



Nomination Entry Form for I-Star Award: Efficiency Nova Scotia, Instant Savings Retail Campaign Submitted by: Summerhill

Efficiency Nova Scotia Corporation (ENSC) is mandated to help Nova Scotians improve their energy efficiency. The Nova Scotia electricity system serves 501,000 residential, commercial and industrial customers across the province and produces 11,000 GWh of electricity each year. Since 2011, ENSC has served approximately 150,000 customers and has reduced the annual generation needs by over 603 GWh.

Barriers to energy efficiency include higher initial purchase prices for energy efficient products, difficulty obtaining a diverse range of energy efficient products, hesitations about the reliability and quality of new technologies, and where and how to use products. Market research has been used extensively to address these barriers.

The Instant Savings on Energy Efficient Products campaign provides incentives to close the cost gap between energy efficient products and older, less efficient technologies. Since 2012, ENSC has provided approximately \$3,700,000 in rebates to Nova Scotians. ENSC works in collaboration with a delivery agent, Summerhill, 9 major retailers and 34 independent retailers at over 200 locations across Nova Scotia. Incentives are offered instantly at the cash on eligible products during a spring and fall campaign. Incentives on appliances are year round. Product mix includes ENERGY STAR® lighting, lighting controls, programmable thermostats, ENERGY STAR® appliances, advanced power strips and clotheslines. The Instant Savings campaign balances both the short-term need for resource acquisition to create immediate energy savings with long-term market transformation.

Over 300 engagement events are held in stores each year. Engagement events are an opportunity to speak with consumers to improve knowledge of energy efficiency, highlight the benefits and address barriers to participation. Since 2011, ENSC has given away 30,000 Specialty CFLs, 18,000 LEDs and 6,800 clotheslines. The clothesline giveaway was unique in that it took an old, familiar technology and attached it to a new cause – energy efficiency. Research has shown that giveaways are effective in encouraging Nova Scotians to purchase more. Research following the LED giveaway showed that the vast majority (77%) are more likely to purchase LEDs in the future.

ENSC uses a number of marketing and communications tactics including radio, print, TV, online and media. In-store signage is strategically placed in participating stores to capture the attention of customers and highlight eligible products. ENSC has worked collaboratively with manufacturers and retailers to promote and market eligible products with co-branded marketing materials, free flyer space and additional product discounts.

Retailers indicated that Instant Savings influenced the quantity of products they carry. In all cases, inventory was increased to ensure that retailers meet customer demand during the rebate periods. A few suggested Instant Savings motivated them to offer an expanded line of products.

Efficiency Nova Scotia is regulated by the Nova Scotia Utility and Review Board. All programs and services are evaluated by an independent third party every year to assess the process, marketing strategies and savings impacts. In 2011 and 2012, the Instant Savings campaign achieved 24.569 GWh net energy savings. In 2011 and 2012 combined, approximately 486,000 CFLs and 18,000 LEDs were sold. In 2013, 26.524 GWh net energy saving were achieved and about 203,000 CFLs and 229,000 LEDs were sold.

Over the past three years, Instant Savings has demonstrated that it can effectively drive demand for energy efficient products, encourage market transformation and provides quantifiable energy savings to Nova Scotians.

London Hydro's industry-leading success in promoting energy efficiency is demonstrated in its cost-effective and innovative variation on the Ontario Power Authority's (OPA) saveONenergy HOME ASSISTANCE program (HAP). London Hydro's HAP is the leading residential energy efficiency initiative in the Province and sets the bar for utilities across North America.

Low-income customers don't have enough disposable income to take advantage of traditional incentive-based energy-efficiency programs. Ontario's HAP is intended to overcome this barrier. In implementing its own unique variation of HAP, London Hydro goes beyond the call of duty to successfully provide expanded energy efficiencies for low-income customers in a tangible and cost-effective way that can also be replicated.

London Hydro increases cost effectiveness and sector reach with its unique iPad-based work management software, designed in-house to overcome the provincial program's administrative hurdles. Forty pages of applications are streamlined, freeing up resources that can be better used for energy efficiencies. Customer experience is simplified, attracting more participants with a completely paperless process. Other utilities are now adopting the London Hydro software.

The unique software is also crucial in delivering consumer education that ensures maximum client benefit and best use of resources. Mobile, iPad-based functionality allows customers to see specifications and options for their upgrades. One-on-one coaching also means customers will achieve greater savings for longer periods.

