

New Brunswick Energy Opportunities
Summit

Department of Energy & Resource
Development

May 29th 2017

Energy Summit 2015 Summary

- Saint John, December 2015
- Over 90 participants across all sectors of energy
- Participants top opportunities identified, were arranged into 9 sectors:
 - 1) Smart Grid Leadership
 - 2) Energy Efficiency Literacy & Education
 - 3) Invest in and incent renewables
 - 4) Community Based Energy/ Distributed Generation
 - 5) Regional Cooperation
 - 6) Carbon pricing/reduction
 - 7) Energy East Pipeline
 - 8) Tidal Power
 - 9) Alternative Transportation Fuels

Energy Summit 2015 Summary

Smart Grid Leadership Opportunity

What we heard:

- Federal funding for renewables and innovation.
- Capitalize on smart grid initiatives (smart homes and apps)
- Open data standards for public analysis and opportunity assessment
- Time of use rates for both consumers and generators



Smart Grid Leadership Opportunity

Preliminary Strategy Developed

- Partnering with NB Power, Siemens, UNB, ONB

Proposed Action Plan includes:

- Develop a Workforce strategy
- Identify Pillars – define success
- Initiate a cluster growth plan in conjunction with public and private partners
- Assess the infrastructure requirements needed to support the cluster growth

Preliminary Smart Grid Components

Customer Systems

- Customer side of the meter
- Smart appliance, home networks, energy storage devices, demand response & load control
- Vehicle charging and Data Privacy

Advanced Metering

- Advanced Metering Infrastructure (AMI)
- Time Based Programs
- Demand Based Programs

Electric Distribution

- Peak load control, optimization
- Grid applications including substations
- SCADA systems
- Renewables and micro-generation

Electric Transmission

- Applications over large distances
- Resiliency
- Cyber security
- Self healing components

Equipment Manufacturing

- Equipment
- Devices
- Software

Smart Grid Leadership Opportunity

What have we done since:

- Selected Smart Grid as a Growth Opportunity in the Economic Growth Plan
- Launched Smart Grid Innovation Network (early 2016)
- ONB, NBIF & ACOA actively funding companies engaging in smart grid R&D
- Energia Ventures and its accelerator for smart grid companies (Dec 2016)
- Research Centre for Smart Grid Technologies at UNB (January 2017)
- First Energy Innovations Forum held by SGIN, Ignite, ACOA, ONB, NB Power and Siemens (April 2017)
- Developing projects to leverage federal funding opportunities such as our Super Cluster application and various clean tech funds



Energy Summit 2015 Summary

Energy Efficiency Opportunity

What we heard:

