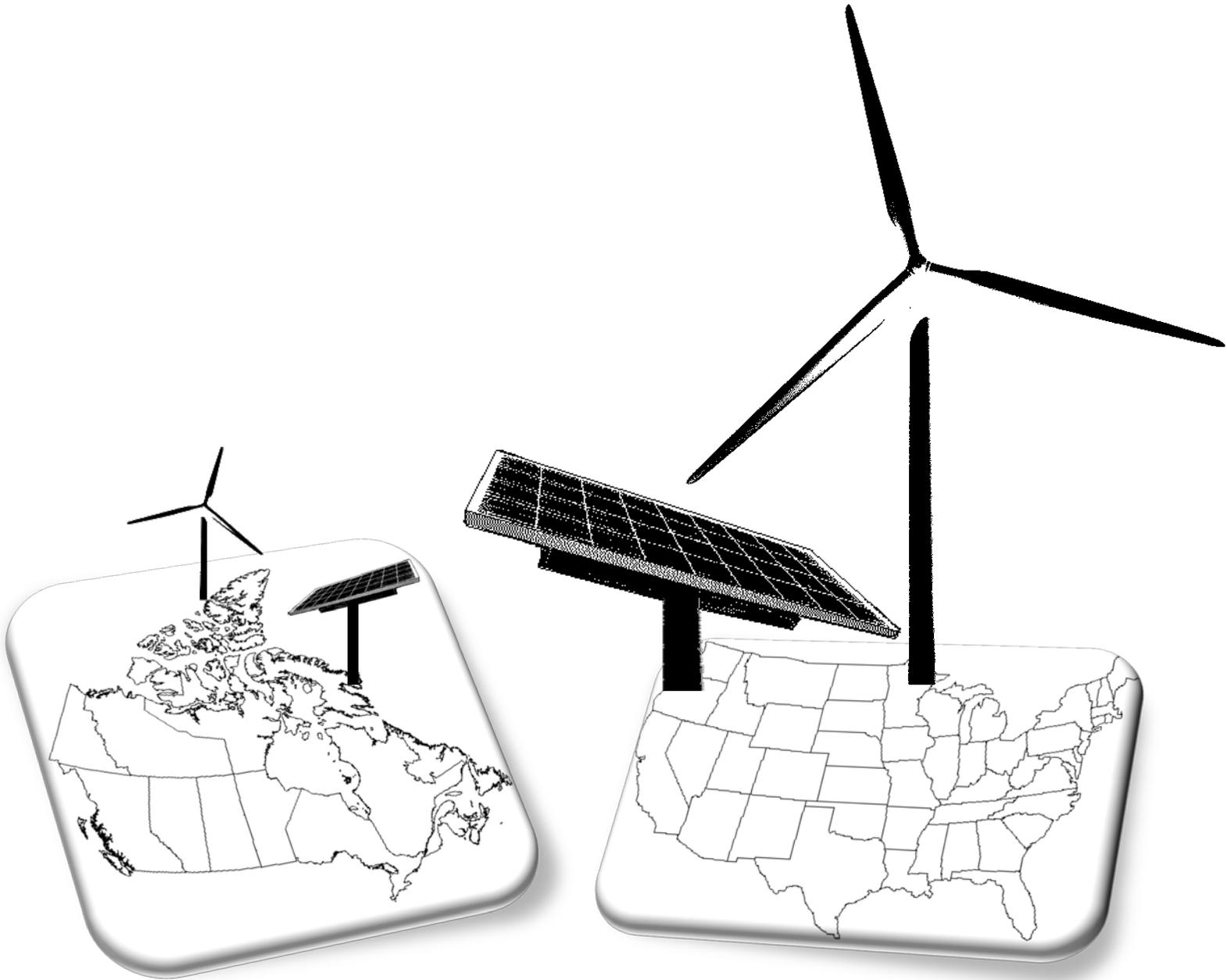


# Canada falling even further behind the U.S. in sustainable energy investments per capita



Backgrounder

March 11, 2010

## United States poised to invest significantly more per capita than Canada in renewable energy and energy efficiency – again

OTTAWA – Finance Minister Jim Flaherty tabled a budget last week that failed to invest significantly in renewable energy and energy efficiency technology, even though these technologies create jobs, increase GDP and create benefits for the environment<sup>1</sup>. The following table **outlines incremental U.S. and Canadian federal investments for the coming fiscal year which were allocated in the two countries' most recent budget proposals**. U.S. funding is based on the Administration's recent Congressional Budget Request, which should be finalized in April 2010.