Committed to energy efficiency, London Hydro's Energy Assessors perform the following activities as part of the expanded HAP:

- install energy efficient bulbs (more than 13,000 to date)
- replace furnace filters, leaving three filters for future use
- install low-flow shower heads
- install programmable thermostats (more than 110 to date)
- replace inefficient appliances with Energy Star-qualified units (68 freezers, 144 fridges and 105 air conditioners to date)
- repair leaky faucets and toilets in a unique co-operation with the City of London's Water Department
- Perform a fire safety assessment, repair, replace smoke alarms

London Hydro took bold steps in community leadership in the development of its distinctive HAP by reaching out to develop creative partnerships with highly credible not-for-profits associated with the low-income community. London Hydro trains not-for-profit staff on HAP's benefits and eligibility requirements. Associating with trusted community organizations puts a "friendly" face on the program, furthering outreach and engagement and means that London Hydro's HAP effectively enrolls more customers than any other similar program in Ontario.

In developing a unique, cost-effective variation of a larger program, London Hydro significantly improves energy efficiency for low-income residents.

Nomination Entry Form for I-Star Award: Newfoundland and Labrador Hydro, Isolated Systems Energy Efficiency Program Submitted by: Summerhill

Background:

- In 2012, Newfoundland and Labrador Hydro (NLH) launched the three year *Isolated Systems Energy Efficiency Program*.
- The program's objective is to increase availability and awareness of energy efficient technologies in rural communities and reduce overall energy consumption efficiency in the 42 isolated communities, supplied by 21 diesel-powered systems, across a 2,100 kilometre span of coastal Labrador and Newfoundland.
- The program's core component is direct installation of energy efficient products with additional components including appliance and product rebates at local retail, seasonal lighting exchanges, block heater timer giveaways, basement insulation rebates, and a drain water heat recovery pilot.
- NLH engaged the energy efficiency services firm Summerhill as the program implementer for the three year initiative.

Unique Contribution to Energy Efficiency:

- This program is unique because it engages a hard to reach customer base that is typically underserved for energy efficiency options. These isolated communities represented a challenge because of limited shipping and travel access, large distances between communities, the need to serve unique cultural groups including Inuit populations, seasonal weather challenges, and limited customer knowledge and awareness of utility energy efficiency programs.
- A variety of program marketing and community engagement tactics were employed to ensure community support and high participation rates.

Program Results:

- The participation rate for the program has been phenomenally high. Over **90 percent of customers participated** in the 42 Isolated Communities have had an installation completed in their home or small business.
- Over year one and two the program has achieved 2,776 MWh of energy savings through over 2800 direct installs at residences and small businesses in the eligible communities. In 2014, the final year, there are an additional 1,275 direct installs forecasted.

Actions that Contributed to Program Success:

- The program engages consumers to understand the long-term value of energy efficiency by tailoring outreach to each community through consultation with town management and field representatives, and offering energy efficiency education during community events and in-person install visits.
- Hiring locally was important to build trust and local skills and provide flexibility and local know-how to accommodate the different cultures and needs in each community.
- The program and community engagement approach can be used as a model for programming designed for small rural and isolated communities, especially those focused on the north.

Features/Benefits

There are NO moving parts, NOT magnets, NOT a catalyst, Nothing to wear out/replace, NO maintenance ever, NO regeneration, will clean existing carbon scale buildups, can be switched from old equipment to replacement equipment. 1 yr absolute minimum performance guarantee of savings (6%), 10 year product warranty, material is 304L stainless steel (life of 80 yrs) and has never failed to produce results when done by its instructions. Made in the USA. You don't get the FAA, Purdue Univ. Aeronautical School & Oracle Air Motive R & D, to review, test and install in 4 aircrafts, if it did not work !

Our Too Good to be True..... Case Studies:

* **Philippine Truck Installation / July 2012:** After the device installed the smoke was less - am shocked... wow ! In just few seconds.. there is already result.. very nice.. you can see the black smoke turned to blue.. the mileage improve in 1 day time, every morning can see changes.. color of the smoke became cleaner and cleaner... in 3 days' time". (7.4% fuel savings in 2 weeks' time - Full 30 day analyses / test revealed **16.9% Fuel Savings with 78.9% reduction in Emissions/Pollution**). **Jan 15, 2013 (YH messenger):** I have good news for you.. Mrs Calolo the owner of the truck we installed our device was very happy.. few days ago she asked driver why he was not asking money from her to buy fuel? the driver said.. boss.. we have enough fuel we don't need to buy yet. Mrs. Calolo smiled and said this is very amazing device it save more than before.

* **NYC area - Carting / Refuse Firm - (Diesel) (2005)** *"31% increase in mileage over a 30 day period."* (over the road transfer truck), city savings at 11%.