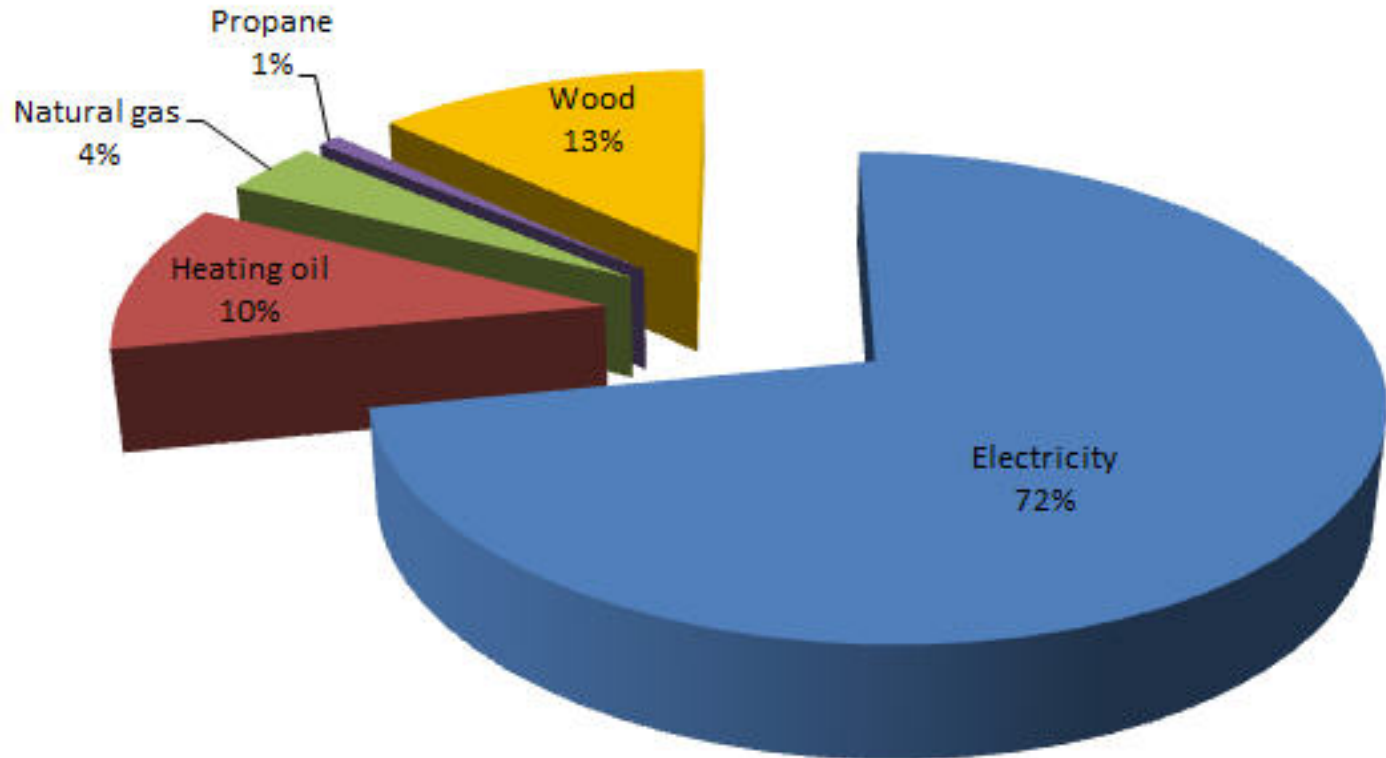
- Create a culture of awareness among businesses and homeowners of energy efficiency
- Energy efficient & renewable energy product development and innovation for NB and exports

What have we done since:

