

## Green Energy Credit™ Supply Service for Low-Volume Electricity and Natural Gas Consumers

Recent public outcries against the green energy policy of the government of Ontario in the last quarter of the year 2010 were common knowledge. The Ottawa Citizen barely prints without reports, showing public annoyance to the hike in electricity prices due to the procurement of green power at the seemingly generous contract prices. Although this public outcry against government's implementation of the Green Energy Act, 2009 suggests that the entering into a 20 years contract with a generator at the price of 80.2 cents per every kWh of electricity generated; and the feeding in of green power into the local grid represent a misuse of public funding, the best available design and operation of renewable power project still cannot guarantee less than about 8 years pay back period for any investment in the roof-mounted solar photovoltaic project. It is obvious that the major problem is definitely not the policy, but that there are unresolved constraints to the participation of all, including consumers, and not just the generators, in the Feed-In-Tariff ("FIT") programs of the government. If all (i.e., both generators and consumers) can actively participate in the FIT programs, this policy will be collectively embraced.

Energhx Green Energy Corporation ("Energhx") has developed a patent pending Green Energy Credit™ supply service system that combines exergetic design of energy systems, optimized harvest of renewable energy resources, and reliably supply of electricity and natural gas to low-volume consumers. This novel, fully embedded supply service system ensures that all consumers, not only generators, are benefactors of the Feed-In-Tariff programs of the government for procurement of green power. While other conventional electricity retailers and gas marketers sell green power to consumers perpetually for more, Energhx's new supply service system allows consumers to receive the purchased Green Energy Credit™ for 20 years. Therefore, it is now possible for all low-volume consumers of electricity and natural gas to Go Green... and Pay Less...

The Green Energy Credit™ supply service system is proposed with the ongoing development of a Compata Solar Village, within a community of row units of flat-roofed, condominium-styled, residential buildings in the City of Ottawa. A custom designed 2P3R45 solar mount assembly, once installed and commissioned, will provide ease of maintenance and test-bed for the development of software for calculating snow and wind loads, using Energhx's Non-Inverted Skew Upwind Scheme (NISUS)-based Flow Solver. The NISUS-based Flow Solver<sup>1</sup> has been previously reported to show improved stability and accuracy over previous advection schemes.

Presently, the marketing of the Green Energy Credit™ supply service system have started, with few customers already enrolled in the City of Ottawa. This marketing campaign is being extended to other major cities within the Province, including Kingston, Windsor, Waterloo, Sudbury, Oshawa, Toronto, London, Sault Ste. Marie, and Thunder Bay. Although the Ontario Clean Energy Benefit Act, 2010 establishes the framework under which consumers with eligible accounts are entitled to receive financial assistance in respect of their electricity for the next five years, the Green Energy Credit™ from Energhx provides additional benefit and effective participation of all consumers of both electricity and natural gas, which represent the solution to the hike in the market price of the energy commodity.

For example, for just about an extra \$15-worth of Solar IGEOpower unit on consumer's monthly electricity and/or natural gas bill for 5 years of enrolment with the Green Energy Credit™ Supply Service System, the customer will be entitled to about \$15-worth of Green Energy Credit™ for 20 years. And that ensures about 25 kWh of green power goes to the local grid on a monthly basis. An all-inclusive little drop of water makes the needed mighty ocean. The Go Green... and Pay Less... offering can effectively increase the participation in the ongoing promotion of ecoLiving in Ontario's residential sector.

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<sup>1</sup> EOB Ogedengbe and GF Naterer, *Non-Inverted Skew Upwind Scheme for Three Dimensional Convective Transport*, *Numerical Heat Transfer B*, 46(2):141-164, 2004