

Efficiency Nova Scotia

TIANS Tourism Summit 2014

About Efficiency Nova Scotia

- 3rd party administrator of energy efficiency (electric and non-electric)
- Independent from government and utility
- Led by independent Board of Directors: regulated by UARB
- Work collaboratively with stakeholders
- Starting in 2015 ENSC will sell cost-effective “saved energy” to Nova Scotia Power in competition with other energy sources (wind, hydro, coal, biomass, etc.)
- Canada’s first energy efficiency utility

Why Energy Efficiency?

Economic benefits:

- Lowest cost option; reduces high energy costs
- Improves business productivity & competitiveness
- Investing in local economy
- Building Nova Scotia energy efficiency industry (Trinity)

Environmental benefits:

- Fewer emissions; helps meet federal & provincial requirements

Energy efficiency benefits all Nova Scotians; not only those who use our services.

What we do

1) Services:

Serve everyone from low income Nova Scotians to large employers

2) Education, Outreach and Partnerships:

Raise awareness of energy efficiency

Build energy efficiency capacity

Our Services: Residential

Advice

- New home construction, existing home upgrades
- Home Energy Reports

Incentives & Financing

- Residential (new & existing)
- Green Heat & solar
- Appliance Retirement

Low-Income

- No-cost low income services (electric and non-electric)
- Direct install of energy efficiency products for renters
- In 2015, Nova Scotia Power funding upgrades to every low-income, electrically-heated home in Nova Scotia

Home Energy Assessment

Who's it for?

Homeowners (Bed and Breakfast)

What is it?

Information and advice for increasing a home's efficiency rating through insulation, air sealing and ENERGY STAR windows, doors and skylights.

How do you access it?

Schedule initial assessment with one of our Service Providers

Green Heat

Who's it for?

Single family homes with electric heat

Existing homes only

What is it?

Switch or supplement electric heat to:

- Wood or wood pellets
- Central ground or air source heat pumps or air-to-water heat pumps

Residential Solar

Who's it for?

Homeowners

Landlords (residential buildings of two units or less)

What is it?

Domestic water heating - \$1,250 or zero percent financing (OAC)

Air heating - \$500

*Pre-approval is required- forms are available on the ENSC web site

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Low Income Homeowner Service

Who's it for?

Low-income homeowners (income level verified using Canada Revenue Agency Notice of Assessment)

Open to both electric and non-electric heat sources

Owens home

How do you access it?

Apply directly to Efficiency Nova Scotia, Clean Nova Scotia, or by referral by the Nova Scotia Department of Community Services



Our Services: Businesses

Advice

- Small Business Energy Solutions
- Business Energy Rebates
- New construction
- Custom Projects
- Multi-unit residential and condominiums

Incentives and Financing

- Business Energy Rebates
- Solar

Customized-service

- On-site Energy Advisor and manager
- Energy Management Information Systems
- Employee Engagement

Business Energy Solutions (BES)

- Small businesses with $\leq 400,000$ kWh annual usage
- Measures include energy and water conservation
- Up to 60% of costs covered by ENSC
- Free energy audit
- Old material removal (responsible recycling)

TIANS/BES Examples

Project Type	Location	Customer Share	ENSC Share	Energy Savings	Estimated Savings
Bed and Breakfast	Wolfville	\$130	\$523	2,025 kWh	20%
Inn/Motel	Arichat	\$735	\$2,524	5,560 kWh	14%
Cottages	Bayfield	\$735	\$1,427	11,389 kWh	18%
Campground	Martin's River	\$2957	\$2,519	11,318 kWh	9%
Inn/Motel	Bridgetown	\$2,333	\$4,369	11,814 KwH	19%

Business Energy Rebates(BER)

- 2 Types: Instant and Mail-in
- Applying is easy
- Pre-approval is available for both materials, project and financing
- Measures:
 - Lighting
 - Compressed Air
 - Motors & Drives
 - Commercial Kitchen Equipment
 - Data Centre Measures
 - Refrigeration
 - HVAC
 - Commercial Laundry
 - Agricultural Equipment
 - Controls

- Wanted reliable comfort for tenants
- Installed new controls for heating systems
- \$70,000 annual savings
- ROI < three years



Savings from automated HVAC system exceeds expectations

OVERVIEW | By automating the HVAC system, Citigroup Properties Ltd. achieved energy savings that were better than expected, for the owners and tenants of Belmont House, an eight-story office building in Dartmouth.



SITUATION | Citigroup wanted to take better control of Belmont House's HVAC system, reduce electricity costs for the buildings' owner and tenants and provide reliable comfort for everyone in the building.

SOLUTION | Financial incentives from Efficiency Nova Scotia helped greenlight the project.

BENEFIT | The new energy management system saw a 40 percent reduction in electrical consumption and an estimated annual savings of over 700,000 kWh, this equates to around \$70,000, meaning Westridge Developments, the property owner, will recoup their investment in less than three years. Plus, tenants are happier with the temperature and air quality.