In 2009, the *American Recovery and Reinvestment Act* (ARRA) introduced more than US\$ 80 billion in new funding and tax provisions for U.S. clean energy initiatives. This funding **is not** included in the following table, and only funds that were explicitly allocated to year two of in Canada's 2009 *Economic Action Plan* are included. See Pembina's 2009 comparison of U.S. and Canada stimulus investments for a summary of the additional program funding levels (<http://re.pembina.org/pub/1786>).

Program Area	U.S. (US\$ million)	Canada (C\$ million)	Per capita* U.S. / Canada
<b>USA – Renewable Energy (US\$ million)</b> <ul style="list-style-type: none"> <li>• Solar Energy (\$302)</li> <li>• Wind Energy (\$123)</li> <li>• Hydrogen &amp; Fuel Cell Technologies (\$137)</li> <li>• Biomass &amp; Biorefinery Systems R&amp;D (\$220)</li> <li>• Geothermal Technology (\$55)</li> <li>• Water Power (\$41)</li> <li>• Green Job Training (\$42.5)</li> <li>• Renewable Electricity Production Tax Credit (\$4,800)</li> <li>• Advanced Energy Manufacturing Tax Credit (\$1,665)</li> <li>• Innovative Technology Loan Guarantee Program (\$167)</li> <li>• New Energy Frontier for renewables on Federal/Tribal land(\$64)</li> <li>• Office of Science (\$1,490)</li> <li>• Advanced Research Projects Agency- Energy (\$150)</li> <li>• R&amp;D for clean energy delivery, smart grid &amp; storage (\$144)</li> </ul>	US\$9,400	C\$64	18:1
<b>Canada – Renewable Rnergy (C\$ million)</b> <ul style="list-style-type: none"> <li>• Next Generation Renewable Power Initiative Clean<sup>i</sup> (\$25)</li> <li>• Clean Infrastructure Fund<sup>ii</sup> (\$39)</li> </ul>			

<sup>1</sup> A recent study by Environment Northeast (ENE) found that for every \$1 spent on energy efficiency, Gross State Product (GSP) in the New England states would increase by approximately \$4 to \$10, depending on the fuel source. In 2008, the UN reported that global investments in renewable electricity generation overtook global investments in electricity generation in coal, nuclear and natural gas combined (ENE's *Energy Efficiency: Engine of Economic Growth* can be downloaded at: [www.env-ne.org/public/resources/pdf/ENE\\_EnergyEfficiencyEngineofEconomicGrowth\\_FINAL.pdf](http://www.env-ne.org/public/resources/pdf/ENE_EnergyEfficiencyEngineofEconomicGrowth_FINAL.pdf))

<b>USA – Energy Efficiency (US\$ million)</b> <ul style="list-style-type: none"> <li>• Building Technologies (\$231)</li> <li>• Industrial Technologies (\$100)</li> <li>• Federal Energy Management Program (\$42)</li> <li>• Weatherization Assistance Prgm &amp; State Energy Prgm<sup>iii</sup> (\$385)</li> <li>• Green Job Training<sup>iv</sup> (\$42.5)</li> <li>• Energy STAR (\$56)</li> <li>• Federal/Military/Public Buildings (&gt;\$138)</li> <li>• Advanced Energy Manufacturing Tax Credit<sup>v</sup> (\$1,665)</li> <li>• Innovative Technology Loan Guarantee Program<sup>vi</sup> (\$167)</li> <li>• Office of Science<sup>vii</sup> (\$1,490)</li> <li>• Advanced Research Projects Agency-Energy<sup>viii</sup> (\$150)</li> </ul> <b>Canada – Energy Efficiency (C\$ million)</b> <ul style="list-style-type: none"> <li>• ecoENERGY for home retrofits<sup>ix</sup> (\$293)</li> </ul>	US\$4,467	C\$293	2:1
<b>USA – Public Transit &amp; Vehicle Efficiency (US\$ million)</b> <ul style="list-style-type: none"> <li>• Transit (\$10,800)</li> <li>• High-speed Rail (\$1,000)</li> <li>• Vehicle Technologies (\$325)</li> <li>• Adv. Technology Vehicles Manufacturing Loan Program (\$10)</li> <li>• Smartway Freight Transportation Partnership (\$27)</li> <li>• Sustainable Communities (DOT - \$530; HUD - \$150; EPA \$11)</li> </ul> <b>Canada – Public Transit &amp; Vehicle Efficiency (C\$ million)</b> <ul style="list-style-type: none"> <li>• No new programs in the 2010 budget<sup>**</sup></li> </ul>	US\$12,826	C\$0	n/a
<b>Total</b>	US\$26,692	C\$357	8.6:1

\* Uses an exchange rate of 1.05 US\$/C\$, and a 9.1-fold population difference between the U.S. and Canada (CIA World Factbook).

