



## 2016 Federal Pre-Budget Submission

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## **ABOUT THE GREEN ECONOMY NETWORK**

We have come together as members of unions, First Nations, environmental and social justice organizations to form a common front of civil society groups for the building of a green economy in Canada. In so doing, we realize we are living in one of those critical moments of history wherein urgent decisions and actions must be taken. The Green Economy Network is encouraged that governments around the world – with little exception – are more aware than ever before of the benefits of taking decisive action to make the transition to a green economy and create meaningful employment in the associated economic sectors.

The steering committee and all Green Economy Network member groups appreciate the opportunity to provide recommendations to the House of Commons Standing Committee on Finance on the direction of the 2016 Federal Budget. As well, the Green Economy Network would welcome the opportunity to present to the Committee on its recommendations.

## **EXECUTIVE SUMMARY**

We maintain that, if the plan of action outlined below were to be fully enacted during the coming five years, Canada would be well on the way to creating one million new person job years. It is our calculation that the plan put forward here will reduce our total national greenhouse gas emissions by a 175 megatonnes of carbon dioxide equivalent (Mt CO<sub>2</sub> eq)<sup>i</sup> per year by 2020, putting us on track to reduce our greenhouse gas (GHG) emissions by one third (up to 261 Mt CO<sub>2</sub> eq) by 2025, in accordance with Prime Minister Trudeau's commitment under the Paris Agreement. Moreover, these initiatives would generate opportunities for the transition towards a more equitable as well as a more sustainable economy.

This submission advances four recommendations for the Government's consideration. The Green Economy Network's recommendations relate to the Government's commitment to a clean environment and a strong economy. The Green Economy Network believes that its recommendations provide a plan to create meaningful employment for one million Canadians.

**Recommendation #1:** A renewable energy development strategy

**Recommendation #2:** Improved energy efficiency of homes and buildings

**Recommendation #3:** Expanded public transit plus high speed intercity rail transport

**Recommendation #4:** Carbon pricing

## 1. RENEWABLE ENERGY DEVELOPMENT STRATEGY

The Renewable Energy Development Strategy will reduce greenhouse gas emissions annually by up to 77 Mt CO<sub>2</sub> eq and will create 290,000 person year jobs over five years.

The transition to the development of clean, renewable energy sources will require nothing less than committed, coordinated and effective leadership. In times like this, it is governments and the public sector that are best equipped to lead in bringing about the kind of systemic change required throughout the entire economy. While the private sector will continue to have an important role to play, the federal government must lead with a multi-pronged strategy including public investments, regulations, programs, and infrastructure in order to bring about and signal the transition from a fossil fuel-based economy to one that is powered by renewable energy sources.

In order to begin making this transition over the next five years, we maintain that the federal government needs to establish a Renewable Energy Development Strategy. During this period, public investments totalling \$23.3 billion need to be made in order to stimulate the development of renewable energy sources with a priority being placed on wind, solar, geothermal, and tidal power. The plan could also include restricted development of small-scale hydro and selected biofuels from biomass sources. Averaged out over a five year period, this public investment would amount to an annual federal expenditure of \$4.65 billion, which is less than 2% of the annual federal budget.<sup>ii</sup>

The Federal Budget should include investment in renewable energy development, which will generate thousands of new jobs in Canada. According to economic modeling developed by the Center for American Progress, an annual investment of \$4.65 billion will create 58,300 full-time jobs for a year (or person job years).<sup>iii</sup> These projections include direct employment in renewable energy industries totalling 22,300, plus 19,500 jobs in indirect employment in secondary industries, and an additional 16,700 induced jobs generated by money spent by workers in retail and wholesale. If \$1.3 billion of these public revenues were invested in wind energy each year, 16,510 person job years (direct, indirect, and induce employment) would be created. Similarly, if \$1 billion were publicly invested in solar energy production, 13,400 jobs would be generated each year while another 8,240 jobs would result from an annual investment of \$1 billion in geothermal energy production. Likewise, annual job projections could be calculated for public investments in other renewable energy developments such as tidal power projects, small-scale hydro and biofuel production from biomass.

Renewable energy development could be financed through a variety of fiscal measures:

- ◊ By restoring the funding required for the Clean Energy Fund, thereby potentially making available \$1 billion annually for investment in renewable energy.<sup>iv</sup>
- ◊ By immediately withdrawing annual subsidies to the fossil fuel sector, the federal government could free up an additional \$34.0 billion in funds annually for investments in renewable energy production, green homes and buildings, and national public transportation.<sup>v</sup>
- ◊ By allocating a portion of the revenues generated through a price on greenhouse gas emissions on the part of emitters in the Canadian economy.