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Custom Programs

- The program and incentives are tailored to the requirements of each custom energy project; Usually savings > 20,000 kWh
- Incentives available for smaller projects
- Assists with the cost of an initial energy audit and feasibility study
- Covers up to half the cost of project implementation to \$500,000
- Projects not currently eligible for funding:
 - Demand-limiting
 - Power Factor Correction
 - Fuel-switching to oil (renewable sources & natural gas are eligible)
 - Basic lighting projects (BER)

GROCERY SUCCESS STORY

SOBEYS
ATLANTIC

Photo: Greg Gault

Kelth Rose, Senior Manager of Maintenance and Sustainability, Sobeys Atlantic

Savings spur Sobeys to apply efficiency measures regionally

OVERVIEW | Sobeys Atlantic located at 123 Ford Street, Stellarton, Nova Scotia is a regional division of Sobeys, the giant national retail grocer and food distributor.

SITUATION | To maintain and improve competitiveness, a company sustainability review was instituted in 2009 setting out specific targets for waste reduction, sustainable sourcing and reducing its carbon footprint.

SOLUTION | Sobeys partnered with Efficiency Nova Scotia on a number of energy efficiency initiatives to help reach its sustainability goals including installation of variable speed drives on its HVAC units, LED freezer lights and strip curtains, energy efficient lamps, occupancy sensors and anti-condensation refrigeration controllers.

BENEFIT | Sobeys achieved energy saving of over 4.9 GWh, a saving of over \$500,000 in annual electrical costs and reduced its environmental footprint by over 3,700 tonnes of CO₂. Savings were so impressive that comparable measures were taken in a number of other Sobeys stores elsewhere in the region.



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- Sustainability Report completed in 2009 to improve competitiveness
- VSDs on HVAC units
- LED lights
- Occupancy sensors
- Refrigeration upgrades
- \$500,000 annual savings
- >3,700 tonnes CO₂
- Has completed more projects on other stores

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New Construction

- Efficiency Nova Scotia offers financial incentives up to \$500,000 for new construction projects including:
- Up to \$15,000 for energy modelling (whole building or specific system)
- Incentives customized to individual projects
- 0% multi-year financing for remaining project costs

- Wanted to compete with overseas markets
- Energy efficient live storage tank
- Will save ~\$90,000 compared with standard trickle system



Efficiency gives new competitive edge to Lobsters 'R' Us Seafood

OVERVIEW | Lobsters 'R' Us Seafood in Lower L'Ardoise, Cape Breton, Nova Scotia, provides nine full-time and 45 seasonal jobs in an area of the province where there is little industry. It grades and stores lobster and snow crab, bought from local fishermen from Port Hawkesbury to Louisbourg.



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SITUATION | As a wholesaler, Lobsters 'R' Us sells into the Atlantic Canada, Upper Canada and U.S. markets where margins are low. In order to enter into the higher margin markets in India, China and Europe, Lobsters 'R' Us required a new long term seafood holding facility.

SOLUTION | With the help of Efficiency Nova Scotia's incentives and rebates, Lobsters 'R' Us was able to build an energy-efficient live storage system.

BENEFIT | A new long-term live storage system has allowed Lobsters 'R' Us to enter higher margin markets overseas and to be more profitable. The new energy-efficient system is projected to save over 1 GWh or \$90,000 in electrical costs compared to a standard trickle system. Lower operating costs will allow future reinvestment in the plant, higher prices for local catches and a better economic outlook for surrounding communities.



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Other Business Services

Existing Building Commissioning

- AKA Recommissioning or Retrocommissioning
- For existing facilities which would benefit from a review of their operational systems

