



PEOPLE
INNOVATION
CAPITAL
INFRASTRUCTURE
AGILITY

New Brunswick Growth Opportunity

Smart Grid



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Province of New Brunswick
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Message from the Minister

Your government is committed to creating a more energy efficient province through sustainable and responsible initiatives. Smart grid technology which offers reliable, renewable energy generation with low emissions is a rapidly growing sector of the economy. Driven by the rise in demand for renewable energy and electricity systems, the hardware, software and services needed to accelerate and improve smart grid technology represents a significant economic growth opportunity for New Brunswick.

Due to existing infrastructure and expertise in various sectors of the energy industry, New Brunswick is positioned to become a global leader in this emerging sector by attracting new research and technology opportunities to the province. Smart grids also support initiatives to reduce greenhouse gas consumption, interconnect and dispatch renewable generation sources and complement climate change strategies, all while connecting with province-wide cybersecurity initiatives.

As Minister of Economic Development and Minister responsible for Opportunities NB, I am pleased that smart grid technology has been selected as one of 12 opportunities for growth as part of your government's Economic Growth Plan.

Opportunities NB is leading the exploration of potential economic prospects associated with the smart grid, with support from private and public sector partners. We look forward to working together to develop a dynamic smart grid cluster that is attracting investment from around the world and providing quality career opportunities for New Brunswickers across the province.

Hon. Francine Landry
Minister of Economic Development
Minister responsible for Opportunities NB



The New Brunswick Economic Growth Plan

Focusing our economic development efforts

The New Brunswick Economic Growth Plan establishes the framework and role for the provincial government to help bring the economy back to a solid rate of growth. A growing economy is needed to provide the fiscal foundation that will ensure the province remains a great place to live and work.

The Economic Growth Plan is a directional plan outlining how government – across all departments, agencies and related organizations – will mobilize to ensure there is a co-ordinated, complementary effort to improve New Brunswick’s economy and establish a strong foundation for the future. The Economic Growth Plan is the outcome of valuable consultation with hundreds of community and business leaders across the province.

The New Brunswick Economic Growth Plan is based on five key focus areas:

- **PEOPLE** - We will grow our workforce by providing more targeted training and skills alignment efforts; and by significantly expanding the number of new and returning New Brunswickers building their careers in the province.
- **INNOVATION** - We will foster an innovative economy by investing more in research and development, supporting high growth potential entrepreneurs and by transforming government through new and innovative technologies.
- **CAPITAL** - We will boost private-sector investment by strengthening our business climate and addressing key challenges that are holding back growth.
- **INFRASTRUCTURE** - We will expand investment into economic infrastructure that ensures industries continue to invest here and talent from around the world will come to call our province home.
- **AGILITY** - We will increase the speed at which government interacts with the business community and we will strive to build a stronger partnership with industries to move the province ahead within a sustainable fiscal framework.

Pursuing Growth Opportunities

The New Brunswick Economic Growth Plan is focused on leveraging key industries, assets and attributes to create a strong value proposition for business investment. The global competition for business investment and talent has never been more pronounced and New Brunswick needs to focus its efforts to be able to compete and win.

Government will start by using the subject-matter experts in departments and working with the private sector and community-based partners to uncover potential opportunities. A growth opportunity is one that will lead to incremental business investment and jobs, leading to a sustained boost in economic activity (GDP) and tax revenue. Opportunities will be assessed on:

1. the scope and scale of the opportunity (we need to boost the economy);
2. the time to impact (we need growth in the short term to stimulate the economy);
3. a clearly defined and relevant role for government and the resources required (not all opportunities for business investment require government involvement– some may require just a nudge); and
4. a defined return on taxpayer investment (we need to show that public investment in opportunities will increase tax revenues).

Growth Opportunity: Smart Grid

Smart grid technologies represent an opportunity to manage energy production and consumption in a fiscally responsible manner, while mitigating environmental stressors as a province. A smart grid is an electricity network that uses digital technology to detect and react to local changes in demand, creating a more efficient and flexible energy management system. Smart grids add resiliency to electric power systems, enabling these systems to address environmental concerns such as severe storms, while creating greater precision in everyday utility use for consumers.

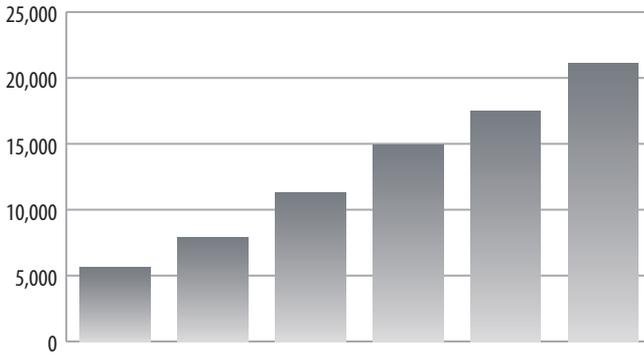
Smart grid technology is modernizing electrical systems in the 21st century and as this sector develops, many opportunities for growth will be realized. This sector is expected to grow exponentially in a few short years as spending on smart buildings around the world grows from \$6.3 billion in 2013 to an estimated \$21.9 billion by 2018.

New Brunswick is in a unique position to become a global leader in this industry, with established foundations in smart grid technology, cybersecurity and information technology. A key component in smart grid development is the digitalization of power systems, which ultimately connects to cybersecurity as more consumers and companies manage electricity remotely. Additional forecasts have estimated the number of home automation and smart metre devices online will rise to more than 20 billion by 2020. This creates enormous opportunity for this industry and the respective enterprises investing in this new technology.

New Brunswick's advantage in this sector is built upon combining leadership in energy with the province's information technology expertise.

Forecasted growth in home automation and smart metre Internet of Things connected devices (millions of units)

Source: Semico Research.



New Brunswick is focused on boosting the number of companies in the province focused on smart grid technology from eight to 12 in the coming years. The province will focus on attracting more research opportunities that this initiative supports. Our increased focus on energy efficiency as an aspect of smart grid efforts aligns closely with other growth opportunities in science and technology.

The smart grid cluster builds on the foundation set by established partners, including NB Power, Siemens and the University of New Brunswick, who are working with national and international firms, as well as smaller innovative technology developers and start-ups. Federal government stakeholders include Industry Canada, National Research Centre and the Atlantic Canada Opportunities Agency. The provincial government has a number of partners at the table including Opportunities NB; the departments of Energy and Resources Development and Post-Secondary Training, Education and Labour; the New Brunswick Innovation Foundation; and the Regional Development Corporation. Smart grid innovation will provide economic opportunities in New Brunswick and the benefits of reliability, efficiency and sustainability to all New Brunswickers.

We have identified actions under the five pillars of the New Brunswick Economic Growth Plan that will help us strengthen and grow the smart grid cluster in the years ahead.

People – strengthen the workforce

- Development of a workforce strategy.

Innovation

- Promote establishment of smart grid development centre in Fredericton alongside industry giants, Siemens and NB Power, as well as research and development leaders at the University of New Brunswick.
- Product development such as smart thermostats that will allow customers and NB Power to reduce electricity consumption.

Capital – more private investment

- Host Smart Grid Summit to attract new opportunities.

Investing in strategic infrastructure

- Continued infrastructure and standards regulations for development.
- Implement and develop formal cluster growth plan.

Foster agility and nimbleness in the public sector and across the economy

- Invest in business ventures related to the design, development and testing of smart grid related products and services.
- Support local and global companies to build on the research and development already happening and promote greater innovation for the benefit of New Brunswickers.