By including an additional 5% surtax on gasoline, which could be increased over time, another \$2 to 2.5 billion dollars in federal revenues for renewable energy development will be generated annually, coupled with a refundable tax credit measure to alleviate costs for workers and low-income earners.<sup>vi vii</sup>

The transition from fossil fuels to renewable energy provides opportunities for introducing measures to ensure greater social equity and participation in our economy. These measures must include the establishment of a Just Transition Fund to assist workers in upgrading their skills for other employment, including employment in renewable energy production, energy efficiency, and public transit. These Just Transition measures must also ensure that workers in marginalized urban and rural communities have new employment opportunities in these industries. Equally essential are employment opportunities and measures to guarantee consultation and free, prior, and informed consent before renewable energy projects are developed on First Nations lands. These measures must also include concrete opportunities to participate in and benefit from such developments. In all cases, the development of renewable energy should involve proper consultation with the communities affected.

It is only through the leadership of the federal government that we can sufficiently advance the Renewable Energy Development Strategy. Although the implementation for such an initiative resides with provincial/territorial and municipal governments, the federal government has a key role to play in initiating, facilitating, and financing the strategic shift to a renewable energy future across Canada. Moreover, the actual transition to a renewable energy economy can only take place if there is strong and vital support from people in local communities and regions. In some cases, there will likely be outright resistance in local communities to making the transition to a renewable energy future. To ensure that the positives outweigh the negatives, governments must place priority on strengthening the incentives and benefits for community participation in renewable energy development.

## **2. GREEN HOMES AND GREEN BUILDINGS STRATEGY**

The Green Homes and Green Buildings Strategy will reduce annual greenhouse gas emissions annually by up to 79 Mt CO<sub>2</sub> eq and will create 438,000 person year jobs over five years.

Energy efficiency and conservation are our cleanest, cheapest and most productive energy sources. Investing in energy efficiency and conservation boosts productivity, reduces costs, cleans our air and water, and creates jobs everywhere. An energy efficient economy is a strong, competitive economy and an economy where electricity bills can be lower in response to energy savings, freeing up capital and discretionary income. Energy efficiency is quite unique among energy sources in that it pays for itself through savings over time.

In both the US and the UK, federal governments have initiated bold programs to retrofit all buildings and homes over the next 15 years,<sup>viii ix</sup> including firm targets every five years. They also provide significant weatherization grants for low-income housing.<sup>x</sup>

The federal government should work harmoniously with the provinces and territories to implement a national Green Homes and Green Buildings Strategy. Federal programs should be coordinated through an expansion of Natural Resource Canada's Office of Energy Efficiency.<sup>xi</sup> Funding for the expansion of the Office of Energy Efficiency will be allocated from revenues generated by the Carbon Pricing Initiative, for a total of \$1.1 billion, provided over five years.<sup>xii</sup> To leverage additional private investment to finance energy efficiency programs, the new initiatives must include a national Green Bonds scheme of

\$2.5 billion.<sup>xiii</sup> The Liberal Government's election platform highlighted the potential for Green Bonds to support both large and community-scale renewable energy projects, including home and building retrofits.

The Office of Energy Efficiency would also maintain energy standards, codes and benchmarking services, and support the adoption of innovative "Pay as you Save" property tax-based financing programs by municipalities and Local Electricity Distribution Companies. "Pay as you Save" programs will reduce electricity bills by a greater amount than loan repayments, so that families save money in the very first month and homes are more energy efficient. Property tax-based financing is smart policy which allows property owners to undertake efficiency improvements to their property with low interest loans that are repaid over time through installments. The home energy retrofit and energy savings achieved through home retrofits offset the repayment installments and guarantee energy cost savings into the future. Property tax-based financing is attached to the property and not the homeowner, so it is easy to move and the property value is raised because the repayment obligation and energy cost savings are transferred with the home ownership.<sup>xiv</sup>

To develop and implement this Green Homes and Green Buildings Strategy, the federal government has a key role to play in reaching an agreement on national energy efficiency targets and in ensuring that financial institutions guarantee loans to municipal governments for property tax system financing for retrofits. The Strategy must include: assistance for low-income residents by providing grants for retrofits, maintenance and expansion of national efficiency support services, and more stringent national efficiency regulations. While most of the investments and the jobs created will occur in local communities with provincial and municipal agencies, the federal government can help to weave these activities together in a national Green Homes and Green Buildings Strategy.

