A Green Energy Act for Ontario: Executive Summary

January 2009

Vision

To make Ontario a global leader in the development of renewable energy, clean distributed energy, and conservation, while creating thousands of jobs, economic prosperity and energy security, and protecting the climate.

Purpose

The Alliance's proposal for the Green Energy Act can facilitate the development of a green energy economy that protects the environment, mitigates climate change, engages communities, and builds a world-class green industrial sector. This enables all Ontarians to participate and benefit from green energy as conservers and generators, at the lowest cost to consumers.

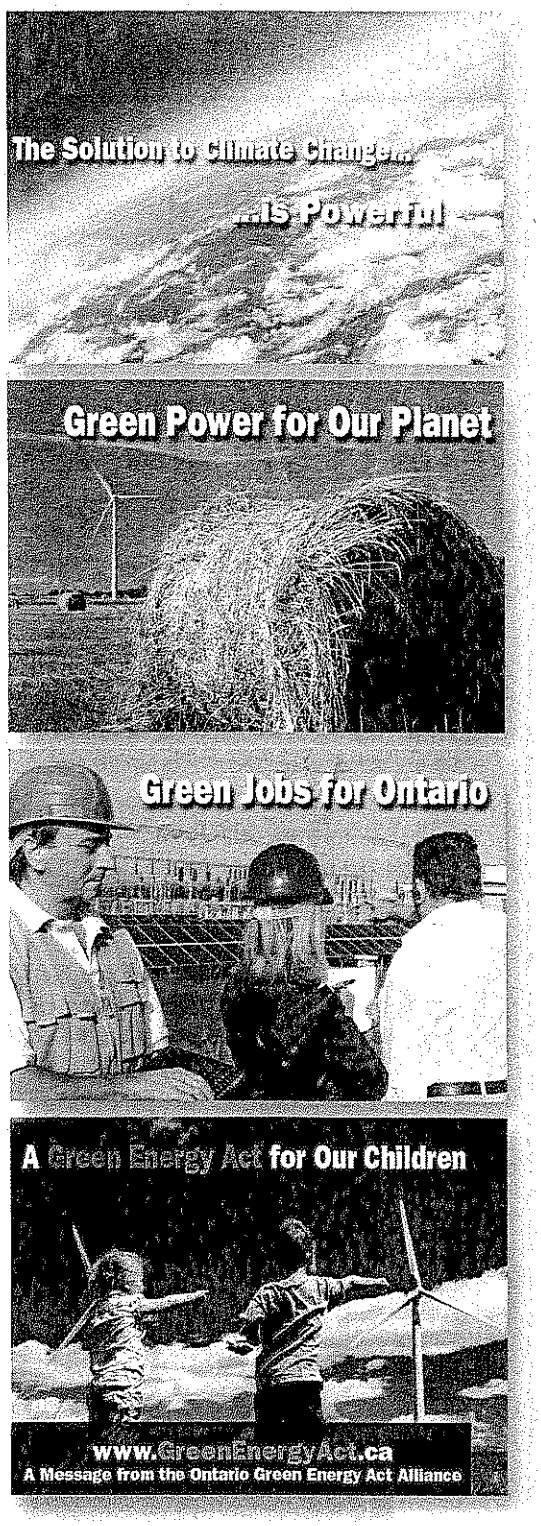
Cost/Price

The Green Energy Act can provide a lower cost option to Ontarians. Evidence submitted to the Ontario Energy Board (OEB) hearings shows that a green energy powered electricity system with a greater emphasis on conservation and efficiency would be at least 11 per cent less expensive, and potentially as high as 32 per cent less expensive, than the Ontario Power Authority's (OPA) proposed Integrated Power System Plan (IPSP). Moreover, as Moody's Investment Services noted in May 2008, traditional generating technologies have fixed designs whose costs are rising rapidly while green technologies are still experiencing significant advancements in terms of energy conversion efficiency and cost reductions.

Results

The Green Energy Act can deliver on Ontario's Climate Change Strategy while creating a world-leading clean-tech industry and enabling Ontario to achieve aggressive targets:

- 10,000 MW of new installed renewable energy by 2015, over and above 2003 levels;
- 25,000 MW of new installed renewable energy by 2025, over and above 2003 levels;
- 1,500 MW of new installed Combined Heat and Power (CHP) by 2015
- 3,000 MW of new installed CHP by 2025, above levels already in place as of the introduction of this Act;
- 6,300 MW of conservation by 2015 (beyond 2007 levels) with an additional 2.5% annual (compounding) reduction in energy resource needs from Conservation and Demand Management (CDM) between 2011 – 2027;
- 30% reduction in end-use natural gas consumption by 2017.