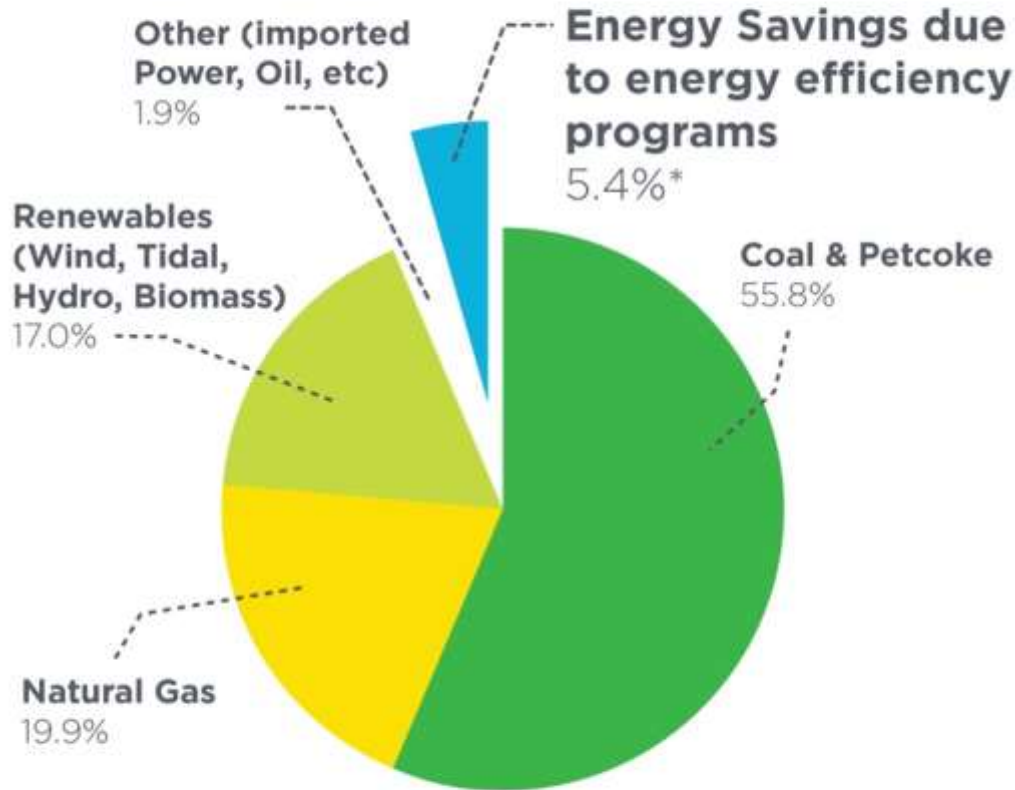
Energy Management Information Systems (EMIS)

- A performance management system that allows business to keep track of energy savings and improve efficiency
- Monitoring and analyzing equipment and employee engagement

Strategic Energy Management (SEM)

- Reduces energy consumption through behavioral and operational changes.

NOVA SCOTIA'S NEW ELECTRICITY MIX



*Includes Efficiency Nova Scotia's conservative estimate for 2013 based on its tracked energy savings. The independent Evaluation and Verification of 2013 energy savings is currently underway.

Nova Scotians will save
\$78 MILLION
in electricity costs in 2014

The measure life of these savings
is
\$790 MILLION

NOVA SCOTIA'S GROWING ENERGY EFFICIENCY INDUSTRY

Projected annual growth rate
over the next five years:

1.5%

Nova Scotia GDP

8%

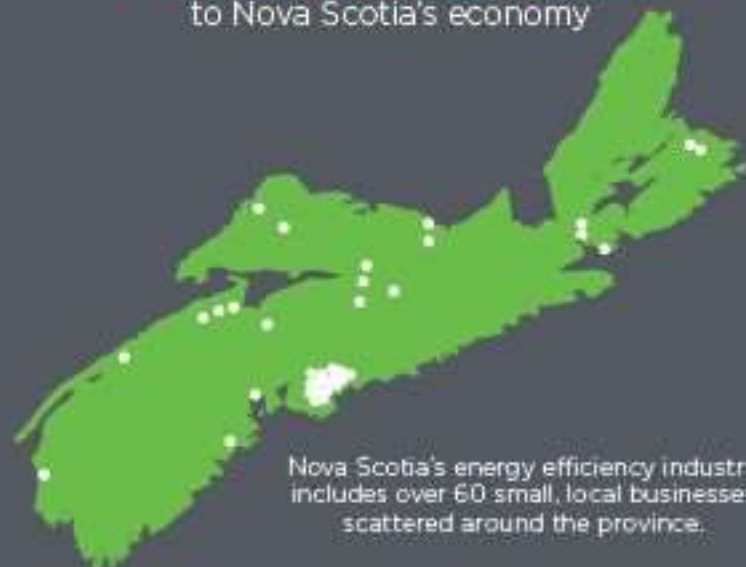
Nova Scotia's Energy
Efficiency Industry

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Nova Scotia's energy efficiency industry
directly provides

1,200 FULL-TIME JOBS,
with a total wage bill of over
\$62 MILLION.

These businesses annually contribute
\$192 MILLION
to Nova Scotia's economy



Nova Scotia's energy efficiency industry
includes over 60 small, local businesses
scattered around the province.

Energy Efficiency will save Nova Scotians

\$78 MILLION

in electricity costs in 2014.
These savings will continue to increase every year.

Nova Scotia ranks in Top 10

Investment Level		
1	Massachusetts	5.77%
2	Vermont	5.64%
3	Rhode Island	5.34%
4	New York	4.69%
5	Oregon	4.69%
6	Washington	4.36%
7	Nova Scotia	3.46%
8	California	3.35%
9	Minnesota	3.24%
10	Utah	3.19%

Energy Savings		
1	Vermont	2.32%
2	California	1.79%
3	Connecticut	1.39%
4	Nova Scotia	1.24%
5	Minnesota	1.19%
6	Hawaii	1.15%
7	Oregon	1.11%
8	Massachusetts	1.10%
9	Nevada	1.05%
10	Rhode Island	1.04%

Thank-You

Questions?