



Walking the Green Talk



We hear talk of a “green economy,” but what does this really mean? This fact sheet is one of a three-part series that helps to illustrate a world where energy is less polluting, business thrives and jobs are plentiful.

To achieve this vision, we must continue to shift our economy to one that puts a real price on climate pollution and allows green businesses and communities to thrive. If we make the right choices, British Columbia can become a leader in Canada and beyond.

Saving Energy at Home Pays Off for Families

This fact sheet tells the stories of four hypothetical families in B.C. and the changes they can make at home in the next five to 10 years to get ahead of a changing economy and to do their part to help the environment. These families aren't real, but they could be.

The changes they make all involve using less energy or cleaner forms of energy, because most of the sources of energy we use (natural gas, gasoline and diesel) contribute to climate change. By taking the steps outlined in this fact sheet,

household greenhouse gas emissions can be reduced by more than 50%.

There are many solutions available to reduce our dependence on dirty energy. The families featured here illustrate how those solutions can help save money on energy bills and reduce emissions – a win-win for everyone. Many of those solutions are already making a positive impact across the province, and stronger policies and incentives will make them more accessible and affordable.



Janice, Juan and Christina

Location: Prince George, B.C.
Annual Household Income: \$80,000
Household Carbon Footprint: 10.3 tonnes

Janice and Juan own a mid-sized detached home in Prince George, where they live with their child, Christina. Janice works in the forest industry and Juan is a part-time teacher. They drive a Toyota Corolla and a Honda CRV. Because of the colder temperatures in northern B.C., they are especially concerned with lowering their energy bills. They are going to invest in more insulation for their house, install a more energy-efficient furnace and switch to an on-demand hot water heater.

They have also decided to purchase an



electric car when the time comes to replace their Corolla. This will have the biggest impact on their greenhouse gas emissions.

With all of the actions the family is undertaking, it will see a reduction of four tonnes of greenhouse gas emissions and a savings in annual energy costs of 30% or \$1,020 per year.

Helen and Richard

Location: Summerland, B.C.
Annual Household Income: \$35,000
Household Carbon Footprint: 6.9 tonnes

Helen and Richard retired to Summerland five years ago to be closer to their son and his family. They own a small bungalow and drive a Dodge Caravan. They need a vehicle to get around but they've decided to buy a Mazda 3, which gets 25% better

mileage than the Caravan. They're also going to re-insulate their house. These actions mean they will save 1.6 tonnes of greenhouse gas emissions, reducing their household's footprint by about a quarter, and reducing their energy bills by 25%.



Supporting Low-Income Families

Julie and Akiko and Helen and Richard are two families living on low incomes. As such, it is more difficult for them to make the upfront capital investments necessary to reduce their energy use over the long term. As a renter, Julie faces even tougher challenges if her landlord will not upgrade her building. It is important for us to find ways to support these families so they can take advantage of the kinds of savings in energy costs that other families can enjoy.



Jamie and Riley

Location: Victoria, B.C.

Annual Household Income: \$130,000

Household Carbon Footprint: 11.9 tonnes

Jamie and Riley own a large detached home in Victoria, and drive two vehicles, a compact car (Subaru Impreza) and an SUV (Volkswagen Touareg). Jamie works for the provincial government and Riley is the manager of a local restaurant. Of our four families, Jamie and Riley have the biggest carbon footprint at 11.9 tonnes (more than 50% bigger than the provincial average), but are planning to take some big steps to reduce their emissions by six tonnes and reduce what they spend on electricity, natural



gas and gasoline by 48%, or \$1,908 per year.

Among their main actions, Jamie and Riley are planning to carpool and take transit so that they can get rid of one of their current vehicles – this will give the biggest return on investment in terms of energy cost savings and greenhouse gas emission reductions. They are also planning to move to a smaller and more energy efficient home, which will have a solar hot water system and a heat pump.

Carbon Tax Savings

When families reduce their use of fossil fuels they also reduce the amount of carbon tax they pay. For example, by reducing their energy use Jamie and Riley would not only spend 48% less on energy, they would also save 51%, or \$180 per year, on the carbon tax if it stays at \$30 per tonne. If the carbon tax rises to \$200 per tonne (which is not yet planned, but is the amount experts say is needed to avoid dangerous climate change), they would save \$1,200 per year.



Julie and Akiko

Location: Vancouver, B.C.

Annual Household Income: \$20,000

Household Carbon Footprint: 3.1 tonnes

Julie and her five-year-old daughter Akiko rent a small one-bedroom apartment in Vancouver. Julie works as a cashier at a grocery store. Of our four families, Julie and Akiko pay the greatest percentage of their income to energy and also have the lowest disposable income to invest

in energy-saving actions (see Low-Income Families fact box on Page 3). They are also renting and therefore have limited ability to make big changes to their home. Because of these limitations, they have only been able to invest in some easy and affordable options such as a low-flow showerhead, weather stripping and compact fluorescent light bulbs. Julie and Akiko will only save 14% on their energy bills, or \$70 per year.





How to Get Started

1. Simple changes. If you want to start saving money on your energy bills and reducing your emissions, the first place to start is to use less energy. Pull out your latest electricity and natural gas bills, make note of how much energy you use and aim to reduce that by at least 10%. Turn off lights and unplug appliances when they're not in use and put on a sweater before you crank the heat. If you drive a car, start by replacing one trip a week with walking, cycling, transit or carpooling.

2. Small investments. Once you've got the basics down, make some small changes that will quickly save you money. Anyone, even renters, can do these three things: use a low-flow showerhead, switch to compact fluorescent light bulbs and apply weather stripping around your windows and doors.

3. Take it up a notch. Most of the bigger steps will require some investment, but they also lead to bigger results. Reducing your need to drive is one of the best ways to save money, while reducing carbon emissions. If you need a car, choose a model with the best mileage possible or, better yet, choose an electric vehicle. If you have the ability to make improvements to your home, consider installing more insulation, upgrading to a more energy efficient furnace and switching to renewable energy systems, such as a solar hot water heater. Find out about rebates at livesmartbc.ca/homes



Beyond Your Walls

As our families have shown, taking the first few steps toward reducing household emissions provide a good economic return, and they have moderate upfront costs for families who can afford to make the capital investment. However, many actions are still unaffordable or inaccessible for too many families.

Stronger policies, such as incentives for energy retrofits and the carbon tax, can ensure these actions are smart and easy choices for everyone. In addition to making changes at home, help make changes across the province by letting your political representatives know that you support strong climate policies.

Reducing your energy use isn't just about saving money—it can also be about living a healthier lifestyle.

Want More Information?

- As the price of climate pollution increases, businesses will have new opportunities in emissions reduction. Find out more in our fact sheet, *The Business of Climate Change*.
- B.C.'s carbon tax helps drive positive investments in reducing greenhouse gas emissions. Find out more about the carbon tax in our fact sheet, *Putting a Price on Climate Pollution*.
- To find out more about Pembina's work in B.C., visit bc.pembina.org



25 years
of Sustainable Energy Solutions