



Reduce The Juice

A Shelburne Community Energy Pilot Project

Executive Summary:

Achieving Canada's climate change goals will require that we change the way we think about energy, how we generate it and how we use it. Given the timeframe for making these changes is less than 10 years, the education of developing adults in our high schools will be key to societal adoption of these changes.

On a more local level the Province of Ontario faces not only the challenge of meeting emission reduction targets, but also the critical issue of ensuring electricity supply. In addressing the potential future shortfall in energy, the Supply and Conservation Task Force (2004) identified the need for creation of a "conservation culture" as well as new electricity generation consistent with environmental objectives.

Dealing with these energy issues on global and local levels, PURE (Power Up Renewable Energy) believes that **community action** can play an important role in moulding this energy future and may be part of the ultimate solution in terms of creating "community based" energy systems. The community action proposed in this "pilot project" involved partnership of the local high school and the community. The project is primarily educational and has two objectives; the first to generate knowledge and awareness in the students and in the school with regard to renewable energy, and second through a student led energy conservation program to create a "community energy culture" which advocates reduced energy use and identifies and promotes renewable energy choices.

The two parts of the project are reported separately below in reports titled: "***Reduce the Juice: A Shelburne Community Energy Conservation Project***" and "***The Green Power Project: A Shelburne Community Energy Project***".

In summary from these reports:

By working with the teachers and students at Centre Dufferin District High School in Shelburne Ontario to install a small (1.5 kW) grid tied wind-solar energy system at the school, the first of its kind in Ontario, the ***Green Power Project*** was successful in achieving its two important goals:

- to develop among the students at the school knowledge and skills concerning energy conservation and renewable energy technology
- to cultivate youth leaders committed to community action to encourage reduced energy use and promote renewable energy choices.



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For the ***Reduce the Juice Project***, the three goals were to encourage the citizens of Shelburne to reduce their use of energy by 5%, to raise awareness within the community of Shelburne about energy conservation and renewable energy technologies, and lastly, to develop a model of energy education and energy conservation that could be implemented in other rural communities.

The ***Reduce the Juice*** team called on 1190 homes, completed 327 detailed surveys and received 319 pledges from homeowners to reduce their use of electricity. The average reduction pledged by household was estimated to be 1440kWh per year. Residents were left with information on how to conserve energy in the home as well as prompts to help them remember such as door hangers and fridge magnets.

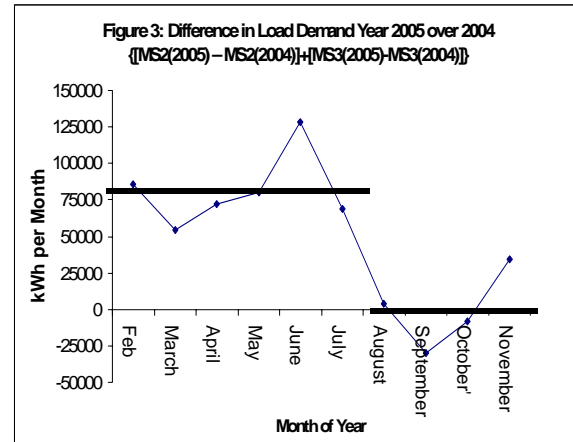
Analysis of town electricity consumption, following the ***Reduce the Juice*** campaign, indicates that the project was successful in that a 5% reduction in electrical load demand occurred in homes and small businesses in Shelburne following the period the project was run. The results are consistent with those obtained from pledges, during the door-to-door campaign. Further investigation is required to verify that these changes are due to conservation efforts because of this program.

Activities to influence the community extended beyond the borders of the Town, with the Reduce the Juice team participating in various conferences and meetings which included presenting a paper at the Canadian Wind Energy Association (CanWEA 2005) Annual meeting and being a UNFCCC observer at COP11 and MOP1 for implementing the Kyoto Protocol held in Montreal in December 2005.



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