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Core Components of the Green Energy Act

To achieve the vision and results identified, Ontario's Green Energy Act must include:

1. An obligation for the authority responsible for power purchase to grant priority and obligatory purchase of power from green energy projects.
2. A system of Advanced Renewable Energy Tariffs (ARTs) as the primary procurement mechanism for green energy to ensure the equal participation of community energy in the sustainable energy sector. The tariffs per kilowatt-hour of generation are based on key components of successful German and French models:
   - Tariffs are differentiated on the basis of: technology, resource intensity, project scale and location to ensure projects are economically viable in communities across the province;
   - Prices are set on the basis of cost and a reasonable return on investment;
   - A minimum profitability index of 0.1 for lowest yield and 0.3 for highest yield green energy projects;
   - No cap on project size or program size;
   - No cap on voltage: the tariff includes all behind-the-meter, all distribution and all transmission connected projects;
   - 100% inflation protection at 2 levels: within the power purchase contracts, within the tariff program.
3. An obligation for all utilities to grant priority grid access to green energy projects and an obligation for all utilities to connect green energy projects to the grid (within a reasonable limit to be determined by relative costs and goals related to the successful implementation of the Act). Utilities are entitled and empowered to recover all related costs. Related costs are to be spread equally across the entire rate base.
4. The explicit and direct participation of First Nations and Métis as developers and owners in green energy projects (generation, transmission, conservation) so they benefit directly from the resulting economic development in recognition of the additional and unique barriers they face.
5. The establishment of a Green Energy Debt Finance Program and a Community Power Corporation.

- The Green Energy Debt Finance Program would be mandated to raise the financial capital required to meet the financial market short falls in the development of eligible and viable projects (individual, community and commercial) to meet the GEA targets. The intent is that over time the market and community will meet all financial requirements for these projects. Vehicles such as Green Bonds could be implemented under this program to raise a portion of the required capital.
- A Community Power Corporation would require an initial investment of $25 million. The mandate of the Corporation would be to build the capacity of local communities to develop eligible and viable projects, provide early stage project funding, and to facilitate the development of financing mechanisms. This Corporation is necessary to ensure the equal opportunity for participation of the community power sector in recognition of the additional social and economic benefits of these projects to Ontario communities and the people of Ontario as a whole.

6. The adoption of smart grid technologies, including energy storage, in order to transform Ontario's energy system from highly centralized to more distributed.
7. A mandated commitment to a continuous improvement approach to conservation with a minimum 2.5% annual (compounding) reduction in energy resource needs from 2011 until 2027.
8. Electricity pricing that reflects its true cost and provides signals to consumers to manage their energy demand.
9. Priority for vulnerable consumers (including relevant industrial users) to reduce their energy burden through conservation, bill assistance, innovative utility policies and stronger consumer protection.
10. Streamlined regulatory and approvals processes that enable the rapid but prudent development of green energy projects across the province, reducing uncertainty and transaction costs to all involved. This would include a comprehensive one-window approach to consultation with First Nations and Métis, leading to their meaningful engagement in the energy sector and creating certainty for the province.

For more information about the Green Energy Act and to lend your support www.greenenergyact.ca

Definitions

Green energy: The term green energy includes renewable sources, conservation and clean distributed energy supported by micro grids and distributed energy systems. Renewable sources include: on-shore wind, off-shore wind, bioenergy, hydro power, solar photovoltaic, solar thermal, and geothermal. Green distributed energy sources include: district heating and cooling, Combined Heat and Power (CHP), recycled exhaust heat from gas pipeline compressor stations, and energy produced on site at low pressure sources of natural gas that is currently being flared.

Community energy: Community energy refers to energy projects that are locally planned and sited with majority ownership by First Nations, farmers, public sector institutions (e.g. schools), community organizations, co-operatives, remote diesel dependent communities, renters and homeowners, condominiums, municipalities and/or local utilities.

Advanced Renewable Tariffs (ARTs) are a market mechanism used to procure renewable sources of energy. ARTs specify the amount that renewable generators are paid for the electricity they generate and how long they will be paid. In most jurisdictions tariff prices are set by the regulatory authority through an open and transparent process involving all relevant stakeholders. Generally, tariff prices are established at a rate that enables developers to cover the cost of their projects and to earn a reasonable return on their investment. Tariff prices are set based on information from and relevant to the jurisdiction at hand. Tariff prices are adjusted on a regular basis to take into account changing costs. Each project is paid the relevant tariff rate on the basis of their output (per kWh of electricity produced), calculated in much the same way as electricity from conventional power plants have been regulated in North America for may decades. ARTs are usually characterized by the following key features: a) the right of a generator to connect to the grid; b) tariff differentiation by technology, resource intensity and project size; c) inflation index protection of projects; d) no cap on project size and voltage. Although ARTs are generally used for renewable energy, such tariffs can also apply to clean distributed generation and possibly conservation.