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A Proposal to Expand and Extend the Federal Government's Successful ecoENERGY for Renewable Power Program in the 2009 Federal Budget

The Clean Air Renewable Energy Coalition is calling on the Federal Government to take action in the 2009 Federal Budget to expand and extend the extremely successful ecoENERGY Renewable Power Program so it will support the deployment of a total of 12,000 MW (an addition of 8,000 MW) of new renewable energy development in Canada by March 31, 2014. This expansion represents an additional $2.6 billion commitment (an average of $190 million/year over 14 years) that will generate a minimum of $6 billion dollars of investment and around 8,000 new jobs in Canada over the next five years while laying the foundation for sustained and steadily accelerating growth in the renewable energy sector in Canada beyond 2014. These numbers will grow with increased manufacturing of renewable energy technologies like wind turbines and components in Canada.

Expanding the ecoENERGY Incentive is an Accelerated Infrastructure Investment Program for Canada's Electricity System

As existing power generation capacity is being decommissioned throughout Canada over the coming decade while power consumption is increasing, the country needs to invest in new, sustainable power plants. Expanding the ecoENERGY for Renewable Power incentive means that the federal government is taking an active role in assisting the provinces in renewing and expanding their electricity production infrastructure.

The Expansion and Extension of the ecoENERGY for Renewable Power Program is Critical for Low-Impact Renewable Energy Development in Canada

The Federal Government announced the ecoENERGY Renewable Power Program in January 2007 to support the deployment of approximately 4,000 MW of new low-impact, renewable electricity projects by March 31, 2011. As of November 2008, more than 11,000 MW of renewable energy projects had registered for the program and contribution agreements had already been signed for almost 1,000 MW of new renewable energy facilities. **According to Natural Resources Canada, all of the funding associated with the program is to be fully allocated by March 31, 2009, two years ahead of schedule.**

The ecoENERGY for Renewable Power Program has played a fundamental role in stimulating the deployment of renewable energy in Canada by providing a production incentive (1 cent / kWh produced for 10 years) that helps to close the gap between the cost of renewable and conventional electricity generation – and this has encouraged provincial governments and utilities to actively seek out renewable energy types. Between 2002 and 2007, Canada's installed low-impact renewable power generation capacity is estimated to have increased from around 3,700 MW to over 6,000 MW. Many new projects are planned for the coming years, including biomass (especially Alberta, BC), small hydro, geothermal and wind power.

Expanding the ecoENERGY for Renewable Power Program beyond 2009 is critical to maintain and accelerate this impressive growth in Canada's renewable energy industry and to maximize the economic and environmental benefits that result for Canada. There are several reasons for this:

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- Renewable energy systems have low operating costs, but are usually more capital intensive than conventional energy sources. **Great efforts are being made to increase the use of biomass and other renewable energy in Canada**, but harvesting wood – especially from the pine beetle affected areas in BC and Alberta – is expensive and not economically feasible for energy production at current low electricity prices unless incentives are provided. Most Canadian wood is currently pelletized and exported for energy generation in Europe, where power pricing is far higher than in Canada. As another example, wind turbines account for 70-80 percent of total wind energy project costs (similar numbers would apply to hydro or marine energy projects) – **and a global shortage of wind turbines, due to the strong global demand for wind energy**[1], has resulted in additional and significant cost increases. In fact, the installed cost of a wind energy project has increased from about $1,700/kW in 2003 to more than $2,500/kW today. Higher steel prices have contributed to this increase and also affect other renewable energy types. Such cost increases have made returns for alternative energy projects more marginal as electricity prices increase more slowly than project costs. **The ecoENERGY for Renewable Power Program was designed to help "close the cost gap" between renewable and conventional energy sources and the current economic circumstances facing the industry indicate that the ecoENERGY for Renewable Power Program is still required for this purpose.**

- **Global investment in renewable energy was almost $150 billion in 2007, according to UNEP. This is expected to increase to $450 billion in 2012 and to $600 billion by 2020.** The renewable energy industry is a global industry and investors will seek to invest in countries that provide the highest rate of return. For Canada, the major competing investment destination is the United States. Since the introduction of its tax credit, the United States has become a world leader in geothermal, biomass and wind power installations. **The Federal Production Tax Credit provides investors with a tax credit of 2.1 (U.S.)cents/kWh produced for the first 10 years of production – more than twice the value provided by the ecoENERGY for Renewable Power Program. An end to the ecoENERGY for Renewable Power Program at this time will significantly weaken Canada's ability to compete for global renewable energy investment.**

- Renewable energy systems and component manufacturers also operate in a global marketplace and are seeking to invest in stable markets with steady growth. While Canada has seen the establishment of a small number of manufacturing facilities over the last few years (e.g., solar panels, hydropower equipment, wind turbine parts), Canada is not yet a competitive investment destination. **The United States alone has seen the announcement or construction of 28 new or expanded wind energy manufacturing facilities in the last 18 months, representing $1 billion in investment and 9,000 jobs.** Likewise, major U.S. efforts are underway to install biomass, geothermal and other renewable energy facilities. In fact, the U.S. holds the first place in Ernst & Young's *Renewable Energy Country Indices* reports, with Canada trailing behind in place seven or eight. Furthermore, despite Canada's world class technical potential in ocean energy and the existence of technology developers here, **the world leader in development and deployment of wave and tidal technologies is the United Kingdom. An end to the ecoENERGY for Renewable Power Program will introduce significant instability to the Canadian market and**

[1] Global installed wind energy capacity increased from 31,000 MW in 2002 to more than 94,000 MW in 2007. This is projected to increase to 240,000 MW by 2012.

reduce its attractiveness as an investment destination at a time when manufacturers are actively seeking to make new investments and when an incoming U.S. administration is expected to strengthen its support for renewable energy.

