

# Efficiency: Nova Scotia's Forgotten Energy Resource

By Brendan Haley

A new energy resource has been discovered on Nova Scotian soil! It is cheaper than coal, oil, gas and renewables; it is abundantly available; it will reduce pollution the more we use it and it will create jobs throughout the province. Politicians are debating over how fast we can tap this vast reservoir. There is no need to go looking on the offshore, we only need to insulate our houses, change our light bulbs, and legislate building and appliance standards. This new clean, abundant, and cheap resource is called energy efficiency.

It seems that our leaders are finally realizing that our province has been wasting energy and money for years. They are also realizing that the major challenge of this century is preventing dangerous climate change and that our province is currently ill prepared for this social and economic future due to its over-reliance on fossil fuel for electricity.

Using energy more efficiently is the most cost-effective solution we have for realizing large reductions in emissions, while saving money for everyone along the way.

If we start investing in energy efficiency today we can amass a power plant worth of savings (about 200 MW) and reduce annual greenhouse gas emissions by 860,000 tonnes in about 6 years. And the savings and pollution reductions get bigger and bigger every year.

Saving energy means Nova Scotia won't need to build power plants or buy the fuels we burn in them. This reduces costs, which means everyone who pays an energy bill will save money. Consider that it only costs an agency about 3 cents to save a kilowatt-hour of electricity by investing in programs that provide expertise and incentives for Nova Scotians to use energy more efficiently. The same kilowatt-hour is now produced by NSPI at a cost of 10 cents by burning fossil fuels in power plants and carrying the energy over transmission lines.

Saving energy is about 70% cheaper than producing it. An added bonus is that businesses and homeowners directly cut their energy bills after receiving energy audits, information, and incentives.

For every \$1 invested, efficiency programs typically return \$2-\$4 in lifetime electricity, water, oil, and maintenance savings. This amounts to hundreds of millions of dollars every year. The money we save can be spent in Nova Scotia, instead of being spent on fossil fuels from overseas.

Besides the obvious monetary savings, it is perhaps the public benefits that are the most important. Efficiency reduces pollution; it lowers energy costs for low-income Nova Scotians; it creates jobs in local communities; and it improves our international competitiveness by reducing business costs and creating opportunities for process and product innovations.

Many other jurisdictions have been investing in energy efficiency for years. Programs are usually financed by small energy efficiency charges on utility bills, typically far

less than one half-cent per kilowatt-hour, to provide dedicated and secure financing to deliver the multiple benefits listed above. The annual cost to the average Nova Scotian household can be recouped by changing 2 to 3 incandescent light bulbs to more efficient compact fluorescents.

So why have we not been saving energy before? It seems to be because the regulations and incentives are all wrong. Nova Scotia Power gets rewarded when we use more energy instead of less, and the Utility and Review Board is more accustomed to financing power plants and fossil fuels than financing efficiency investments. It has been more than two years since the utility began developing an energy efficiency plan, but the process keeps getting sidetracked by power rate hikes to pay for fossil fuels.

Experience in other jurisdictions shows that it is more cost-effective to spend \$30-\$50 million a year on energy efficiency programs than it is to spend the same amount of money producing energy. Yet the new Conserve Nova Scotia agency has a budget of only \$10 million. That isn't too out of line, because new agencies need time for administrative ramp-up and the government has yet to establish a financing mechanism or an overall framework for delivery, accountability, and oversight.

This year, it is crucial that a business plan be established and that Nova Scotia ramps-up its investment in the efficiency resource. If the province fails to do this, we will all miss the chance to save both energy and money in the future. As we move further into a carbon conscious economy energy efficiency investments will become even more lucrative.

The government must first commit to implementing all cost-effective energy efficiency improvements by setting targets and establishing a financing mechanism. It will then be important to hold the agency delivering efficiency programming accountable through performance incentives and public oversight.

It is about time Nova Scotia started to shape up for the carbon-constrained economy. Let's start with improving our energy efficiency. It is a solution that is already cost-effective and readily available. Let's start tapping into the vast reservoir of energy waste. Let's start creating jobs, reducing pollution, and saving money by cutting energy bills and lowering long-term power rates.

Brendan Haley is the Energy Coordinator for the Ecology Action Centre.