



Ontario's Climate Crisis: The Time to Act is Now

December 2006

This document is not meant to be a climate plan for the Province of Ontario. Rather, it identifies a number of policies and programs that should be addressed in order to devise a meaningful plan for the province.

Ontario is Canada's most populated province, with 38.8% (12.4 million) of Canada's total population. In 2004, Ontario generated 27.2% (203 Mt) of Canada's total GHG emissions. Ontario emissions increased 15% (26.5 Mt) 1990-2004. Over 90% of emissions are from the energy, transportation and industrial sectors. On a positive note, however, emissions actually decreased 3% (6.3 Mt) 2003-2004. (Environment Canada, *National Inventory Report 1990-2004*, p. 539)

1. Short, Medium and Long-term Targets

The Ontario government should recognize that Canada is a signatory to the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC) and has committed to reducing its greenhouse gas (GHG) emissions to 6% below 1990 levels by 2008-2012.

The government must make a clear commitment to reduce Ontario's GHG emissions 6% from 1990 levels by 2008-2012. The Ontario climate plan should include a long-term target of at least 80% below 1990 levels by 2050, and interim targets at five-year intervals matching the Kyoto commitment periods. The 2020 target should be at least 30% below 1990 levels.

The government should acknowledge that these emissions reductions are science-based targets designed prevent dangerous climate change, by keeping the global average temperature increase as far below 2 degrees Celsius as possible.

Greenpeace would also advise the government to avoid a target-setting approach based on emissions intensity. Emissions intensity is a measure of greenhouse gases emitted per unit of economic activity. Unfortunately, intensity-based targets can be used to take credit for improvements that are taking place largely due to natural energy efficiency improvements, and not as a result of climate policies. For example, even in the absence of any meaningful climate change program, GHG intensity in Ontario (measured in megatonnes of emission per billion dollars of GDP) improved by 23% 1990-2004, at the same time that *absolute* levels of greenhouse gas emission increased 15% (Environment Canada, *National Inventory Report 1990-2004*, p. 539). This underlines the fact that intensity-based targets can be used as a way of deflecting attention from the real absolute increases in emission levels.

2. Short-term Targets for Emitters

The government must introduce clear targets and performance standards for energy, transportation and industrial emitters through regulatory limits on GHG emissions by industry that take effect in 2008, placing a fixed Kyoto-level cap on industry for the 2008-2012 period (i.e. a 6% reduction below 1990 levels)

3. Emissions trading

In order to efficiently allocate emissions reductions, the Ontario government should be prepared to move independently if the federal government has not implemented an emissions trading system by 2008. Ontario's trading system could coordinate with other trading systems even if the federal government has not acted.

4. Ontario Green Fund

The government should create a "Green Fund" similar to that of Quebec, by placing a tax upon oil and gas imports at the point of import. The Quebec Green Fund is raising \$200 million per year for six years. The amount of revenue to be raised by the Ontario Green Fund should be sufficient for any measures necessary that require financing in order to meet the targets noted above. Design of the fund should be made a top priority for the Air Policy and Climate Change Branch of the Ministry of the Environment.

5. Energy Efficiency Standards

The Minister of Energy should proceed with improvements to the Energy Efficiency Act that will make Ontario the world leader in energy efficiency standards for a much wider range of products. A long-term policy should be adopted for regular, scheduled upgrading of standards under the Act.

6. The Built Environment

While improvements have been made to the Ontario Building Code, these improvements are modest and should be advanced. The Energuide 80 standard (i.e. R-2000) should be advanced from December 2011 to January 2008.

The government should provide support for an expanded version of the EnerGuide for Homes program, recently discontinued by the federal government. Retrofit programs should be applied to all buildings. Targets should be set for 2010, 2015, 2020, and 2025.

All buildings should be subject to an energy audit at the time of sale, providing an assessment of the building's energy performance and operating costs as well as proposals for improvement.

The government should adopt a long-term policy for regular, scheduled upgrades of efficiency standards with a goal of achieving net-zero energy buildings.

7. Transportation

The government should regulate vehicle emissions beginning in 2010 to a standard that exceeds the best practice in North America (now found in California). Such a measure would not only be in the interest of the environment, but in the long-run would place Ontario's automobile industry on a sounder economic footing, and protect jobs.

The government should design additional programs to incent the purchase of more efficient vehicles and to remove inefficient vehicles from the road.

The government should dramatically increase support for public transit and programs to encourage bicycle and pedestrian transportation.

The government must continue to pursue the legislation of strict growth management strategies in order to discourage urban sprawl and encourage compact urban development.