#### Green Homes:

Over the next five years, the Green Homes program would have the following objectives: [a] retrofit 40% of Canadian homes by 2020 to an average level of 30% increased efficiency energy savings per home; [b] upgrade 150,000 low income homes and reduce energy bills by an average of 30% by 2020; [c] increase the energy efficiency of new homes by 2% per year towards 2025 when all homes built after that date will produce as much energy as they consume (net zero). As with the US and UK programs, innovative financing arrangements would be made to raise capital through financial institutions and the property tax system, with loans being paid off through energy cost savings. This national Green Homes program would include the following components:

- ♦ Facilitate New Housing Requirements: Coordination of energy efficiency requirements in national and provincial building codes upgraded every three years to best practices, always moving towards homes which produce as much energy as they consume (net zero).
- ♦ Property Tax Financing: "Pay as you Save" property tax-based financing programs by municipalities for major home retrofits and renovations for loan repayment, which can be transferred with ownership. It should be noted that "Pay as you Save" property tax-based financing programs could be a major cost savings mechanism to reduce the upfront capital expenditure of \$30 billion over a five year period.

- ◊ On-Bill Repayments: “Pay as you Save” financing program system for smaller retrofits run through financial institutions and utilities using utility bills.
- ◊ Renovator Training: A national home retrofit training and certification program to reach all types of renovators through major collaboration between governments, home builders associations and community colleges.
- ◊ Mandatory Labelling: Universal and easy to understand home energy labelling at time of sale or new rental agreement.

### Green Buildings:

The main objectives of the Green Buildings program would be to improve the technical and operational efficiency of all buildings (industrial, commercial, business and public) across Canada by 50% over the next five years and require all new buildings to be net zero by 2025 in order to improve Canada’s economic advantage.

This Green Buildings initiative would include the following components:

- ◊ Mandatory Labelling: Universal building labelling at time of sale or new rental agreement.
- ◊ Performance Based Conservation Data: National building performance database and benchmarking service.
- ◊ Regional Efficiency Centres: providing comprehensive “audit-to-implementation” technical assistance services to major commercial/institutional energy users as well as small and medium-scale enterprises.
- ◊ Loan Guarantees: Innovative financing including loan guarantees for new green buildings and major retrofits, linked to domestic procurement provisions.
- ◊ Property Tax Based Financing: “Pay as you Save” property tax-based financing programs for small businesses for major building retrofits and renovations.
- ◊ Support for New Net Zero Buildings: Through training, R&D and fiscal incentives such as tax credits tied to domestic procurement.

An investment of \$30 billion over a five year period will result in tens of thousands of person job years being created in the Canadian economy. Applying the Center for American Progress methodology, a \$30 billion investment over five years would generate 438,000 person job years of employment. Of these, 189,000 would be direct employment in the building retrofit industry, 123,000 would be in secondary industries, and 126,000 would be in the form of induced jobs in communities resulting from increased retail sales and services stimulated by this investment, not including the additional funds likely invested in the economy as a result of lower electricity bills.

Achieving the target objectives for the Green Homes and Green Buildings Strategy will result in a substantial increase in the energy efficiency of Canadian Buildings. As a result, Canada's greenhouse gas emissions will be reduced annually by up to 79 Mt CO<sub>2</sub>.

Marginalized communities and marginalized individuals will benefit tremendously from special rebates for low-income housing retrofits along with renewed social housing development involving energy efficient units, paired with job opportunities for community members and unemployed workers. It's not just about substantially reducing heating and cooling costs for poor people and seniors, it's about reducing poverty as a whole, creating jobs, and bolstering our economy.

### **3. NATIONAL PUBLIC TRANSPORTATION STRATEGY**

The National Public Transportation Strategy will reduce annual greenhouse gas emissions annually by up to 19 Mt CO<sub>2</sub> eq and will create 324,600 person year jobs over five years.

The transportation sector was responsible for 28% of Canada's greenhouse gas emissions in 2013.<sup>xv</sup> Just over half of the energy used in this sector is specifically dedicated to transporting people. If Canada is to make the much-needed shift to a green economy, major investments will be needed to enhance our public transit and intercity rail capacity to transport people and thereby reduce the dependency on conventional private automobiles as the primary means of transportation.

Public investment in transit is very cost effective. As a recent report shows, it "reduces the amount of public money that must be spent on everything from health care to municipal services such as water and wastewater."<sup>xvi</sup> In fact, in 2007 alone, investments in urban transit saved Canadians \$115 million in related respiratory health costs, \$2.5 billion in traffic collision costs, and \$5 billion in household vehicle operating costs. When social costs and parking costs are taken into account, transit is actually one third to one-half the cost of automobile use.<sup>xvii</sup> In addition, Canadian transit systems contribute some \$10 billion to Canada's economy each year.

