



PO Box 1749  
Halifax, Nova Scotia  
B3J 3A5, Canada

**Item No. 6**  
**Halifax Regional Council**  
**August 17, 2010**

**TO:** Mayor Kelly and Members of Halifax Regional Council

**SUBMITTED BY:** Original Signed by Director  
\_\_\_\_\_  
Phillip Townsend, Director, Infrastructure and Asset Management

**DATE:** July 20, 2010

**SUBJECT:** Green Fleet Initiatives Update

### **INFORMATION REPORT**

#### **ORIGIN**

This report originates from Staff.

#### **BACKGROUND**

Halifax Regional Municipality (HRM) adopted The Regional Municipal Planning Strategy in June 2006. Chapter 2.0, protection of water, land and air, is a significant component of the Plan. Supporting this commitment is the Emissions Reduction Function Plan (also known as the GHG Emissions Reduction Plan).

The Plan outlined a variety of Fleet related measures that have been successfully initiated, implemented and/or investigated.

Measures included:

- Corporate Anti-Idling Policy;
- Green Vehicle Filter;
- Metro Transit bus miniHybrid Thermal Kits;
- Hybrid Bus Technology;
- BioDiesel Fuel Tests and Trials.

## **DISCUSSION**

This report will update Regional Council and the public on two areas that are related to Green Fleet.

### **EcoTrust Application:**

Item 10.1.10 and 10.1.11, January 26, 2010: Regional Council approved a series of applications to the EcoTrust including:

- Green Thermal Utility Project;
- Metro Transit Bus Fleet Fuel Efficiency Project;
- Electric Vehicle Infrastructure Assessment and Test Sites;
- Community Energy/Sustainability Map;
- LED Streetlighting.

Staff have received confirmation of acceptance of the LED Streetlighting and Metro Transit Bus Fleet Fuel Efficiency Projects. For the Metro Transit Bus Fleet Fuel Efficiency Project (see attached press release from Province of Nova Scotia), staff will receive \$107,980 to co-pay (50%) the purchase of fuel efficiency technology, which is expected to demonstrate over 10% fuel efficiency savings. This project will be tendered within the next month.

The EcoTrust has continued to help the Halifax Regional Municipality meet their environmental commitments, and demonstrate that doing so makes economic sense.

HRM Fleet, Metro Transit and Sustainable Environment Management Office (SEMO) staff, continue to investigate technological solutions for fleet fuel efficiency.

### **BioFuel**

As an update, currently the supply of biofuel from HRM's existing suppliers is not meeting ASTM specification - which is required for technical purposes under the contract.

Ocean Nutrition's waste fish oil provides the biodiesel content in the fuel retailed by Wilson Fuels to HRM. There has been growing media coverage on the usage of Ocean Nutrition's product in NSPI Green Power projects. NSPI usage of the waste fish oil, which requires a much lower specification and processing, has the potential to deplete this product source from the market.

As such, staff continue to incubate opportunities for biofuel in HRM. A key perspective from staff is that it is important that biofuels supplied in HRM cannot have a cost greater than diesel. Biodiesel could be trucked in from other areas at higher rates, which is not economically sustainable. It is expected that there will be economically competitive players in the Halifax biofuel markets in the near future.

The focus on finding fuel efficiency solutions is not only environmentally sustainable, but economically sustainable as well. Fuel efficiency solutions require less fuel - thus less cost for operations. For example, by reducing fuel consumption by 10%, HRM is reducing GHG emissions by 10% (the same as a B10 - or 10% biofuel blend) and is also saving 10% on costs at the fuel pump.

### **BUDGET IMPLICATIONS**

There are no budget implications related to this report.

### **FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN**

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Project and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Project and Operating reserves, as well as any relevant legislation.

### **COMMUNITY ENGAGEMENT**

There has not been any Community Engagement related to these actions. There will be community engagement on the update to the Greenhouse Gas Emissions Reduction Local Action Plan. This is anticipated to commence in early 2011.

### **ATTACHMENTS**

Province of Nova Scotia Press Release

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Richard MacLellan, Manager - Sustainable Environment Management Office, 490-6056

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## Funding Supports Green Technology Development, Energy-Saving Initiatives

### Environment

July 15, 2010 1:21 PM

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NOTE: A list of projects that will receive funding follows this release.

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Premier Darrell Dexter announced more than \$2 million today, July 15, to help Nova Scotia move closer to a cleaner, greener environment

The funding is part of the ecoNova Scotia Fund for Clean Air and Climate Change.

"Investing in a greener economy is the right decision for Nova Scotia, and for the entire Atlantic region, as climate change is an issue that affects all of us," said Premier Dexter. "Government is showing genuine leadership by supporting the development of leading edge technologies that are good for the environment, and good for Nova Scotia's economy."

The Lafarge cement plant in Brookfield received \$670,000, helping it become the first in North America to produce lower carbon cement. Carbon Sense Solutions in Halifax received \$467,000 to capture carbon dioxide in pre-formed concrete on an industrial scale.