- While renewable energy provides numerous environmental benefits for Canada (no greenhouse gas emissions, air or water pollution, or toxic, hazardous or nuclear wastes), the value of these benefits is still not recognized in the marketplace. The Federal Government's Regulatory Framework for Air Emissions has the potential to facilitate this by putting a price on carbon dioxide emissions, but Environment Canada estimates that the design of the Regulatory Framework means that the market price for carbon dioxide in Canada will not reach $30/tonne until 2014, despite the fact that the world's only functioning carbon market in Europe already has prices at this level. This uncertainty pertaining to the value of carbon credits and the possibility that such credits will be heavily discounted by investors as project revenue means they cannot in the short term replace the value of the ecoENERGY for Renewable Power incentive. **An end to this Program before the establishment of a free and functional carbon market in Canada will prevent renewable energy from gaining full value for its environmental benefits**.[2]

- **Provincial governments and utilities are now planning for a future that would see a minimum of 16,000 MW of renewable energy capacity installed in Canada by 2016.** By narrowing the cost gap between renewable and conventional sources of electricity, the ecoENERGY for Renewable Power Program has played a critical role in encouraging such planning at the provincial level by enhancing renewable energy's cost competitiveness. **An end to the ecoENERGY for Renewable Power Program at this time will result in provinces reducing the role of renewable energy in their future electricity generation.**

Failure to extend and expand the ecoENERGY for Renewable Power Program will slow the growth of renewable energy in Canada and will reduce our share of rapidly expanding global investment in renewable energy by making Canada's energy market a more uncertain and less attractive destination for investors. The budgetary impact of an extension of the ecoENERGY for Renewable Power Program will remain fairly small during the first two years, increasing from $15 million in 2009-10 to about $45 million in 2010-11 and costing a bit more than $600 million in total between 2009-2014.

The Benefits of Renewable Energy Deployment in Canada

Canada's electricity system faces a number of sustainability challenges and renewable energy has a critical role to play in making it more reliable, affordable, economically viable, socially acceptable and environmentally sound.

[2] It is important to note that a price on carbon emissions will not value all of renewable energy's environmental benefits and will provide different levels of incentive to build low-impact renewable energy projects in different parts of Canada. As a result, Canada must, like Europe, develop both a climate change policy and a renewable energy policy if it is to capture the full range of economic and environmental benefits associated with renewable energy development.

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- **Renewable energy is bringing new investment and new jobs to Canada and the ecoENERGY for Renewable Power Program is really an accelerated infrastructure investment program.** In 2007, it is estimated that Canada's wind energy industry contributed $900 million to Canada's GDP and employed more than 4,000 Canadians. Every 10 MW of new installed low-impact renewable energy capacity represents an investment of $20 to $35 million, as well as 10-30 person-years of employment in construction, operation and maintenance. The Pembina Institute estimated that achieving the Clean Air Renewable Energy Coalition's target of 15% electricity coming from low-impact renewables by 2020 would create a minimum of 12,000 and possibly up to 27,000 jobs by 2020 in Canada – including installation, manufacturing, and operation.

- **Renewable energy provides substantial benefits for Canada's rural and remote communities, helping them to diversify their economies and stabilize their tax bases**. In addition to investment and jobs, it is estimated that, for example, wind energy projects currently pay more than $5 million a year to rural landowners who lease their land for the placement of wind turbines. In many communities, renewable energy is also making a substantial contribution to the municipal tax base. For example, 35% of tax revenues in the Municipal District of Pincher Creek, Alberta, and 38% of tax revenues in Bayham Township, Ontario come from wind energy projects. Likewise, royalties from small hydro and biomass projects help support municipal and aboriginal communities throughout Canada.

- **Renewable energy projects are one of the few domestic sources of carbon offsets to help industry comply with national carbon emission reduction targets**. Supporting the development of this industry will therefore help create a healthy and liquid carbon offset market in Canada.

- **Renewable energy has an essential role to play in helping Canada "Turn the Corner" in fighting climate change by 2020, and to reach the Throne Speech goal of producing 90% of its electricity from non-emitting sources by the same date.** In that time period, Canada has few options for limiting greenhouse gas emissions in the electricity sector: (a) energy efficiency improvements, (b) renewable energy, and (c) natural gas. Nuclear power plants cannot be built in this timeframe and clean coal / carbon capture and storage technologies are unlikely to have moved much beyond pilot projects by 2020.

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