

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

- The federal government's major renewable power initiative, the extremely successful ecoENERGY for Renewable Power Program (eRPP), is projected to have allocated all of its funding early in the 2009-2010 fiscal year, well before the program's scheduled end date of March 31, 2011. **While the federal government states that renewable energy is a key part of its environmental and energy strategy, there is currently no commitment to expand or extend the eRPP.**
- **The Canadian Wind Energy Association (CanWEA) is calling on the federal government to expand and extend the eRPP in the 2009 federal budget to support the deployment of an additional 8,000 MW of new renewable energy development in Canada by March 31, 2014. Such action is required because:**
 - **An end to the eRPP will make Canada an even less competitive destination for rapidly growing global wind energy project / manufacturing investment** (US federal incentives are more than twice the value of the eRPP)
 - **Greenhouse gas offsets are not a substitute for the eRPP, and would provide significantly less value than the eRPP in virtually all of Canada**
 - **The eRPP was designed to help "close the cost gap" between wind energy and conventional energy sources and the current economic circumstances facing the industry indicate that the eRPP is still required for this purpose.**
- **Expanding / extending the eRPP is a fiscally responsible measure in a time of economic challenges.** Program costs start small and ramp up over time - \$15 million in 2009-2010, \$45 million in 2010-2011, and \$126 million in 2011-2012. Over the 15 year life of the program, the average additional cost would be \$187 million/year.
- **Expanding / extending the eRPP will be an important stimulus for private sector investment in new electricity infrastructure.** Over the next five years, a federal investment of just over \$600 million will facilitate \$6 billion of new private sector investment as well as the creation of 8,000 new Canadian jobs.
- **Expanding / extending the eRPP is essential if the federal government is to meet its commitment that 90 percent of Canadian electricity needs are to be provided by non-emitting sources by 2020** as wind energy, unlike most other clean technologies, can be built quickly and significantly in this time frame.



The Expansion and Extension of the eRPP is Critical for Wind Energy in Canada

The Federal Government announced the eRPP 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 August 2008, almost 10,000 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 this successful program is expected to be fully allocated before the end of the 2009-2010 fiscal year, and potentially by as early as March 31, 2009. In other words, the program will meet its objectives almost two full years ahead of schedule.**

Projects that are to be commissioned in the 2009-2011 period are now unlikely to be able to receive support from the program, and if this support is not forthcoming, the economic viability of such projects will be at risk.

The eRPP has played a fundamental role in stimulating the deployment of wind 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 wind energy and the cost of conventional electricity generation – encouraging provincial governments and utilities to actively seek out wind energy. Between 2002 and 2007, Canada's installed wind energy capacity grew from 322 MW to 1,846 MW, and we expect to be close to 2,600 MW by the end of 2008.

Expanding the eRPP beyond 2008 is critical to maintain and accelerate this impressive growth in Canada's wind energy industry and to maximize the economic and environmental benefits that result for Canada. There are several reasons for this:

- **More than \$1 trillion is projected to be invested in new wind energy capacity globally between 2008 and 2020.¹** The wind 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. Over the last four years, the United States has installed more than 18,000 MW of new wind energy capacity – only natural gas fired electricity generation has installed more capacity in that time period. **An important driver for wind energy development in the United States is a Federal Production Tax Credit that provides investors**

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 and more than 500,000 MW by 2020.



with a tax credit of 2.1 cents/kWh produced for the first 10 years of production – more than twice the value provided by the eRPP. This tax credit was recently extended until the end of 2009 and President-Elect Obama has made a commitment to extend it until 2014. An end to the eRPP at this time will significantly weaken Canada's ability to compete for global wind energy investment and will drive investment to the United States and other markets at the expense of Canada.

- Wind turbine 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., towers, blades, nacelle shells, nacelle assembly), Canada is not yet a competitive investment destination. **The United States alone has seen the announcement or construction of 41 new or expanded wind energy manufacturing facilities in the last 18 months, representing \$1 billion in investment and 9,000 jobs. An end to the eRPP will make the Canadian market less attractive to investment at a time when manufacturers are actively seeking to make new investments in an effort to catch up to the rapidly growing global demand for wind turbines.**
- While wind 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 and associated health care cost savings are still not recognized in electricity markets. The Federal Government's Regulatory Framework for Air Emissions has the potential to provide value for one environmental benefit of wind energy by putting a price on greenhouse gas emissions. Environment Canada estimates, however, that the market price for carbon dioxide under the Regulatory Framework will not reach \$30/tonne until 2014, despite the fact that the world's only major functioning carbon market (in Europe) already has prices at this level. **An end to the eRPP before the establishment of a free and functional carbon market in Canada is clearly premature and will not allow wind energy to get full value for its greenhouse gas emission reduction benefits.**
- **While a fully functioning carbon market will provide some future support for wind energy development in Canada,** it is important to note that it will not provide value for the other environmental attributes of wind energy and that **the incentive provided will vary significantly among different regions of Canada because of the different greenhouse gas intensities of electricity generation in those**



regions.² Europe, the global leader on wind energy, is using both a carbon market and a separate and distinct renewable energy policy (that requires 20% of all energy used in Europe - a higher percentage of electricity - to come from renewable energy sources by 2020) to drive future wind energy development. **An end to the eRPP would represent the termination of the federal government's key policy to support renewable energy in electricity generation.**

