipment regulations in 2012. These standards will be reviewed and upgraded in 2014 and every subsequent two years.

The action item as identified in the New Brunswick Energy Blueprint has been completed, yet remains an important and ongoing commitment.

# 15. Natural Gas Distribution Rates

The Province of New Brunswick will review the natural gas rate structure and distribution network with the objective of achieving a cost-based rate structure and improve access to natural gas across the Province.

#### **Progress and Next Steps**

In December 2011, Government introduced key amendments to the Gas Distribution Act, mandating the Energy and Utilities Board (EUB) to authorize a new rate structure based on cost of service rates. The amendments also facilitate the delivery of natural gas by means other than pipeline, including point-to-point delivery using compressed natural gas. Regulations which specified details of rate-setting methods were passed in April 2012.

In accordance with the act and its regulations, the EUB authorized new rates, effective October 1, 2012. Most customer classes experienced significant reductions in gas distribution rates as a result.

Government will continue to work with key natural gas stakeholders to address issues relating to the long-term sustainability of the natural gas distribution system in New Brunswick.

The action item as identified in the New Brunswick Energy Blueprint has been completed, yet remains an important and ongoing commitment.

# 16. Petroleum Products Pricing

The Province of New Brunswick will perform a comprehensive review of the Petroleum Products Pricing Act and Regulations for the purpose of ensuring its continued effectiveness in achieving the objectives of petroleum price stability, while ensuring the lowest possible price to the consumer without jeopardizing the continuity of supply.

#### **Progress and Next Steps**

Staff from the Department of Energy and Mines has completed an internal review of key issues relating to the Petroleum Products Pricing Act and Regulations with a particular focus on maintaining low and stable prices, while ensuring security of supply.

A review scope, associated timeline and stakeholder engagement process will be released in late 2012.

The action item will be completed in 2013.

# 17. Energy and Utilities Board

The Province of New Brunswick will restructure the Energy and Utilities Board to consist of exclusively full time members.

#### **Progress and Next Steps**

The Department of Energy and Mines is currently developing a detailed policy framework for Executive Council and Cabinet approval.

Enabling legislation will be brought forward in 2013.

This action item will be completed in 2013.

# 18. Office of the Public Energy Advocate

The Province of New Brunswick will establish and appoint a full time public energy advocate to replace the system of ad hoc appointment of public intervenors.

#### **Progress and Next Steps**

The Department of Energy and Mines is currently developing a detailed policy framework for Executive Council and Cabinet approval.

Enabling legislation will be brought forward in 2013.

This action item will be completed in 2013.

# 19. Energy Literacy, Education and Skills Development

The Province of New Brunswick will: (a) develop an energy sector workforce development strategy; (b) pilot an energy certificate program; and (c) implement an energy literacy, education and awareness program.

#### **Progress and Next Steps**

In 2012, the Departments of Post-Secondary Education, Training and Labour (PETL) and Energy and Mines supported a successful community-based energy and advanced manufacturing workforce development pilot project in the Saint John region, entitled TEAMS. Elements of the pilot project will be incorporated in PETL's current renewal of the Province's labour force and skills development strategy.

In 2012, the Department of Energy and Mines signed a Memorandum of Understanding with the University of New Brunswick, Saint John College, with respect to the development of an Energy Certificate Professional Development Program.

The Department of Energy and Mines participated in a 2011-12 Federal-Provincial-Territorial initiative focused on energy information and awareness, which will support further work in developing a New Brunswick energy literacy, education and awareness program.

This action item, and all of its components, will be completed in 2014.

# 20. Energy Research and Development

The Province of New Brunswick will develop and implement a New Brunswick energy sector research and development strategy supporting the adoption of emerging clean energy technologies.

#### **Progress and Next Steps**

An initial inventory of New Brunswick-based energy research and development activities was completed in 2012.

Current action items related to Energy Research and Development include:

- Action Item 5 Regional Electricity Partnerships
- Action Item 6 Smart grid Technology and Innovation
- Action Item 9 Future Development of our Renewable Energy Resources
- Action Item 10 Wood Based Biomass Resources
- Action Item 12 Electricity Efficiency Plan

In addition, a provincial energy sector research and development strategy will be introduced in 2013 with an effort to fully leverage existing government, academic and private-sector energy-related research and development activities.

This action item will be completed in 2013.