



Christian Farmers Federation of Ontario
 7660 Mill Rd., RR4 Guelph, Ontario N1H 6J1
 Voice (519) 837-1620 Fax (519) 824-1835
 E-mail: cffomail@christianfarmers.org
 Web site: www.christianfarmers.org

Green, Renewable and Non-Renewable Energy in the Ontario Context

Introduction

Energy generation and use is the cornerstone of the modern economy. As resource scarcity increases, there will be the need to find or develop new ways of generating energy. More efficient use and conservation will need to be key parts of the equation.

The Triple Bottom Line

The CFFO will be looking at each energy source with regards to its triple bottom line impact, which means that we will consider the economic, environmental and social impact of each source of energy.

The Role of Government

Government has a role in creating an environment where industry can thrive. Across the political spectrum there are many differing opinions on just how strongly involved the government should be in creating this environment. There are those who believe that intervention should be kept very low, going so far as to provide basic infrastructure like roadways. There are those who believe that intervention should be heavy enough to result in allowing forms of business, or in this instance energy production, to be profitable through regulation or programs.

For this discussion, the CFFO will take the stance that if sufficient environmental and/or social good can be achieved, or bad prevented, then there may justification for government intervention.

Ontario's Plan

The Province's plan as outlined in *Ontario's Long-term Energy Plan* (website listed below) outlines the goals for the province for energy production.

Installed Capacity	2003	2010 Projected	2030 Projected
Nuclear	10,061	11,446	12,000
Hydro Electric	7,880	8,127	9,000
Wind, Solar, Bio-Energy	155	1,657	10,700
Gas	4,364	9,424	9,200
Coal	7,546	4,484	0
Conservation	0	1,837	7,100
Total	30,006	36,975	48,000

Broad Categories:

Green Energy

For the CFFO, green energy is that which is produced by taking waste and turning it into energy. The tremendous upside to it is that it creates the potential to increase the value society extracts from resource use. It is environmentally and socially responsible to have a goal of maximum efficient use and to have a goal of zero waste.

On-farm Biomass & Biogas

IDEAL – There are environmental and social gains to be made by the generation of biomass (electricity) and biogas. The removal of methane reduces air pollution and vastly reduces the odour associated with manure application on land. Ideally, many farm operations should be able to engage in this kind of production.

ACTUAL – There are very few operations functional at this point. The Microfit program provides 13.8 cents per kW and 16.0 cents for biogas generation.

ISSUES – For biogas – connecting to the natural gas pipelines is an issue. Scale is an issue at present, requiring larger farm operations. Installation and regulation issues are a major concern. There are businesses going broke. It is unclear if there are technology complications related to our climate.

CONCLUSION– The CFFO believes that there is a place for on-farm biomass and biogas production in the big picture. However, the use of agricultural residues in biomass production must be carefully limited to maintain the sustainability of the soil where these crops are grown.

Incineration

IDEAL – Burning waste to produce energy should be on the policy agenda; this is better than transporting waste to a landfill site. There are European examples that demonstrate that it can be done with very few emissions.

ACTUAL – There is very limited use of incineration in Ontario. The sheer amount of open space and cheap transportation in Ontario results in the use of land fill as the easy solution.

ISSUES – The common perception is that it a major pollutant. This may have been the case when its use was limited in Ontario, but considerable advances have been made in Europe to improve the quality of the burn.

CONCLUSION– The CFFO believes that there is a place for incineration in the big picture.

Renewable Energy

These are forms of generation that rely on the natural world to be the source of energy. Wind and solar energy are inconsistent in their supply of power. Fundamentally, the inability to store these forms of energy effectively is a huge issue. A breakthrough in this area would make a huge difference in their usefulness.

There is also a need for long-term planning regarding the replacement or disposal of these systems when they reach the end of their lifecycle, including the environmental costs of disposal.

Wind

IDEAL – Community-based or individual projects where the investment and the wealth generated are shared in the community. There should be little to no impact on prime farmland.

ACTUAL – The rapid expansion of wind energy in this province has become the single most divisive issue in many rural communities. The special deal with Samsung has placed community-based projects in a weak position in their own jurisdiction.

ISSUES – Minimum distance concerns. There are fears of potential health impacts. Potential impact on land values (ascetics). There are assertions that better, noiseless turbines are available but we are using old technology in Ontario.

CONCLUSION – The CFFO believes that the entire approach to wind in the province needs to be rethought. Communities should be the ones to choose these sorts of projects and the investment and revenue should be shared by those impacted by the turbines.

Solar

IDEAL – The best placement of solar panels is on rooftops of existing buildings. Large installations should not be allowed on prime farmland.

ACTUAL – Prime farmland is protected. Class 4 land has become the target for large companies seeking to establish large solar fields.

ISSUES – There are many technical issues arising in some areas. The price offered for solar is questioned by sceptics.

CONCLUSION – The CFFO believes that solar has a small place, but a review of the price offered is required on a regular basis. The price should decline as the technology matures.

Hydro (which is also traditional)

IDEAL – Hydro is cost effective, renewable energy that Ontario could focus on much more strongly. There is the option of buying in large amounts from the province of Quebec.

ACTUAL – The established hydro infrastructure will remain with slow growth over the next 20 years. It is an integral pillar of Ontario's energy grid.

ISSUES – The environmental impacts of hydro are seriously constraining expansion.

CONCLUSION – The CFFO strongly endorses the use of hydro electric power as a source of affordable renewable energy.

Non-Renewable Sources

Nuclear

IDEAL – Responsible use as part of the energy base load in Ontario.

ACTUAL – Nuclear energy is the stable foundation of Ontario’s energy grid.

ISSUES – There are always great risks tied to nuclear energy. Can thorium replace uranium in Canadian reactors as a less harmful source of energy? What is the true cost of refurbishment?

CONCLUSION – The CFFO endorses the status quo on nuclear energy.

Coal

IDEAL – Find a way to reduce the negative impacts of coal use, potentially using a biomass blend.

ACTUAL – It is being phased out.

ISSUES – Coal is cheap and readily available. Can it be blended with purpose grown crops in a manner that reduces emissions? Can additional/better scrubbers be developed to reduce emissions?

CONCLUSION – The CFFO supports a re-examination of the appropriateness of phasing out coal use, and searching for opportunities to use it, **IF** the negative environmental implications can be mitigated.

Natural Gas

IDEAL – It is needed in our overall plan.

ACTUAL – Natural gas is plentiful in this region of North America. It is a good reactive energy source that can help balance supply and demand on the grid on a continual basis.

ISSUES – There are water quality concerns that are arising in areas where natural gas is being extracted.

CONCLUSION – The CFFO supports the use of natural gas as part of the energy grid.

Conservation

IDEAL – All Canadians take a proactive approach to conservation.

ACTUAL – There is a great deal that can still be done to improve how well Canadians conserve. Some government programming exists intermittently to encourage Canadians to adopt new technologies.

ISSUES – Education regarding what can be done.

CONCLUSION – The CFFO endorses conservation.

Adopted By

CFFO Provincial Council

October 26, 2011

Sources

Ontario's Long Term Energy Plan http://www.mei.gov.on.ca/en/pdf/MEI_LTEP_en.pdf