"The units on Truck 20 & 25 were installed in early July/2005... (of a fleet of 25 trucks, 5 units have been installed - refuse/garbage trucks / stop, go, idling & stop, go idling, etc). The units on the other trucks were installed in late Nov/2005. The most accurate to measure is #20 since it was one of the first and does not seem to swing that much. If you average Jan to Jun/2005 you get 2.33 MPG... From Jul/2005 to Jan/2006 you average 2.62 MPG. That truck would have used 5,990 gallons at the old mileage, instead it used 5,331 gallons (reduction of 659 gallons) a savings about 11%."

* **Ed - Wayne Whse. (businessman + retired police official)**

Truck - 4x4 - Silverado, 93,000 miles

38 gallons tank capacity installed - June/2008

Trip NJ to Florida + side trip to N.Carolina with fully loaded 4x8 ft trailer and truck on return trip (owner was so impressed with results that he purchased 8 additional units - Home and Vehicles). 20% Fuel Savings & PayBack in 4 mths.

Oct/2012 update (4 yrs after install): now getting 28% in fuel savings.

UMPI - <http://www.umpi.it/en/mission> - is a major Italian company, leader in the production of *powerline smart systems* and products for outdoor and indoor applications. From remote management of outdoor lighting and building automation, through innovative services delivered by transforming the power supply system into a smart grid: the **Minos System** enables corporations and the public sector to save energy, protect the environment and increase efficiency and services quality.

The **UMPI Minos System** solution manages more than 500,000 smart lighting points in the world since 2002. It affects **over 110 cities in 15 countries worldwide**.

The **Minos System** changes the management and use of outdoor lighting grids. It allows to constantly monitor the system's status, obtain details of failure in real time, and decide with flexibility when, where and how much to switch on, switch off or dim every unit, with just a click, wherever one is. It reduces energy consumption, through on/off switching and dimming of every lamps, it helps reducing gas emission and light pollution and it prevents hazards arising from system, guaranteeing provision of the right amount of light exactly where it is needed. Thanks to its leading technology, it transforms the lighting systems into a new territorial communication network and the humble lamp into an intelligent support capable of activating a wide range of services to improve quality of life and make cities more intelligent, safer and more sustainable. The **Umpi Minos System** has been chosen to control 61,000 lighting points in Medina, in Saudi Arabia through **UMPI Syra** devices and 600 cabinets with *Andros units* and the whole plant is remotely controlled by the *Minos X software*. The main objective was to implement a smart system that would constantly check the lights of the city, improving the maintenance management and allowing the supervision of all maintenance activities from a single central room. The **Minos System** has allowed to improve the service by eliminating citizens' complaints for defective lamps and delays in maintenance, significantly reducing the energy consumption: it means **7,686,000 kWh of energy saving each year and 2,500t of CO2 saved**.

The social impact of the UMPI Minos system

The **Minos System** helps to protect the environment and works towards the targets set by international standards, significantly reducing the energy consumption and maintenance overall cost **by 29%**. Through the reduction of energy consumption and targeted scheduling of maintenance work, it helps decreasing greenhouse gas emission and preventing the possible emission of waste products into the air by failed lights.

Innovative Features

With the **Minos System** technology it is possible to obtain a certain saving, while at the same time the wiring cables become enabled like an extended LAN in the city. The electric plants are used thanks to the *powerline* communication to implement value added services. The lighting pole becomes a support for a large variety of services, such as Wi-Fi, digital adv, video surveillance, bike charging.

How the project is scalable and what is required to take it to the next level (financial, facilities, human resources, etc.)

The **Minos System** is flexible, modular and designed to adapt to any lighting system. Its "open" architecture allows software and hardware devices to be added to enable a whole world of innovative services, according to the user's needs, without adding new infrastructures. It may turn the lighting system into a largest smart communication network, adding VAS (Value Added Services) like emergency alert, waste depot security, weather stations, electric vehicle charging, pollution monitoring, digital signage, Wi-Fi, car park management, traffic info, remote meter reading and custom services.

When the Minos technology will be installed on the whole lighting plants in Italy it will be possible to obtain 1,505,000.000 kWh of energy saving each year. This means more than 316,000,000 € saved annually in the national energy bill.

Selected Green Label or Environmental Awards received for this technology

2013 – SG PARIS 2013 – *Smart city award* – *Smart city category*

<http://www.smartgridsparis.com/2013-uk-presentation.php>

2010 - Grand Prix *Most Advanced Remote Control System* - Elektro Expo - www.incheba.sk

2009 - *Premio Efficienza Energetica, Energy Efficiency Award* - Sustainable Development Award by the Sustainable Development Foundation - www.fondazionevilupposostenibile.org