

## ENERGY EFFICIENCY

The Green Budget Coalition recommends that the Government of Canada provide funding of \$30 million starting in Budget 2016, and \$1.5 billion over four years beginning in 2017-18 to Natural Resources Canada and Indigenous and Northern Affairs Canada to implement a series of initiatives to greatly improve energy efficiency in Canadian homes and businesses.

### Recommendations

#### National Home Energy Retrofit Plan

##### Investment Required

For 2016/2017: \$10 million supplement in 2016-17 to Natural Resources Canada's existing EcoENERGY programs to develop a national home retrofit plan

Outcome: Funding will enable collaborative efforts with the provinces, territories, and First Nations to develop a national home retrofit plan to encourage a high proportion of Canadian households to retrofit their homes across Canada in the coming decade. The plan can also include a national program of energy retrofits to public sector buildings such as universities, schools, museums, and hospitals. Consistent with the Prime Minister's directives in the Mandate Letter to the Minister of Natural Resources to develop a Canadian Energy Strategy, encourage energy conservation and combat climate change, energy efficiency is the cleanest and fastest way to reduce greenhouse gas emissions, save individuals and businesses money and make more energy and money available for use in other priority sectors of our economy.

#### Renewed Funding for the Office of Energy Efficiency (OEE)

##### Investment Required

For 2016/2017: \$10 million  
For ongoing: \$15 million per year over four years

For the Office of Energy Efficiency (OEE) to enable it to manage the National Home Retrofit Plan.

Outcome: Renewed funding for the Office of Energy Efficiency (OEE) will enable it to manage the National Home Retrofit Plan, which will help reduce greenhouse gas emissions, encourage energy conservation, save Canadians money on their energy bills, create new jobs and combat climate change.

#### Home Retrofit Grant Program for Low-Income Families

##### Investment Required

For 2017/2018: \$250 million per year over four years

Provide a total of \$1 billion in federal grants over four years (50% cost-shared with the provinces and territories) to help low-income Canadian families retrofit their homes

Outcome: Part of the National Home Retrofit Plan should include a “healthy retrofit” grant program for low-income families, including in Canada’s North, that is delivered through the successful community-wide approach in combination with, or as part of, the government’s election commitment to invest \$20 billion over 10 years in social infrastructure including affordable housing.<sup>1</sup> The program could be 50% cost-shared with the provinces and territories to provide grants for 50,000 homes annually from 2017-2021 (at \$10,000 average cost per home).

## **Restore the EcoEnergy Efficiency Program**

### **Investment Required**

For 2017/2018: \$50 million per year over four years  
(estimated net cost of tax credits, foregone interest on federal loans and public outreach and engagement)

To provide tax credits to businesses and “pay-as-you-save”, interest free federal loans for those households that do not qualify for the Home Retrofit Grant Program for Low-Income Families.

Outcome: Restoring the EcoEnergy Efficiency Program or creating a new Canadian Energy Audit Program will enable businesses to receive refundable tax credits (e.g. 100% Accelerated Capital Cost Allowance) for all energy retrofit costs, and will allow homeowners who do not qualify for the Home Retrofit Grant Program for Low-Income Families to access revolving “pay-as-you-save” federal loans for retrofits, based on before-and-after EnerGuide or infrared heat tests. Home retrofits would provide homeowners with relief from higher energy bills while significantly lowering greenhouse gas (GHG) emissions from the building sector, one of Canada’s most significant sources of GHGs.<sup>2</sup> Part of this initiative must include developing innovative approaches to maximizing participation in the program. Despite the popularity of the previous EcoEnergy Efficiency Program, only 8 per cent of Canadian homes have been retrofitted. Energy efficiency initiatives will be a critically important component in meeting Canada’s GHG reduction targets, yet the cost per tonne of GHG reductions through this program was relatively high compared with other abatement measures. For this reason, we are recommending a loan and tax credit program, rather than federal grants, combined with an ambitious public outreach plan to encourage widespread participation in the program.

## **Canadian Energy Audit Program**

### **Investment Required**

For 2016/ 2017: \$10 million  
For ongoing: \$60 million per year over four years

To encourage participation in the EcoEnergy Efficiency Program (above), provide \$250 million over five years to finance energy audits for households and businesses.

