



Canadian Labour Congress  
Congrès du travail du Canada

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Drawing from **GREEN, DECENT AND PUBLIC**, a joint report by the Canadian Labour Congress and the Council of Canadians, this is one of a set of four fact sheets. These fact sheets aim to inform and activate actions supporting green job creation in Canada – check out the ‘**TAKE ACTION**’ section!

**1. Opportunity in Crisis: Decent Green Jobs** **2. Energy Efficiency and Renewable Power Potential** **3. Public and Community Ownership Examples** **4. Advantages of Public and Community Ownership**

## 2. ENERGY EFFICIENCY AND RENEWABLE POWER POTENTIAL

### CREATE JOBS, SAVE MONEY, REDUCE GREEN HOUSE GAS EMISSIONS – THE BEAUTY OF ENERGY EFFICIENCY

Improvements in energy efficiency are some of the most effective methods dollar for dollar to reduce greenhouse gas emissions. Energy efficiency measures can include a variety of actions, such as housing retrofits (energy-efficient windows, increased or better insulation, high-efficiency furnace), institutional retrofits at schools or hospitals, municipal retrofits at hockey rinks or community centres as well as commercial and industrial retrofits.

Improved energy efficiency is also the cheapest source of energy available. Every dollar spent using less electricity saves two dollars in investment in increasing electricity supply.<sup>1</sup> The initial cost of investment in retrofitting (or construction of new high-performance buildings) is quickly recouped as savings on energy bills that will quickly surpass the cost of the initial investment.

#### CREATE JOBS

Energy efficiency measures in the building sector lead to direct, indirect and induced jobs. Direct jobs in energy efficiency retrofitting look a lot like traditional construction jobs that are performed at the development site.

Due to the fact that these new jobs are performed at the local level, energy efficiency programs can strengthen local economies for all communities, including underdeveloped regions, isolated communities and areas of high unemployment.<sup>2</sup> The job creation benefits will increase if the investments also contain “Buy Canadian” requirements for Canadian content (ie. let’s use Canadian-made high efficiency windows!).

Implementing a national Canadian municipal retrofitting program would result in 5600 to 7840 person-years of employment at the local level. This works out to 20 jobs for every \$1 million invested, or 1 job for every \$50,000.

#### DID YOU KNOW THAT GERMANY HAS A PIONEERING HOME RETROFIT PROGRAM?

THE MOST AMBITIOUS BUILDING RETROFITTING PROJECT TO DATE IS THE GERMAN ALLIANCE FOR WORK AND THE ENVIRONMENT’S PROJECT TO RETROFIT GERMAN HOMES. UNDER THIS PROGRAM 342,000 APARTMENTS WERE RENOVATED, 140,000 JOBS WERE CREATED OR SAVED AND 2 % OF ANNUAL EMISSIONS FROM GERMANY BUILDINGS WERE REDUCED.<sup>3</sup> SINCE 2001, 11 BILLION EUROS OF PUBLIC INVESTMENT STIMULATED 5 BILLION EUROS IN INVESTMENT WITH ADDITIONAL TAX REVENUE AND SAVINGS OF APPROXIMATELY 4 BILLION EUROS IN UNEMPLOYMENT BENEFITS.

THE ENERGY EFFICIENCY MEASURES INCLUDED IMPROVING HEAT INSULATION OF ROOFS, WINDOWS AND WALLS, INTRODUCING ADVANCED HEATING TECHNOLOGIES AND CONTROLLED AIR VENTILATION SYSTEMS, AND USING RENEWABLE ENERGY SUCH AS PHOTOVOLTAIC OR SOLAR THERMAL SYSTEMS.

## CANADIAN RENEWABLE POWER POTENTIAL

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Renewable energy is energy that comes from renewable sources including hydroelectric power, wind power, solar power, tidal power and geothermal power. Renewable energy can be used to produce green heat (such as geothermal heating, solar water heating and electric heat) and green electricity (wind, solar, hydro electric power, and more).

Currently, hydroelectricity represents the largest share of Canada's electricity generation, but renewable energy (excluding hydroelectricity) represents the smallest share with coal power still playing a significant role. If we made a concerted effort, by 2050, the majority of Canada's electricity could be provided by renewable energy sources, without the need for new large-scale hydroelectric power.

Like all forms of energy generation, renewable energy must be subject to all relevant legislated environmental assessments and regulated in the public interest to minimize adverse environmental and social impacts as well as respect Aboriginal treaty and title rights.

Wind power is likely the most talked-about form of renewable energy. The Canadian Wind Energy Association has set a goal of achieving 55,000 MW of wind power (fulfilling 20% of Canada's predicted needs) by 2025. Solar energy refers to the use of photovoltaic cells which convert sunlight directly into electricity. Solar power is by far the world's most available and plentiful energy resource – the theoretical potential is far greater than what the world even requires! While Canada's current tidal energy supply (electricity generated through a tidal barrage and through tidal fences and turbines) is small, there are a number of suitable locations that have been identified in Canada.

## CREATES JOBS

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At the simplest level, green energy produces green jobs. For instance, if the wind energy target of 20% of Canada's electricity were realized, it would create more than 50,000 direct jobs.<sup>4</sup> These jobs look a lot like traditional construction and manufacturing jobs as they include jobs manufacturing wind turbine components, jobs in construction, installation, shipping and maintenance.

The average renewable energy investment creates four times as many jobs as the same investment in the fossil fuel economy.<sup>5</sup> Further development of renewable energy sources like solar energy will also create a large number of jobs.<sup>6</sup>

## TAKE ACTION: KEEP IT PUBLIC! GREEN JOBS NOW!

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**Talk to your municipal councillor:** Is your municipality "greening" its buildings? Is there a municipal energy retrofitting program? Does it target low income households? Are there plans to own renewable power projects?

**Talk to your provincial government representative:** What are provincial plans for reducing reliance on fossil fuel generation and expanding public and community ownership and control of renewable energy generation? Is there a provincial retrofit program?

**Talk to your federal government representative:** Do they support a national plan for GHG emission reductions and a national municipal retrofitting program? How are they ensuring an end to federal subsidies for fossil fuels, tough energy efficiency standards and financial support for public and community-owned renewable energy projects?

*Tip: There is a list of policy recommendations in Green Decent and Public that will improve energy efficiency and support public and community ownership. For more information about this topic, or to read the full report, Green Decent and Public please visit: the Council of Canadians at [www.canadians.org/GDPReport](http://www.canadians.org/GDPReport) and the Canadian Labour Congress at [www.canadianlabour.ca](http://www.canadianlabour.ca)*

## NOTES

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Endnotes for this factsheet can be found online at [www.canadians.org/GDPReport](http://www.canadians.org/GDPReport)