Renewable Energy Financial Support in Canada

M. Stumborg, AAFC – SPARC
Swift Current, Saskatchewan
Canada

Canada

The Future ??


Mike Keefe The Denver Post 11/09/07
$100 CRUDE
DON'T JUST STAND THERE - SOW SOME CORN OR SOMETHING!

Office of Energy Efficiency
ecoENERGY Programs 2007/2008 – 2011/2012

1.	ecoENERGY Retrofit – Homes	$520M	/4 yrs
2.	ecoENERGY for Buildings & Houses	$61M	/4 yrs
3.	ecoENERGY for Personal Vehicles	$21M	/4 yrs
4.	ecoENERGY for Fleets	$22M	/4 yrs
5.	ecoENERGY for Industry	$18M	/4 yrs
6.	ecoENERGY for Equipment	$32M	/4 yrs
7.	ecoEnergy for Renewable Power	$1400M	/4 yrs
8.	ecoENERGY for Biofuels	$1480M	/9 yrs




Biofuels

1. ecoENERGY for Biofuels introduced in April 2008 to boost Canada's production of renewable fuels, like ethanol and biodiesel, through incentives.
   - up to $1.5 billion over 9 years

2. Supports Canada’s regulation requiring 5% average renewable content in gasoline by 2010, and 2% average renewable content for diesel fuel and heating oil by 2012.
   - Close to 3 billion litres of renewable fuels are needed annually to meet these requirements.

Renewable Power

1. The ecoENERGY for Renewable Power program
   - Designed to encourage the generation of electricity from renewable energy sources such as wind, low-impact hydro, biomass, photovoltaic and geothermal energy.
   - No new contribution agreements will be signed after March 31, 2011.
   - Many projects with contribution agreements will continue to receive payments up to March 31, 2021.

Provincial Programs

Province	Policy Tool	Renewables as % of Total
Nova Scotia	Renewable Portfolio Standard	5% by 2010 Additional 10% by 2013
New Brunswick	Renewable Portfolio Standard	Additional 10% by 2016
Prince Edward Island	Renewable Portfolio Standard	15% by 2010 (already exceeded)
Ontario	Directive	Additional 10% 2700 MW) by 2010
Alberta	Target	3.5% by 2008 (met)
British Columbia	Target	90% of new generation 100% net zero GHG emissions by 2016
		Minimum Renewable Energy
Newfoundland/Labrador	Target	50 MW of wind power
Quebec	Target	4000 MW of wind power by 2015
Manitoba	Target	1000 MW of wind power by 2014
Saskatchewan	Target	100% new generation net zero GHG emissions

Prince Edward Island

1. A sales tax exemption, retroactive to April 8, 2005, is provided for purchases of small (100 kw or less) wind, biogas, heat pump, solar thermal, photovoltaic, wind turbine components, and drain water heat recovery energy collection devices.
2. Net Metering is offered to customers who generate 100 KW or less of renewable electricity.
3. Island residents, businesses and non-profit groups can invest in wind energy by purchasing PEI Energy Savings Bonds. Bonds are issued for 5 years at a 5% interest rate.
4. The Renewable Heat Loan Program offers low-interest loans of between $1000 and $5000 for wood, solar, geothermal and drain water heat recovery systems.

New Brunswick

1. New Brunswick Power will purchase power from small generators who produce up to 2 MW of power. The price paid depends on local market conditions and the type of renewable technology.
2. With Net Metering, customers who generate up to 100 KW of power can receive credit for any power contributed to the grid, at the same rate which they would pay.

Quebec

1. Program to Promote Energy Efficiency supports projects that develop new technologies in energy efficiency and energy production, and which are in line with the priorities expressed in the document.
2. *Using Energy to Build the Quebec of Tomorrow*. Electricity and gas projects are eligible if they include another form of energy.
3. Hydro Quebec offers grants for installation of residential ground source heating and cooling systems: $2,800 in new construction, and $2,000 for a retrofit. These can be combined with Quebec grants for increasing insulation values.