Outcome: The federal government can set up a Canadian Energy Audit program, which finances energy audits across the residential and commercial sectors for energy retrofits. This program should also include a generous Youth Energy Employment Tax Credit, modelled after the Co-operative Education Tax Credit, to support employers in hiring youth for energy efficiency retrofit (not audit) work. As a result of the national audit, additional targeted financing and tax incentive mechanisms for high-energy home and business owners should also be part of this national energy audit program.

1 <https://www.liberal.ca/files/2015/08/An-historic-investment-plan.pdf>

2 According to Natural Resources Canada’s Report on the Review of Clean Energy Initiatives (2011), the energy used to heat Canadian homes, run appliances and keep lights on is responsible for roughly 14 per cent of Canada’s total GHG emissions.

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## Total Investment Required

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|-----------------------------|---------------|
| <b>For 2016/17:</b>         | \$30 million  |
| <b>For 2017/18-2020/21:</b> | \$1.5 billion |

## Summary

The Prime Minister's mandate letter to the Minister of Natural Resources included the following directives:

"Work closely with provinces and territories to: develop a Canadian Energy Strategy to protect Canada's energy security; encourage energy conservation; and bring cleaner, renewable energy onto a smarter electricity grid."

"Work with the Minister of Innovation, Science and Economic Development to invest in clean technology producers, so that they can tackle Canada's most pressing environmental challenges and create more opportunities for Canadian workers."

The Prime Minister's letter to the Minister of the Environment and Climate Change included the following directives:

"Ensure that our government provides national leadership to reduce emissions, combat climate change and price carbon."

"In partnership with provinces and territories, develop a plan to combat climate change and reduce greenhouse gas emissions, consistent with our international obligations and our commitment to sustainable economic growth."

The Green Budget Coalition's recommendations on energy efficiency speak directly to these priorities. Energy efficiency is the cleanest, most affordable, and fastest way to reduce greenhouse gas emissions, make more energy available to our economy and create opportunities for Canadian workers while saving individuals and businesses money that could be better used for other priorities. The Government of Canada has the jurisdictional authority, in collaboration with the provinces and territories, to implement measures that will help reduce Canada's greenhouse gas emissions through energy efficiency improvements and doing so will be imperative if Canada is to meet its international climate change commitments. Our recommended investments in energy audits, home retrofits and efficiency standards will help ensure the federal government fully implements the Prime Minister's Ministerial mandate directives.

## Background and Rationale

In Canada, energy efficiency is currently addressed by a patchwork of policies. At the federal level, the Energy Efficiency Regulations prescribe minimum efficiency standards for select equipment crossing international or inter-provincial borders, from room air conditioners to industrial chillers; at the same time, a number of provinces have similar but often diverging regulations. Similarly, whereas the federal government manages the National Energy Code for Buildings, which applies stringent standards to new constructions, provincial governments are responsible for the adoption and implementation of local building codes, which may not follow the federal standards. Meanwhile, federal ecoENERGY programs, which offered incentives for energy efficiency retrofits, have expired or are sunsetting for the most part.

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Canadians have a tremendous opportunity to reduce their monthly energy costs while cutting carbon pollution by becoming more energy efficient. In fact, energy efficiency is the most affordable and fastest way to make more energy available to our economy while reducing greenhouse gas (GHG) emissions.<sup>3</sup> The energy used to heat Canadian homes, run appliances and keep lights on is responsible for roughly 14 per cent of Canada's total GHG emissions.<sup>4</sup> Wasted energy due to inadequate insulation, inefficient lights and appliances and insufficient weatherproofing means that Canadians burn more fossil fuels than necessary at a cost both to consumers' wallets and the environment.

Some steps have been taken by previous Canadian governments to improve energy efficiency in the past but much more remains to be done. The former government's suite of ecoEnergy programs, which have now been mostly phased out, were extremely popular with Canadians, particularly the ecoENERGY home retrofit program. Homeowners who conducted retrofits supported by the ecoENERGY program saw their home energy bills reduced by 23 per cent on average.<sup>5</sup> Yet of the over nine million homes in Canada, only 8 per cent have been retrofitted to improve efficiency. The GBC is recommending the ecoENERGY home retrofit program be reinstated in Budget 2016 with commensurate funding and promotional campaigns to ensure widespread adoption.