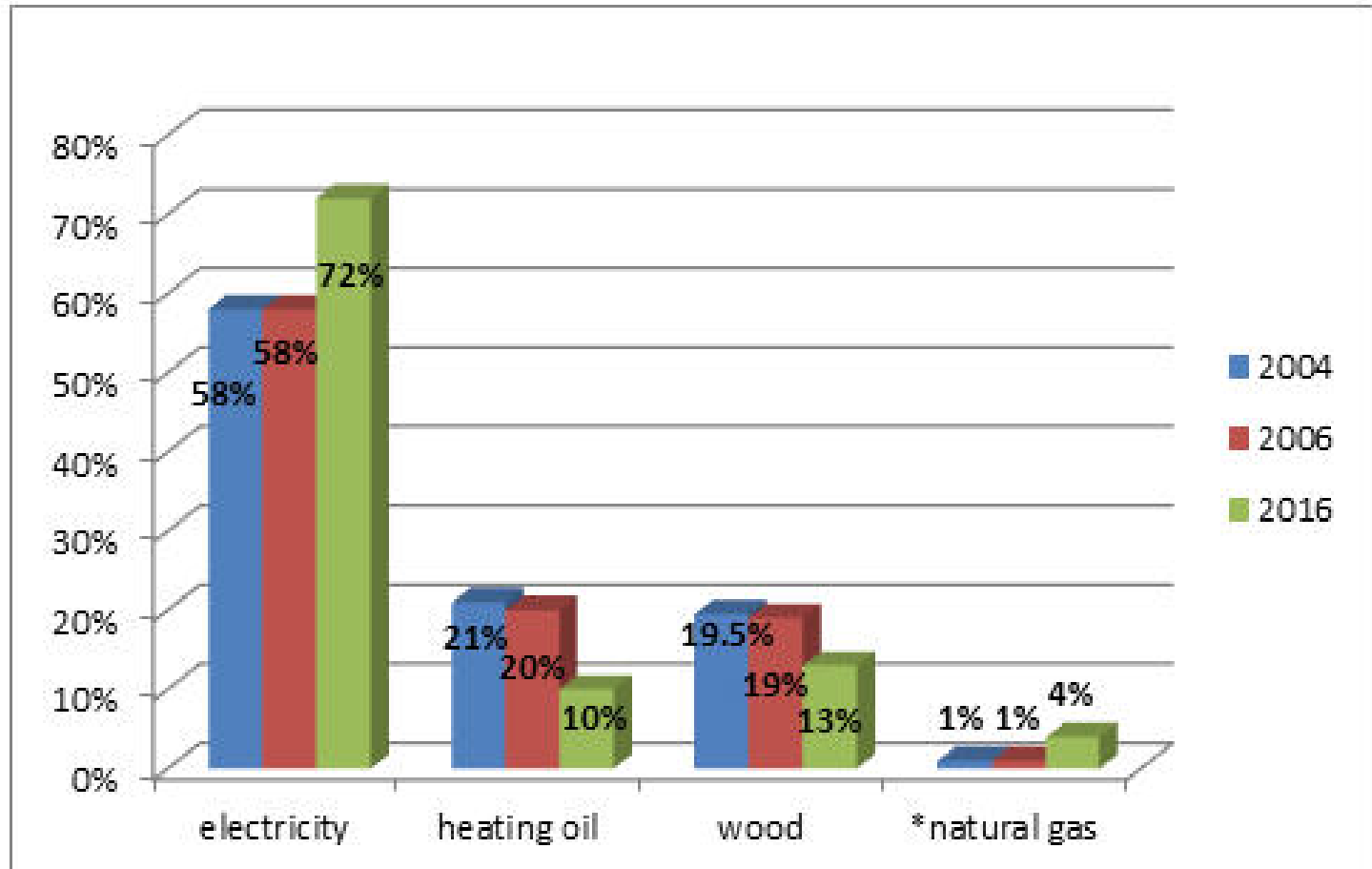
- NB Power Energy Efficiency Services developing new and enhanced programs for all sectors.
- Selected Energy Efficiency as a Growth Opportunity in the Economic Growth Plan
- Announced funding in support of the Gaia project
- Ensured Energy Efficiency key section of Climate Change Action Plan
- Developing a Clean Technology Acceleration Strategy in partnership with region, feds