Quebec

1. Low and medium power customers are eligible for the Empower Program for Building Optimization and the Empower Program for Industrial Systems programs. These programs exclude self-generation systems such as cogeneration, wind power, and photovoltaics.
2. Large power customers are eligible for the Plant Retrofit Program, in which certain cogeneration is allowed, the Building Initiatives Program and the Industrial Initiatives Program, which include solar walls and ground source heating.
3. Purchasers of pure biodiesel can apply for a refund of the 15% provincial fuel tax.

Ontario

1. The Ontario Biogas Systems Financial Assistance Program will pay farmers and rural businesses up to $400,000 to help with feasibility studies, construction and implementation of biogas systems to produce electricity, heat, or fuel.
2. The Community Power Fund helps incorporated groups with renewable energy projects. Small grants of up to $25,000 for feasibility and strategic opportunity studies, and large grants of up to $300,000 for project development are available.
3. The Ontario Standard Offer for Renewable Energy sets a fixed price for small, grid-connected generation projects that use renewable energy and generate a maximum of 10 MW each. The Ontario Power Authority pays 11 cents per kWh for electricity produced by wind, biomass or small hydro. The price for solar photovoltaics is 42 cents per kWh.
4. Net Metering is offered to customers who are producing renewable energy for the grid.

Saskatchewan

1. The Solar Heating Initiative for Today (SHIFT) program matched the federal ecoENERGY for Renewable Heat program to support installations of solar hot water by large, non-residential consumers of hot water in Saskatchewan. The provincial and federal governments will each give rebates of 25% (40% in remote communities), up to $80,000.
2. Net Metering is offered to customers who are producing renewable energy for the grid. The amount of credit is limited to not more than the amount of power purchased over a two-year period. In addition, the province will pay a one-time fee equivalent to 35%, maximum $35,000, to offset start-up costs.
3. SaskPower will buy power from Small Power Producers who generate up to 100 KW. The price will be calculated annually based on SaskPower's cost of generating electricity.

British Columbia

1. BC Hydro's Bioenergy Call program has issued a Request for Proposals (RFP) for power generation using wood fibre. Phase I applications are currently being processed; phase II RFPs are planned for July.
2. Producers of wind power enjoy reduced provincial government fees.
3. The Net Metering program allows producers of 50 kW or less to pay only for power used.
4. Biodiesel, either pure or as part of a blend, is exempt from provincial fuel tax.

Northwest Territories

1. The Community Renewable Energy Fund provides up to 50% of costs incurred by community organizations, up to a maximum of $50,000 per year on renewable energy projects.
2. The Small Renewable Energy Fund provides up to 1/3 of the costs of renewable energy projects incurred by residences and businesses, up to a maximum of $5,000 per year. Photovoltaics, wind energy, and ground source heat pumps are the eligible technologies.

Biomass Inventory Mapping & Analysis Tool (BIMAT) & Sustainability Assessment

Develop New Online Analytical Functions

1. Logistics and carbon accounting information: full-cost accounting of biomass from ripe crop through to the plant gate.
2. Sustainability measurement framework for carbon accounting and sustainability assessment of multiple biofuel systems. Saskatchewan will be used as the case study jurisdiction.
3. Include information on the conversion systems for fuels and other biomaterials as a user selected choice based on technology information provided by the industry and science partners.
4. Facilitate the use of data provided from partners.

RETScreen Software Analysis Tools & Engineering Textbook

Available in 36 Languages

1. Wind Energy
2. Small Hydro
3. Photovoltaics
4. Combined Heat & Power
5. Biomass Heating
6. Solar Air Heating
7. Solar Water Heating
8. Passive Solar Heating
9. Ground Source Heat Pumps

Link Between BIMAT and RetScreen

1. Decision support software, provided free-of-charge;
2. RETScreen can be used worldwide to evaluate the energy production and savings, life-cycle costs, emission reductions, financial viability and risk for various types of energy efficient and renewable energy technologies.
3. Includes product, cost and climate databases, and a detailed online user manual and engineering handbook.
4. Biomass calculator link to BIMAT under development,

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Canada

Thank You ! Questions?