
A Bright Green Outlook for A Low-Carbon Economy

Industry Spotlight

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Doing nothing about global warming will destroy our planet and economy. While the emphasis has been on reducing our green house gases (GHGs) through global environmental treaties like the Kyoto Protocol and the Copenhagen Accord, there is also a great need to focus on **sustainable solutions** to combat climate change and jumpstart our world economy. According to a September 2008 report¹, two million American green jobs could be created through a \$100 billion investment in energy efficiency and renewable energy strategies to replace the numerous manufacturing jobs lost to cheaper labour in developing nations. While it will be necessary to implement global treaties on expanding renewable energy use and to set global efficiency standards on vehicles and appliances to ensure global competitiveness, there is also an urgent need for businesses worldwide to plan for a future beyond fossil-fuels and to do their part to help build a sustainable and low-carbon economy.

Guy Dauncey, a **sustainable communities' consultant** and founder of the **British Columbia Sustainable Energy Association** and author of ***The Climate Challenge – 101 Solutions to Global Warming*** warns that if we continue to rely on oil for transport and heating, the price of oil will easily surpass \$150 per barrel because we have significantly increased our consumption but have discovered less oil each year since 1965. A significant rise in oil prices will put a huge strain on the entire economy especially with fluctuating fuel costs. To avoid another recession or even a depression, he believes that we need to start planning for an economic future built on **energy efficiency, efficient transport and renewable energy sources**.

“Every building could in theory be using 50% less energy. That kind of retrofitting needs to be done so there is a whole level of decent jobs there. Think about all the jobs that could be created through manufacturing electric cars, electric bicycles, transit and light rail systems; manufacturing wind turbines and solar panels; installing a new smart grid; moving towards 100% recycling; putting in new technologies for zero waste and getting into the whole bioenergy field which has about 30 different new technologies that can be developed,” emphasizes Dauncey.

For businesses that rely heavily on burning fossil-fuels for heating, switching to **renewable energy sources** like solar make good financial sense. In hotels, laundry mats and restaurants where a lot of hot water is being used, moving to an efficient solar hot water system will provide significant savings. For example, “**Best Western Inn** in Colonia, B.C. who moved to a solar hot water system over five years ago saw results right away; overnight, their hot water bill was cut in half from \$56 per day to \$28 per day,” says Dauncey.

Feed-in-tariffs

To promote the use of clean renewable energy sources and to protect against soaring oil and coal energy costs, governments around the world are introducing a **feed-in-tariff** in their legislation. According to Dauncey, the feed-in-tariff has proven to be the most effective piece of legislation in Germany, Denmark, thirty-five other countries, and now in Ontario because it is designed to meet investors' needs.

¹ “*Green Recovery – A Program to Create Good Jobs and Start Building a Low Carbon Economy*,” by Robert Pollin, Heidi Garrett-Peltier, James Heintz and Helen Scharber, University of Massachusetts' Department of Economics and Political Economy Research Institute, commissioned by the Center for American Progress, September 2008.

Practically all costs pertaining to renewable energy sources are upfront with technology; after that, the income flows in for free which means there is a big need for **upfront financing** and a **long-term secure contract**.

In January 2010, the **Ontario provincial government** signed an agreement with a **South Korean consortium** worth \$7-billion to triple the province's renewable energy output. This deal is expected to create more than **16,000 new jobs in Ontario** over the next six years with most of them short-term construction jobs. Under the deal, the consortium will be paid standard feed-in-tariff prices of 13.5 cents per kilowatt hour of wind power and 44.3 cents for each kWh of solar power harnessed. In addition, the province sweetened the deal with an "Economic Development Adder" (EDA) tied to the creation of four manufacturing facilities which, when fully operational, would create approximately **1,400 long-term green manufacturing jobs** for the province. The total cost of the EDA is estimated at \$437 million over 25 years and would add about \$1.60 (or 0.15 percent) annually to each Ontario home owner's electricity bill.