8. Energy Policy

The Ontario Power Authority should be mandated to focus on *energy*, rather than just *electricity*. Energy needs to be used efficiently, close to the source of demand. This would encourage the most efficient overall use of energy – for example, solar heating and cooling, district heating systems, and other cogeneration applications.

This decentralized energy approach would allow us to fight climate change more effectively. Si it is no surprise that your government failed to prioritize climate change in its instructions to the Ontario Power Authority. The OPA's Integrated Power Supply Plan will significantly worsen Ontario's climate crisis. Your decision to backtrack on your promised 2007 coal phaseout will also significantly impact the climate crisis in Ontario. Ontario Power Generation's coal plants rank among the worst of Ontario's largest emitters...

Ontario's #1 GHG polluter in 2004
OPG's Nanticoke Coal Station (14.7 Mt)

Ontario's #2 GHG polluter in 2004
OPG's Lambton coal station (7.2 Mt)

Ontario's #7 GHG polluter in 2004
Lakeview coal station (2.3 Mt)

Ontario's #15 GHG polluter in 2004
Atikokan coal station (1.2 Mt)

Ontario's #17 GHG polluter in 2004
Thunder Bay coal station (1.2 Mt)

Only the Lakeview station has been shut down, and we note that was a decision of the previous government.

Ontario should be moving towards a decentralized energy system, based on 'distributed' energy, rather than re-committing the province to a centralized system based on coal and nuclear generation.

Nuclear power is in no way a solution to climate change. The failure of nuclear power performance in Ontario, beginning in the early 1990s culminated in the 1997 shutdown of 8 of 20 reactors. Two of these reactors have been permanently shut down and two remain non-operating, with rehabilitation efforts continuing. Poor nuclear performance resulted in a dramatic increase of GHG emissions, due to the need for replacement coal generation. The carbon dioxide emissions of Ontario Hydro/Ontario Power Generation more than doubled from 14.8 Mt in 1994 to a peak of 38.5 Mt in 2000. While emissions have fallen somewhat to 30.2 Mt in 2005, the high level of emissions still reflects the mutual interdependence of coal and nuclear generation in the Ontario's electricity system. Coal not only meets demand when nuclear plants fail to operate as advertised, they also meet daily and seasonal peaks in demand that nuclear plants cannot meet. Nuclear refurbishment and new nuclear build, traps Ontario in a continuation of coal generation. Moreover, the government's blind commitment to nuclear power trades one form of pollution for another - by the end of 2005, OPG had created 31,000 tonnes of high level radioactive waste, with no plans in place for its long-term management.

In the short-term, the government should move to dramatically increase support for high efficiency Combined Heat and Power (cogeneration) projects.

The province must also find the political will to unequivocally support renewable energy technologies. The recent restrictions placed on offshore wind projects reflect an inexcusable inconsistency in the government's commitment to renewable energy. The Ministry of Natural Resources should be instructed to expedite rather than impede wind development.

The government has also restricted wind development on the Lake Huron shoreline to 1000 MW, in order to guarantee adequate transmission capacity for the Bruce nuclear power stations. This demonstrates conclusively that support for nuclear power impedes and prevents the adoption of green energy. The actual wind potential of the Lake Huron shoreline is almost 2000 MW on land, and an astonishing 20,000 MW offshore (Helimax, *Analysis of Wind Power Potential in Ontario*, November 2005, pp. 18 & 22)

Finally we would like to note that progress in energy conservation has been astonishingly modest, and needs to be aggressively expanded.

9. Million Solar Roofs

The Ontario government should adopt a solar hot water program designed to contribute to a national long-term target of a *Million Solar Roofs*. It is estimated that there are approximately 1.5 million electric water heaters in Ontario, requiring about 1500 MW of generating capacity. Ontario Power Generation recently wasted \$2.5 billion rebuilding two reactors (totalling 1000 MW) at the Pickering A nuclear station. A modest incentive program for switching Ontario's electric water heaters to solar would reduce electricity demand at a far lower cost than rebuilding old nuclear reactors.

10. Land Use, Land-Use Change and Forestry (LULUCF) Sector

The government should evaluate the climate change impacts of the LULUCF sector, and include it in the climate plan. In particular, the uptake of carbon by forests and its release due to decay of organic matter and industrial disturbance should be examined.

11. Effective Plan Management

Various policy initiatives lie within various ministries, with conflicting mandates and interests. Greenpeace therefore recommends the formation of an independent climate change secretariat reporting to the Premier.

The plan should include annual milestones for achievement of targets. Progress on the plan should be audited annually by the Environmental Commissioner of Ontario, and the Minister of Finance should be required to table GHG impacts in each budget, by reduction measure.