New Brunswick Residential Energy Profile

The main forms of energy used to heat homes -
2016

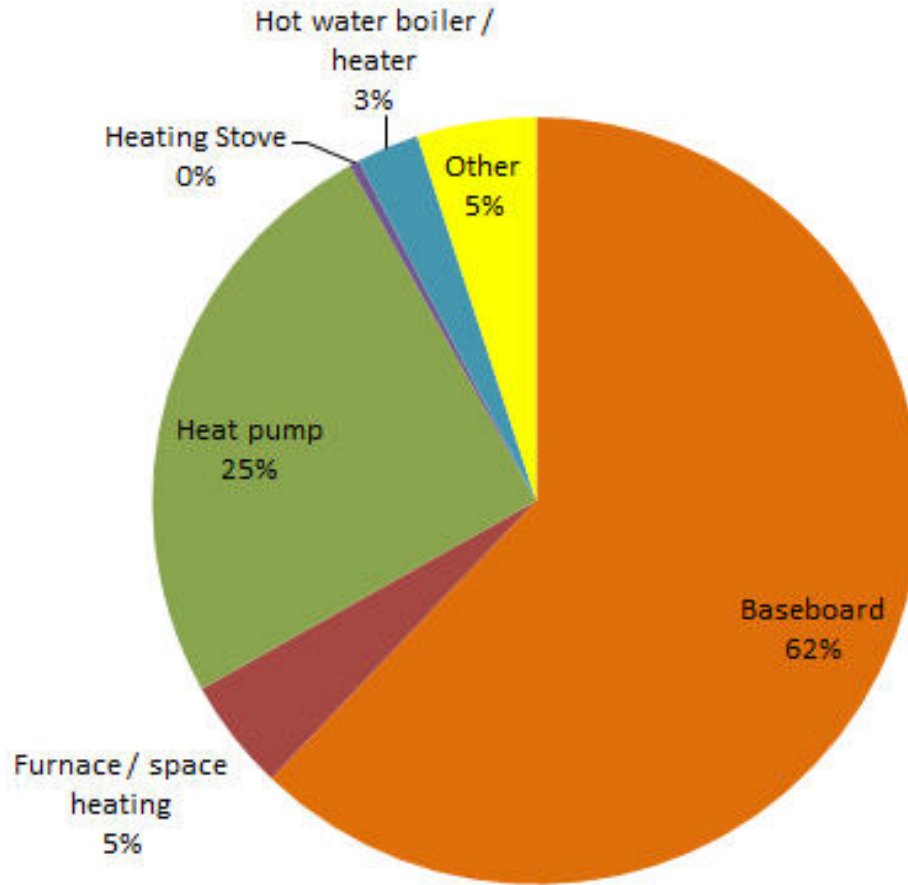


New Brunswick Residential Energy Profile



New Brunswick Residential Energy Profile

Appliances - Electricity





Energy Summit 2015 Summary

Renewable Energy & Electric Vehicles Opportunity

What we heard:

- Become a living lab for renewable/smart energy
- Regulatory changes to encourage transition to renewables
- Facilitate private sector and community-based energy projects.
- Development of tidal power projects.
- Electric vehicle promotion including incentives

What have we done since:

- First Nations communities were asked to submit plans to NB Power under the Community Renewable Energy – First Nations Opportunity.
- Opportunities New Brunswick and the Department of Energy and Resource Development in collaboration with Saint John businesses hosted the Tidal Energy Opportunities Summit.
- Clean Tech acceleration strategy in development



Energy Summit 2015 Summary

Regional Cooperation Opportunity

What we heard:

- Regional cooperation to capitalize on regional distributed generation opportunities
- Improve regional transmission with increase in reliability and reducing costs
- Regional approach to infrastructure
- Energy Plan through collaboration national/inter-provincial

What have we done since:

- The Government of New Brunswick continues to chair and participate in the Delivering Energy to People committee of the Canadian Energy Strategy.
- New Brunswick Energy Solutions Corporation announced – partnership between the Province and NB Power to pursue opportunities in the regional energy sector.



Energy Summit 2015 Summary

Carbon Pricing/Reduction Opportunity

What we heard:

- Price on carbon in place
- Carbon reduction policy creating a carbon levy/fee to create a fund to invest in carbon reduction initiatives
- Carbon tax to drive innovation

What have we done since:

- Select Committee on Climate Change appointed April 2016
- Climate Change Action plan released December 2016 addressing key issues including a carbon price (to be in place by 2018).

Energy Summit 2015 Summary

Energy East Pipeline

What we heard:

- Weighted procurement to local NB businesses
- Peripheral advantages to many stakeholders

What have we done since:

- GNB has set up an inter-departmental team to focus on ensuring all issues such as First Nations rights, environmental & public safety concerns and economic benefits for New Brunswicker's are addressed.
- ONB supporting supply chain participation through information and education

Thank You.

Questions?