Canada needs a national transportation plan designed to reduce congestion, reduce emissions, and facilitate manufacturing exports. We, therefore, propose a National Public Transportation Strategy that involves a two-pronged approach:

1. Public Transit Systems – the development and/or the expansion of public transit systems within urban centres across the country;
2. Intercity Rail Systems – the development of high-speed rail systems in urban corridors (i.e. Quebec City – Montreal – Toronto – Windsor; Edmonton – Calgary; Vancouver – Seattle).

To be effective, such a public transportation strategy needs to be accessible, affordable, and accountable.

The federal government must work jointly with the provinces and territories to initiate a National Public Transportation Strategy that allocates major funds for these two important transportation priorities in order to ensure that the foundation is laid to sustainably meet the transport needs of people in this country.

A National Public Transportation Strategy will also contribute to substantial reductions in Canada's greenhouse gas emissions. Every year, greenhouse gas emissions from transportation continue to grow, mainly because of higher rates of air travel and automobile use. Between 1990 and 2013, transportation-related emissions increased by 31% (40 Mt CO<sub>2</sub> eq).<sup>xviii</sup> Accordingly, investment in public transportation – particularly forms of transportation that draw upon renewable energy – will help us to reduce a large portion of our national net emissions.

A National Public Transportation Strategy, with an investment of \$17.6 billion for public transit and \$10 billion towards developing high speed rail corridors, will result in the creation of 324,600 jobs over five years. The direct greenhouse gas emission reductions achieved through diversion from private vehicles will be an estimated 19 Mt CO<sub>2</sub> eq annually. Indirect greenhouse gas emission reductions from increased urban density and the avoidance of future increases in emissions from a 'business-as-usual' approach will result in even greater greenhouse gas emission reductions into the future.

The Green Economy Network recommends that the federal government set national transportation targets and put predictable financing arrangements in place as part of the National Transportation Strategy. The federal government must play an integral role in facilitating and coordinating agreements amongst all levels of government, including incentives designed to strengthen community support for transit.

#### **4. CARBON PRICING INITIATIVE**

The federal budget should include a carbon pricing plan in order for the federal government to acquire the additional new capital needed to finance these initiatives. The Carbon Pricing Initiative would serve to raise new government revenues that could be channeled for investments in the three strategic priorities being proposed here for the transition to a green economy, among other things.

The federal government should work with provinces and territories to coordinate carbon pricing efforts and ensure that a consistent floor price is implemented across the country and that the industrial sector is required to meet performance standards. In addition to a coordinated carbon pricing effort, the federal government should also ensure that a significant and rapid regulatory transformation is undertaken in the electricity, transportation and buildings sectors.<sup>xix</sup>

The federal government, in consultation with the provinces and territories, must implement a Carbon Pricing Initiative to reach a harmonized national carbon price of a minimum of \$50 per tonne of CO<sub>2</sub>, increasing to \$200 per tonne of CO<sub>2</sub> by 2025.<sup>xx</sup> The Carbon Pricing Initiative must also include incremental and predictable annual carbon price increases.

#### **CONCLUDING REMARKS**

The four recommendations outlined in this submission lay the foundation for Canada to create One Million Climate Jobs, stimulate the Canadian Economy, and to meet our climate change obligations.

We thank members of the House of Commons Standing Committee on Finance for the opportunity to provide our views on measures needed to ensure economic recovery and sustainability. We remain available for further comments or questions, and wish you well in your deliberations.