"The ecoNova Scotia fund has helped more than 140 businesses, municipalities and organizations reduce air emissions that contribute to climate change," said Environment Minister Sterling Belliveau. "We are making life better for families in every region by improving the health of our environment and our economy."

"The ecoNova Scotia program represents a dynamic partnership between government and industry," said Scarth MacDonnell, plant manager at Lafarge's Brookfield Cement Plant. "The funding allows Lafarge Canada Inc. to move forward installing new equipment to continue to make top quality cement using fewer raw materials and reducing fossil fuel demands."

"This initiative extends the life of the Brookfield quarry, reduces fossil fuel consumption and plant emissions, and expects to reduce overall CO2 emissions by more than 70,000 tonnes a year."

Other businesses receiving funding include Scotian Windfields Inc., CADtech Innovations Inc., and N-Viro Systems Canada LP. Municipalities receiving funding include Colchester, East Hants, West Hants, Halifax Regional Municipality and the Town of Truro.

The projects announced today are expected to reduce greenhouse gas emissions by more than 81,000 tonnes -- equal to taking 18,000 cars off the road -- and cut almost 350 tonnes of major air pollutant emissions.

Projects funded by ecoNova Scotia help meet the objectives of the Environmental Goals and Sustainable Prosperity Act and the Climate Change Action Plan.

The ecoNova Scotia fund administers funding from an original \$42.5 million grant from the government of Canada.

For more information on the fund, visit [www.gov.ns.ca/ecoNovaScotia](http://www.gov.ns.ca/ecoNovaScotia) .

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FOR BROADCAST USE:

Premier Darrell Dexter announced more than 2-million dollars today (July 15th), to help Nova Scotia move closer to a cleaner, greener environment.

The funding is part of the ecoNova Scotia Fund for Clean Air and Climate Change.

The Lafarge cement plant in Brookfield received 670-thousand dollars helping it become the first in North America to produce lower carbon cement. Carbon Sense Solutions in Halifax received nearly 470-thousand dollars to capture carbon dioxide in pre-formed concrete on an industrial scale.

Projects funded by ecoNova Scotia help meet the objectives of the Environmental Goals and Sustainable Prosperity Act and the Climate Change Action Plan.

For more information on the fund, visit W-W-W dot gov dot N-S dot C-A slash ecoNovaScotia .

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Media Contacts: Jennifer Stewart  
Premier's Office  
902-424-0007  
Cell: 902-497-7198  
E-mail: [stewarjl@gov.ns.ca](mailto:stewarjl@gov.ns.ca)



Becky Atkinson  
Department of Environment  
902-424-4422  
Cell: 902-240-8805  
E-mail: atkinsrj@gov.ns.ca

Bruce Nunn  
902-424-6427  
Cell: 902-476-6454  
E-mail: nunnbx@gov.ns.ca

The following is a list of projects and programs receiving funding (total \$2,041,441):

-- \$670,000 - Lafarge Canada Inc., Brookfield Cement Plant, Colchester Co., to install equipment and material handling systems needed to produce a cement that delivers equivalent performance with a lower carbon footprint

-- \$467,188 - Carbon Sense Solutions, Halifax , to conduct a full-scale implementation of a new process that will use carbon dioxide instead of steam to cure concrete, and therefore save energy and capture carbon dioxide in the product

-- \$53,627 - Scotian Windfields Inc., Dartmouth, to develop a space-saving system that uses phase change materials (able to change from a solid to a liquid) to store the energy produced by renewable solar energy installations

-- \$41,200 - CADtech Innovations Inc., Eastern Passage, to improve the technology used in industrial pumping systems to substantially increase efficiency and save energy

-- \$221,000 - N-Viro Systems Canada LP, Goffs, Halifax Regional Municipality, to conduct a full-scale test run to produce N-ViroFuel, a renewable fuel substitute

-- \$107,980 - Halifax Regional Municipality, to replace the hydraulic cooling system on public transit busses with an electric version, resulting in improved fuel economy by up to 10 per cent

-- \$138,457 - The Town of Truro, Colchester Legion Stadium, to install a system to recover heat from the existing refrigeration plant to supply heat to the arena's flood water, replace the facility's existing boiler system and install an energy efficient ceiling system

-- \$60,825 - Municipality of Colchester, Tatamagouche Branch Library, to construct a new building designed to meet LEED Silver standards with emission reductions of more than 50 per cent compared to the Model National Energy Code for buildings

-- \$194,500 - Municipality of East Hants, Energy and Emissions Action Plan, to upgrade six municipal facilities including insulation, lighting, and solar hot air and water panels

-- \$77,020 - Municipality of West Hants, to install an energy efficient heating system in the municipal office building

-- \$9,644 - Municipality of West Hants, Falmouth Sewage Treatment Plant, to upgrade the blowers by adding variable frequency devices to run the motors at reduced rates and on timers.

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