- While increased costs of inputs like steel have increased the costs of all forms of electricity generation, wind energy faces a unique challenge. It is extremely capital intensive – wind turbines account for 70-80 percent of total wind energy project costs – **and a global shortage of wind turbines, due to the strong global demand for wind energy**, 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. Although investments in new manufacturing facilities are expected to bring supply and demand into balance within the next five years and stabilize costs, we are seeing a short-term impact on the relative cost competitiveness of wind energy as well as more marginal returns for wind energy projects as electricity prices increase more slowly than project costs. **The eRPP was designed to help “close the cost gap” between wind energy and conventional energy sources and the current economic circumstances facing the industry indicate that the eRPP is still required for this purpose.**
- **Provincial governments and utilities are now planning for a future that would see a minimum of 12,000 MW of wind energy capacity installed in Canada by 2016.** By narrowing the cost gap between wind energy and conventional sources of electricity, the eRPP has played a critical role in encouraging such planning at the provincial level by enhancing wind energy's cost competitiveness. **An end to the eRPP at this time will result in provinces reducing the role of wind energy in their future electricity generation.**
- Many major greenhouse gas emitters are looking to use greenhouse gas offsets created through wind energy projects to help them meet their regulated greenhouse gas emission reduction commitments under the Federal Regulatory Framework on Air Emissions. **An end to the eRPP will decrease the number of wind energy**

² CanWEA estimates that a \$15 / tonne price on carbon dioxide will result in GHG offset values for wind energy projects of \$0.0098 / kwh in Alberta, \$0.0054 / kwh in Ontario, \$0.0033 / kwh in Quebec, and \$0.0015 / kwh in British Columbia – all less than the current incentive provide by the eRPP.



projects built in Canada and reduce the quantity of greenhouse gas offsets made available to companies required to reduce their emissions.

Failure to extend and expand the eRPP will slow the growth of wind energy in Canada and reduce our share of rapidly expanding global investment in wind energy by making Canada's wind energy market a less attractive destination for wind energy investment.

The Benefits of Wind Energy Deployment in Canada

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

- **Wind energy will help stabilize and moderate electricity price increases over the next decade.** With support from the eRPP, good wind energy sites have already demonstrated that they can be cost-competitive with some conventional generation sources such as natural gas. Over the next decade, however, wind energy will become much more cost-competitive with all sources of generation. Wind energy costs are expected to stabilize or decline over the next decade while the costs of all other forms of generation are expected to increase. For example, fossil-fuel fired electricity costs will increase with the imposition of a price on carbon emissions.
- **Wind energy is bringing new investment and new jobs to Canada and the eRPP was designed as an industrial development 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 wind energy capacity represents more than \$25 million of investment, of which anywhere between 30% and 60% remains in Canada, as well as 15 person-years of employment in wind farm construction and 1 job in wind farm operation and maintenance. Increased manufacture of wind turbines and components has the potential to create significantly more employment benefits for Canada.
- **Wind energy provides substantial benefits for Canada's rural communities, helping them to diversify their economies and stabilize their tax bases.** In addition to investment and jobs, it is estimated that 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 rural communities, where no other form of



industrial activity is present, wind energy is also making a very substantial contribution to the municipal tax base.

- **Wind energy has an essential role to play in helping Canada “Turn the Corner” in fighting climate change by 2020.** 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) fuel switching from coal to 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.

Supporting Wind Energy Deployment in Remote Communities

Canada has roughly 300 northern and remote communities, including many Aboriginal communities, with a total population of about 200,000 people. These areas are isolated from the national grid and typically draw their electricity from diesel generator sets that are expensive (\$1.50 per kWh), cause a great deal of pollution (local air contaminants and greenhouse gases), and bring few economic or capacity-development benefits to the community. Wind energy is an excellent alternative for these situations.

A 1 cent per kWh incentive, however, will not adequately cover the relatively higher costs and risks of wind generation in these isolated areas. As a result, CanWEA would like to see \$61 million of the proposed expansion to the eRPP set aside to provide capital grants and a production incentive appropriate to the North that would support the deployment of 34 wind projects in remote communities and ensure that the eRPP is available to all regions of Canada. **These projects would have a total capacity of 55 MW and would meet roughly 10% of all electricity demand in remote communities, therefore eliminating the need for almost 300 million litres of imported diesel fuel.**

Wind energy represents a tremendous opportunity for Canada. With one of the world’s best wind resources, a strong hydro-electric base that can facilitate higher levels of wind energy integration, a manufacturing sector that has the skill sets required to service wind energy markets and a huge potential export market south of the border, we have the potential to compete for global wind energy investment. Maximizing our potential for success, however, requires an expansion and extension of the ecoENERGY for Renewable Power Program.