## ENDNOTES

- i Mt CO<sub>2</sub> eq. is megatonnes of carbon dioxide equivalent, the standard international unit of measurement for reporting greenhouse gas (GHG) emissions. One megatonne (Mt) is equal to one million tonnes. Canada's GHG emissions were 726 Mt CO<sub>2</sub> eq. in 2013.
- One Mt of GHG emissions is equivalent to the emissions from:
- ♦ 227,000 cars or more than twice the number of cars in Prince Edward Island
  - ♦ The energy requirements of 86,500 homes or the total number of homes in Regina
- ii Based on federal expenditures from the 2013-2014 fiscal year of \$280.5 billion,  
<http://www.budget.gc.ca/2014/docs/plan/ch4-2-eng.html>
- iii The method used by the Green Economy Network in forecasting job creation is based on research by Robert Pollin, Heidi Garrett-Peltier, James Heintz, and Bracken Hendricks, Centre for American Progress and University of Massachusetts Amherst, "Green Growth", September 2014. The formula covers jobs created per each billion dollars of investment in three categories: direct employment in the primary industry [ies]; indirect employment in secondary industries and suppliers; and induced employment in retail and service industries.
- The particular method for induced job creation is based on the input-output model of employment through increased demand of final products for industries. Induced job creation was estimated assuming spending is designed to generate a large induced expansion of jobs based on high levels of unemployment, spending on domestic industries over imports and the encouragement of private sector investment.
- iv Natural Resources Canada (2013). Clean Energy Fund Renewable Energy and Clean Energy Systems Demonstration Projects <http://www.nrcan.gc.ca/media-room/news-release/01a/2010-01/2577>
- v The International Monetary Fund estimates that energy subsidies in Canada exceed \$34 billion annually in direct support to producers and uncollected tax on externalized costs.
- Clements, M. B. J., Coady, D., Fabrizio, M. S., Gupta, M. S., Alleyne, M. T. S. C., & Sdravovich, M. C. A. (2013). *Energy subsidy reform: lessons and implications*. International Monetary Fund.
- vi Natural Resources Canada (2016). Energy Sources: Average Retail Prices for Regular Gasoline (Last 52 Weeks) [http://www2.nrcan.gc.ca/eneene/sources/pripri/prices\\_bycity\\_e.cfm](http://www2.nrcan.gc.ca/eneene/sources/pripri/prices_bycity_e.cfm)
- vii Transport Canada (2014). Transportation in Canada 2013: Overview Report [https://www.tc.gc.ca/media/documents/policy/Transportation\\_in\\_Canada\\_2013\\_eng\\_ACCESS.pdf](https://www.tc.gc.ca/media/documents/policy/Transportation_in_Canada_2013_eng_ACCESS.pdf)
- viii Department of Energy and Climate Change, UK Government (2013). New energy infrastructure investment to fuel recovery <https://www.gov.uk/government/news/new-energy-infrastructure-investment-to-fuel-recovery>
- ix President Obama's "Better Buildings Initiative" <http://www.whitehouse.gov/the-press-office/2011/02/03/president-obama-s-plan-win-future-making-american-businesses-more-energy>
- x UK Department of Energy and Climate Change (2010). The Green Deal [http://www.decc.gov.uk/en/content/cms/what\\_we\\_do/consumers/green\\_deal/green\\_deal.aspx](http://www.decc.gov.uk/en/content/cms/what_we_do/consumers/green_deal/green_deal.aspx)
- xi Natural Resources Canada (2015). Office of Energy Efficiency <http://www.nrcan.gc.ca/energy/offices-labs/office-energy-efficiency>
- xii With respect to Green Homes, \$500 million over 5 years would be invested in low-income housing upgrades, and \$250 million over 5 years to national training and certification programs. With respect to Green Buildings, \$250 million would be invested over 5 years in national buildings training and technical service centre. \$100 million would be used to set up and maintain the Green Bonds Scheme.
- xiii These targets are identical to those proposed to the Council of Energy Ministers Built Environment Efficiency Working Group in 2007. Energy savings were calculated through modeling carried out by the Office of Energy Efficiency for the Working Group at that time.
- xiv A report was prepared for Natural Resources Canada in 2005 showing how the innovative financing approach of attaching energy efficiency loans to a property instead of the owner could be used in each Province: Using Local Improvement Charges to Finance Energy Efficiency Improvements – Applicability across Canada. Pembina Institute, 2005 <http://www.pembina.org/pub/197> This approach has since been used in the United States Property Assessment for Clean Energy (PACE) program and is being put into place in Halifax and Vancouver.
- xv Environment Canada (2015). *National Inventory Report 1990 – 2013*, Section ES.3
- xvi Metropolitan Knowledge International, McCormick Rankin Corporation and Jeff Casello, *The Economic Impact of Transit Investment: A National Survey*, (Toronto: Canadian Urban Transit Association, 2010): 3.
- xvii Ibid p 3, 28.
- xviii Environment Canada (2015). *National Inventory Report 1990 – 2013*, Section ES.3
- xix Climate Action Network (2015). Three Big Moves Toward a 100% Renewable Energy System for Canada <http://foecanada.org/en/files/2015/11/ThreeBigMoves.pdf>
- xx Pembina Institute and the David Suzuki Foundation, Climate Leadership, Economic Prosperity: Final Report on the Economic Study of Greenhouse gas Targets and Policies for Canada, 2009. See also the accompanying technical report by MK Jaccard and Associates Inc., Final Report: Exploration of Two Greenhouse Gas Emission Targets