Carbon Taxes

Carbon taxes designed to protect the environment have also helped **reduce carbon emissions** and **increase the competitiveness** of low-carbon technologies and renewables. For instance, "**Sweden's carbon tax** is \$150 a ton and as a result of that, the Swedes pay an extra 33 cents a litre on gasoline which is a manageable price if you adjust up and get used to it. A price increase like that means that using bio-fuels and electrical vehicles is much more cost effective [than burning fossil fuels]," explains Dauncey. To make a real difference, he believes a carbon tax in the range of **\$200 to \$300** per ton would be much more effective with **special tax exemptions** for Canadian manufacturers who export goods to the U.S. to ensure their competitiveness with their U.S. counterparts who are not being taxed for their carbon emissions in their own country.

Energy Retrofits

While energy efficiency is important to the building of a low-carbon economy, businesses also need to see a **repayment** on their energy retrofits to make it worth their while. For example, "some office buildings keep their office lights on 24/7 while other office buildings have motion sensor detection so if there is a criminal break-in, the lights automatically come on but otherwise, they automatically go off. A lighting initiative such as this normally takes one and a half to two years to see a repayment," explains Dauncey. However, to really maximize the efficiency of every building, he recommends that there be an employee allocated to being the "**company's building manager**" who knows how the heating, lighting and ventilation systems work, and to work with the people within the building to maximize efficiencies.

A Green Marketplace

According to a 2006 U.K. survey conducted by the **Carbon Trust**, consumers are demanding businesses act on climate change. **67%** of the survey responders said they would more likely buy a product with a low carbon footprint; **66%** said they would want to know the carbon footprint of the products they buy; and **64%** said they would more likely use a business that claims to have a low carbon footprint. By selling greener products with product labels that include carbon footprint information, businesses can sell products in demand and feel good knowing that they are helping the environment while their customers feel good about buying greener products from environmentally responsible businesses.

Green Initiatives

Large publicly traded companies who must answer to investors and shareholders about the climate change issue are making a concerted effort to implement companywide **green initiatives** to reduce any negative impact their companies are having on the environment. According to Dauncey, **Interface Global**, a U.K. based carpet manufacturer, developed a concept called "**mission zero**" to eliminate any negative impact their company may have on the environment by 2020. Their goals to switch to 100% renewable energy sources by 2020, to be more energy efficient and to reduce their waste stream to zero has been quite successful as they are currently 60% of the way there.

Micro and Macro Engagement

While green initiatives are necessary, companies also need **employees' involvement** to ensure its success. "**British Telecom** formed twenty-eight carbon busting clubs in the company within three weeks. When staffs get engaged in carbon clubs, staff morale rises quite considerably. There is a lot of pleasure that staff take when getting engaged in practical initiatives like this and for most businesses, they are fundamental things like the use of energy, shift to new energy sources, waste reduction, water reduction and recycling," cites Dauncey.

In the auto industry, involvement needs to be on a **macro level** where governments can make low emissions standards mandatory for all new vehicles built by a certain date. With the guaranteed production of new low emission vehicles, it will attract the **massive investment** needed to fund future research and development. "Let the industry use the market forces to sort out who's going to get there first but they know that a country has a guaranteed requirement that vehicles have a low level of emissions by a certain date. If we work collectively for a global solutions treaty around low emission vehicles, we're looking now at a market of not for 10,000 vehicles but a hundred million vehicles. Massive investment will pour in, the kind necessary to develop technology," explains Dauncey.

With global warming posing a real threat to our planet and global economy, governments and consumers alike are demanding businesses do their part to help build a sustainable low-carbon economy. Feed-in-tariffs introduced by governments around the world have attracted investors to invest in the development of renewable energies and have created new local jobs in the expanding green sector. Carbon-taxes have not only helped reduce carbon emissions, but have also made low-carbon technologies and renewable energies more affordable. Quick repayments on energy retrofits have made investments in energy efficiency for businesses profitable. To reduce their negative impact on the environment, companies are engaging their employees at all levels to execute their companywide green initiatives. By manufacturing greener products with carbon footprint labels, companies are meeting the demands of an environmentally friendly marketplace and contributing to the sustainability of a new greener economy.

About the Author:

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