In addition, as renovation activities, including those to improve energy efficiency, can significantly increase the risk of toxic exposures to children, we are recommending that the government implement a "healthy" retrofit program that includes grants for low-income households and revolving "pay-as-you-save" loans for middle and high-income households.<sup>6</sup> For instance, a home with vermiculite-based insulation may contain asbestos, a known carcinogen that can be exposed if disturbed. Healthy retrofits would help meet multiple objectives by improving indoor environmental health, as well as reducing carbon emissions and saving Canadians money.

Energy costs are particularly important to low income Canadians who are often the least able to afford these improvements. This is why the GBC is recommending the Government of Canada begin this national energy efficiency initiative by providing \$250 million per year over four years starting in 2017 for a retrofit grant program for low-income families, particularly in Canada's North. This proposal should be part of the government's National Housing Strategy and be delivered by provincial and territorial agencies (with 50 per cent cost sharing) and should follow the successful community-wide approach documented by Green Communities Canada using local non-profit delivery agents to create local jobs and coordinated with social agencies trusted by the program recipients.<sup>7</sup>

For those Canadians who are not considered low-income, long-term financing should be provided that allows homeowners to pay for retrofits out of the energy savings they achieve ("pay-as-you-save"). This

3 For example, a study by Canada Energy Systems Analysis Research found that from 1995 to 2010, energy efficiency measures have meant that the Canadian demand for fuels and electricity only rose by 12% while the nation's GDP rose 46%. Canada Energy Systems Analysis Research, *The Secret Life of Canada's Energy Systems*, May 2014, <http://www.cesarnet.ca/blog/secret-life-canada-s-energy-systems>. Without energy efficiencies, Canada would have needed an additional 3,246 PJ per year of new energy.

4 Natural Resources Canada, *Energy Efficiency Trends in Canada 1990 to 2010*, March 2013, [http://publications.gc.ca/collections/collection\\_2014/rncan-nrcan/M141-1-2010-eng.pdf](http://publications.gc.ca/collections/collection_2014/rncan-nrcan/M141-1-2010-eng.pdf)

5 Natural Resources Canada, *Report on the Review of Clean Energy Initiatives*, 25 March 2011.

6 Canadian Environmental Law Association. March 2011. 'Healthy Retrofits: The Case for Better Integration of Children's Environmental Health Protection into Energy Efficiency Programs.' <http://www.cela.ca/sites/cela.ca/files/CELA773-Healthy-Retrofits-report.pdf>

7 For a full description and examples of the community wide approach see <http://www.greencommunities.nonprofit-websites.ca/programs/home-energy-solutions/low-income-retrofits/>

would require a revolving federal loan fund that could support this financing over many years at a low cost. Such a strategy would bring Canada in line with similar efforts in the US and the UK.

For more than a decade the Office of Energy Efficiency (OEE) at Natural Resources Canada has played a critical role in leading Canadian energy efficiency efforts, producing tangible benefits that have led to cost savings for consumers, local job creation across Canada and economic stimulus. It is therefore crucial that the OEE continue to be the federal government's flagship organization for providing national energy efficiency services and coordinating new initiatives such as our proposed national home retrofit plan.

A 2012 study covering four Canadian provinces concluded that a \$14.5 billion investment over 15 years in cost effective energy efficiency programs to reduce electricity, natural gas, and heating oil consumption would increase GDP by over \$84 billion and create thousands of new jobs.<sup>8</sup> As highly capital-intensive investments, building and housing retrofits will not only benefit from the low interest rate environment; they are essential if we are to meet our greenhouse gas reduction targets. Retrofit programs are a means to stimulate the economy, increase employment and achieve emission reductions, all while generating savings over the medium to long-term.

8 Environment Northeast, Energy Efficiency: Engine of Economic Growth in Eastern Canada, May 2012, [http://www.env-ne.org/public/resources/ENE\\_EnergyEfficiencyEngineofEconomicGrowth\\_EasternCanada\\_EN\\_2012\\_0611\\_FINAL.pdf](http://www.env-ne.org/public/resources/ENE_EnergyEfficiencyEngineofEconomicGrowth_EasternCanada_EN_2012_0611_FINAL.pdf). The \$14.5 billion investment, and resulting \$84.0 billion increase in GDP and 625,000 job years represent the "mid-range" cost-effective efficiency investment scenario modeled by the study.

## Budget Announcement

"The Government of Canada is committed to saving Canadians money on their energy bills while reducing greenhouse gas pollution.

"Today we are announcing a series of initiatives to help Canadians improve the energy efficiency in their homes and businesses including through the renewal of the popular ecoENERGY retrofit program."

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