\*\* This is a particularly notable omission given the Parliament’s Standing Committee on Finance’s report 2<sup>nd</sup> priority recommendation on the environment, which stated: “the government should implement initiatives designed to encourage the use of electric cars.” (Honorable James Rajotte, December 2009, Chapter 4, Section II.D)

The relative share of expenditures between the two countries is important considering the interconnected nature of their energy markets (electricity, natural gas and transportation fuels). The United States and Canada also compete for clean energy jobs and capital investments, and the relative levels of government investment and support for clean energy will play a part in dictating where clean energy investments are more likely to happen. Furthermore, investing in low- and zero-carbon energy now will positively impact the countries’ relative productivity and competitiveness as North America moves to regulate greenhouse gas emissions.

While they were not considered in this analysis, it is notable that President Obama’s budget request proposes to eliminate 12 fossil fuel subsidies (tax breaks for oil, natural gas, and coal) worth US\$ 2.7 billion in 2011, as a step towards fulfilling a G20 commitment to phase out inefficient fossil fuel subsidies.<sup>2</sup> No similar initiatives were included in the Government of Canada’s 2010 budget.

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<sup>2</sup> <http://www.pittsburghsummit.gov/mediacenter/129639.htm>

## Sources

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- House Committee on the Budget summary: [http://budget.house.gov/pres\\_budgets/fy2011/02.04.2010-full\\_summary\\_pres\\_budg.pdf](http://budget.house.gov/pres_budgets/fy2011/02.04.2010-full_summary_pres_budg.pdf)
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- Department of the Treasury's "Green Book": <http://www.treas.gov/offices/tax-policy/library/greenbk10.pdf>
- NRCAN Clean Energy Fund: <http://www.nrcan.gc.ca/eneene/science/renren-eng.php>
- Budget Plan 2010: <http://www.budget.gc.ca/2010/plan/toc-tdm-eng.html>

## Calculations

<sup>i</sup> C\$100 million allocated over four years exclusively for forestry interests. Budget 2010 allocates C\$25 million in year one.

<sup>ii</sup> The C\$1.0 billion over five year fund was created in budget 2009 for "public transit, sustainable energy and waste management". C\$516 million of which has already been allocated, of which approximately C\$156 million went to renewable energy and C\$0 to public transit or vehicle efficiency. Assuming the remaining C\$483 million is allocated in the same proportions over the remaining four years of the fund, C\$39.1 million would be available in 2010.

<sup>iii</sup> DOE EERE includes State Energy Programs in 'Weatherization & Intergovernmental' line item (US\$385 M) and classifies it as an energy efficiency program (see [http://files.eesi.org/zoi\\_022310.pdf](http://files.eesi.org/zoi_022310.pdf)) although funding can also be used for renewable energy projects.

<sup>iv</sup> Assumes the Department of Labor's FY2011 funding for 'Green Jobs Training' (US\$85 M) is split evenly between energy efficiency and renewable energy jobs programs.

<sup>v</sup> Assumes 33.3% of the new US\$5 billion in funding for the Advanced Energy Manufacturing Tax Credit to advance renewable energy, energy conservation, and GHG abatement technologies goes to efficiency and 33.3% goes to renewable energy.

<sup>vi</sup> Assumes 33% of the US\$500 million credit subsidy for "renewable energy systems, advanced nuclear facilities, coal gasification, carbon sequestration, energy efficiency, and many other types of projects" will be allocated to energy efficiency and 33% to renewable energy.

<sup>vii</sup> Total proposed funding for Office of Science is US\$5.121 billion. We assume US\$2.98 billion will be dedicated to energy efficiency and renewable energy-related programs/initiatives and split evenly between the program areas.

<sup>viii</sup> Assumes total proposed funding for ARPA-E (US\$300 million) is split evenly between energy efficiency and renewable energy. Note, some ARPA-E funding has supported CCS but the bulk is invested in EE & RE-related initiatives.

<sup>ix</sup> C\$80 million of new funds were allocated in the 2010 budget on top of C\$205 million that were re-allocated from the "Clean Energy Fund" announced in budget 2009 for a total of C\$585 million over two years. 50% or C\$293 is assumed available in year two.